

1.0 SUMMARY OF FINDINGS

An air quality and noise impact analysis was conducted by Terry A. Hayes Associates, LLC for the proposed Northridge Zone Change and Plan Amendment project. Key findings are as follows:

1.1 AIR QUALITY

1.1.1 Krausz Property Only

- During the finishing phase of construction, all four development alternatives are anticipated to exceed the South Coast Air Quality Management District's (SCAQMD) significance threshold of 75 pounds per day (ppd) for reactive organic gas (ROG). However, with implementation of mitigation measures, ROG emissions would not exceed the SCAQMD significance threshold and impacts would be reduced to less than significant levels
- All four development alternatives under the Krausz Property Only scenario are subjected to the provisions of SCAQMD Rule 403 - Fugitive Dust. Implementation of mitigation measures would ensure proper implementation of Rule 403. With implementation of mitigation measures, the proposed project would not exceed the SCAQMD significance threshold of 150 ppd for PM₁₀ and impacts would be reduced to less than significant levels.
- During project operation, all four development alternatives are anticipated to exceed the SCAQMD significance thresholds of 550, 55, and 55 ppd of carbon monoxide (CO), reactive organic gas (ROG), and nitrogen oxide (NO_x), respectively. Implementation of mitigation measures would reduce emissions of these pollutants. However, all four development alternatives would still exceed the SCAQMD significance thresholds for CO, ROG, and NO_x. This impact is considered significant and unavoidable.
- Under all four development alternatives, CO concentrations at roadway intersections are not anticipated to exceed the State one- and eight-hour standards of 20.0 and 9.0 parts per million (ppm), respectively. Thus, less than significant impacts are anticipated.
- All four development alternatives are anticipated to significantly contribute to cumulative emissions since the alternatives, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds for CO, ROG, and NO_x.
- The four development alternatives under the Krausz Property Only scenario would not exceed the one- and eight-hour CO concentration standards. Additionally, the four development alternatives are considered consistent with the growth assumptions in the SCAQMD's Air Quality Management Plan (AQMP). Thus, all four development alternatives are considered consistent with the AQMP.

1.1.2 Full Build-Out

- During the finishing phase of construction, all four development alternatives are anticipated to exceed the South Coast Air Quality Management District's (SCAQMD) significance threshold of 75 ppd for ROG. However, with implementation of mitigation measures, ROG emissions would not exceed the SCAQMD significance threshold and impacts would be reduced to less than significant levels
- All four development alternatives under the Krausz Property Only scenario are subjected to the provisions of SCAQMD Rule 403 - Fugitive Dust. Implementation of mitigation measures would ensure proper implementation of Rule 403. With implementation of mitigation measures, the proposed project would not exceed the AQAQMD significance threshold of 150 ppd for PM₁₀ and impacts would be reduced to less than significant levels.
- During project operation, all four development alternatives are anticipated to exceed the SCAQMD significance thresholds of 550, 55, and 55 ppd of CO, ROG, and NO_x, respectively. Implementation of mitigation measures would reduce emissions of these pollutants. However, all four development alternatives would still exceed the SCAQMD significance thresholds for CO, ROG, and NO_x. This impact is considered significant and unavoidable.
- Under all four development alternatives, CO concentrations at roadway intersections are not anticipated to exceed the State one- and eight-hour standards of 20.0 and 9.0 ppm, respectively. Thus, less than significant impacts are anticipated.
- All four development alternatives are anticipated to significantly contribute to cumulative emissions since the alternatives, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds for CO, ROG, and NO_x.
- The four development alternatives under the Full Build-Out scenario would not exceed the one- and eight-hour CO concentration standards. Additionally, the four development alternatives are considered consistent with the growth assumptions in the SCAQMD's Air Quality Management Plan (AQMP). Thus, all four development alternatives are considered consistent with the AQMP.

1.2 NOISE

1.2.1 Krausz Property Only

- Under all four alternatives, construction noise levels would not incrementally increase ambient noise levels by five or more decibels at sensitive receptor locations. This incremental increase is below the significance threshold. Thus, a less than significant impact is anticipated.

- Nearby residential uses are currently within the “normally unacceptable” category of the Land Use Compatibility Chart (see **Table 4-3**). Under all four alternatives, noise levels during project implementation would incrementally increase ambient noise levels by less-than-one decibel at nearby residential uses when compared to “existing” and “no project” conditions. The incremental increase would not exceed the significance criteria of a three decibel or more increase to or within the “normally unacceptable” or “clearly unacceptable” category of the Land Use Compatibility Chart. Thus, a less than significant impact is anticipated at nearby residential uses.
- Washington Mutual Child Care Center is within the “conditionally acceptable” category of the Noise Land Use Compatibility Chart (see **Table 4-3**). Under all four alternatives, noise levels during project implementation would incrementally increase ambient noise levels by 1.7 dBA and less-than-one decibel when compared to “existing” and “no project” conditions, respectively. This incremental increase would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at the Washington Mutual Child Care Center.
- The four alternative under the Krausz Property Only scenario, when combined with other developments in the vicinity, would incrementally increase ambient noise levels by less-than-one decibel at nearby residential uses when compared to “existing” and “no project” conditions. The incremental increase in ambient noise level does not exceed the noise threshold of a three or more decibel increase to or within the “normally unacceptable” or “clearly unacceptable” category. Incremental increases in ambient noise level at Washington Mutual Child Care Center is anticipated to be approximately 1.7 dBA and less-than-one decibel when compared to “existing” and “no project” conditions, respectively. The incremental increase in ambient noise level does not exceed the noise threshold of a five or more decibel increase over ambient noise levels. Incremental increases in ambient noise levels are not anticipated to exceed the operational phase significance criteria. Thus, all four alternatives are not anticipated to significantly contribute to cumulative noise impacts.

1.2.2 Full Build-Out

- Under all four alternatives, construction noise levels would not incrementally increase ambient noise levels by five or more decibels at sensitive receptor locations. This incremental increase is below the significance threshold. Thus, a less than significant impact is anticipated.
- Nearby residential uses are currently within the “normally unacceptable” category of the Land Use Compatibility Chart (see **Table 4-3**). Under all four alternatives, noise levels during project implementation would incrementally increase ambient noise levels by less-than-one decibel at nearby residential uses when compared to “existing” and “no project” conditions. The incremental increase would not exceed the significance criteria of a three decibel or more increase to or within the “normally unacceptable” or “clearly unacceptable” category of the Land Use Compatibility Chart. Thus, a less than significant impact is anticipated at nearby residential uses.
- Washington Mutual Child Care Center is within the “conditionally acceptable” category of the Noise Land Use Compatibility Chart (see **Table 4-3**). Under all four alternatives, noise levels during project implementation would incrementally increase ambient noise levels by 1.7 dBA and less-than-one decibel when compared to “existing” and “no project” conditions,

respectively. This incremental increase would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at the Washington Mutual Child Care Center.

- The four alternative under the Full Build-Out scenario, when combined with other developments in the vicinity, would incrementally increase ambient noise levels by less-than-one decibel at nearby residential uses when compared to “existing” and “no project” conditions. The incremental increase in ambient noise level does not exceed the noise threshold of a three or more decibel increase to or within the “normally unacceptable” or “clearly unacceptable” category. Incremental increases in ambient noise level at Washington Mutual Child Care Center is anticipated to be approximately 1.7 dBA and less-than-one decibel when compared to “existing” and “no project” conditions, respectively. The incremental increase in ambient noise level does not exceed the noise threshold of a five or more decibel increase over ambient noise levels. Incremental increases in ambient noise levels are not anticipated to exceed the operational phase significance criteria. Thus, all four alternatives are not anticipated to significantly contribute to cumulative noise impacts.

2.0 INTRODUCTION

2.1 Purpose of Study

The purpose of this study is to evaluate the potential air quality and noise impacts of the proposed Northridge Zone Change and Plan Amendment project. Potential air quality and noise levels are analyzed for construction and daily operations phases of the proposed project. Mitigation measures for air quality and noise are recommended where necessary.

2.2 Project Description

The proposed project consists of two development scenarios: the Krausz Property Only scenario and the Full Build-Out scenario. The two development scenarios are located in the Chatsworth - Porter Ranch Community Plan Area of the City of Los Angeles. Both scenarios involve a Zone Change and Plan Amendment. The Zone Change for both scenario is from [Q]M1-1, MR2-1, and P-1 to C2-1 and the Plan Amendment is from Limited Manufacturing and Parking Buffer to Community Commercial. The two development scenarios are described in detail below.

2.2.1 Krausz Property Only

The Krausz Property site is located at 19601 Nordhoff Street. The property site is generally bounded by Prairie Street to the north, Nordhoff Place to the south, Shirley Avenue to the east, and Corbin Avenue to the west. It comprises of approximately 35.5 acres and is currently occupied by 340,000 square feet of building floor area used as research and development space. Four potential development alternatives have been identified for the Krausz Property Only scenario:

- | | | |
|----|---------------------|--|
| A) | Retail: | 340,000 square feet of Retail Development
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units |
| B) | Office: | 930,000 square feet of Office Space
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units |
| C) | Retail/Residential: | 250,000 square feet of Retail Development
300 Condominium units
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units |
| D) | Office/Residential: | 690,000 square feet of Office Space
300 Condominium Units
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units. |

2.2.2 Full Build-Out

The Full Build-Out scenario would be located on the Krausz Property site (19601 Nordhoff Street), as well as the 14 parcels that are located to the north of the Krausz Property site, between Corbin Avenue and Shirley Avenue. These 14 parcels are known as the “Add Area” and are included in this air quality and noise impact analysis since the City of Los Angeles Department of Planning would like to include these parcels in the Zone Change and Plan Amendment. These parcels comprise of approximately 8 acres and are currently occupied by 132,665 square feet of light industrial space, 49,920 square feet of manufacturing space, 97,554 square feet of storage facility space, a tennis club with seven tennis courts, and a 0.93 acre multi-purpose recreation facility with a skate park and a soccer field.

The Full Build-Out scenario would result in a Zone Change and Plan Amendment over approximately 43.5 acres. Four potential development alternatives have been identified for the Full Build-Out scenario:

- A) Retail: 540,000 square feet of Retail Development
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units
- B) Office: 1,516,000 square feet of Office Space
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units
- C) Retail/Residential: 400,000 square feet of Retail Development
400 Condominium units
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units
- D) Office/Residential: 1,125,000 square feet of Office Space
400 Condominium Units
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units.

3.0 AIR QUALITY

This section examines the degree to which the proposed project may result in significant adverse changes to air quality. Both short-term construction emissions occurring from activities such as site grading and haul truck trips, as well as long-term effects related to the ongoing operation of the proposed Krausz Property Only and Full Build-Out scenarios, are discussed in this section. The analysis contained herein focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. "Emissions" refer to the actual quantity of pollutant, measured in pounds per day (ppd). "Concentrations" refer to the amount of pollutant material per volumetric unit of air. "Concentrations" are measured in parts per million (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

3.1 POLLUTANTS & EFFECTS

Air quality studies generally focus on five pollutants that are most commonly measured and regulated: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and respirable particulate matter (PM_{10}).

Carbon Monoxide. Carbon monoxide, a colorless and odorless gas, interferes with the transfer of oxygen to the brain. It can cause dizziness and fatigue, and can impair central nervous system functions. CO is emitted almost exclusively from the incomplete combustion of fossil fuels. In urban areas, CO is emitted by motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. Automobile exhausts release most of the CO in urban areas. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient carbon monoxide concentrations generally follow the spacial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions¹ are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. The highest CO concentrations measured in the South Coast Air Basin (SCAB) are typically recorded during the winter.

Ozone. O_3 , a colorless toxic gas, is the chief component of urban smog. O_3 enters the blood stream and interferes with the transfer of oxygen, depriving sensitive tissues in the heart and brain of oxygen. O_3 also damages vegetation by inhibiting their growth. Although O_3 is not directly emitted, it forms in the atmosphere through a chemical reaction between reactive organic gas (ROG) and nitrogen oxides (NO_x) under sunlight.² O_3 is present in relatively high concentrations within the Basin, and the damaging effects of photochemical smog are generally related to the concentration of O_3 . Meteorology and terrain play major roles in ozone formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. The greatest source of smog-producing gases is the automobile.

Nitrogen Dioxide. Nitrogen dioxide, a brownish gas, irritates the lungs. It can cause breathing difficulties at high concentrations. Like 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 (NO_x) and are major contributors to ozone formation. NO_2 also contributes to the formation of PM_{10} (see discussion of PM_{10} below). At atmospheric concentration, NO_2 is only

¹ Inversion is an atmospheric condition in which a layer of warm air traps cooler air near the surface of the earth, preventing the normal rising of surface air. See Section 3.3.1.

² ROG and NO_x are emitted from automobiles and industrial sources.

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 NO₂ and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 parts per million (ppm).

Sulfur Dioxide. Sulfur dioxide (SO₂) is a product of high-sulfur fuel combustion. Main sources of SO₂ are coal and oil used in power stations, in industries, and for domestic heating. Industrial chemical manufacturing is another source of SO₂. SO₂ is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO₂ can also cause plant leaves to turn yellow, as well as erode iron and steel. In recent years, SO₂ concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO₂ and limits on the sulfur content of fuels. SO₂ concentrations have been reduced to levels well below the state and national standards, but further reductions in emissions are needed to attain compliance with standards for sulfates and PM₁₀, of which SO₂ is a contributor.

Suspended Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when gases emitted from industries or motor vehicles undergo chemical reactions in the atmosphere. PM₁₀ and PM_{2.5} represent fractions of particulate matter. Respirable particulate matter (PM₁₀) refers to particulate matter less than 10 microns in diameter, about one-seventh the thickness of a human hair. Fine particulate matter (PM_{2.5}) refers to particulate matter that is 2.5 microns or less in diameter, roughly 1/28th the diameter of a human hair. Major sources of PM₁₀ 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. PM_{2.5} results from fuel combustion (from motor vehicles, power generation, 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.

PM₁₀ and PM_{2.5} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM₁₀ and PM_{2.5} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. 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.³ Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

³ The NAAQS for PM_{2.5} was adopted in 1997. Presently, no methodologies for determining impacts relating to PM_{2.5} have been developed or adopted by federal, state, or regional agencies. Additionally, no strategies or mitigation programs for PM_{2.5} have been developed or adopted by Federal, State, or regional agencies. Currently, this standard is not enforceable. However, the standard may be reinstated in the future. Thus, this air quality analysis does not analyze PM_{2.5}.

3.2 REGULATORY SETTING

Air quality in the United States is governed by the Federal Clean Air Act (CAA). In addition to being subject to the requirements of the CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). At the federal level, the CAA is administered by the United States Environmental Protection Agency (USEPA). In California, the CCAA is administered by the California Air Resources Board (CARB) at the state level and by the Air Quality Management Districts at the regional and local levels.

United States Environmental Protection Agency. The USEPA is responsible for enforcing the Federal CAA. The USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). The NAAQS are required under the 1977 CAA and subsequent amendments. The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by the CARB.

California Air Resources Board. In California, the CARB, which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for meeting the state requirements of the Federal CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the California Ambient Air Quality Standards (CAAQS). The CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. The CARB regulates mobile air pollution sources, such as motor vehicles. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. The CARB established passenger vehicle fuel specifications, which became effective on March 1996. The CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

South Coast Air Quality Management District. The SCAQMD monitors air quality within the project area. The 1977 Lewis Air Quality Management Act created the SCAQMD to coordinate air quality planning efforts throughout southern California. This Act merged four county air pollution control agencies into one regional district to better address the issue of improving air quality in southern California. Under the Act, renamed the Lewis-Presley Air Quality Management Act in 1988, the SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin (SCAB). Specifically, the SCAQMD is responsible for monitoring air quality, as well as planning, implementing and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the district. Programs that were developed include air quality rules and regulations that regulate stationary source, area source, point source and certain mobile source emissions. The SCAQMD is also responsible for establishing permitting requirements for stationary sources and ensuring that new, modified or relocated stationary sources do not create net emission increases and therefore, are consistent with the region's air quality goals.

The SCAQMD has jurisdiction over an approximately 10,743 square mile area of the SCAB. This area includes all of Orange County, Los Angeles County (except for Antelope Valley), the western urbanized portions of San Bernardino County, and the western and Coachella Valley portions of

Riverside County. The SCAB is bounded by Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto mountains to the north and east; and the San Diego County line to the south (see **Figure 3-1**). Ambient pollution concentrations recorded in the Los Angeles County are among the highest in the four counties comprising the SCAB.

3.2.1 Attainment Status

The CCAA requires the CARB to designate areas within California as either attainment or non-attainment for each criteria pollutants based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a State standard for a pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard, and are not used as a basis for designating areas as non-attainment.

Under the CCAA, the Los Angeles County portion of the SCAB is designated as a non-attainment area for ozone, carbon monoxide and respirable particulate matter. The air basin is designated as an attainment area for nitrogen dioxide, sulfur dioxide, sulfates, and lead.⁴

3.2.2 Air Quality Management Plan

All areas designated as non-attainment under the CCAA are required to prepare plans showing how the area would meet the state air quality standards by its attainment dates. The AQMP is the region's plan for improving air quality in the region. It addresses the Federal CAA and CCAA requirements and demonstrates attainment with ambient air quality standards. The AQMP is prepared by the SCAQMD and the Southern California Association of Governments (SCAG). The 1997 AQMP, amended in 1999, has been prepared to reflect the requirements of the 1990 CAA Amendments and is consistent with the approaches taken in the 1994 AQMP.

The AQMP details goals, policies and programs for improving air quality and establishes thresholds for daily operation emissions. Environmental review of individual projects within the SCAB must demonstrate that daily construction and operational emissions thresholds, as established by the SCAB, would not be exceeded. The environmental review must also demonstrate that individual projects would not increase the number or severity of existing air quality violations.

3.2.3 National and State Ambient Air Quality Standards

As required by the Federal CAA, the NAAQS have been established for six major air pollutants: carbon monoxide, nitrogen oxides, ozone, particulate matter, sulfur oxides and lead. Pursuant to the CCAA, the State of California has also established ambient air quality standards, known as the California Ambient Air Quality Standards (CAAQS). These standards are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. Since the CAAQS are more stringent than the NAAQS, the CAAQS are used as the comparative standard in the air quality analysis contained in this report.

Both State and Federal standards are summarized in **Table 3-1**. 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.

⁴ California Air Resources Board: Proposed Area Designations and Maps, September 2000.

Figure 3-1 SCAQMD Jurisdiction

TABLE 3-1: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS				
Pollutant	Averaging Period	California Standard	Federal Standards	
			Primary	Secondary
Ozone (O ₃)	1 hour	0.09 ppm (180 Fg/m ³)	0.12 ppm (235 Fg/m ³)	Same as Primary Standard
	8 hour	--	0.08 ppm (157 Fg/m ³)	
Respirable Particulate Matter (PM ₁₀)	Annual Geometric Mean	30 Fg/m ³	--	Same as Primary Standard
	24 hour	50 Fg/m ³	150 Fg/m ³	
	Annual Arithmetic Mean	--	50 Fg/m ³	--
Carbon Monoxide(CO)	8 hour	9.0 (10 mg/m ³)	9.0 (10 mg/m ³)	None
	1 hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	--	0.053 ppm (100 Fg/m ³)	Same as Primary Standard
	1 hour	0.25 ppm (470 Fg/m ³)	--	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	--	0.03 ppm (80 Fg/m ³)	--
	24 hour	0.04 ppm (105 Fg/m ³)	0.14 ppm (365 Fg/m ³)	--
	3 hour	--	--	0.5 ppm (1300 Fg/m ³)
	1 hour	0.25 ppm (655 Fg/m ³)	--	--

SOURCE: California Air Resources Board, Federal and State Air Quality Standards 1999 (1/25/99).

3.3 EXISTING AIR QUALITY

3.3.1 Air Pollution Climatology

The proposed project is located within the Los Angeles County portion of the SCAB. Ambient pollution concentrations recorded in Los Angeles County are among the highest in the four counties comprising the Basin.

The SCAB is an area of high air pollution potential due to its climate and topography. The general region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The SCAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usual mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The SCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter. The mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region.

The SCAB experiences frequent temperature inversions. Temperature typically decreases with height. However, under inversion conditions, temperature increases as altitude increases, thereby preventing air close to the ground from mixing with the air above it. As a result, air pollutants are

trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and nitrogen dioxide react under strong sunlight, creating pollution, commonly referred to as smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains.

During the fall and winter, air quality problems are created due to carbon monoxide and nitrogen dioxide emissions. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.). Morning levels are relatively high due to the large number of cars during the commute and colder temperatures. The high levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the SCAB are associated with heavy traffic. NO₂ levels are also generally higher during autumn or winter days. High levels of NO₂ in the fall and winter usually occur on days with summer-like conditions.

3.3.2 Local Climate

The mountains and hills within the SCAB contribute to the variation of rainfall, temperature and winds throughout the region. Within the project site and its vicinity, the average wind speed, as recorded at the Reseda Wind Monitoring Station, is approximately 4.0 miles per hour, with calm winds occurring approximately 12.8 percent of the time. Wind in the vicinity of the project site predominately blows from the southeast.⁵

The annual average temperature in the project area is approximately 63.8 degrees Fahrenheit. The project area experiences an average winter temperature of approximately 54.2 degrees Fahrenheit and an average summer temperature of approximately 74.1 degrees Fahrenheit. Total precipitation in the project area averages approximately 16.6 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer. Precipitation during the winter is approximately 9.7 inches and approximately 0.2 inches during the summer.⁶

⁵ Based on data from the Reseda wind monitoring station. See **Appendix A**.

⁶ Western Regional Climate Center, 2001. See **Appendix A**.

3.3.3 Air Monitoring Data

The SCAQMD monitors air quality conditions at 37 locations throughout the SCAB. The proposed project is located in the SCAQMD's West San Fernando Valley Air Monitoring Area (No. 6), which is served by the Reseda Monitoring Station, located at 18330 Gault Street in the City of Los Angeles (see **Figure 3-2**). The Reseda Monitoring Station is approximately 2.9 miles from the proposed project site. Criteria pollutants monitored at the Reseda Monitoring Station include ozone (O₃), carbon monoxide (CO), and nitrogen dioxide (NO₂). However, the monitoring station does not monitor sulfur dioxide (SO₂) and respirable particulate matter (PM₁₀). The Burbank Monitoring Station, which is within the same General Forecast Area as the Reseda Monitoring Station, monitors these two pollutants.⁷ The Burbank Monitoring Station is approximately 14.6 miles from the proposed project site. Thus, historical data from the Reseda and Burbank Monitoring Station was used to characterize existing conditions of O₃, CO, and NO₂ within the vicinity of the proposed project areas and the Burbank Monitoring Station was used to characterize existing conditions of the pollutants PM₁₀ and SO₂. Historical data from the monitoring stations were also used to establish a baseline for estimating future conditions with and without the proposed project.

A summary of the data recorded at the Reseda and Burbank Monitoring Stations are located in **Appendix B**. **Table 3-2** shows the number of violations recorded at the Reseda and Burbank Monitoring Stations during the 1999-2001 period. The CAAQS for the criteria pollutants are also shown in the table. As **Table 3-2** indicates, criteria pollutants NO₂ and SO₂ did not exceed the CAAQS in the 1999-2001 period. However, O₃ exceeded the State standard 5 to 27 times, CO exceeded the State standard once, and PM₁₀ exceeded the State standard 84 to 126 times during the same period.

TABLE 3-2: 1999-2001 CRITERIA POLLUTANT VIOLATIONS /a/				
Pollutant	State Standard	Number of Days Above State Standard		
		1999	2000	2001
Ozone	0.09 ppm (1-hour)	5	8	27
Carbon Monoxide	9.0 ppm (8-hour average)	0	1	0
Nitrogen Dioxide	0.25 ppm (1-hour)	0	0	0
Sulfur Dioxide	0.04 ppm (24-hour average)	0	0	0
PM ₁₀	50 µg/m ³ (24-hour average)	126	84	84

/a/ Historical data for ozone, carbon monoxide, and nitrogen dioxide are recorded from the Reseda Monitoring Station. Historical data for sulfur dioxide and PM₁₀ are from the Burbank Monitoring Station.
SOURCE: California Air Resources Board, see **Appendix B**.

⁷ General Forecast Areas are larger groupings of the more specific air monitoring areas.

Figure 3-2 Air Monitoring Areas

3.3.4 Background Carbon Monoxide Conditions

Carbon monoxide concentrations are typically used as an indicator of conformity with the CAAQS because: (1) CO levels are directly related to vehicular traffic volumes, the main source of air pollutants and (2) localized CO concentrations and characteristics can be modeled using USEPA and SCAQMD methods. In other words, the operational air quality impacts associated with a project are generally best reflected through the estimated changes in related CO concentrations.

For purposes of this assessment, the ambient, or background, concentration of CO is first established. This background level is typically defined as the highest of the second-maximum eight-hour readings over the past two years.⁸ A review of data from the Reseda Monitoring Station for the 1999-2001 period indicates that the average eight-hour background concentration is approximately 6.1 ppm.⁹ Assuming a typical persistence factor of 0.7, the estimated one-hour background concentration is approximately 8.7 ppm.¹⁰ The existing eight- and one-hour background concentrations do not exceed the State CO standard of 9.0 ppm and 20.0 ppm, respectively.

3.3.5 Existing Carbon Monoxide Concentrations at Project Area Intersections

There is a direct relationship between traffic/circulation congestion and CO impacts since exhaust fumes from vehicular traffic is the primary source of CO. Carbon monoxide is a localized gas that dissipates very quickly under normal meteorological conditions. Therefore, CO concentrations decrease substantially as distance from the source (intersection) increases. The highest CO concentrations are typically found along sidewalk locations directly adjacent to congested roadway intersections.

To provide a worst case simulation of CO concentrations within the area that might be affected by the proposed project, CO concentrations at sidewalks adjacent to 24 study intersections were modeled. The study intersections were selected based on traffic volume and capacity and traffic level of service (LOS). The selected intersections are:

- De Soto Avenue & Plummer Street,
- De Soto Avenue & Nordhoff Street,
- Winnetka Avenue & Nordhoff Street,
- Winnetka Avenue & Parthenia Street,
- Winnetka Avenue & Roscoe Boulevard,
- Winnetka Avenue & Victory Boulevard,
- Corbin Avenue & Devonshire Street,
- Corbin Avenue & Lassen Street,
- Corbin Avenue & Plummer Street,
- Corbin Avenue & Prairie Street,
- Corbin Avenue & Nordhoff Place/Nordhoff Street,

⁸ Garza, Vicente J., Peter Graney, Daniel Sperling. Transportation Project-Level Carbon Monoxide Protocol. Institute of Transportation Studies, University of California, Davis. May 1996.

⁹ See **Appendix A**.

¹⁰ Persistence factor is the ratio between the eight- and one-hour second annual maximum CO concentrations measured at a continuous air monitoring station. A persistence factor of 0.7 is typically used in urban areas.

- Corbin Avenue & Nordhoff Street/Nordhoff Way,
- Corbin Avenue & Parthenia Street,
- Corbin Avenue & Saticoy Street,
- Tampa Avenue & Devonshire Street,
- Tampa Avenue & Lassen Street,
- Tampa Avenue & Plummer Street,
- Tampa Avenue & Nordhoff Street,
- Tampa Avenue & Roscoe Boulevard,
- Tampa Avenue & Saticoy Street,
- Reseda Boulevard & Plummer Street,
- Reseda Boulevard & Nordhoff Street,
- Reseda Boulevard & Victory Boulevard, and
- Zelzah Avenue & Nordhoff Street.

At each intersection, traffic related CO contributions were added to background CO conditions, as discussed above. Traffic CO contributions were estimated using the CAL3QHC dispersion model, which utilizes traffic volume inputs and EMFAC2001 emissions factors. Existing conditions at the study intersections are shown in **Table 3-3**. One-hour CO concentrations range from approximately 11.5 ppm to 13.3 ppm. Eight-hour CO concentrations range from approximately 8.1 ppm to 9.3 ppm. Presently, none of the study intersections exceed the State one-hour CO standard of 20.0 ppm. However, four intersections exceed the State eight-hour CO standard of 9.0 ppm.

3.3.6 Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the types of population groups and the activities involved. CARB has identified the following people who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive population groups. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. These locations are classified as sensitive receptors.

Two representative sensitive receptors have been identified within one-quarter mile of the proposed project site. These sensitive receptors are shown in **Figure 3-3**. They include:

- Residential uses and
- Washington Mutual Child Care Center.

These sensitive receptors do not constitute a comprehensive list of all sensitive uses within the vicinity. Rather, they are intended to represent a sampling of the different types of sensitive uses in the vicinity of the project area. For purposes of providing a worst-case analysis, CO concentrations have been modeled at sidewalk locations adjacent to 24 study area intersections. Since CO is a localized gas which disperses quickly, concentrations are highest within close proximity to intersections. Concentrations at specific sensitive receptors would be substantially lower than those concentrations immediately adjacent to intersections.

Figure 3-3 AQ Receptors

TABLE 3-3: EXISTING CARBON MONOXIDE (CO) CONCENTRATIONS (parts per million) /a/		
Intersection	1-Hour	8-Hour
De Soto Avenue & Plummer Street	12.6	8.8
De Soto Avenue & Nordhoff Street	12.6	8.8
Winnetka Avenue & Nordhoff Street	12.5	8.8
Winnetka Avenue & Parthenia Street	12.4	8.7
Winnetka Avenue & Roscoe Boulevard	12.3	8.6
Winnetka Avenue & Victory Boulevard	12.8	9.0
Corbin Avenue & Devonshire Street	12.0	8.4
Corbin Avenue & Lassen Street	12.1	8.5
Corbin Avenue & Plummer Street	12.1	8.5
Corbin Avenue & Prairie Street	11.5	8.1
Corbin Avenue & Nordhoff Place/Nordhoff Street	12.0	8.4
Corbin Avenue & Nordhoff Street/Nordhoff Way	12.9	9.0
Corbin Avenue & Parthenia Street	12.2	8.5
Corbin Avenue & Saticoy Street	12.2	8.5
Tampa Avenue & Devonshire Street	12.3	8.6
Tampa Avenue & Lassen Street	12.5	8.8
Tampa Avenue & Plummer Street	12.2	8.5
Tampa Avenue & Nordhoff Street	12.1	8.5
Tampa Avenue & Roscoe Boulevard	12.1	8.5
Tampa Avenue & Saticoy Street	12.2	8.5
Reseda Boulevard & Plummer Street	13.1	9.2
Reseda Boulevard & Nordhoff Street	12.2	8.5
Reseda Boulevard & Victory Boulevard	13.3	9.3
Zelzah Avenue & Nordhoff Street	12.6	8.8
State Standard	20.0	9.0
Note: Bold numbers indicate exceedance in the State standard. /a/ All concentrations include one- and eight-hour ambient concentrations of 8.7 ppm and 6.1 ppm. SOURCE: Terry A. Hayes Associates LLC. See Appendix C .		

3.4 METHODOLOGY AND SIGNIFICANCE CRITERIA

3.4.1 Methodology

This air quality analysis is consistent with the methods described in the SCAQMD California Environmental Quality Act (CEQA) Handbook (1993 edition).

The following calculation methods and estimation models were used to determine air quality impacts: SCAQMD construction emissions calculation formulas, the CARB's URBEMIS 2001 emissions model, the CARB's MVEI7G emissions inventory model, the Caltrans' EMFAC emissions factor model and the USEPA's CAL3QHC dispersion model software.

The proposed project does not contain lead emissions sources. Therefore, emissions and concentrations related to this pollutant are not analyzed in this report.¹¹

3.4.2 Significance Criteria

The CEQA Guidelines (Section 15064.7) provide that, when available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make determinations of significance. The following are the significance criteria that the SCAQMD has established to determine project impacts.

Construction Phase Significance Criteria

The proposed project would have a significant impact if:

- Daily construction emissions were to exceed the SCAQMD construction emissions thresholds for CO, ROG, NO_x, SO_x, or PM₁₀. The SCAQMD significance thresholds for construction activities appear in **Table 3-4**.

Operations Phase Significance Criteria

The proposed projects would have a significant impact if:

- Daily operational emissions were to exceed the SCAQMD operational emissions thresholds for CO, ROG, NO_x, or PM₁₀. The SCAQMD significance thresholds for operational emissions appear in **Table 3-4**.
- Project-related traffic causes CO concentrations at study intersections to violate the CAAQS for either the one- or eight-hour period. The CAAQS for the one- and eight-hour period are 20.0 ppm and 9.0 ppm, respectively. If CO concentrations currently exceed the CAAQS, then, an incremental increase of 1.0 ppm over "no project" conditions for the one-hour period would be considered a significant impact. An incremental increase of 0.45 ppm over the "no project" conditions for the eight-hour period would be considered significant.¹²

¹¹ Prior to 1978, mobile emissions were the primary source of lead resulting in air concentrations. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. Currently, industrial sources are the primary source of lead resulting in air concentrations. Since the proposed project does not contain an industrial component, lead emissions are not analyzed in this report.

¹² Consistent with the SCAQMD Regulation XIII definition of a significant impact.

TABLE 3-4: SCAQMD DAILY EMISSIONS THRESHOLDS (pounds per day)		
Criteria Pollutants	Construction	Operational
Carbon Monoxide (CO)	550	550
Reactive Organic Gas (ROG)	75	55
Nitrogen Oxides (NO _x)	100	55
Sulfur Oxides (SO _x)	150	150
Particulates (PM ₁₀)	150	150
SOURCE: South Coast Air Quality Management District.		

3.5 ENVIRONMENTAL IMPACTS

3.5.1 Krausz Property Only

3.5.1.1 Construction Phase Impacts

Construction for the four Krausz Property Only alternatives would generate pollutant emissions from the following construction activities: (1) demolition of existing structures, (2) grading, (3) construction workers traveling to and from project sites, (4) delivery and hauling of construction supplies and debris to and from project sites, (5) fuel combustion by on-site construction equipment, and (6) architectural coating. These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. However, PM₁₀ is the most significant source of air pollution from construction, particularly during site preparation and grading.

Table 3-5 shows the estimated daily emissions associated with each construction phase. Daily emissions were derived using the applicable emission factors and formulas found in the SCAQMD CEQA Handbook, Appendix to Chapter 9.

Krausz Property Only Alternative A. As shown in **Table 3-5**, estimated daily construction emissions for Krausz Property Only Alternative A are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-5** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement”, below).¹³ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures,” below) would ensure proper implementation of Rule 403, which would reduce impacts to less than significant levels.

¹³Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 27 percent during the demolition phase and by approximately 64 percent during the grading/excavation phase. The larger reduction in PM₁₀ emissions during the grading/excavation phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-5**, would not exceed the SCAQMD significance threshold of 150 ppd.

TABLE 3-5: ESTIMATED DAILY CONSTRUCTION EMISSIONS - KRAUSZ PROPERTY ONLY (pounds per day)					
Construction Phase	CO	ROG	NO_x	SO_x	PM₁₀ /a/
SCAQMD Threshold	550	75	100	150	150
Krausz Property Only Alternative A					
Demolition	22	3	41	2	74
Grading/Excavation	20	3	41	2	102
Foundation	34	5	55	4	52
Finishing	2	81	1	1	1
<i>Maximum</i>	34	81	55	4	102
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Krausz Property Only Alternative B					
Demolition	22	3	41	2	74
Grading/Excavation	20	3	41	2	102
Foundation	34	5	56	4	52
Finishing	2	79	1	1	1
<i>Maximum</i>	34	79	56	4	102
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Krausz Property Only Alternative C					
Demolition	22	3	41	2	74
Grading/Excavation	20	3	41	2	102
Foundation	35	5	56	4	53
Finishing	2	83	1	1	1
<i>Maximum</i>	35	83	56	4	102
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Krausz Property Only Alternative D					
Demolition	22	3	41	2	74
Grading/Excavation	20	3	41	2	102
Foundation	35	5	57	4	54
Finishing	2	80	1	1	1
<i>Maximum</i>	35	80	57	4	102
<i>Exceed Threshold?</i>	No	Yes	No	No	No
/a/ Assumes proper implementation of SCAQMD Rule 403. SOURCE: Terry A. Hayes Associates LLC. See Appendix D.					

Krausz Property Only Alternative B. As shown in **Table 3-5**, above, estimated daily construction emissions for Alternative B are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-5** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement”, below).¹⁴ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures,” below) would ensure proper implementation of Rule 403, which would reduce impacts to less than significant levels.

Krausz Property Only Alternative C. As shown in **Table 3-5**, above, estimated daily construction emissions for Alternative C are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-5** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement”, below).¹⁵ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures,” below) would ensure proper implementation of Rule 403, which would reduce impacts to less than significant levels.

Krausz Property Only Alternative D. As shown in **Table 3-5**, above, estimated daily construction emissions for Alternative D are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-5** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement”, below).¹⁶ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures,” below) would ensure proper implementation of Rule 403, which would reduce impacts to less than significant levels.

Fugitive Dust Abatement

All alternatives under the Krausz Property Only and the Full Build-Out scenarios are subject to the provisions of SCAQMD Rule 403 - Fugitive Dust. Rule 403 applies to any activity or man-made condition capable of generating fugitive dust. Rule 403 requires the use of best available control measures to suppress fugitive dust emissions. The requirements of Rule 403 that are applicable to the proposed project are as follows:

¹⁴ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 27 percent during the demolition phase and by approximately 64 percent during the grading/excavation phase. The larger reduction in PM₁₀ emissions during the grading/excavation phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-5**, would not exceed the SCAQMD significance threshold of 150 ppd.

¹⁵ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 27 percent during the demolition phase and by approximately 64 percent during the grading/excavation phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-5** would not exceed the SCAQMD significance threshold of 150 ppd.

¹⁶ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 27 percent during the demolition phase and by approximately 64 percent during the grading/excavation phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-5**, would not exceed the SCAQMD significance threshold of 150 ppd.

(1) A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that the presence of such dust remains visible in the atmosphere beyond the property line of the emission source.

(2) A person conducting active operations within the boundaries of the South Coast Air Basin shall utilize one or more of the applicable best available control measures to minimize fugitive dust emissions from each fugitive dust source type which is part of the active operation.

(3) Any person in the South Coast Air Basin shall:

(A) prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations; or

(B) take at least one of the actions listed in **Table 3-6** and:

(i) prevent the track-out of bulk material onto public paved roadways as a result of their operations and remove such material at anytime track-out extends for a cumulative distance of greater than 50 feet on to any paved public road during active operations; and

(ii) remove all visible roadway dust tracked-out upon public paved roadways as a result of active operations at the conclusion of each work day when active operations cease.¹⁷

TABLE 3-6: SCAQMD RULE 403 - TRACK-OUT CONTROL OPTIONS	
Control Options	
(1)	Pave or apply chemical stabilization and sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
(2)	Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that existing vehicles do not travel on any unpaved road surface after passing through the track-out control device.
(3)	Any other control measures approved by the Executive Officer and the USEPA as equivalent to the methods specified in Table 2-7 may be used.
SOURCE: South Coast Air Quality Management District, Rule 403 - Fugitive Dust, Table 3. See Appendix E .	

¹⁷See **Appendix E** for the complete text of SCAQMD Rule 403.

Construction Phase Mitigation Measures

The following is a list of feasible control measures that the SCAQMD recommends for construction emissions of PM₁₀. These mitigation measures shall be implemented for all areas (both on-site and off-site) where construction for the proposed project would occur.

Fugitive Dust and PM₁₀

AQ 32 The construction area and vicinity (500-foot radius) shall be swept (preferably with water sweepers) and watered at least twice daily. Site-wetting shall occur often enough to maintain a 10 percent surface soil moisture content throughout all earth-moving activities.

AQ 33 All unpaved roads, parking and staging areas shall be watered at least once every two hours of active operations.

AQ 34 Site access points shall be swept/washed within thirty minutes of visible dirt deposition.

AQ 35 On-site stockpiles of debris, dirt or rusty material shall be covered or watered at least twice daily.

AQ 36 All haul trucks hauling soil, sand and other loose materials shall either be covered or maintain two feet of freeboard.

AQ 37 All haul trucks shall have a capacity of no less than twelve and three-quarter (12.75) cubic yard.

AQ 38 At least 80 percent of all inactive disturbed surface areas shall be watered on a daily basis when there is evidence of wind-driven fugitive dust.

AQ 39 Operations on any unpaved surfaces shall be suspended when winds exceed 25 mph.

AQ 40 Traffic speeds on unpaved roads shall be limited to 15 miles per hour.

AQ 41 Operations on any unpaved surfaces shall be suspended during first and second stage smog alerts.

AQ 42 Haul truck routes shall be planned to avoid residential areas, schools, and parks.

Architectural Coating

AQ 43 The proposed project shall use coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent.

Impacts After Mitigation

Krausz Property Only Alternative A. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 74 ppd during the demolition phase and 102 ppd during the grading/excavation phase, which is less than the SCAQMD significance threshold of 150 ppd.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 20 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Krausz Property Only Alternative B. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 74 ppd during the demolition phase and 102 ppd during the grading/excavation phase, which is less than the SCAQMD significance threshold of 150 ppd.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 20 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Krausz Property Only Alternative C. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 74 ppd during the demolition phase and 102 ppd during the grading/excavation phase, which is less than the SCAQMD significance threshold of 150 ppd.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 21 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Krausz Property Only Alternative D. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 74 ppd during the demolition phase and 102 ppd during the grading/excavation phase, which is less than the SCAQMD significance threshold of 150 ppd.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 20 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

3.5.1.2 Operational Phase Impacts

Regional Impacts

Krausz Property Only Alternative A. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project,¹⁸ Krausz Property Only Alternative A is anticipated to generate an additional 10,714 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-7**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for ROG, NO_x, and CO. Thus, significant impacts are anticipated.

Krausz Property Only Alternative B. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Krausz Property Only Alternative B is anticipated to generate an additional 6,094 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-7**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for ROG, NO_x, and CO. Thus, significant impacts are anticipated.

Krausz Property Only Alternative C. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Krausz Property Only Alternative C is anticipated to generate an additional 10,056 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-7**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for ROG, NO_x, and CO. Thus, significant impacts are anticipated.

Krausz Property Only Alternative D. Long-term project emissions would be generated by stationary sources (natural gas, fireplaces, and landscaping) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Krausz Property Only Alternative D is anticipated to generate an additional 6,076 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-7**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for ROG, NO_x, and CO. Thus, significant impacts are anticipated.

¹⁸ Linscott, Law, & Greenspan, Traffic Impact Study, Krausz Property Project, Northridge, California, August 1, 2002.

TABLE 3-7: DAILY OPERATIONS EMISSIONS - KRAUSZ PROPERTY ONLY (pounds per day)					
Pollutants	CO	ROG	NO_x	SO_x	PM₁₀
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Krausz Property Only Alternative A					
Stationary Source /a/	4.7	25.9	6.4	0	0.02
Mobile Source	1,340.3	115.8	145.3	1.0	66.3
<i>Total Emissions</i>	<i>1,345.0</i>	<i>141.7</i>	<i>151.7</i>	<i>1.0</i>	<i>66.3</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative B					
Stationary Source /a/	5.9	26.2	9.3	0	0.02
Mobile Source	1,003.5	95.3	105.5	0.9	49.2
<i>Total Emissions</i>	<i>1,009.4</i>	<i>121.5</i>	<i>114.8</i>	<i>0.9</i>	<i>49.2</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative C					
Stationary Source /a/	6.0	40.9	7.8	0	0.02
Mobile Source	1,297.1	112.8	139.5	1.1	63.8
<i>Total Emissions</i>	<i>1,303.1</i>	<i>153.7</i>	<i>147.3</i>	<i>1.1</i>	<i>63.8</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative D					
Stationary Source /a/	6.9	41.1	10.0	0	0.03
Mobile Source	987.8	96.1	103.4	0.9	48.2
<i>Total Emissions</i>	<i>994.7</i>	<i>137.2</i>	<i>113.3</i>	<i>0.9</i>	<i>48.2</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
/a/ Stationary sources include natural gas, landscaping, and consumer products. SOURCE: Terry A. Hayes Associates LLC. See Appendix F .					

Localized Impacts

Overall, CO concentrations are expected to be lower than existing conditions in year 2005 due to stringent state and federal mandates for lowering vehicle emissions. Although traffic volumes would be higher in the future both with and without the implementation of the Krausz Property Only scenario,¹⁹ CO emissions from vehicles are expected to be much lower due to technological advances in vehicle emissions systems, as well as turnover in the vehicle fleet. In other words, increases in traffic volumes are expected to be offset by increases in cleaner-running cars as a percentage of the entire vehicle fleet on the road.

¹⁹ See Traffic Impact Study, Krausz Property Project, Northridge California (Linscott, Law & Greenspan, August 1, 2002).

The USEPA CAL3QHC micro-scale dispersion model was used to calculate CO concentrations for year 2005 “no project” conditions, as well as for all four alternatives under the Krausz Property Only scenario. CO concentrations at the 24 study intersections are shown in **Table 3-8**. CO concentrations at the study intersections are discussed below.

Krausz Property Only Alternative A. As indicated in **Table 3-8**, one-hour CO concentrations under Krausz Property Only Alternative A would range from approximately 9.3 ppm to 10.5 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.5 ppm to 7.3 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Krausz Property Only Alternative B. As indicated in **Table 3-8**, one-hour CO concentrations under Krausz Property Only Alternative B would range from approximately 9.3 ppm to 10.8 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.5 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Krausz Property Only Alternative C. As indicated in **Table 3-8**, one-hour CO concentrations under Krausz Property Only Alternative C would range from approximately 9.4 ppm to 10.8 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.6 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Alternative D. As indicated in **Table 3-8**, one-hour CO concentrations under Krausz Property Only Alternative D would range from approximately 9.3 ppm to 10.7 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.5 ppm to 7.5 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

TABLE 3-8: 2005 CARBON MONOXIDE (CO) CONCENTRATIONS - KRAUSZ PROPERTY ONLY (parts per million) /a/

Intersection	1-Hour						8-Hour					
	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D
De Soto Avenue & Plummer Street	12.6	10.2	10.3	10.3	10.3	10.3	8.8	7.1	7.2	7.2	7.2	7.2
De Soto Avenue & Nordhoff Street	12.6	10.0	10.1	10.1	10.1	10.1	8.8	7.0	7.1	7.1	7.1	7.1
Winnetka Avenue & Nordhoff Street	12.5	9.8	9.8	9.9	9.8	9.8	8.8	6.8	6.8	6.9	6.8	6.8
Winnetka Avenue & Parthenia Street	12.4	9.8	9.8	9.9	9.8	9.9	8.7	6.9	6.9	6.9	6.9	6.9
Winnetka Avenue & Roscoe Boulevard	12.3	9.9	9.9	10.0	9.9	9.9	8.6	6.9	6.9	6.9	6.9	6.9
Winnetka Avenue & Victory Boulevard	12.8	10.3	10.3	10.3	10.3	10.3	9.0	7.2	7.2	7.2	7.2	7.2
Corbin Avenue & Devonshire Street	12.0	9.6	9.7	10.0	9.9	9.9	8.4	6.7	6.8	7.0	6.9	6.9
Corbin Avenue & Lassen Street	12.1	10.0	9.9	10.0	9.9	10.0	8.5	7.0	7.0	7.0	7.0	7.0
Corbin Avenue & Plummer Street	12.1	9.7	9.9	10.0	9.9	9.8	8.5	6.8	6.9	7.0	6.9	6.9
Corbin Avenue & Prairie Street	11.5	9.3	9.3	9.3	9.4	9.3	8.1	6.5	6.5	6.5	6.6	6.5
Corbin Avenue & Nordhoff Place/Nordhoff Street	12.0	9.6	9.8	9.7	9.7	9.7	8.4	6.7	6.9	6.8	6.8	6.8
Corbin Avenue & Nordhoff Street/Nordhoff Way	12.9	10.5	10.5	10.8	10.8	10.7	9.0	7.3	7.3	7.6	7.6	7.5
Corbin Avenue & Parthenia Street	12.2	9.8	9.7	9.8	9.7	9.8	8.5	6.8	6.8	6.8	6.8	6.8
Corbin Avenue & Saticoy Street	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8

TABLE 3-8: 2005 CARBON MONOXIDE (CO) CONCENTRATIONS - KRAUSZ PROPERTY ONLY (parts per million) /a/

Intersection	1-Hour						8-Hour					
	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D
Tampa Avenue & Devonshire Street	12.3	9.7	9.8	9.8	9.7	9.8	8.6	6.8	6.9	6.9	6.8	6.9
Tampa Avenue & Lassen Street	12.5	10.0	10.0	9.9	10.0	9.9	8.8	7.0	7.0	7.0	7.0	7.0
Tampa Avenue & Plummer Street	12.2	10.0	10.0	9.9	10.0	10.0	8.5	7.0	7.0	7.0	7.0	7.0
Tampa Avenue & Nordhoff Street	12.1	9.8	9.9	9.9	9.9	9.9	8.5	6.9	6.9	6.9	6.9	6.9
Tampa Avenue & Roscoe Boulevard	12.1	9.5	9.5	9.6	9.5	9.5	8.5	6.6	6.6	6.7	6.6	6.6
Tampa Avenue & Saticoy Street	12.2	9.6	9.7	9.7	9.7	9.6	8.5	6.7	6.8	6.8	6.8	6.7
Reseda Boulevard & Plummer Street	13.1	10.4	10.4	10.4	10.4	10.4	9.2	7.3	7.3	7.3	7.3	7.3
Reseda Boulevard & Nordhoff Street	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8
Reseda Boulevard & Victory Boulevard	13.3	10.1	10.1	10.1	10.1	10.1	9.3	7.1	7.1	7.1	7.1	7.1
Zelzah Avenue & Nordhoff Street	12.6	9.9	10.1	10.1	10.0	10.1	8.8	6.9	7.1	7.1	7.0	7.1
State Standard	20.0						9.0					

Note:
 Bold numbers indicate exceedance in the State standard.
 /a/ All concentrations include year 2005 one- and eight-hour ambient concentrations of 6.9 ppm and 4.8 ppm, respectively.
SOURCE: Terry A. Hayes Associates LLC. See **Appendix C**.

Operational Phase Mitigation Measures

- AQ 13 The proposed project shall establish a shuttle service from the project site to residential and commercial areas.
- AQ 14 The proposed project shall construct on-site or off-site bus turnouts, passenger benches, and shelters.
- AQ 15 The proposed project shall provide shuttles to major transit stations.
- AQ 16 The proposed project shall include bicycle parking facilities, such as bicycle lockers and racks.
- AQ 17 The proposed project shall construct on-site pedestrian facility improvements, such as walk paths and building access which is physically separated from street and parking lot traffic.
- AQ 18 The proposed project shall construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.

Impacts After Mitigation

Krausz Property Only Alternative A. **Table 3-9** shows daily operational emissions after implementation of mitigation measures AQ 13 to AQ 18. Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 8.0, 0.7, 0.9, and 0.4 ppd, respectively. However, Krausz Property Only Alternative A would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Krausz Property Only Alternative B. **Table 3-9** shows daily operational emissions after implementation of mitigation measures AQ 13 to AQ 18. Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 6.0, 0.6, 0.6, and 0.3 ppd, respectively. However, Krausz Property Only Alternative B would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Krausz Property Only Alternative C. **Table 3-9** shows daily operational emissions after implementation of mitigation measures AQ 13 to AQ 18. Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 7.8, 0.7, 0.8, and 0.4 ppd, respectively. However, Krausz Property Only Alternative C would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Krausz Property Only Alternative D. **Table 3-9** shows daily operational emissions after implementation of mitigation measures AQ 13 to AQ 18. Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 5.9, 0.6, 0.6, and 0.3 ppd, respectively. However, Krausz Property Only Alternative D would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

TABLE 3-9: DAILY OPERATIONS EMISSIONS WITH MITIGATION - KRAUSZ PROPERTY ONLY (pounds per day)					
Pollutants	CO	ROG	NO_x	SO_x	PM₁₀
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Krausz Property Only Alternative A					
Stationary Source /a/	4.7	25.9	6.4	0	0.02
Mobile Source	1,332.2	115.6	114.4	1.0	65.9
<i>Total Emissions</i>	<i>1,336.9</i>	<i>141.5</i>	<i>120.8</i>	<i>1.0</i>	<i>65.9</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative B					
Stationary Source /a/	5.9	26.2	9.3	0	0.02
Mobile Source	997.4	94.7	104.9	0.9	48.9
<i>Total Emissions</i>	<i>1,003.3</i>	<i>120.9</i>	<i>114.2</i>	<i>0.9</i>	<i>48.9</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative C					
Stationary Source /a/	6.0	40.9	7.8	0	0.02
Mobile Source	1,289.3	112.1	138.7	1.1	63.4
<i>Total Emissions</i>	<i>1,295.3</i>	<i>153.0</i>	<i>146.5</i>	<i>1.1</i>	<i>63.4</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative D					
Stationary Source /a/	6.9	41.1	10.0	0	0.03
Mobile Source	981.9	95.6	102.7	0.9	47.9
<i>Total Emissions</i>	<i>988.8</i>	<i>136.7</i>	<i>112.7</i>	<i>0.9</i>	<i>47.9</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
/a/ Stationary sources include natural gas, landscaping, and consumer products. SOURCE: Terry A. Hayes Associates LLC. See Appendix G.					

3.5.1.3 Cumulative Impacts

Linscott, Law & Greenspan has identified eight related projects within the area that may be affected by the proposed project. Using the SCAQMD daily emissions thresholds for individual development projects, cumulative emissions thresholds were calculated (by multiplying each criteria pollutant threshold by the total number of individual projects) to establish a baseline from which to evaluate cumulative project emissions. **Table 3-10** shows the criteria pollutant emissions for the related projects. Criteria pollutant emissions from all related projects, as well as the proposed project, were modeled using the CARB's URBEMIS 2001 emissions model to estimate cumulative operational emissions.

TABLE 3-10: CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS - KRAUSZ PROPERTY ONLY					
Project	Operational Emissions (pounds per day)				
	CO	ROG	NO _x	SO _x	PM ₁₀
32) Courthouse	806.5	63.6	86.3	0.5	39.8
33) Shopping Center	206.4	16.2	22.5	0.1	10.2
34) Drug Store /a/	(23.8)	(2.1)	(2.7)	(0.01)	(1.1)
35) Church, Senior Residential Facility, Nursery School	50.8	9.0	5.7	0.03	2.4
36) Porter Ranch	17,530.7	1,417.3	1,890.5	11.2	867.8
37) Deer Lake Ranch	781.0	91.4	85.8	0.7	37.3
38) LAUSD	187.6	32.8	20.0	0.1	9.2
39) Office	196.6	15.6	21.1	0.1	9.6
9a) Krausz Property Only Alternative A	1,345.0	141.7	151.7	1.0	66.3
9b) Krausz Property Only Alternative B	1,009.3	121.5	114.8	0.9	49.2
9c) Krausz Property Only Alternative C	1,303.1	153.7	147.3	1.1	63.8
9d) Krausz Property Only Alternative D	994.7	137.2	113.3	0.9	48.2
Total Emissions (Krausz Property Only Alternative A)					
	21,080.8	1,785.5	2,280.9	13.7	1,041.5
Krausz Property Only Alternative A - Percent of Total					
	6.4%	7.9%	6.7%	7.3%	6.4%
Total Emissions (Krausz Property Only Alternative B)					
	20,745.1	1,765.3	2,244.0	13.6	1,024.4
Krausz Property Only Alternative B - Percent of Total					
	4.9%	6.9%	5.1%	6.6%	4.8%
Total Emissions (Krausz Property Only Alternative C)					
	21,038.9	1,797.5	2,276.5	13.8	1,039.0
Krausz Property Only Alternative C - Percent of Total					
	6.2%	8.6%	6.5%	8.0%	6.1%

TABLE 3-10: CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS - KRAUSZ PROPERTY ONLY					
Project	Operational Emissions (pounds per day)				
	CO	ROG	NO _x	SO _x	PM ₁₀
Total Emissions (Krausz Property Only Alternative D)	20,730.5	1,781.0	2,242.5	13.6	1,023.4
Krausz Property Only Alternative D - Percent of Total	4.8%	7.7%	5.1%	6.6%	4.7%
Cumulative SCAQMD Thresholds /b/	4,950.0	495.0	495.0	1,350.0	1,350.0
Cumulative Project - Percent of Threshold (Krausz Property Only Alternative A)	425.9%	360.7%	460.8%	1.0%	77.1%
Cumulative Project - Percent of Threshold (Krausz Property Only Alternative B)	419.1%	356.6%	453.3%	1.0%	75.9%
Cumulative Project - Percent of Threshold (Krausz Property Only Alternative C)	425.0%	363.1%	459.9%	1.0%	77.0%
Cumulative Project - Percent of Threshold (Krausz Property Only Alternative D)	418.8%	359.8%	453.0%	1.0%	75.8%
/a/ Operations emissions for the related project would be less than operation emissions for existing use. /b/ Individual project threshold multiplied by the number of individual projects. SOURCE: Terry A. Hayes Associates LLC. See Appendix F .					

Krausz Property Only Alternative A. As indicated in **Table 3-10**, the eight related projects in combination with Krausz Property Only Alternative A are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9a) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Krausz Property Only Alternative A would contribute to approximately 6.4 percent of the total CO emissions, approximately 7.9 percent of total ROG emissions and approximately 6.7 percent of the total NO_x emissions. As discussed in **Section 3.5.1.2**, Krausz Property Only Alternative A (number 9a) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Krausz Property Only Alternative A scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that this alternative would significantly contribute to cumulative emissions.

Krausz Property Only Alternative B. As indicated in **Table 3-10**, the eight related projects in combination with Krausz Property Only Alternative B are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9b) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Krausz Property Only Alternative B would contribute to approximately 6.4 percent of the total CO emissions, approximately 7.9 percent of total ROG emissions and approximately 6.7 percent of the total NO_x emissions. As discussed in **Section 3.5.1.2**, Krausz Property Only Alternative B (number 9b) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Krausz Property Only Alternative B scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that this alternative would significantly contribute to cumulative emissions.

Krausz Property Only Alternative C. As indicated in **Table 3-10**, the eight related projects in combination with Krausz Property Only Alternative C are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9c) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Krausz Property Only Alternative C would contribute to approximately 6.4 percent of the total CO emissions, approximately 7.9 percent of total ROG emissions and approximately 6.7 percent of the total NO_x emissions. As discussed in **Section 3.5.1.2**, Krausz Property Only Alternative C (number 9c) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Krausz Property Only Alternative C scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that this alternative would significantly contribute to cumulative emissions.

Krausz Property Only Alternative D. As indicated in **Table 3-10**, the eight related projects in combination with the proposed project are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9d) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. The proposed project would contribute to approximately 6.4 percent of the total CO emissions, approximately 7.9 percent of total ROG emissions and approximately 6.7 percent of the total NO_x emissions. As discussed in **Section 3.5.1.2**, the proposed project alternative (number 9d) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the proposed project, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated to exceed that the proposed project would significantly contribute to cumulative emissions.

3.5.2 Full Build-Out

3.5.2.1 Construction Impacts

Construction for the Full Build-Out scenario would generate pollutant emissions from the following construction activities: (1) demolition of existing structures, (2) grading, (3) construction workers traveling to and from project sites, (4) delivery and hauling of construction supplies and debris to and from project sites, (5) fuel combustion by on-site construction equipment, and (6) architectural coating. These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. However, PM₁₀ is the most significant source of air pollution from construction, particularly during site preparation and grading.

Table 3-11 shows the estimated daily emissions associated with each construction phase. Daily emissions were derived using the applicable emission factors and formulas found in the SCAQMD CEQA Handbook, Appendix to Chapter 9.

Full Build-Out Alternative A. As shown in **Table 3-11**, estimated daily construction emissions for Full Build-Out Alternative A are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-11** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement” in **Section 3.5.1.1**, above).²⁰ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures” in **Section 3.5.1.1**, above) would ensure proper implementation of Rule 403, which would reduce impacts to a less than significant level.

Full Build-Out Alternative B. As shown in **Table 3-11**, above, estimated daily construction emissions for Full Build-Out Alternative B are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-11** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement” in **Section 3.5.1.1**, above).²¹ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures” in **Section 3.5.1.1**, above) would ensure proper implementation of Rule 403, which would reduce impacts to a less than significant level.

Full Build-Out Alternative C. As shown in **Table 3-11**, above, estimated daily construction emissions for Full Build-Out Alternative C are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-11** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement” in **Section 3.5.1.1**, above).²² Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures” in **Section 3.5.1.1**, above) would ensure proper implementation of Rule 403, which would reduce impacts to a less than significant level.

²⁰ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 28 percent during the demolition phase and by approximately 63 percent during the grading phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-11**, would not exceed the SCAQMD significance threshold of 150 ppd.

²¹ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 28 percent during the demolition phase and by approximately 63 percent during the grading phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-11**, would not exceed the SCAQMD significance threshold of 150 ppd.

²² Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 28 percent during the demolition phase and by approximately 63 percent during the grading phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-11**, would not exceed the SCAQMD significance threshold of 150 ppd.

TABLE 3-11: ESTIMATED DAILY CONSTRUCTION EMISSIONS - FULL BUILD-OUT (pounds per day)

Construction Phase	CO	ROG	NO _x	SO _x	PM ₁₀ /a/
SCAQMD Threshold	550	75	100	150	150
Full Build-Out Alternative A					
Demolition	23	3	42	2	78
Grading/Excavation	20	3	41	2	105
Foundation	35	5	56	4	53
Finishing	2	84	1	1	1
<i>Maximum</i>	35	84	56	4	105
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Full Build-Out Alternative B					
Demolition	23	3	42	2	78
Grading/Excavation	20	3	41	2	105
Foundation	35	5	57	4	54
Finishing	2	78	1	1	1
<i>Maximum</i>	35	78	57	4	105
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Full Build-Out Alternative C					
Demolition	23	3	42	2	78
Grading/Excavation	20	3	41	2	105
Foundation	35	5	56	4	53
Finishing	2	89	1	1	1
<i>Maximum</i>	35	89	56	4	105
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Full Build-Out Alternative D					
Demolition	23	3	42	2	78
Grading/Excavation	20	3	41	2	105
Foundation	34	5	55	4	52
Finishing	2	83	1	1	1
<i>Maximum</i>	34	83	55	4	105
<i>Exceed Threshold?</i>	No	Yes	No	No	No
/a/ Assumes proper implementation of SCAQMD Rule 403. SOURCE: Terry A. Hayes Associates LLC. See Appendix D .					

Full Build-Out Alternative D. As shown in **Table 3-11**, above, estimated daily construction emissions for Full Build-Out Alternative D are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-11** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement” in **Section 3.5.1.1**, above).²³ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures” in **Section 3.5.1.1**, above) would ensure proper implementation of Rule 403, which would reduce impacts to a less than significant level.

Construction Phase Mitigation Measures

See mitigation measures AQ 1 to AQ 12 in **Section 3.5.1.2**.

Impacts After Mitigation

Full Build-Out Alternative A. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 78 ppd during the demolition phase and 105 ppd during the grading/excavation phase. PM₁₀ emissions after implementation of mitigation measures would be less than the SCAQMD significance threshold of 150 ppd. Thus, less than significant impacts are anticipated.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 21 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Full Build-Out Alternative B. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 78 ppd during the demolition phase and 105 ppd during the grading/excavation phase, which is less than the SCAQMD significance threshold of 150 ppd. PM₁₀ emissions after implementation of mitigation measures would be less than the SCAQMD significance threshold of 150 ppd. Thus, less than significant impacts are anticipated.

²³ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 28 percent during the demolition phase and by approximately 63 percent during the grading phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-11**, would not exceed the SCAQMD significance threshold of 150 ppd.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 20 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Full Build-Out Alternative C. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 78 ppd during the demolition phase and 105 ppd during the grading/excavation phase. PM₁₀ emissions after implementation of mitigation measures would be less than the SCAQMD significance threshold of 150 ppd. Thus, less than significant impacts are anticipated.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 22 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Full Build-Out Alternative D. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 78 ppd during the demolition phase and 105 ppd during the grading/excavation phase. PM₁₀ emissions after implementation of mitigation measures would be less than the SCAQMD significance threshold of 150 ppd. Thus, less than significant impacts are anticipated.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 21 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

3.5.2.2 *Operational Phase Impacts*

Regional Impacts

Full Build-Out Alternative A. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project,²⁴ Full Build-Out Alternative A is anticipated to generate an additional 13,136 daily vehicle trips.

²⁴ Linscott, Law & Greenspan, Traffic Impact Study, Krausz Property Project, Northridge, California, August 1, 2002.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-12**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for CO, ROG, and NO_x.

Full Build-Out Alternative B. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Full Build-Out Alternative B is anticipated to generate an additional 7,716 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-12**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for CO, ROG, and NO_x.

Full Build-Out Alternative C. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Full Build-Out Alternative C is anticipated to generate an additional 12,210 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-12**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for CO, ROG, and NO_x.

Full Build-Out Alternative D. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Full Build-Out Alternative D is anticipated to generate an additional 7,428 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-12**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for CO, ROG, and NO_x.

TABLE 3-12: DAILY OPERATIONS EMISSIONS - FULL BUILD-OUT (pounds per day)					
Pollutants	CO	ROG	NO_x	SO_x	PM₁₀
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Full Build-Out Alternative A					
Stationary Source /a/	1.0	25.5	5.6	0	0.01
Mobile Source	1,603.9	133.2	174.5	1.3	79.4
<i>Total Emissions</i>	<i>1,604.9</i>	<i>158.7</i>	<i>180.1</i>	<i>1.3</i>	<i>79.4</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative B					
Stationary Source /a/	2.9	25.8	10.5	0	0.01
Mobile Source	1,290.8	121.0	135.7	1.1	63.3
<i>Total Emissions</i>	<i>1,293.5</i>	<i>146.8</i>	<i>146.2</i>	<i>1.1</i>	<i>63.3</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative C					
Stationary Source /a/	2.4	45.3	7.3	0	0.01
Mobile Source	1,537.2	128.4	165.9	1.3	75.7
<i>Total Emissions</i>	<i>1,539.6</i>	<i>173.7</i>	<i>173.2</i>	<i>1.3</i>	<i>75.7</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative D					
Stationary Source /a/	3.9	45.5	10.9	0	0.01
Mobile Source	1,224.2	117.3	128.1	1.0	45.8
<i>Total Emissions</i>	<i>1,228.1</i>	<i>162.8</i>	<i>139.0</i>	<i>1.0</i>	<i>45.8</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
/a/ Stationary sources include natural gas, landscaping, and consumer products. SOURCE: Terry A. Hayes Associates LLC. See Appendix C .					

Localized Impacts

Overall, CO concentrations are expected to be lower than existing conditions in year 2005 due to stringent state and federal mandates for lowering vehicle emissions. Although traffic volumes would be higher in the future both with and without the implementation of the Full Build-Out scenario,²⁵ CO emissions from vehicles are expected to be much lower due to technological advances in vehicle emissions systems, as well as turnover in the vehicle fleet. In other words, increases in traffic volumes are expected to be offset by increases in cleaner-running cars as a percentage of the entire vehicle fleet on the road.

²⁵ See Traffic Impact Study, Krausz Property Project (Linscott, Law & Greenspan, August 1, 2002).

The USEPA CAL3QHC micro-scale dispersion model was used to calculate CO concentrations for year 2005 “no project” conditions, as well as for all four alternatives under the Full Build-Out scenario. CO concentrations at the 24 study intersections are shown in **Table 3-13**. CO concentrations at the study intersections are discussed below.

Full Build-Out Alternative A. As indicated in **Table 3-13**, one-hour CO concentrations under Full Build-Out Alternative A would range from approximately 9.5 ppm to 10.9 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.6 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Full Build-Out Alternative B. As indicated in **Table 3-13**, one-hour CO concentrations under Full Build-Out Alternative B would range from approximately 9.4 ppm to 10.8 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.6 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Full Build-Out Alternative C. As indicated in **Table 3-13**, one-hour CO concentrations under Full Build-Out Alternative C would range from approximately 9.3 ppm to 10.8 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.5 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Full Build-Out Alternative D. As indicated in **Table 3-13**, one-hour CO concentrations under Full Build-Out Alternative D would range from approximately 9.3 ppm to 10.8 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.5 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

TABLE 3-13: 2005 CARBON MONOXIDE (CO) CONCENTRATIONS - FULL BUILD-OUT (parts per million) /a/

Intersection	1-Hour						8-Hour					
	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D
De Soto Avenue & Plummer Street	12.6	10.2	10.3	10.3	10.3	10.3	8.8	7.1	7.2	7.2	7.2	7.2
De Soto Avenue & Nordhoff Street	12.6	10.0	10.1	10.1	10.1	10.1	8.8	7.0	7.1	7.1	7.1	7.1
Winnetka Avenue & Nordhoff Street	12.5	9.8	9.8	9.9	9.8	9.9	8.8	6.8	6.8	6.9	6.8	6.9
Winnetka Avenue & Parthenia Street	12.4	9.8	9.9	9.9	9.8	9.9	8.7	6.9	6.9	6.9	6.9	6.9
Winnetka Avenue & Roscoe Boulevard	12.3	9.9	9.9	10.0	9.9	10.0	8.6	6.9	6.9	7.0	6.9	7.0
Winnetka Avenue & Victory Boulevard	12.8	10.3	10.3	10.3	10.3	10.3	9.0	7.2	7.2	7.2	7.2	7.2
Corbin Avenue & Devonshire Street	12.0	9.6	9.9	10.0	9.9	10.0	8.4	6.7	6.9	7.0	6.9	7.0
Corbin Avenue & Lassen Street	12.1	10.0	9.8	10.1	9.8	10.0	8.5	7.0	6.8	7.1	6.8	7.0
Corbin Avenue & Plummer Street	12.1	9.7	9.9	10.0	9.9	10.0	8.5	6.8	6.9	7.0	6.9	7.0
Corbin Avenue & Prairie Street	11.5	9.3	9.5	9.4	9.3	9.3	8.1	6.5	6.6	6.6	6.5	6.5
Corbin Avenue & Nordhoff Place/Nordhoff Street	12.0	9.6	9.8	9.7	9.8	9.8	8.4	6.7	6.9	6.8	6.9	6.9
Corbin Avenue & Nordhoff Street/Nordhoff Way	12.9	10.5	10.9	10.8	10.8	10.8	9.0	7.3	7.6	7.6	7.6	7.6
Corbin Avenue & Parthenia Street	12.2	9.8	9.7	9.8	9.7	9.8	8.5	6.8	6.8	6.8	6.8	6.8
Corbin Avenue & Saticoy Street	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8

TABLE 3-13: 2005 CARBON MONOXIDE (CO) CONCENTRATIONS - FULL BUILD-OUT (parts per million) /a/

Intersection	1-Hour						8-Hour					
	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D
Tampa Avenue & Devonshire Street	12.3	9.7	9.8	9.9	9.7	9.8	8.6	6.8	6.9	6.9	6.8	6.9
Tampa Avenue & Lassen Street	12.5	10.0	10.0	10.0	10.0	9.9	8.8	7.0	7.0	7.0	7.0	7.0
Tampa Avenue & Plummer Street	12.2	10.0	10.0	9.9	10.0	9.9	8.5	7.0	7.0	7.0	7.0	7.0
Tampa Avenue & Nordhoff Street	12.1	9.8	9.9	9.9	9.9	9.9	8.5	6.9	6.9	6.9	6.9	6.9
Tampa Avenue & Roscoe Boulevard	12.1	9.5	9.5	9.6	9.5	9.6	8.5	6.6	6.6	6.7	6.6	6.7
Tampa Avenue & Saticoy Street	12.2	9.6	9.7	9.7	9.7	9.7	8.5	6.7	6.8	6.8	6.8	6.8
Reseda Boulevard & Plummer Street	13.1	10.4	10.4	10.4	10.4	10.4	9.2	7.3	7.3	7.3	7.3	7.3
Reseda Boulevard & Nordhoff Street	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8
Reseda Boulevard & Victory Boulevard	13.3	10.1	10.1	10.1	10.1	10.1	9.3	7.1	7.1	7.1	7.1	7.1
Zelzah Avenue & Nordhoff Street	12.6	9.9	10.1	10.2	10.0	10.2	8.8	6.9	7.1	7.1	7.0	7.1
State Standard	20.0						9.0					

Note:
 Bold numbers indicate exceedance in the State standard.
 /a/ All concentrations include year 2005 one- and eight-hour ambient concentrations of 6.9 ppm and 4.8 ppm, respectively.
SOURCE: Terry A. Hayes Associates LLC. See **Appendix C**.

Operational Phase Mitigation Measures

See mitigation measures AQ 13 to AQ 18 in **Section 3.5.1.2**.

Impacts After Mitigation

Full Build-Out Alternative A. **Table 3-14** shows daily operational emissions after implementation of mitigation of mitigation measures AQ 13 to AQ 18 (see **Section 3.5.1.2**). Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 9.6, 0.8, 1.0, and 0.5 ppd, respectively. However, the proposed project would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Full Build-Out Alternative B. **Table 3-14** shows daily operational emissions after implementation of mitigation of mitigation measures AQ 13 to AQ 18 (see **Section 3.5.1.2**). Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 7.7, 0.7, 0.8, and 0.4 ppd, respectively. However, the proposed project would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Full Build-Out Alternative C. **Table 3-14** shows daily operational emissions after implementation of mitigation of mitigation measures AQ 13 to AQ 18 (see **Section 3.5.1.2**). Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 9.2, 0.8, 1.0, and 0.5 ppd, respectively. However, the proposed project would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Full Build-Out Alternative D. **Table 3-14** shows daily operational emissions after implementation of mitigation of mitigation measures AQ 13 to AQ 18 (see **Section 3.5.1.2**). Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 7.3, 0.7, 0.8, and 0.4 ppd, respectively. However, the proposed project would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

TABLE 3-14: DAILY OPERATIONS EMISSIONS WITH MITIGATION - FULL BUILD-OUT (pounds per day)					
Pollutants	CO	ROG	NO_x	SO_x	PM₁₀
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Full Build-Out Alternative A					
Stationary Source /a/	1.0	25.5	5.6	0	0.01
Mobile Source	1,594.3	132.4	173.5	1.3	78.9
<i>Total Emissions</i>	<i>1595.3</i>	<i>157.9</i>	<i>179.1</i>	<i>1.3</i>	<i>78.9</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative B					
Stationary Source /a/	2.9	25.8	10.5	0	0.01
Mobile Source	1,283.0	120.2	134.9	1.1	63.0
<i>Total Emissions</i>	<i>1,285.9</i>	<i>146.0</i>	<i>145.4</i>	<i>1.1</i>	<i>63.0</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative C					
Stationary Source /a/	2.4	45.3	7.3	0	0.01
Mobile Source	1,528.0	127.7	164.9	1.2	75.2
<i>Total Emissions</i>	<i>1,530.4</i>	<i>173.0</i>	<i>172.2</i>	<i>1.2</i>	<i>75.2</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative D					
Stationary Source /a/	3.9	45.5	10.9	0	0.01
Mobile Source	1,216.9	116.6	127.3	1.0	59.4
<i>Total Emissions</i>	<i>1,220.8</i>	<i>162.1</i>	<i>138.2</i>	<i>1.0</i>	<i>59.4</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
/a/ Stationary sources include natural gas, landscaping, and consumer products. SOURCE: Terry A. Hayes Associates LLC. See Appendix G .					

3.5.2.3 Cumulative Impacts

Linscott, Law & Greenspan has identified eight related projects within the area that may be affected by the proposed project. Using the SCAQMD daily emissions thresholds for individual development projects, cumulative emissions thresholds were calculated (by multiplying each criteria pollutant threshold by the total number of individual projects) to establish a baseline from which to evaluate cumulative project emissions. **Table 3-15** shows the criteria pollutant emissions for the related projects. Criteria pollutant emissions from all related projects, as well as the proposed project, were modeled using the CARB's URBEMIS 2001 emissions model to estimate cumulative operational emissions.

TABLE 3-15: CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS - FULL BUILD-OUT						
Project	Operational Emissions (pounds per day)					
	CO	ROG	NO_x	SO_x	PM₁₀	
40) Courthouse	806.5	63.6	86.3	0.5	39.8	
41) Shopping Center	206.4	16.2	22.5	0.1	10.2	
42) Drug Store /a/	(23.8)	(2.1)	(2.7)	(0.01)	(1.1)	
43) Church, Senior Residential Facility, Nursery School	50.8	9.0	5.7	0.03	2.4	
44) Porter Ranch	17,530.7	1,417.3	1,890.5	11.2	867.8	
45) Deer Lake Ranch	781.0	91.4	85.8	0.7	37.3	
46) LAUSD	187.6	32.8	20.0	0.1	9.2	
47) Office	196.6	15.6	21.1	0.1	9.6	
9a) Full Build-Out Alternative A	1,604.9	158.7	180.1	1.3	79.4	
9b) Full Build-Out Alternative B	1,293.7	146.8	146.1	1.1	63.4	
9c) Full Build-Out Alternative C	1,539.6	173.7	173.1	1.3	75.7	
9d) Full Build-Out Alternative D	1,228.1	162.9	138.9	1.0	59.8	
Total Emissions (Full Build-Out Alternative A)						
	21,340.7	1,802.5	2,309.3	14.0	1,054.6	
Full Build-Out Alternative A - Percent of Total						
	7.5%	8.8%	7.8%	9.3%	7.5%	
Total Emissions (Full Build-Out Alternative B)						
	21,029.5	1,790.6	2,275.3	13.8	1,038.6	
Full Build-Out Alternative B - Percent of Total						
	6.2%	8.2%	6.4%	8.0%	6.1%	
Total Emissions (Full Build-Out Alternative C)						
	21,275.4	1,817.5	2,302.3	14.0	1,050.9	
Full Build-Out Alternative C - Percent of Total						
	7.2%	9.6%	7.5%	9.3%	7.2%	
Total Emissions (Full Build-Out Alternative D)						
	20,963.9	1,806.7	2,268.1	13.7	1,035.0	
Full Build-Out Alternative D - Percent of Total						
	5.9%	9.0%	6.1%	7.3%	5.8%	
Cumulative SCAQMD Thresholds /b/						
	4,950.0	495.0	495.0	1,350.0	1,350.0	
Cumulative Project - Percent of Threshold (Full Build-Out Alternative A)						
	431.1%	364.1%	466.5%	1.0%	78.1%	
Cumulative Project - Percent of Threshold (Full Build-Out Alternative B)						
	424.8%	361.7%	459.7%	1.0%	76.9%	

TABLE 3-15: CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS - FULL BUILD-OUT					
Project	Operational Emissions (pounds per day)				
	CO	ROG	NO _x	SO _x	PM ₁₀
Cumulative Project - Percent of Threshold (Full Build-Out Alternative C)	429.8%	367.2%	465.1%	1.0%	77.8%
Cumulative Project - Percent of Threshold (Full Build-Out Alternative D)	423.5%	365.0%	458.2%	1.0%	76.7%
/a/ Operations emissions for the related project would be less than operation emissions for existing use. /b/ Individual project threshold multiplied by the number of individual projects. SOURCE: Terry A. Hayes Associates LLC. See Appendix F .					

Full Build-Out Alternative A. As indicated in **Table 3-15**, the eight related projects in combination with Full Build-Out Alternative A are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9a) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Full Build-Out Alternative A would contribute to approximately 7.5 percent of the total CO emissions, approximately 8.8 percent of total ROG emissions and approximately 7.8 percent of the total NO_x emissions. As discussed in **Section 3.5.2.2**, Full Build-Out Alternative A (number 9a) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Full Build-Out Alternative A scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that the Full Build-Out Alternative A scenario would significantly contribute to cumulative emissions.

Full Build-Out Alternative B. As indicated in **Table 3-15**, the eight related projects in combination with the Full Build-Out Alternative B are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9b) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Full Build-Out Alternative B would contribute to approximately 6.2 percent of the total CO emissions, approximately 8.2 percent of total ROG emissions and approximately 6.4 percent of the total NO_x emissions. As discussed in **Section 3.5.2.2**, Full Build-Out Alternative B (number 9b) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Full Build-Out Alternative B scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that the Full Build-Out Alternative B scenario would significantly contribute to cumulative emissions.

Full Build-Out Alternative C. As indicated in **Table 3-15**, the eight related projects in combination with the Full Build-Out Alternative C are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9c) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Full Build-Out Alternative C would contribute to approximately 7.2 percent of the total CO emissions, approximately 9.6 percent of total ROG emissions and approximately 7.5 percent of the total NO_x emissions. As discussed in **Section 3.5.2.2**, Full Build-Out Alternative C (number 9c) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Full Build-Out Alternative C scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that the Full Build-Out Alternative C scenario would significantly contribute to cumulative emissions.

Full Build-Out Alternative D. As indicated in **Table 3-15**, the eight related projects in combination with Full Build-Out Alternative D are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9d)

are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Full Build-Out Alternative D would contribute to approximately 5.9 percent of the total CO emissions, approximately 9.0 percent of total ROG emissions and approximately 6.1 percent of the total NO_x emissions. As discussed in **Section 3.5.2.2**, the proposed project alternative (number 9d) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Full Build-Out Alternative D scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that the Full Build-Out Alternative D scenario would significantly contribute to cumulative emissions.

3.6 CONSISTENCY WITH THE AIR QUALITY MANAGEMENT PLAN

Criteria for determining consistency with the Air Quality Management Plan (AQMP) is defined in Chapter 12, Section 12.2 and Section 12.3 of the South Coast Air Quality Management District's CEQA Air Quality Handbook.

- ***Consistency Criterion No. 1:*** *The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*
- ***Consistency Criterion No. 2:*** *The proposed project will not exceed the assumptions in the AQMP in 2010 or increments based on the year of project build-out phase.*

3.6.1 Krausz Property Only

Krausz Property Only Alternative A

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.1.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by the Southern California Association of Governments (SCAG). SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the growth projections in the General Plan, then it is consistent with the growth assumptions in the AQMP.

The proposed project is located within the Chatsworth - Porter Ranch Community Planning Area (CPA). According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan Environmental Impact Report (EIR) estimates the population of the Chatsworth - Porter Ranch CPA to be approximately 102,360 by year 2010. Using population data for year 2000 and 2010, it is estimated that population within the Chatsworth - Porter Ranch CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the Chatsworth - Porter Ranch CPA by approximately 990 residents. Thus, the Chatsworth - Porter Ranch CPA would have a population of approximately 85,724 residents, which would not exceed or conflict with year 2005 population projections of approximately 119,990 residents.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there would be approximately 37,350 housing units in the Chatsworth - Porter Ranch CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the Chatsworth - Porter Ranch CPA by year 2005. Krausz Property Only Alternative A would incrementally increase housing units by approximately 486 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,551 housing units over existing conditions (19,335 single family housing units and 12,216 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units).²⁶

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Krausz Property Only Alternative A is anticipated to incrementally increase employment by approximately 1,045 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 50,559 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Krausz Property Only Alternative A would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Krausz Property Only Alternative A complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

Krausz Property Only Alternative B

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.1.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is considered consistent with the growth assumptions in the AQMP.

²⁶ If the number of housing units generated by Krausz Property Only Alternative A is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to be approximately 102,360 by year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 990 residents. Thus, the Chatsworth-Porter Ranch CPA would have a population of approximately 85,724 residents, which would not exceed or conflict with year 2005 population projections.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there would be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Krausz Property Only Alternative B would increase housing units by approximately 486 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,551 housing units over existing conditions (19,335 single family housing units and 12,216 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units).²⁷

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Krausz Property Only Alternative B is anticipated to incrementally increase employment by approximately 2,520 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 52,034 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Krausz Property Only Alternative B would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Krausz Property Only Alternative B complies with both Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

²⁷ If the number of housing units generated by Krausz Property Only Alternative B is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

Krausz Property Only Alternative C

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.1.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is considered consistent with the growth assumptions in the AQMP.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to be approximately 102,360 by year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 1,740 residents. Thus, the Chatsworth-Porter Ranch CPA would have a population of approximately 86,474 residents, which would not exceed or conflict with year 2005 population projections of approximately 119,990 residents.

Housing estimates provided by the City of Los Angeles City Planning Department for year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there would be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Krausz Property Only Alternative C would increase housing units by approximately 786 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,851 housing units over existing conditions (19,335 single family housing units and 12,516), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units).²⁸

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Krausz Property Only Alternative C is anticipated to incrementally increase employment by approximately 820 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 50,334 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

²⁸ If the number of housing units generated by Krausz Property Only Alternative C is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

Krausz Property Only Alternative C would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Krausz Property Only Alternative C complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

Krausz Property Only Alternative D

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.1.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standards and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is considered consistent with the growth assumptions in the AQMP.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to be approximately 102,360 by year 2010. Using population data for year 2000 and 2010, it is estimated that population within the Chatsworth - Porter Ranch CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 1,740 residents. Thus, the Chatsworth-Porter Ranch CPA would have a population of approximately 86,474 residents, which would not exceed or conflict with year 2005 population projections.

Housing estimates provided by the City of Los Angeles City Planning Department for year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there would be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Krausz Property Only Alternative D would increase housing units by approximately 786 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,851 housing units over existing conditions (19,335 single family housing units and 12,516 multi-family housing units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units).²⁹

²⁹ If the number of housing units generated by Krausz Property Only Alternative D is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Krausz Property Only Alternative D is anticipated to incrementally increase employment by approximately 1,920 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 51,434 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Krausz Property Only Alternative D would not exceed the City of Los Angeles General Plan or SCAG growth projections. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Krausz Property Only Alternative D complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

3.6.2 Full Build-Out

Full Build-Out Alternative A

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.2.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is considered consistent with the growth assumptions in the AQMP.

The proposed project is located within the Chatsworth - Porter Ranch CPA. According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to be approximately 102,360 by the year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 990 residents. Thus, the Chatsworth - Porter Ranch CPA would have a population of approximately 85,724 residents, which would not exceed or conflict with the population projections for year 2005.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there would be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Full Build-Out Alternative A would increase housing units by approximately 486 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,551 units.

housing units over existing conditions (19,335 single family housing units and 12,216 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family units and 13,510 multi-family units).³⁰

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Full Build-Out Alternative A is anticipated to incrementally increase employment by approximately 1,545 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 51,059 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Full Build-Out Alternative A would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Full Build-Out Alternative A complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

Full Build-Out Alternative B

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.2.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is consistent with the growth assumptions in the AQMP.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to reach approximately 102,360 residents by the year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 990 residents. Thus, the Chatsworth - Porter Ranch CPA would have a population of approximately 85,724 residents, which would not exceed or conflict with the population projections for year 2005.

³⁰ If the number of housing units generated by Full Build-Out Alternative A is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there will be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Full Build-Out Alternative B would increase housing units by approximately 486 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,551 housing units over existing conditions (19,335 single family units and 12,216 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units).³¹

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Full Build-Out Alternative B is anticipated to incrementally increase employment by approximately 3,985 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 53,499 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Full Build-Out Alternative B would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Full Build-Out Alternative B complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

Full Build-Out Alternative C

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.2.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the growth projections in the General Plan, then it is consistent with the growth assumptions in the AQMP.

³¹ If the number of housing units generated by Full Build-Out Alternative B is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to reach approximately 102,360 residents by the year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 1,990 residents. Thus, the Chatsworth - Porter Ranch CPA would have a population of approximately 86,724 residents, which would not exceed or conflict with the population projections for year 2005.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there will be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Full Build-Out Alternative C would increase housing units by approximately 886 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,951 housing units over existing conditions (19,335 single family units and 12,616 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family units and 13,510 multi-family units).³²

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Full Build-Out Alternative C is anticipated to incrementally increase employment by approximately 1,195 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 50,709 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Full Build-Out Alternative C would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Full Build-Out Alternative C complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

³² If the number of housing units generated by Full Build-Out Alternative C is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

Full Build-Out Alternative D

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.2.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by the SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is consistent with the growth assumptions in the AQMP.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to reach approximately 102,360 residents by the year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 1,990 residents. Thus, the Chatsworth - Porter Ranch CPA would have a population of approximately 86,724 residents, which would not exceed or conflict with the population projections for year 2005.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there will be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Full Build-Out Alternative D would increase housing units by approximately 886 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,951 housing units over existing conditions (approximately 19,335 single family units and 12,616 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family units and 13,510 multi-family units).³³

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Full Build-Out Alternative D is anticipated to incrementally increase employment by approximately 3,008 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 52,522 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

³³ If the number of housing units generated by Full Build-Out Alternative D is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

Full Build-Out Alternative D would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

Full Build-Out Alternative D complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

4.0 NOISE

This section evaluates noise impacts due to the implementation of the proposed Northridge Zone Change and Plan Amendment project. The noise analysis in this section assesses the following: existing noise conditions at the proposed project site and its vicinity, as well as short-term construction and long-term operational noise impacts associated with the proposed project. Mitigation measures for potentially significant impacts are recommended where appropriate.

4.1 NOISE CHARACTERISTICS AND EFFECTS

4.1.1 Characteristics of Sound

Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The “A-weighted scale,” abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA.

4.1.2 Definitions

This noise analysis discusses sound levels in terms of Community Noise Equivalent Level (CNEL) and Equivalent Noise Level (Leq).

Community Noise Equivalent Level. CNEL is an average sound level during a 24-hour day. CNEL is a noise measurement scale, which accounts for noise source, distance, single event duration, single event occurrence, frequency, and time of day. Human reaction to sound between 7:00 p.m. and 10:00 p.m. is as if the sound were actually five decibels higher than if it occurred from 7:00 a.m. to 7:00 p.m. From 10:00 p.m. to 7:00 a.m., humans perceive sound as if it were 10 dBA higher due to the lower background level. Hence, the CNEL is obtained by adding an additional five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m., and 10 dBA to sound levels in the night before 7:00 a.m. and after 10:00 p.m. Because CNEL accounts for human sensitivity to sound, the CNEL 24-hour figure is always a higher number than the actual 24-hour average.

Equivalent Noise Level. Leq is the average noise level on an energy basis for any specific time period. The Leq for one hour is the energy average noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. Leq can be thought of as the level of a continuous noise which has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

4.1.3 Effects of Noise

Noise is generally defined as unwanted sound. The degree to which noise can impact the human environment range from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.

4.1.4 Audible Noise Changes

Studies have shown that the smallest perceptible change in sound level is approximately three decibels. A change of at least five decibels would be noticeable and would likely evoke a community reaction. A ten decibel increase is subjectively heard as approximately a doubling in loudness and would most certainly cause a community response.

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or “point source,” will decrease by approximately six decibels over hard surfaces and nine decibels over soft surfaces for each doubling of the distance. For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet, and so on.

4.2 EXISTING ENVIRONMENTAL SETTING

4.2.1 Existing Noise Environment

The proposed project is located in an urban environment. The existing noise environment is characterized by the mix of land uses within it, which includes residences, commercial and industrial developments, and arterial roadways. Vehicular traffic is the primary source of noise in the project vicinity and is the largest consistent noise source in the project vicinity.

4.2.2 Sensitive Receptors

Land uses that are considered sensitive to noise impacts are referred to as “sensitive receptors.” Noise sensitive receptors consist of, but are not limited to, schools, residences, libraries, hospitals, and other care facilities.

Sound measurements were taken using a Quest Q-400 Noise Dosimeter during the hours between 1:00 p.m. -2:30 p.m. on August 20, 2002 at various sensitive receptor locations within the vicinity of the project site. These readings were used to establish existing ambient conditions and provide a baseline from which to evaluate construction noise impacts. The locations of the noise monitoring positions are shown in **Figure 4-1**. These locations consist of representative noise sensitive land uses, which include nearby residences and a daycare center. The existing noise levels, as recorded, are listed in **Table 4-1**. As shown, existing ambient sound levels range between 56.1 and 59.6 dBA (Leq).

Sensitive Receptors		Sound Level
N1	Residential Uses (on Plummer Street and Corbin Avenue)	56.1
N2	Washington Mutual Child Care Center	59.6

SOURCE: Terry A. Hayes Associates LLC.

Figure 4-1 Noise monitoring positions

4.2.3 Vehicular Traffic

As stated earlier, vehicular traffic is the predominant noise source in the project vicinity. Using existing traffic volumes provided by the project traffic consultant and the Federal Highway Administration (FHWA) RD-77-108 noise calculation formulas, a CNEL has been calculated for the two sensitive receptors (N1 and N2). The CNEL is used as a baseline to measure the proposed projects' operational noise impacts (see **Table 4-2**).³⁴ The estimated noise levels represent the most conservative scenario, which assume that no shielding is provided between the traffic and the location of each sensitive receptor.

TABLE 4-2: EXISTING ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL (dBA, CNEL)	
Sensitive Receptor	Estimated dBA, CNEL
N1 Residential Uses (on Plummer Street and Corbin Avenue)	75.4
N2 Washington Mutual Child Care Center	67.0
SOURCE: Terry A. Hayes Associates LLC. See Appendix H .	

3.3 SIGNIFICANCE CRITERIA

3.3.1 Construction Phase Significance Criteria

A significant construction impact would result if:

- The proposed project were to add five decibels or more to the current ambient exterior noise level at a sensitive receptor location.

3.3.2 Operational Phase Significant Criteria

The proposed projects would result in a significant impact during the operational phase if:

- The proposed project causes the ambient noise level measured at the property line of the affected uses to increase by three decibels (CNEL) to or within the “normally unacceptable” or “clearly unacceptable” category (see **Table 4-3**) or any five decibel or more increase in noise level.

³⁴ The assumptions used in developing vehicular noise levels are provided in **Appendix H**.

TABLE 4-3: LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS						
Land Use Category	Community Noise Exposure (dBA, CNEL)					
	55	60	65	70	75	80
Residential - Low Density Single-Family, Duplex, Mobile Homes						
Residential - Multi-Family						
Transient Lodging - Motels Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

- Normally Acceptable** - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
- Conditionally Acceptable** - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditionally will normally suffice.
- Normally Unacceptable** - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- Clearly Unacceptable** - New construction or development should generally not be undertaken.

SOURCE: California Office of Noise Control, Department of Health Services.

4.4 ENVIRONMENTAL IMPACTS

4.4.1 Krausz Property Only

4.4.1.1 Construction Phase Impacts

Construction of the Krausz Property Only scenario would result in temporary increases in ambient noise levels in the project area on an intermittent basis. The increase in noise would likely result in a temporary annoyance to nearby sensitive receptors. Noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

Construction activities require the use of numerous noise generating equipment, such as jack hammers, pneumatic impact equipment, saws, and tractors. Typical noise levels from various types of equipment that may be used during construction are listed in **Table 4-4**. The table shows noise levels at distances of 50 and 100 feet from the construction noise source.

TABLE 4-4: MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION EQUIPMENT - KRAUSZ PROPERTY ONLY		
Noise Source	Noise Level (dBA) /a/	
	50 Feet	100 Feet
Jackhammer	82	76
Steamroller	83	77
Street Paver	80	74
Backhoe	83	77
Street Compressor	67	61
Front-end Loader	79	73
Street Cleaner	70	64
Idling Haul Truck	72	66
Cement Mixer	72	66

/a/ Assumes a six decibel drop-off rate for noise generated by a "point source" and traveling over hard surfaces. Actual measured noise levels of the equipment listed in this table were taken at distances of 10 and 30 feet from the noise source.
SOURCE: Cowan, James P., Handbook of Environmental Acoustics, 1994.

Whereas **Table 4-4** shows the noise level of each equipment, the noise levels shown in **Table 4-5** take into account the likelihood that more than one piece of construction equipment would be in operation at the same time and lists the typical overall noise levels that would be expected for each phase of construction. These noise levels are based on surveys conducted by the USEPA in the early 1970's. Since 1970, regulations have been enforced to improve noise generated by certain types of construction equipment to meet worker noise exposure standards. However, many older pieces of equipment are still in use. Thus, the construction phase noise levels indicated in **Table 4-5** represent worst-case conditions. As the table shows, the highest noise levels are expected to occur during the grading/excavation and finishing phases of construction.

TABLE 4-5: OUTDOOR CONSTRUCTION NOISE LEVELS - KRAUSZ PROPERTY ONLY

Construction Phase	Noise Level (dBA Leq)	
	At 50 Feet	At 50 Feet with Mufflers
Ground Clearing	84	82
Grading/Excavation	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

SOURCE: Environmental Protection Agency , Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

Krausz Property Only Alternative A. To ascertain worst-case noise impacts at sensitive receptor locations, construction noise has been modeled by introducing the noise level associated with the grading phase of a typical development. The noise source is assumed to be active for forty percent of the eight-hour work day (consistent with the EPA studies of construction noise), generating a noise level of 89 dBA (Leq) at a reference distance of 50 feet.

The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level.³⁵ The estimated construction noise levels at sensitive receptors are shown in **Table 4-6**.

TABLE 4-6: CONSTRUCTION NOISE IMPACT - KRAUSZ PROPERTY ONLY

Receptor	Distance (feet) /a/	Maximum Construction Sound Level (dBA) /b/	Existing Ambient (dBA, Leq) /c/	New Ambient (dBA, Leq) /d/	Increase	Significance Threshold	Impact?
N1	950	63.4	56.1	57.8	1.7 dBA	\$ 5 dBA	No
N2	840	64.5	59.6	60.3	0.7 dBA	\$ 5 dBA	No

/a/ Distance of noise source from receptor.
/b/ Construction noise source's sound level at receptor location, with distance adjustment.
/c/ Pre-construction activity ambient sound level at receptor location.
/d/ New sound level at receptor location during the construction period, including noise from construction activity.
SOURCE: Terry A. Hayes Associates LLC.

As indicated in **Table 4-6**, the new ambient noise level during the construction phase of the proposed project would be approximately 1.7 dBA greater than the existing ambient noise level at N1 (residential uses) and approximately 0.7 dBA greater than existing ambient noise levels at N2 (Washington Mutual Child Care Center). The incremental increase in noise levels is less than the significance threshold of a five decibel increase over the existing ambient noise level. Thus, a less than significant impact would occur.

³⁵ United States Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974.

Krausz Property Only Alternative B. Construction impacts associated with this alternative is similar to the construction impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Krausz Property Only Alternative B. Construction impacts associated with this alternative is similar to the construction impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Krausz Property Only Alternative C. Construction impacts associated with this alternative is similar to the construction impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Krausz Property Only Alternative D. Construction impacts associated with this alternative is similar to the construction impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Construction Phase Mitigation Measures

None Required.

Impacts After Mitigation

Krausz Property Only Alternative A. Less than significant impact is anticipated since construction for the proposed project would not increase ambient noise levels by five decibels or more at sensitive receptor locations.

Krausz Property Only Alternative B. Construction impacts associated with this alternative is similar to the impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Krausz Property Only Alternative C. Construction impacts associated with this alternative is similar to the impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Krausz Property Only Alternative D. Construction impacts associated with this alternative is similar to the impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

4.4.1.2 Operational Phase Impacts

Vehicular Noise

Krausz Property Only Alternative A. The predominant noise source for Krausz Property Only Alternative A, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law & Greenspan, Krausz Property Only Alternative A is forecasted to generate an additional 10,714 daily vehicle trips.³⁶

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-7**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Krausz Property Only Alternative A. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-7**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Krausz Property Only Alternative A” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three or more decibels. As shown in **Table 4-7**, Krausz Property Only Alternative A would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Krausz Property Only Alternative B. The predominant noise source for Krausz Property Only Alternative B, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law & Greenspan, Krausz Property Only Alternative B is forecasted to generate an additional 6,094 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-7**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Krausz Property Only Alternative B. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-7**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project”

³⁶ Traffic Impact Study, Krausz Property Project, Linscott, Law & Greenspan, August 1, 2002.

conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Krausz Property Only Alternative B” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three decibel or more. As shown in **Table 4-7**, Krausz Property Only Alternative B would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Krausz Property Only Alternative C. The predominant noise source for Krausz Property Only Alternative C, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law & Greenspan, Krausz Property Only Alternative C is forecasted to generate an additional 10,056 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-7**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Krausz Property Only Alternative C. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-7**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Krausz Property Only Alternative C” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three or more decibels. As shown in **Table 4-7**, Krausz Property Only Alternative C would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Krausz Property Only Alternative D. The predominant noise source for Krausz Property Only Alternative D, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law & Greenspan, Krausz Property Only Alternative D is forecasted to generate an additional 6,076 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-7**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Krausz Property Only Alternative D. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-7**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Krausz Property Only Alternative D” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three decibel or more. As shown in **Table 4-7**, Krausz Property Only Alternative D would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

TABLE 4-7: 2005 ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL - KRAUSZ PROPERTY ONLY

Sensitive Receptor	Estimated dBA, CNEL					
	Existing	No Project	Alternative A	Alternative B	Alternative C	Alternative D
N1	75.4	76.0	76.2	76.2	76.2	76.2
N2	67.0	68.7	68.7	68.7	68.7	68.7

Assumptions:
 Vehicular traffic is the predominate noise source.
 The 24-hour distribution is 75, 13, and 12 percent for 7:00 a.m. to 7:00 p.m., 7:00 to 10:00 p.m., and 10:00 p.m. to 7:00 a.m., respectively.
 The vehicle distribution is approximately 87 percent, 7 percent, and 6 percent for auto, medium truck, and heavy truck, respectively.
SOURCE: Terry A. Hayes Associates LLC. See **Appendix H**.

Operational Phase Mitigation Measures

None Required.

Impacts After Mitigation

Krausz Property Only Alternative A. Sensitive receptor N1 is currently within the “normally unacceptable” category of the Land Use Compatibility Chart. At N1, incremental increases in noise levels under Krausz Property Only Alternative A is less-than-one decibel when compared to “existing” and “no project” conditions. The incremental increase does not exceed the significance criteria of a three decibel or more increase to or within the “normally unacceptable” or “clearly unacceptable” category of the Land Use Compatibility Chart. Thus, a less than significant impact is anticipated at N1.

Sensitive receptor N2 is currently within the “conditionally acceptable” category of the Noise Land Use Compatibility Chart. N2 would remain within the “conditionally acceptable” category under Krausz Property Only Alternative A. Incremental increases at N2 is 1.7 decibels and less-than- one decibel when compared to “existing” and “no project” conditions, respectively. This incremental increase would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Krausz Property Only Alternative B. Impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since this alternative would have similar noise levels as Krausz Property Only Alternative A.

Krausz Property Only Alternative C. Impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since this alternative would have similar noise levels as Krausz Property Only Alternative A.

Krausz Property Only Alternative D. Impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since this alternative would have similar noise levels as Krausz Property Only Alternative A.

4.4.1.3 *Cumulative Impacts*

Krausz Property Only Alternative A. When calculating future traffic impacts, the traffic consultant took eight additional projects into consideration. Thus, future traffic volumes with and without the proposed project already account for the cumulative impacts from these other projects. Since noise impacts are generated directly from the traffic analysis results, future with project and future without project noise impacts described in this report already reflect cumulative impacts.

As discussed above in **Section 4.4.1.2**, Krausz Property Only Alternative A would incrementally increase noise levels by less-than-one decibel at N1 when compared to “existing” and “no project” conditions. The incremental increase does not exceed the noise threshold of a three or more decibel increase to or within the “normally unacceptable” or “clearly unacceptable” category. Incremental increases of 1.7 decibels at N2 is anticipated when compared to “existing” conditions. When compared to “no project” conditions, incremental increases of less-than-one decibel is expected at N2. The incremental increase does not exceed the noise threshold of a five or more decibels over ambient noise levels. Krausz Property Only Alternative A is not anticipated to exceed the operational phase significance criteria. Thus, it is anticipated that Krausz Property Only Alternative A would not significantly contribute to cumulative noise impacts.

Krausz Property Only Alternative B. Cumulative impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.1.2**, reflects cumulative impacts and would have similar noise levels as Krausz Property Only Alternative A.

Krausz Property Only Alternative C. Cumulative impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.1.2**, reflects cumulative impacts and would have similar noise levels as Krausz Property Only Alternative A.

Krausz Property Only Alternative D. Cumulative impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.1.2**, reflects cumulative impacts and would have similar noise levels as Krausz Property Only Alternative A.

4.4.2 Full Build-Out

4.4.2.1 Construction Phase Impacts

Construction of the Full Build-Out scenario would result in temporary increases in ambient noise levels in the project area on an intermittent basis. The increase in noise would likely result in a temporary annoyance to nearby sensitive receptors. Noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

Construction activities require the use of numerous noise generating equipment, such as jack hammers, pneumatic impact equipment, saws, and tractors. Typical noise levels from various types of equipment that may be used during construction are listed in **Table 4-8**. The table shows noise levels at distances of 50 and 100 feet from the construction noise source.

TABLE 4-8: MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION EQUIPMENT - FULL BUILD-OUT

Noise Source	Noise Level (dBA) /a/	
	50 Feet	100 Feet
Jackhammer	82	76
Steamroller	83	77
Street Paver	80	74
Backhoe	83	77
Street Compressor	67	61
Front-end Loader	79	73
Street Cleaner	70	64
Idling Haul Truck	72	66
Cement Mixer	72	66

/a/ Assumes a six decibel drop-off rate for noise generated by a "point source" and traveling over hard surfaces. Actual measured noise levels of the equipment listed in this table were taken at distances of 10 and 30 feet from the noise source.
SOURCE: Cowan, James P., *Handbook of Environmental Acoustics*, 1994.

Whereas **Table 4-8** shows the noise level of each equipment, the noise levels shown in **Table 4-9** take into account the likelihood that more than one piece of construction equipment would be in operation at the same time and lists the typical overall noise levels that would be expected for each phase of construction. These noise levels are based on surveys conducted by the USEPA in the early 1970's. Since 1970, regulations have been enforced to improve noise generated by certain types of construction equipment to meet worker noise exposure standards. However, many older pieces of equipment are still in use. Thus, the construction phase noise levels indicated in **Table 4-9** represent worst-case conditions. As the table shows, the highest noise levels are expected to occur during the grading/excavation and finishing phases of construction.

TABLE 4-9: OUTDOOR CONSTRUCTION NOISE LEVELS - FULL BUILD-OUT

Construction Phase	Noise Level (dBA Leq)	
	At 50 Feet	At 50 Feet with Mufflers
Ground Clearing	84	82
Grading/Excavation	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

SOURCE: Environmental Protection Agency , *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*, PB 206717, 1971.

Full Build-Out Alternative A. To ascertain worst-case noise impacts at sensitive receptor locations, construction noise has been modeled by introducing the noise level associated with the grading phase of a typical development. The noise source is assumed to be active for forty percent of the eight-hour work day (consistent with the EPA studies of construction noise), generating a noise level of 89 dBA (Leq) at a reference distance of 50 feet.

The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level.³⁷ The estimated construction noise levels at sensitive receptors are shown in **Table 4-10**.

TABLE 4-10: CONSTRUCTION NOISE IMPACT - FULL BUILD-OUT							
Receptor	Distance (feet) /a/	Maximum Construction Sound Level (dBA) /b/	Existing Ambient (dBA, Leq) /c/	New Ambient (dBA, Leq) /d/	Increase	Significance Threshold	Impact?
N1	800	64.9	56.1	58.6	2.5 dBA	\$ 5 dBA	No
N2	840	64.5	59.6	60.3	0.7 dBA	\$ 5 dBA	No

/a/ Distance of noise source from receptor.
 /b/ Construction noise source's sound level at receptor location, with distance adjustment.
 /c/ Pre-construction activity ambient sound level at receptor location.
 /d/ New sound level at receptor location during the construction period, including noise from construction activity.
SOURCE: Terry A. Hayes Associates LLC.

As indicated in **Table 4-10**, the new ambient noise level during the construction phase of the proposed project would be approximately 2.5 dBA greater than the existing ambient noise level at N1 (residential uses) and approximately 0.7 dBA greater than existing ambient noise levels at N2 (Washington Mutual Child Care Center). The incremental increase in noise levels is less than the significance threshold of a five decibel increase over the existing ambient noise level. Thus, a less than significant impact would occur.

Full Build-Out Alternative B. Construction impacts associated with this alternative is similar to the construction impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

Full Build-Out Alternative C. Construction impacts associated with this alternative is similar to the construction impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

Full Build-Out Alternative D. Construction impacts associated with this alternative is similar to the construction impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

Construction Phase Mitigation Measures

None Required.

³⁷ United States Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974.

Impacts After Mitigation

Full Build-Out Alternative A. Less than significant impact is anticipated under Full Build-Out Alternative A since construction for the proposed project would not increase ambient noise levels by five decibels or more at sensitive receptor locations.

Full Build-Out Alternative B. Construction impacts associated with this alternative is similar to the impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

Full Build-Out Alternative C. Construction impacts associated with this alternative is similar to the impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

Full Build-Out Alternative D. Construction impacts associated with this alternative is similar to the impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

4.4.2.2 *Operational Phase Impacts*

Vehicular Noise

Full Build-Out Alternative A. The predominant noise source for Full Build-Out Alternative A, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law, and Greenspan, Full Build-Out Alternative A is forecasted to generate an additional 13,136 daily vehicle trips.³⁸

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-11**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Full Build-Out Alternative A. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-11**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

³⁸ Traffic Impact Study, Krausz Property Project, Linscott, Law & Greenspan, August 1, 2002.

Under “existing,” “no project,” and “Full Build-Out Alternative A” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three or more decibels. As shown in **Table 4-11**, Full Build-Out Alternative A would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Full Build-Out Alternative B. The predominant noise source for Full Build-Out Alternative B, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law, and Greenspan, Full Build-Out Alternative B is forecasted to generate an additional 7,716 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-8**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.3 dBA (CNEL) under Full Build-Out Alternative B. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-8**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Full Build-Out Alternative B” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three decibel or more. As shown in **Table 4-11**, Full Build-Out Alternative B would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Full Build-Out Alternative C. The predominant noise source for Full Build-Out Alternative C, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law, and Greenspan, Full Build-Out Alternative C is forecasted to generate an additional 12,210 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-11**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Full Build-Out Alternative C. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise

levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-11**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Full Build-Out Alternative C” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three decibel or more. As shown in **Table 4-11**, Full Build-Out Alternative C would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Full Build-Out Alternative D. The predominant noise source for Full Build-Out Alternative D, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law, and Greenspan, Full Build-Out Alternative D is forecasted to generate an additional 7,428 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-11**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Full Build-Out Alternative D. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-11**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Full Build-Out Alternative D” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three decibel or more. As shown in **Table 4-11**, Full Build-Out Alternative D would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

TABLE 4-11: 2005 ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL - FULL BUILD-OUT

Sensitive Receptor	Estimated dBA, CNEL					
	Existing	No Project	Alternative A	Alternative B	Alternative C	Alternative D
N1	75.4	76.0	76.2	76.3	76.2	76.2
N2	67.0	68.7	68.7	68.7	68.7	68.7

Assumptions:
 Vehicular traffic is the predominate noise source.
 The 24-hour distribution is 75, 20, and 5 percent for 7:00 a.m. to 7:00 p.m., 7:00 to 10:00 p.m., and 10:00 p.m. to 7:00 a.m., respectively.
 The vehicle distribution is approximately 91 percent, 6 percent, and 3 percent for auto, medium truck, and heavy truck, respectively.
 SOURCE: Terry A. Hayes Associates LLC. See **Appendix H**.

Operational Phase Mitigation Measures

None Required.

Impacts After Mitigation

Full Build-Out Alternative A. Sensitive receptor N1 is currently within the “normally unacceptable” category of the Land Use Compatibility Chart. At N1, incremental increases in noise levels under Full Build-Out Alternative A is less-than-one decibel when compared to “existing” and “no project” conditions. The incremental increase does not exceed the significance criteria of a three decibel or more increase to or within the “normally unacceptable” or “clearly unacceptable” category of the Land Use Compatibility Chart. Thus, a less than significant impact is anticipated at N1.

Sensitive receptor N2 is currently within the “conditionally acceptable” category of the Noise Land Use Compatibility Chart. N2 would remain within the “conditionally acceptable” category under Full Build-Out Alternative A. Incremental increases at N2 is 1.7 decibels and less-than-one decibel when compared to “existing” and “no project” conditions, respectively. This incremental increase would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Full Build-Out Alternative B. Impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since this alternative would have similar noise levels as Full Build-Out Alternative A.

Full Build-Out Alternative C. Impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since this alternative would have similar noise levels as Full Build-Out Alternative A.

Full Build-Out Alternative D. Impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since this alternative would have similar noise levels as Full Build-Out Alternative A.

4.4.2.3 Cumulative Impacts

Full Build-Out Alternative A. When calculating future traffic impacts, the traffic consultant took eight additional projects into consideration. Thus, future traffic volumes with and without the proposed project already account for the cumulative impacts from these other projects. Since noise impacts are generated directly from the traffic analysis results, future with project and future without project noise impacts described in this report already reflect cumulative impacts.

As discussed above in **Section 4.4.2.2**, Full Build-Out Alternative A would incrementally increase noise levels by less-than-one decibel at N1 when compared to “existing” and “no project” conditions. The incremental increase does not exceed the noise threshold of a three or more decibels increase to or within the “normally unacceptable” or “clearly unacceptable” category. Incremental increases of 1.7 decibels at N2 is anticipated when compared to “existing” conditions. When compared to “no project” conditions, incremental increases of less-than-one decibel is expected at N2. The incremental increase does not exceed the noise threshold of a five or more decibels over ambient noise levels. Full Build-Out Alternative A is not anticipated to exceed the operational phase significance criteria. Thus, it is anticipated that Full Build-Out Alternative A would not significantly contribute to cumulative noise impacts.

Full Build-Out Alternative B. Cumulative impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.2.2**, reflects cumulative impacts and would have similar noise levels as Full Build-Out Alternative A.

Full Build-Out Alternative C. Cumulative impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.2.2**, reflects cumulative impacts and would have similar noise levels as Full Build-Out Alternative A.

Full Build-Out Alternative D. Cumulative impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.2.2**, reflects cumulative impacts and would have similar noise levels as Full Build-Out Alternative A.

NORTHRIDGE ZONE CHANGE AND PLAN AMENDMENT AIR QUALITY AND NOISE TECHNICAL REPORT

Prepared for
PLANNING ASSOCIATES, INC.

Prepared by
TERRY A. HAYES ASSOCIATES LLC

SEPTEMBER 2002



NORTHRIDGE ZONE CHANGE & PLAN AMENDMENT

AIR QUALITY AND NOISE TECHNICAL REPORT

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TABLE OF CONTENTS

	<u>Page No.</u>
1.0 SUMMARY OF FINDINGS	1
1.1 Air Quality	1
1.1.1 Krausz Property Only	1
1.1.2 Full Build-Out	2
1.2 Noise	2
1.2.1 Krausz Property Only	2
1.2.2 Full Build-Out	3
2.0 INTRODUCTION	5
2.1 Purpose of Study	5
2.2 Project Description	5
2.2.1 Krausz Property Only	5
2.2.2 Full Build-Out	6
3.0 AIR QUALITY	7
3.1 Pollutants & Effects	7
3.2 Regulatory Setting	9
3.2.1 Attainment Status	10
3.2.2 Air Quality Management Plan	10
3.2.3 National and State Ambient Air Quality Standards	10
3.3 Existing Air Quality	12
3.3.1 Air Pollution Climatology	12
3.3.2 Local Climate	13
3.3.3 Air Monitoring Data	14
3.3.4 Background Carbon Monoxide Conditions	16
3.3.5 Existing Carbon Monoxide Concentrations at Project Area Intersections	16
3.3.6 Sensitive Receptors	17
3.4 Methodology and Significance Criteria	20
3.4.1 Methodology	20
3.4.2 Significance Criteria	20
3.5 Environmental Impacts	21
3.5.1 Krausz Property Only	1
3.5.1.1 Construction Phase Impacts	21
3.5.1.2 Operational Phase Impacts	27
3.5.1.3 Cumulative Impacts	34
3.5.2 Full Build-Out	36
3.5.2.1 Construction Phase Impacts	36
3.5.2.2 Operational Phase Impacts	40
3.5.2.3 Cumulative Impacts	47
3.6 Consistency with the Air Quality Management Plan	50
3.6.1 Krausz Property Only	50
3.6.2 Full Build-Out	55

	<u>Page No.</u>
4.0 NOISE	61
4.1 Noise Characteristics and Effects	61
4.1.1 Characteristics of Sound	61
4.1.2 Definitions	61
4.1.3 Effects of Noise	61
4.1.4 Audible Noise Changes	62
4.2 Existing Environmental Setting	62
4.2.1 Existing Noise Environment	62
4.2.2 Sensitive Receptors	62
4.2.3 Vehicular Traffic	64
4.3 Significance Criteria	64
4.3.1 Construction Phase Significance Criteria	64
4.3.2 Operational Phase Significance Criteria	64
4.4 Environmental Impacts	66
4.4.1 Krausz Property Only	66
4.4.1.1 Construction Impacts	66
4.4.1.2 Operational Impacts	69
4.4.1.3 Cumulative Impacts	72
4.4.2 Full Build-Out	73
4.4.2.1 Construction Impacts	73
4.4.2.2 Operational Impacts	76
4.4.2.3 Cumulative Impacts	80

APPENDICES

Appendix A	Climate Information
Appendix B	CARB Monitoring Data
Appendix C	MVEI7G, EMFAC, CAL3QHC Printouts
Appendix D	Construction Emissions Calculations
Appendix E	Rule 403 - Fugitive Dust
Appendix F	URBEMIS2001 Printouts
Appendix G	Operations Emissions Reductions
Appendix H	Traffic Noise Calculations

LIST OF TABLES

	<u>Page No.</u>
Table 3-1	State and National Ambient Air Quality Standards 12
Table 3-2	1999-2001 Criteria Pollutant Violations 14
Table 3-3	Existing Carbon Monoxide (CO) Concentrations 19
Table 3-4	SCAQMD Daily Emissions Thresholds 21
Table 3-5	Estimated Daily Construction Emissions - Krausz Property Only 22
Table 3-6	SCAQMD Rule 403 - Track-Out Control Options 24
Table 3-7	Daily Operational Emissions - Krausz Property Only 28
Table 3-8	2005 Carbon Monoxide (CO) Concentrations - Krausz Property Only 30
Table 3-9	Daily Operational Emissions with Mitigation - Krausz Property Only 33
Table 3-10	Cumulative Project Operational Impact Analysis - Krausz Property Only 34
Table 3-11	Estimated Daily Construction Emissions - Full Build-Out 38
Table 3-12	Daily Operational Emissions - Full Build-Out 42
Table 3-13	2005 Carbon Monoxide (CO) Concentrations - Full Build-Out 44
Table 3-14	Daily Operational Emissions with Mitigation -Full Build-Out 47
Table 3-10	Cumulative Project Operational Impact Analysis - Full Build-Out 48
Table 4-1	Existing Noise Levels 62
Table 4-2	Existing Estimated Community Noise Equivalent Level 64
Table 4-3	Land Use Compatibility For Community Noise Environments 65
Table 4-4	Maximum Noise Levels of Common Construction Equipment - Krausz Property Only 66
Table 4-5	Outdoor Construction Noise Levels - Krausz Property Only 67
Table 4-6	Construction Noise Impact - Krausz Property Only 67
Table 4-7	2005 Estimated Community Noise Equivalent Level - Krausz Property Only . . 71
Table 4-8	Maximum Noise Levels of Common Construction Equipment - Full Build-Out . 74
Table 4-9	Outdoor Construction Noise Levels - Full Build-Out 74
Table 4-10	Construction Noise Impact - Full Build-Out 75
Table 4-11	2005 Estimated Community Noise Equivalent Level - Full Build-Out 79

LIST OF FIGURES

Figure 3-1	South Coast Air Basin 11
Figure 3-2	Air Monitoring Areas 15
Figure 3-3	Air Quality Sensitive Receptor Locations 18
Figure 4-1	Noise Monitoring Positions 63

1.0 SUMMARY OF FINDINGS

An air quality and noise impact analysis was conducted by Terry A. Hayes Associates, LLC for the proposed Northridge Zone Change and Plan Amendment project. Key findings are as follows:

1.1 AIR QUALITY

1.1.1 Krausz Property Only

- During the finishing phase of construction, all four development alternatives are anticipated to exceed the South Coast Air Quality Management District's (SCAQMD) significance threshold of 75 pounds per day (ppd) for reactive organic gas (ROG). However, with implementation of mitigation measures, ROG emissions would not exceed the SCAQMD significance threshold and impacts would be reduced to less than significant levels
- All four development alternatives under the Krausz Property Only scenario are subjected to the provisions of SCAQMD Rule 403 - Fugitive Dust. Implementation of mitigation measures would ensure proper implementation of Rule 403. With implementation of mitigation measures, the proposed project would not exceed the AQAQMD significance threshold of 150 ppd for PM₁₀ and impacts would be reduced to less than significant levels.
- During project operation, all four development alternatives are anticipated to exceed the SCAQMD significance thresholds of 550, 55, and 55 ppd of carbon monoxide (CO), reactive organic gas (ROG), and nitrogen oxide (NO_x), respectively. Implementation of mitigation measures would reduce emissions of these pollutants. However, all four development alternatives would still exceed the SCAQMD significance thresholds for CO, ROG, and NO_x. This impact is considered significant and unavoidable.
- Under all four development alternatives, CO concentrations at roadway intersections are not anticipated to exceed the State one- and eight-hour standards of 20.0 and 9.0 parts per million (ppm), respectively. Thus, less than significant impacts are anticipated.
- All four development alternatives are anticipated to significantly contribute to cumulative emissions since the alternatives, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds for CO, ROG, and NO_x.
- The four development alternatives under the Krausz Property Only scenario would not exceed the one- and eight-hour CO concentration standards. Additionally, the four development alternatives are considered consistent with the growth assumptions in the SCAQMD's Air Quality Management Plan (AQMP). Thus, all four development alternatives are considered consistent with the AQMP.

1.1.2 Full Build-Out

- During the finishing phase of construction, all four development alternatives are anticipated to exceed the South Coast Air Quality Management District's (SCAQMD) significance threshold of 75 ppd for ROG. However, with implementation of mitigation measures, ROG emissions would not exceed the SCAQMD significance threshold and impacts would be reduced to less than significant levels
- All four development alternatives under the Krausz Property Only scenario are subjected to the provisions of SCAQMD Rule 403 - Fugitive Dust. Implementation of mitigation measures would ensure proper implementation of Rule 403. With implementation of mitigation measures, the proposed project would not exceed the SCAQMD significance threshold of 150 ppd for PM₁₀ and impacts would be reduced to less than significant levels.
- During project operation, all four development alternatives are anticipated to exceed the SCAQMD significance thresholds of 550, 55, and 55 ppd of CO, ROG, and NO_x, respectively. Implementation of mitigation measures would reduce emissions of these pollutants. However, all four development alternatives would still exceed the SCAQMD significance thresholds for CO, ROG, and NO_x. This impact is considered significant and unavoidable.
- Under all four development alternatives, CO concentrations at roadway intersections are not anticipated to exceed the State one- and eight-hour standards of 20.0 and 9.0 ppm, respectively. Thus, less than significant impacts are anticipated.
- All four development alternatives are anticipated to significantly contribute to cumulative emissions since the alternatives, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds for CO, ROG, and NO_x.
- The four development alternatives under the Full Build-Out scenario would not exceed the one- and eight-hour CO concentration standards. Additionally, the four development alternatives are considered consistent with the growth assumptions in the SCAQMD's Air Quality Management Plan (AQMP). Thus, all four development alternatives are considered consistent with the AQMP.

1.2 NOISE

1.2.1 Krausz Property Only

- Under all four alternatives, construction noise levels would not incrementally increase ambient noise levels by five or more decibels at sensitive receptor locations. This incremental increase is below the significance threshold. Thus, a less than significant impact is anticipated.

- Nearby residential uses are currently within the “normally unacceptable” category of the Land Use Compatibility Chart (see **Table 4-3**). Under all four alternatives, noise levels during project implementation would incrementally increase ambient noise levels by less-than-one decibel at nearby residential uses when compared to “existing” and “no project” conditions. The incremental increase would not exceed the significance criteria of a three decibel or more increase to or within the “normally unacceptable” or “clearly unacceptable” category of the Land Use Compatibility Chart. Thus, a less than significant impact is anticipated at nearby residential uses.
- Washington Mutual Child Care Center is within the “conditionally acceptable” category of the Noise Land Use Compatibility Chart (see **Table 4-3**). Under all four alternatives, noise levels during project implementation would incrementally increase ambient noise levels by 1.7 dBA and less-than-one decibel when compared to “existing” and “no project” conditions, respectively. This incremental increase would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at the Washington Mutual Child Care Center.
- The four alternative under the Krausz Property Only scenario, when combined with other developments in the vicinity, would incrementally increase ambient noise levels by less-than-one decibel at nearby residential uses when compared to “existing” and “no project” conditions. The incremental increase in ambient noise level does not exceed the noise threshold of a three or more decibel increase to or within the “normally unacceptable” or “clearly unacceptable” category. Incremental increases in ambient noise level at Washington Mutual Child Care Center is anticipated to be approximately 1.7 dBA and less-than-one decibel when compared to “existing” and “no project” conditions, respectively. The incremental increase in ambient noise level does not exceed the noise threshold of a five or more decibel increase over ambient noise levels. Incremental increases in ambient noise levels are not anticipated to exceed the operational phase significance criteria. Thus, all four alternatives are not anticipated to significantly contribute to cumulative noise impacts.

1.2.2 Full Build-Out

- Under all four alternatives, construction noise levels would not incrementally increase ambient noise levels by five or more decibels at sensitive receptor locations. This incremental increase is below the significance threshold. Thus, a less than significant impact is anticipated.
- Nearby residential uses are currently within the “normally unacceptable” category of the Land Use Compatibility Chart (see **Table 4-3**). Under all four alternatives, noise levels during project implementation would incrementally increase ambient noise levels by less-than-one decibel at nearby residential uses when compared to “existing” and “no project” conditions. The incremental increase would not exceed the significance criteria of a three decibel or more increase to or within the “normally unacceptable” or “clearly unacceptable” category of the Land Use Compatibility Chart. Thus, a less than significant impact is anticipated at nearby residential uses.
- Washington Mutual Child Care Center is within the “conditionally acceptable” category of the Noise Land Use Compatibility Chart (see **Table 4-3**). Under all four alternatives, noise levels during project implementation would incrementally increase ambient noise levels by 1.7 dBA and less-than-one decibel when compared to “existing” and “no project” conditions,

respectively. This incremental increase would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at the Washington Mutual Child Care Center.

- The four alternative under the Full Build-Out scenario, when combined with other developments in the vicinity, would incrementally increase ambient noise levels by less-than-one decibel at nearby residential uses when compared to “existing” and “no project” conditions. The incremental increase in ambient noise level does not exceed the noise threshold of a three or more decibel increase to or within the “normally unacceptable” or “clearly unacceptable” category. Incremental increases in ambient noise level at Washington Mutual Child Care Center is anticipated to be approximately 1.7 dBA and less-than-one decibel when compared to “existing” and “no project” conditions, respectively. The incremental increase in ambient noise level does not exceed the noise threshold of a five or more decibel increase over ambient noise levels. Incremental increases in ambient noise levels are not anticipated to exceed the operational phase significance criteria. Thus, all four alternatives are not anticipated to significantly contribute to cumulative noise impacts.

2.0 INTRODUCTION

2.1 Purpose of Study

The purpose of this study is to evaluate the potential air quality and noise impacts of the proposed Northridge Zone Change and Plan Amendment project. Potential air quality and noise levels are analyzed for construction and daily operations phases of the proposed project. Mitigation measures for air quality and noise are recommended where necessary.

2.2 Project Description

The proposed project consists of two development scenarios: the Krausz Property Only scenario and the Full Build-Out scenario. The two development scenarios are located in the Chatsworth - Porter Ranch Community Plan Area of the City of Los Angeles. Both scenarios involve a Zone Change and Plan Amendment. The Zone Change for both scenario is from [Q]M1-1, MR2-1, and P-1 to C2-1 and the Plan Amendment is from Limited Manufacturing and Parking Buffer to Community Commercial. The two development scenarios are described in detail below.

2.2.1 Krausz Property Only

The Krausz Property site is located at 19601 Nordhoff Street. The property site is generally bounded by Prairie Street to the north, Nordhoff Place to the south, Shirley Avenue to the east, and Corbin Avenue to the west. It comprises of approximately 35.5 acres and is currently occupied by 340,000 square feet of building floor area used as research and development space. Four potential development alternatives have been identified for the Krausz Property Only scenario:

- | | | |
|----|---------------------|--|
| A) | Retail: | 340,000 square feet of Retail Development
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units |
| B) | Office: | 930,000 square feet of Office Space
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units |
| C) | Retail/Residential: | 250,000 square feet of Retail Development
300 Condominium units
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units |
| D) | Office/Residential: | 690,000 square feet of Office Space
300 Condominium Units
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units. |

2.2.2 Full Build-Out

The Full Build-Out scenario would be located on the Krausz Property site (19601 Nordhoff Street), as well as the 14 parcels that are located to the north of the Krausz Property site, between Corbin Avenue and Shirley Avenue. These 14 parcels are known as the “Add Area” and are included in this air quality and noise impact analysis since the City of Los Angeles Department of Planning would like to include these parcels in the Zone Change and Plan Amendment. These parcels comprise of approximately 8 acres and are currently occupied by 132,665 square feet of light industrial space, 49,920 square feet of manufacturing space, 97,554 square feet of storage facility space, a tennis club with seven tennis courts, and a 0.93 acre multi-purpose recreation facility with a skate park and a soccer field.

The Full Build-Out scenario would result in a Zone Change and Plan Amendment over approximately 43.5 acres. Four potential development alternatives have been identified for the Full Build-Out scenario:

- A) Retail: 540,000 square feet of Retail Development
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units
- B) Office: 1,516,000 square feet of Office Space
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units
- C) Retail/Residential: 400,000 square feet of Retail Development
400 Condominium units
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units
- D) Office/Residential: 1,125,000 square feet of Office Space
400 Condominium Units
336 Senior Housing units
100 Bed Nursing Home
50 Assisted Living units.

3.0 AIR QUALITY

This section examines the degree to which the proposed project may result in significant adverse changes to air quality. Both short-term construction emissions occurring from activities such as site grading and haul truck trips, as well as long-term effects related to the ongoing operation of the proposed Krausz Property Only and Full Build-Out scenarios, are discussed in this section. The analysis contained herein focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. "Emissions" refer to the actual quantity of pollutant, measured in pounds per day (ppd). "Concentrations" refer to the amount of pollutant material per volumetric unit of air. "Concentrations" are measured in parts per million (ppm) or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

3.1 POLLUTANTS & EFFECTS

Air quality studies generally focus on five pollutants that are most commonly measured and regulated: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and respirable particulate matter (PM_{10}).

Carbon Monoxide. Carbon monoxide, a colorless and odorless gas, interferes with the transfer of oxygen to the brain. It can cause dizziness and fatigue, and can impair central nervous system functions. CO is emitted almost exclusively from the incomplete combustion of fossil fuels. In urban areas, CO is emitted by motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. Automobile exhausts release most of the CO in urban areas. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient carbon monoxide concentrations generally follow the spacial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions¹ are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. The highest CO concentrations measured in the South Coast Air Basin (SCAB) are typically recorded during the winter.

Ozone. O_3 , a colorless toxic gas, is the chief component of urban smog. O_3 enters the blood stream and interferes with the transfer of oxygen, depriving sensitive tissues in the heart and brain of oxygen. O_3 also damages vegetation by inhibiting their growth. Although O_3 is not directly emitted, it forms in the atmosphere through a chemical reaction between reactive organic gas (ROG) and nitrogen oxides (NO_x) under sunlight.² O_3 is present in relatively high concentrations within the Basin, and the damaging effects of photochemical smog are generally related to the concentration of O_3 . Meteorology and terrain play major roles in ozone formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. The greatest source of smog-producing gases is the automobile.

Nitrogen Dioxide. Nitrogen dioxide, a brownish gas, irritates the lungs. It can cause breathing difficulties at high concentrations. Like 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 (NO_x) and are major contributors to ozone formation. NO_2 also contributes to the formation of PM_{10} (see discussion of PM_{10} below). At atmospheric concentration, NO_2 is only

¹ Inversion is an atmospheric condition in which a layer of warm air traps cooler air near the surface of the earth, preventing the normal rising of surface air. See Section 3.3.1.

² ROG and NO_x are emitted from automobiles and industrial sources.

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 NO₂ and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 parts per million (ppm).

Sulfur Dioxide. Sulfur dioxide (SO₂) is a product of high-sulfur fuel combustion. Main sources of SO₂ are coal and oil used in power stations, in industries, and for domestic heating. Industrial chemical manufacturing is another source of SO₂. SO₂ is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO₂ can also cause plant leaves to turn yellow, as well as erode iron and steel. In recent years, SO₂ concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO₂ and limits on the sulfur content of fuels. SO₂ concentrations have been reduced to levels well below the state and national standards, but further reductions in emissions are needed to attain compliance with standards for sulfates and PM₁₀, of which SO₂ is a contributor.

Suspended Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when gases emitted from industries or motor vehicles undergo chemical reactions in the atmosphere. PM₁₀ and PM_{2.5} represent fractions of particulate matter. Respirable particulate matter (PM₁₀) refers to particulate matter less than 10 microns in diameter, about one-seventh the thickness of a human hair. Fine particulate matter (PM_{2.5}) refers to particulate matter that is 2.5 microns or less in diameter, roughly 1/28th the diameter of a human hair. Major sources of PM₁₀ 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. PM_{2.5} results from fuel combustion (from motor vehicles, power generation, 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.

PM₁₀ and PM_{2.5} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM₁₀ and PM_{2.5} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. 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.³ Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

³ The NAAQS for PM_{2.5} was adopted in 1997. Presently, no methodologies for determining impacts relating to PM_{2.5} have been developed or adopted by federal, state, or regional agencies. Additionally, no strategies or mitigation programs for PM_{2.5} have been developed or adopted by Federal, State, or regional agencies. Currently, this standard is not enforceable. However, the standard may be reinstated in the future. Thus, this air quality analysis does not analyze PM_{2.5}.

3.2 REGULATORY SETTING

Air quality in the United States is governed by the Federal Clean Air Act (CAA). In addition to being subject to the requirements of the CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). At the federal level, the CAA is administered by the United States Environmental Protection Agency (USEPA). In California, the CCAA is administered by the California Air Resources Board (CARB) at the state level and by the Air Quality Management Districts at the regional and local levels.

United States Environmental Protection Agency. The USEPA is responsible for enforcing the Federal CAA. The USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). The NAAQS are required under the 1977 CAA and subsequent amendments. The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by the CARB.

California Air Resources Board. In California, the CARB, which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for meeting the state requirements of the Federal CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the California Ambient Air Quality Standards (CAAQS). The CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. The CARB regulates mobile air pollution sources, such as motor vehicles. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. The CARB established passenger vehicle fuel specifications, which became effective on March 1996. The CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

South Coast Air Quality Management District. The SCAQMD monitors air quality within the project area. The 1977 Lewis Air Quality Management Act created the SCAQMD to coordinate air quality planning efforts throughout southern California. This Act merged four county air pollution control agencies into one regional district to better address the issue of improving air quality in southern California. Under the Act, renamed the Lewis-Presley Air Quality Management Act in 1988, the SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin (SCAB). Specifically, the SCAQMD is responsible for monitoring air quality, as well as planning, implementing and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the district. Programs that were developed include air quality rules and regulations that regulate stationary source, area source, point source and certain mobile source emissions. The SCAQMD is also responsible for establishing permitting requirements for stationary sources and ensuring that new, modified or relocated stationary sources do not create net emission increases and therefore, are consistent with the region's air quality goals.

The SCAQMD has jurisdiction over an approximately 10,743 square mile area of the SCAB. This area includes all of Orange County, Los Angeles County (except for Antelope Valley), the western urbanized portions of San Bernardino County, and the western and Coachella Valley portions of

Riverside County. The SCAB is bounded by Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto mountains to the north and east; and the San Diego County line to the south (see **Figure 3-1**). Ambient pollution concentrations recorded in the Los Angeles County are among the highest in the four counties comprising the SCAB.

3.2.1 Attainment Status

The CCAA requires the CARB to designate areas within California as either attainment or non-attainment for each criteria pollutants based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a State standard for a pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard, and are not used as a basis for designating areas as non-attainment.

Under the CCAA, the Los Angeles County portion of the SCAB is designated as a non-attainment area for ozone, carbon monoxide and respirable particulate matter. The air basin is designated as an attainment area for nitrogen dioxide, sulfur dioxide, sulfates, and lead.⁴

3.2.2 Air Quality Management Plan

All areas designated as non-attainment under the CCAA are required to prepare plans showing how the area would meet the state air quality standards by its attainment dates. The AQMP is the region's plan for improving air quality in the region. It addresses the Federal CAA and CCAA requirements and demonstrates attainment with ambient air quality standards. The AQMP is prepared by the SCAQMD and the Southern California Association of Governments (SCAG). The 1997 AQMP, amended in 1999, has been prepared to reflect the requirements of the 1990 CAA Amendments and is consistent with the approaches taken in the 1994 AQMP.

The AQMP details goals, policies and programs for improving air quality and establishes thresholds for daily operation emissions. Environmental review of individual projects within the SCAB must demonstrate that daily construction and operational emissions thresholds, as established by the SCAB, would not be exceeded. The environmental review must also demonstrate that individual projects would not increase the number or severity of existing air quality violations.

3.2.3 National and State Ambient Air Quality Standards


As required by the Federal CAA, the NAAQS have been established for six major air pollutants: carbon monoxide, nitrogen oxides, ozone, particulate matter, sulfur oxides and lead. Pursuant to the CCAA, the State of California has also established ambient air quality standards, known as the California Ambient Air Quality Standards (CAAQS). These standards are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. Since the CAAQS are more stringent than the NAAQS, the CAAQS are used as the comparative standard in the air quality analysis contained in this report.


Both State and Federal standards are summarized in **Table 3-1**. 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.

⁴ California Air Resources Board: Proposed Area Designations and Maps, September 2000.



LEGEND:

 South Coast Air Basin

 State of California

Approx. Scale



0 75 150 Miles

SOURCE: California Air Resources Board, State and Local Air Monitoring Network Plan, October 1998



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FIGURE 3-1

SOUTH COAST AIR BASIN

TABLE 3-1: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS				
Pollutant	Averaging Period	California Standard	Federal Standards	
			Primary	Secondary
Ozone (O ₃)	1 hour	0.09 ppm (180 µg/m ³)	0.12 ppm (235 µg/m ³)	Same as Primary Standard
	8 hour	--	0.08 ppm (157 µg/m ³)	
Respirable Particulate Matter (PM ₁₀)	Annual Geometric Mean	30 µg/m ³	--	Same as Primary Standard
	24 hour	50 µg/m ³	150 µg/m ³	
	Annual Arithmetic Mean	--	50 µg/m ³	--
Carbon Monoxide(CO)	8 hour	9.0 (10 mg/m ³)	9.0 (10 mg/m ³)	None
	1 hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	--	0.053 ppm (100 µg/m ³)	Same as Primary Standard
	1 hour	0.25 ppm (470 µg/m ³)	--	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	--	0.03 ppm (80 µg/m ³)	--
	24 hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)	--
	3 hour	--	--	0.5 ppm (1300 µg/m ³)
	1 hour	0.25 ppm (655 µg/m ³)	--	--

SOURCE: California Air Resources Board, Federal and State Air Quality Standards 1999 (1/25/99).

3.3 EXISTING AIR QUALITY

3.3.1 Air Pollution Climatology

The proposed project is located within the Los Angeles County portion of the SCAB. Ambient pollution concentrations recorded in Los Angeles County are among the highest in the four counties comprising the Basin.

The SCAB is an area of high air pollution potential due to its climate and topography. The general region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The SCAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usual mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The SCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter. The mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region.

The SCAB experiences frequent temperature inversions. Temperature typically decreases with height. However, under inversion conditions, temperature increases as altitude increases, thereby preventing air close to the ground from mixing with the air above it. As a result, air pollutants are

trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and nitrogen dioxide react under strong sunlight, creating pollution, commonly referred to as smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains.

During the fall and winter, air quality problems are created due to carbon monoxide and nitrogen dioxide emissions. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.). Morning levels are relatively high due to the large number of cars during the commute and colder temperatures. The high levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the SCAB are associated with heavy traffic. NO₂ levels are also generally higher during autumn or winter days. High levels of NO₂ in the fall and winter usually occur on days with summer-like conditions.

3.3.2 Local Climate

The mountains and hills within the SCAB contribute to the variation of rainfall, temperature and winds throughout the region. Within the project site and its vicinity, the average wind speed, as recorded at the Reseda Wind Monitoring Station, is approximately 4.0 miles per hour, with calm winds occurring approximately 12.8 percent of the time. Wind in the vicinity of the project site predominately blows from the southeast.⁵

The annual average temperature in the project area is approximately 63.8 degrees Fahrenheit. The project area experiences an average winter temperature of approximately 54.2 degrees Fahrenheit and an average summer temperature of approximately 74.1 degrees Fahrenheit. Total precipitation in the project area averages approximately 16.6 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer. Precipitation during the winter is approximately 9.7 inches and approximately 0.2 inches during the summer.⁶

⁵ Based on data from the Reseda wind monitoring station. See **Appendix A**.

⁶ Western Regional Climate Center, 2001. See **Appendix A**.

3.3.3 Air Monitoring Data

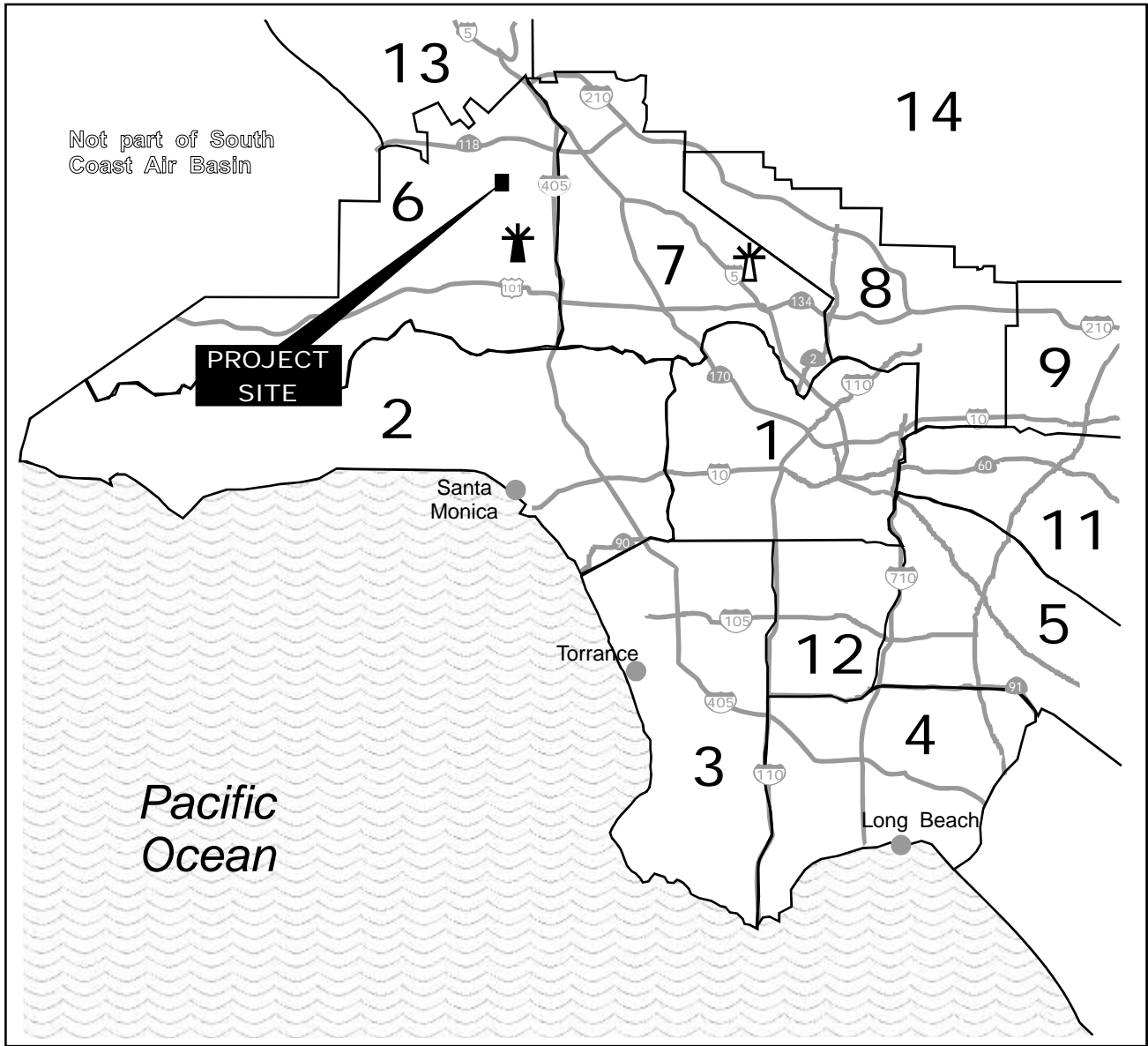
The SCAQMD monitors air quality conditions at 37 locations throughout the SCAB. The proposed project is located in the SCAQMD's West San Fernando Valley Air Monitoring Area (No. 6), which is served by the Reseda Monitoring Station, located at 18330 Gault Street in the City of Los Angeles (see **Figure 3-2**). The Reseda Monitoring Station is approximately 2.9 miles from the proposed project site. Criteria pollutants monitored at the Reseda Monitoring Station include ozone (O₃), carbon monoxide (CO), and nitrogen dioxide (NO₂). However, the monitoring station does not monitor sulfur dioxide (SO₂) and respirable particulate matter (PM₁₀). The Burbank Monitoring Station, which is within the same General Forecast Area as the Reseda Monitoring Station, monitors these two pollutants.⁷ The Burbank Monitoring Station is approximately 14.6 miles from the proposed project site. Thus, historical data from the Reseda and Burbank Monitoring Station was used to characterize existing conditions of O₃, CO, and NO₂ within the vicinity of the proposed project areas and the Burbank Monitoring Station was used to characterize existing conditions of the pollutants PM₁₀ and SO₂. Historical data from the monitoring stations were also used to establish a baseline for estimating future conditions with and without the proposed project.

A summary of the data recorded at the Reseda and Burbank Monitoring Stations are located in **Appendix B**. **Table 3-2** shows the number of violations recorded at the Reseda and Burbank Monitoring Stations during the 1999-2001 period. The CAAQS for the criteria pollutants are also shown in the table. As **Table 3-2** indicates, criteria pollutants NO₂ and SO₂ did not exceed the CAAQS in the 1999-2001 period. However, O₃ exceeded the State standard 5 to 27 times, CO exceeded the State standard once, and PM₁₀ exceeded the State standard 84 to 126 times during the same period.

Pollutant	State Standard	Number of Days Above State Standard		
		1999	2000	2001
Ozone	0.09 ppm (1-hour)	5	8	27
Carbon Monoxide	9.0 ppm (8-hour average)	0	1	0
Nitrogen Dioxide	0.25 ppm (1-hour)	0	0	0
Sulfur Dioxide	0.04 ppm (24-hour average)	0	0	0
PM ₁₀	50 µg/m ³ (24-hour average)	126	84	84

/a/ Historical data for ozone, carbon monoxide, and nitrogen dioxide are recorded from the Reseda Monitoring Station. Historical data for sulfur dioxide and PM₁₀ are from the Burbank Monitoring Station.
SOURCE: California Air Resources Board, see **Appendix B**.

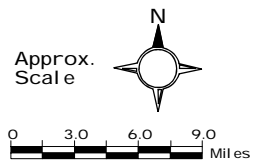
⁷ General Forecast Areas are larger groupings of the more specific air monitoring areas.



LEGEND:

- Reseda Monitoring Station
- Burbank Monitoring Station

Air Monitoring Areas in Los Angeles County	
1. Central Los Angeles	9. East San Gabriel Valley
2. Northwest Coastal	10. Pomona/Walnut Valley
3. Southwest Coastal	11. South San Gabriel Valley
4. South Coastal	12. South Central Los Angeles
5. Southeast Los Angeles County	13. Santa Clarita Valley
6. West San Fernando Valley	14. Antelope Valley
7. East San Fernando Valley	15. San Gabriel Mountains
8. West San Gabriel Valley	



SOURCE: South Coast Air Quality Management District Air Monitoring Areas Map, 1989

3.3.4 Background Carbon Monoxide Conditions

Carbon monoxide concentrations are typically used as an indicator of conformity with the CAAQS because: (1) CO levels are directly related to vehicular traffic volumes, the main source of air pollutants and (2) localized CO concentrations and characteristics can be modeled using USEPA and SCAQMD methods. In other words, the operational air quality impacts associated with a project are generally best reflected through the estimated changes in related CO concentrations.

For purposes of this assessment, the ambient, or background, concentration of CO is first established. This background level is typically defined as the highest of the second-maximum eight-hour readings over the past two years.⁸ A review of data from the Reseda Monitoring Station for the 1999-2001 period indicates that the average eight-hour background concentration is approximately 6.1 ppm.⁹ Assuming a typical persistence factor of 0.7, the estimated one-hour background concentration is approximately 8.7 ppm.¹⁰ The existing eight- and one-hour background concentrations do not exceed the State CO standard of 9.0 ppm and 20.0 ppm, respectively.

3.3.5 Existing Carbon Monoxide Concentrations at Project Area Intersections

There is a direct relationship between traffic/circulation congestion and CO impacts since exhaust fumes from vehicular traffic is the primary source of CO. Carbon monoxide is a localized gas that dissipates very quickly under normal meteorological conditions. Therefore, CO concentrations decrease substantially as distance from the source (intersection) increases. The highest CO concentrations are typically found along sidewalk locations directly adjacent to congested roadway intersections.

To provide a worst case simulation of CO concentrations within the area that might be affected by the proposed project, CO concentrations at sidewalks adjacent to 24 study intersections were modeled. The study intersections were selected based on traffic volume and capacity and traffic level of service (LOS). The selected intersections are:

- De Soto Avenue & Plummer Street,
- De Soto Avenue & Nordhoff Street,
- Winnetka Avenue & Nordhoff Street,
- Winnetka Avenue & Parthenia Street,
- Winnetka Avenue & Roscoe Boulevard,
- Winnetka Avenue & Victory Boulevard,
- Corbin Avenue & Devonshire Street,
- Corbin Avenue & Lassen Street,
- Corbin Avenue & Plummer Street,
- Corbin Avenue & Prairie Street,
- Corbin Avenue & Nordhoff Place/Nordhoff Street,

⁸ Garza, Vicente J., Peter Graney, Daniel Sperling. Transportation Project-Level Carbon Monoxide Protocol. Institute of Transportation Studies, University of California, Davis. May 1996.

⁹ See **Appendix A**.

¹⁰ Persistence factor is the ratio between the eight- and one-hour second annual maximum CO concentrations measured at a continuous air monitoring station. A persistence factor of 0.7 is typically used in urban areas.

- Corbin Avenue & Nordhoff Street/Nordhoff Way,
- Corbin Avenue & Parthenia Street,
- Corbin Avenue & Saticoy Street,
- Tampa Avenue & Devonshire Street,
- Tampa Avenue & Lassen Street,
- Tampa Avenue & Plummer Street,
- Tampa Avenue & Nordhoff Street,
- Tampa Avenue & Roscoe Boulevard,
- Tampa Avenue & Saticoy Street,
- Reseda Boulevard & Plummer Street,
- Reseda Boulevard & Nordhoff Street,
- Reseda Boulevard & Victory Boulevard, and
- Zelzah Avenue & Nordhoff Street.

At each intersection, traffic related CO contributions were added to background CO conditions, as discussed above. Traffic CO contributions were estimated using the CAL3QHC dispersion model, which utilizes traffic volume inputs and EMFAC2001 emissions factors. Existing conditions at the study intersections are shown in **Table 3-3**. One-hour CO concentrations range from approximately 11.5 ppm to 13.3 ppm. Eight-hour CO concentrations range from approximately 8.1 ppm to 9.3 ppm. Presently, none of the study intersections exceed the State one-hour CO standard of 20.0 ppm. However, four intersections exceed the State eight-hour CO standard of 9.0 ppm.

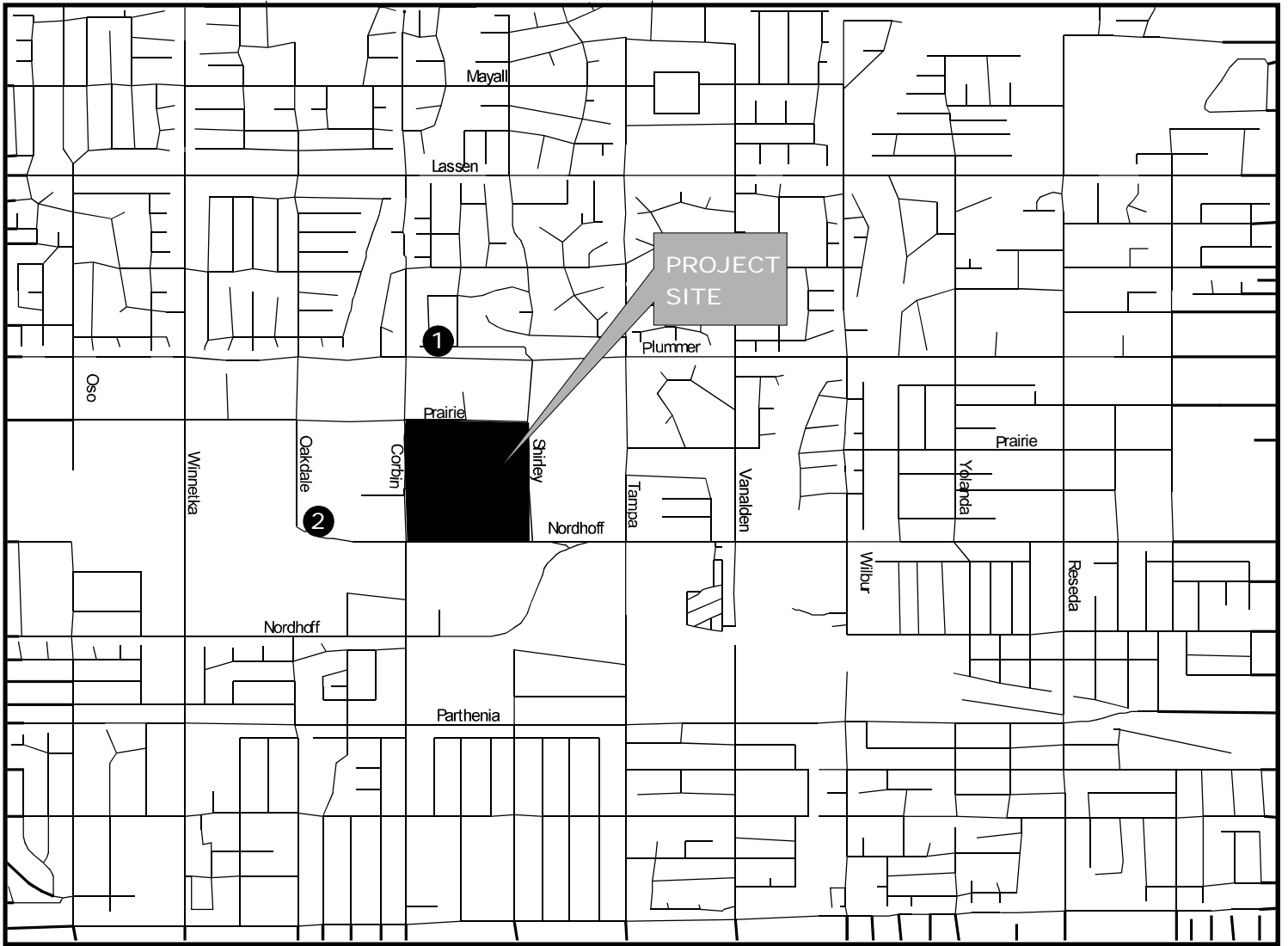
3.3.6 Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the types of population groups and the activities involved. CARB has identified the following people who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive population groups. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. These locations are classified as sensitive receptors.

Two representative sensitive receptors have been identified within one-quarter mile of the proposed project site. These sensitive receptors are shown in **Figure 3-3**. They include:

- Residential uses and
- Washington Mutual Child Care Center.

These sensitive receptors do not constitute a comprehensive list of all sensitive uses within the vicinity. Rather, they are intended to represent a sampling of the different types of sensitive uses in the vicinity of the project area. For purposes of providing a worst-case analysis, CO concentrations have been modeled at sidewalk locations adjacent to 24 study area intersections. Since CO is a localized gas which disperses quickly, concentrations are highest within close proximity to intersections. Concentrations at specific sensitive receptors would be substantially lower than those concentrations immediately adjacent to intersections.



LEGEND:



Project Site

- 1. Residential Uses
- 2. Washington Mutual Child Care Center



SOURCE: Terry A. Hayes Associates LLC



Northridge Zone Change &
Plan Amendment

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FIGURE 3-3

AIR QUALITY SENSITIVE
RECEPTOR LOCATIONS

TABLE 3-3: EXISTING CARBON MONOXIDE (CO) CONCENTRATIONS (parts per million) /a/		
Intersection	1-Hour	8-Hour
De Soto Avenue & Plummer Street	12.6	8.8
De Soto Avenue & Nordhoff Street	12.6	8.8
Winnetka Avenue & Nordhoff Street	12.5	8.8
Winnetka Avenue & Parthenia Street	12.4	8.7
Winnetka Avenue & Roscoe Boulevard	12.3	8.6
Winnetka Avenue & Victory Boulevard	12.8	9.0
Corbin Avenue & Devonshire Street	12.0	8.4
Corbin Avenue & Lassen Street	12.1	8.5
Corbin Avenue & Plummer Street	12.1	8.5
Corbin Avenue & Prairie Street	11.5	8.1
Corbin Avenue & Nordhoff Place/Nordhoff Street	12.0	8.4
Corbin Avenue & Nordhoff Street/Nordhoff Way	12.9	9.0
Corbin Avenue & Parthenia Street	12.2	8.5
Corbin Avenue & Saticoy Street	12.2	8.5
Tampa Avenue & Devonshire Street	12.3	8.6
Tampa Avenue & Lassen Street	12.5	8.8
Tampa Avenue & Plummer Street	12.2	8.5
Tampa Avenue & Nordhoff Street	12.1	8.5
Tampa Avenue & Roscoe Boulevard	12.1	8.5
Tampa Avenue & Saticoy Street	12.2	8.5
Reseda Boulevard & Plummer Street	13.1	9.2
Reseda Boulevard & Nordhoff Street	12.2	8.5
Reseda Boulevard & Victory Boulevard	13.3	9.3
Zelzah Avenue & Nordhoff Street	12.6	8.8
State Standard	20.0	9.0
Note: Bold numbers indicate exceedance in the State standard. /a/ All concentrations include one- and eight-hour ambient concentrations of 8.7 ppm and 6.1 ppm. SOURCE: Terry A. Hayes Associates LLC. See Appendix C .		

3.4 METHODOLOGY AND SIGNIFICANCE CRITERIA

3.4.1 Methodology

This air quality analysis is consistent with the methods described in the SCAQMD California Environmental Quality Act (CEQA) Handbook (1993 edition).

The following calculation methods and estimation models were used to determine air quality impacts: SCAQMD construction emissions calculation formulas, the CARB's URBEMIS 2001 emissions model, the CARB's MVEI7G emissions inventory model, the Caltrans' EMFAC emissions factor model and the USEPA's CAL3QHC dispersion model software.

The proposed project does not contain lead emissions sources. Therefore, emissions and concentrations related to this pollutant are not analyzed in this report.¹¹

3.4.2 Significance Criteria

The CEQA Guidelines (Section 15064.7) provide that, when available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make determinations of significance. The following are the significance criteria that the SCAQMD has established to determine project impacts.

Construction Phase Significance Criteria

The proposed project would have a significant impact if:

- Daily construction emissions were to exceed the SCAQMD construction emissions thresholds for CO, ROG, NO_x, SO_x, or PM₁₀. The SCAQMD significance thresholds for construction activities appear in **Table 3-4**.

Operations Phase Significance Criteria

The proposed projects would have a significant impact if:

- Daily operational emissions were to exceed the SCAQMD operational emissions thresholds for CO, ROG, NO_x, or PM₁₀. The SCAQMD significance thresholds for operational emissions appear in **Table 3-4**.
- Project-related traffic causes CO concentrations at study intersections to violate the CAAQS for either the one- or eight-hour period. The CAAQS for the one- and eight-hour period are 20.0 ppm and 9.0 ppm, respectively. If CO concentrations currently exceed the CAAQS, then, an incremental increase of 1.0 ppm over "no project" conditions for the one-hour period would be considered a significant impact. An incremental increase of 0.45 ppm over the "no project" conditions for the eight-hour period would be considered significant.¹²

¹¹ Prior to 1978, mobile emissions were the primary source of lead resulting in air concentrations. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. Currently, industrial sources are the primary source of lead resulting in air concentrations. Since the proposed project does not contain an industrial component, lead emissions are not analyzed in this report.

¹² Consistent with the SCAQMD Regulation XIII definition of a significant impact.

TABLE 3-4: SCAQMD DAILY EMISSIONS THRESHOLDS (pounds per day)		
Criteria Pollutants	Construction	Operational
Carbon Monoxide (CO)	550	550
Reactive Organic Gas (ROG)	75	55
Nitrogen Oxides (NO _x)	100	55
Sulfur Oxides (SO _x)	150	150
Particulates (PM ₁₀)	150	150
SOURCE: South Coast Air Quality Management District.		

3.5 ENVIRONMENTAL IMPACTS

3.5.1 Krausz Property Only

3.5.1.1 Construction Phase Impacts

Construction for the four Krausz Property Only alternatives would generate pollutant emissions from the following construction activities: (1) demolition of existing structures, (2) grading, (3) construction workers traveling to and from project sites, (4) delivery and hauling of construction supplies and debris to and from project sites, (5) fuel combustion by on-site construction equipment, and (6) architectural coating. These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. However, PM₁₀ is the most significant source of air pollution from construction, particularly during site preparation and grading.

Table 3-5 shows the estimated daily emissions associated with each construction phase. Daily emissions were derived using the applicable emission factors and formulas found in the SCAQMD CEQA Handbook, Appendix to Chapter 9.

Krausz Property Only Alternative A. As shown in **Table 3-5**, estimated daily construction emissions for Krausz Property Only Alternative A are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-5** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement”, below).¹³ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures,” below) would ensure proper implementation of Rule 403, which would reduce impacts to less than significant levels.

¹³Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 27 percent during the demolition phase and by approximately 64 percent during the grading/excavation phase. The larger reduction in PM₁₀ emissions during the grading/excavation phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-5**, would not exceed the SCAQMD significance threshold of 150 ppd.

TABLE 3-5: ESTIMATED DAILY CONSTRUCTION EMISSIONS - KRAUSZ PROPERTY ONLY (pounds per day)					
Construction Phase	CO	ROG	NO_x	SO_x	PM₁₀ /a/
SCAQMD Threshold	550	75	100	150	150
Krausz Property Only Alternative A					
Demolition	22	3	41	2	74
Grading/Excavation	20	3	41	2	102
Foundation	34	5	55	4	52
Finishing	2	81	1	1	1
<i>Maximum</i>	34	81	55	4	102
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Krausz Property Only Alternative B					
Demolition	22	3	41	2	74
Grading/Excavation	20	3	41	2	102
Foundation	34	5	56	4	52
Finishing	2	79	1	1	1
<i>Maximum</i>	34	79	56	4	102
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Krausz Property Only Alternative C					
Demolition	22	3	41	2	74
Grading/Excavation	20	3	41	2	102
Foundation	35	5	56	4	53
Finishing	2	83	1	1	1
<i>Maximum</i>	35	83	56	4	102
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Krausz Property Only Alternative D					
Demolition	22	3	41	2	74
Grading/Excavation	20	3	41	2	102
Foundation	35	5	57	4	54
Finishing	2	80	1	1	1
<i>Maximum</i>	35	80	57	4	102
<i>Exceed Threshold?</i>	No	Yes	No	No	No
/a/ Assumes proper implementation of SCAQMD Rule 403. SOURCE: Terry A. Hayes Associates LLC. See Appendix D .					

Krausz Property Only Alternative B. As shown in **Table 3-5**, above, estimated daily construction emissions for Alternative B are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-5** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement”, below).¹⁴ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures,” below) would ensure proper implementation of Rule 403, which would reduce impacts to less than significant levels.

Krausz Property Only Alternative C. As shown in **Table 3-5**, above, estimated daily construction emissions for Alternative C are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-5** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement”, below).¹⁵ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures,” below) would ensure proper implementation of Rule 403, which would reduce impacts to less than significant levels.

Krausz Property Only Alternative D. As shown in **Table 3-5**, above, estimated daily construction emissions for Alternative D are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-5** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement”, below).¹⁶ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures,” below) would ensure proper implementation of Rule 403, which would reduce impacts to less than significant levels.

Fugitive Dust Abatement

All alternatives under the Krausz Property Only and the Full Build-Out scenarios are subject to the provisions of SCAQMD Rule 403 - Fugitive Dust. Rule 403 applies to any activity or man-made condition capable of generating fugitive dust. Rule 403 requires the use of best available control measures to suppress fugitive dust emissions. The requirements of Rule 403 that are applicable to the proposed project are as follows:

¹⁴ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 27 percent during the demolition phase and by approximately 64 percent during the grading/excavation phase. The larger reduction in PM₁₀ emissions during the grading/excavation phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-5**, would not exceed the SCAQMD significance threshold of 150 ppd.

¹⁵ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 27 percent during the demolition phase and by approximately 64 percent during the grading/excavation phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-5** would not exceed the SCAQMD significance threshold of 150 ppd.

¹⁶ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 27 percent during the demolition phase and by approximately 64 percent during the grading/excavation phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-5**, would not exceed the SCAQMD significance threshold of 150 ppd.

(1) A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that the presence of such dust remains visible in the atmosphere beyond the property line of the emission source.

(2) A person conducting active operations within the boundaries of the South Coast Air Basin shall utilize one or more of the applicable best available control measures to minimize fugitive dust emissions from each fugitive dust source type which is part of the active operation.

(3) Any person in the South Coast Air Basin shall:

(A) prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations; or

(B) take at least one of the actions listed in **Table 3-6** and:

(i) prevent the track-out of bulk material onto public paved roadways as a result of their operations and remove such material at anytime track-out extends for a cumulative distance of greater than 50 feet on to any paved public road during active operations; and

(ii) remove all visible roadway dust tracked-out upon public paved roadways as a result of active operations at the conclusion of each work day when active operations cease.¹⁷

TABLE 3-6: SCAQMD RULE 403 - TRACK-OUT CONTROL OPTIONS	
Control Options	
(1)	Pave or apply chemical stabilization and sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
(2)	Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that existing vehicles do not travel on any unpaved road surface after passing through the track-out control device.
(3)	Any other control measures approved by the Executive Officer and the USEPA as equivalent to the methods specified in Table 2-7 may be used.
SOURCE: South Coast Air Quality Management District, Rule 403 - Fugitive Dust, Table 3. See Appendix E .	

¹⁷See **Appendix E** for the complete text of SCAQMD Rule 403.

Construction Phase Mitigation Measures

The following is a list of feasible control measures that the SCAQMD recommends for construction emissions of PM_{10} . These mitigation measures shall be implemented for all areas (both on-site and off-site) where construction for the proposed project would occur.

Fugitive Dust and PM_{10}

- AQ 1 The construction area and vicinity (500-foot radius) shall be swept (preferably with water sweepers) and watered at least twice daily. Site-wetting shall occur often enough to maintain a 10 percent surface soil moisture content throughout all earth-moving activities.
- AQ 2 All unpaved roads, parking and staging areas shall be watered at least once every two hours of active operations.
- AQ 3 Site access points shall be swept/washed within thirty minutes of visible dirt deposition.
- AQ 4 On-site stockpiles of debris, dirt or rusty material shall be covered or watered at least twice daily.
- AQ 5 All haul trucks hauling soil, sand and other loose materials shall either be covered or maintain two feet of freeboard.
- AQ 6 All haul trucks shall have a capacity of no less than twelve and three-quarter (12.75) cubic yard.
- AQ 7 At least 80 percent of all inactive disturbed surface areas shall be watered on a daily basis when there is evidence of wind-driven fugitive dust.
- AQ 8 Operations on any unpaved surfaces shall be suspended when winds exceed 25 mph.
- AQ 9 Traffic speeds on unpaved roads shall be limited to 15 miles per hour.
- AQ 10 Operations on any unpaved surfaces shall be suspended during first and second stage smog alerts.
- AQ 11 Haul truck routes shall be planned to avoid residential areas, schools, and parks.

Architectural Coating

- AQ 12 The proposed project shall use coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent.

Impacts After Mitigation

Krausz Property Only Alternative A. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM_{10} emissions would be reduced to approximately 74 ppd during the demolition phase and 102 ppd during the grading/excavation phase, which is less than the SCAQMD significance threshold of 150 ppd.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 20 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Krausz Property Only Alternative B. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 74 ppd during the demolition phase and 102 ppd during the grading/excavation phase, which is less than the SCAQMD significance threshold of 150 ppd.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 20 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Krausz Property Only Alternative C. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 74 ppd during the demolition phase and 102 ppd during the grading/excavation phase, which is less than the SCAQMD significance threshold of 150 ppd.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 21 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Krausz Property Only Alternative D. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 74 ppd during the demolition phase and 102 ppd during the grading/excavation phase, which is less than the SCAQMD significance threshold of 150 ppd.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 20 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

3.5.1.2 Operational Phase Impacts

Regional Impacts

Krausz Property Only Alternative A. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project,¹⁸ Krausz Property Only Alternative A is anticipated to generate an additional 10,714 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-7**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for ROG, NO_x, and CO. Thus, significant impacts are anticipated.

Krausz Property Only Alternative B. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Krausz Property Only Alternative B is anticipated to generate an additional 6,094 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-7**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for ROG, NO_x, and CO. Thus, significant impacts are anticipated.

Krausz Property Only Alternative C. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Krausz Property Only Alternative C is anticipated to generate an additional 10,056 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-7**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for ROG, NO_x, and CO. Thus, significant impacts are anticipated.

Krausz Property Only Alternative D. Long-term project emissions would be generated by stationary sources (natural gas, fireplaces, and landscaping) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Krausz Property Only Alternative D is anticipated to generate an additional 6,076 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-7**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for ROG, NO_x, and CO. Thus, significant impacts are anticipated.

¹⁸ Linscott, Law, & Greenspan, Traffic Impact Study, Krausz Property Project, Northridge, California, August 1, 2002.

TABLE 3-7: DAILY OPERATIONS EMISSIONS - KRAUSZ PROPERTY ONLY (pounds per day)					
Pollutants	CO	ROG	NO_x	SO_x	PM₁₀
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Krausz Property Only Alternative A					
Stationary Source /a/	4.7	25.9	6.4	0	0.02
Mobile Source	1,340.3	115.8	145.3	1.0	66.3
<i>Total Emissions</i>	<i>1,345.0</i>	<i>141.7</i>	<i>151.7</i>	<i>1.0</i>	<i>66.3</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative B					
Stationary Source /a/	5.9	26.2	9.3	0	0.02
Mobile Source	1,003.5	95.3	105.5	0.9	49.2
<i>Total Emissions</i>	<i>1,009.4</i>	<i>121.5</i>	<i>114.8</i>	<i>0.9</i>	<i>49.2</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative C					
Stationary Source /a/	6.0	40.9	7.8	0	0.02
Mobile Source	1,297.1	112.8	139.5	1.1	63.8
<i>Total Emissions</i>	<i>1,303.1</i>	<i>153.7</i>	<i>147.3</i>	<i>1.1</i>	<i>63.8</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative D					
Stationary Source /a/	6.9	41.1	10.0	0	0.03
Mobile Source	987.8	96.1	103.4	0.9	48.2
<i>Total Emissions</i>	<i>994.7</i>	<i>137.2</i>	<i>113.3</i>	<i>0.9</i>	<i>48.2</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
/a/ Stationary sources include natural gas, landscaping, and consumer products. SOURCE: Terry A. Hayes Associates LLC. See Appendix F .					

Localized Impacts

Overall, CO concentrations are expected to be lower than existing conditions in year 2005 due to stringent state and federal mandates for lowering vehicle emissions. Although traffic volumes would be higher in the future both with and without the implementation of the Krausz Property Only scenario,¹⁹ CO emissions from vehicles are expected to be much lower due to technological advances in vehicle emissions systems, as well as turnover in the vehicle fleet. In other words, increases in traffic volumes are expected to be offset by increases in cleaner-running cars as a percentage of the entire vehicle fleet on the road.

¹⁹ See Traffic Impact Study, Krausz Property Project, Northridge California (Linscott, Law & Greenspan, August 1, 2002).

The USEPA CAL3QHC micro-scale dispersion model was used to calculate CO concentrations for year 2005 “no project” conditions, as well as for all four alternatives under the Krausz Property Only scenario. CO concentrations at the 24 study intersections are shown in **Table 3-8**. CO concentrations at the study intersections are discussed below.

Krausz Property Only Alternative A. As indicated in **Table 3-8**, one-hour CO concentrations under Krausz Property Only Alternative A would range from approximately 9.3 ppm to 10.5 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.5 ppm to 7.3 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Krausz Property Only Alternative B. As indicated in **Table 3-8**, one-hour CO concentrations under Krausz Property Only Alternative B would range from approximately 9.3 ppm to 10.8 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.5 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Krausz Property Only Alternative C. As indicated in **Table 3-8**, one-hour CO concentrations under Krausz Property Only Alternative C would range from approximately 9.4 ppm to 10.8 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.6 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Alternative D. As indicated in **Table 3-8**, one-hour CO concentrations under Krausz Property Only Alternative D would range from approximately 9.3 ppm to 10.7 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.5 ppm to 7.5 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

TABLE 3-8: 2005 CARBON MONOXIDE (CO) CONCENTRATIONS - KRAUSZ PROPERTY ONLY (parts per million) /a/

Intersection	1-Hour						8-Hour					
	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D
De Soto Avenue & Plummer Street	12.6	10.2	10.3	10.3	10.3	10.3	8.8	7.1	7.2	7.2	7.2	7.2
De Soto Avenue & Nordhoff Street	12.6	10.0	10.1	10.1	10.1	10.1	8.8	7.0	7.1	7.1	7.1	7.1
Winnetka Avenue & Nordhoff Street	12.5	9.8	9.8	9.9	9.8	9.8	8.8	6.8	6.8	6.9	6.8	6.8
Winnetka Avenue & Parthenia Street	12.4	9.8	9.8	9.9	9.8	9.9	8.7	6.9	6.9	6.9	6.9	6.9
Winnetka Avenue & Roscoe Boulevard	12.3	9.9	9.9	10.0	9.9	9.9	8.6	6.9	6.9	6.9	6.9	6.9
Winnetka Avenue & Victory Boulevard	12.8	10.3	10.3	10.3	10.3	10.3	9.0	7.2	7.2	7.2	7.2	7.2
Corbin Avenue & Devonshire Street	12.0	9.6	9.7	10.0	9.9	9.9	8.4	6.7	6.8	7.0	6.9	6.9
Corbin Avenue & Lassen Street	12.1	10.0	9.9	10.0	9.9	10.0	8.5	7.0	7.0	7.0	7.0	7.0
Corbin Avenue & Plummer Street	12.1	9.7	9.9	10.0	9.9	9.8	8.5	6.8	6.9	7.0	6.9	6.9
Corbin Avenue & Prairie Street	11.5	9.3	9.3	9.3	9.4	9.3	8.1	6.5	6.5	6.5	6.6	6.5
Corbin Avenue & Nordhoff Place/Nordhoff Street	12.0	9.6	9.8	9.7	9.7	9.7	8.4	6.7	6.9	6.8	6.8	6.8
Corbin Avenue & Nordhoff Street/Nordhoff Way	12.9	10.5	10.5	10.8	10.8	10.7	9.0	7.3	7.3	7.6	7.6	7.5
Corbin Avenue & Parthenia Street	12.2	9.8	9.7	9.8	9.7	9.8	8.5	6.8	6.8	6.8	6.8	6.8
Corbin Avenue & Saticoy Street	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8

TABLE 3-8: 2005 CARBON MONOXIDE (CO) CONCENTRATIONS - KRAUSZ PROPERTY ONLY (parts per million) /a/

Intersection	1-Hour						8-Hour					
	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D
Tampa Avenue & Devonshire Street	12.3	9.7	9.8	9.8	9.7	9.8	8.6	6.8	6.9	6.9	6.8	6.9
Tampa Avenue & Lassen Street	12.5	10.0	10.0	9.9	10.0	9.9	8.8	7.0	7.0	7.0	7.0	7.0
Tampa Avenue & Plummer Street	12.2	10.0	10.0	9.9	10.0	10.0	8.5	7.0	7.0	7.0	7.0	7.0
Tampa Avenue & Nordhoff Street	12.1	9.8	9.9	9.9	9.9	9.9	8.5	6.9	6.9	6.9	6.9	6.9
Tampa Avenue & Roscoe Boulevard	12.1	9.5	9.5	9.6	9.5	9.5	8.5	6.6	6.6	6.7	6.6	6.6
Tampa Avenue & Saticoy Street	12.2	9.6	9.7	9.7	9.7	9.6	8.5	6.7	6.8	6.8	6.8	6.7
Reseda Boulevard & Plummer Street	13.1	10.4	10.4	10.4	10.4	10.4	9.2	7.3	7.3	7.3	7.3	7.3
Reseda Boulevard & Nordhoff Street	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8
Reseda Boulevard & Victory Boulevard	13.3	10.1	10.1	10.1	10.1	10.1	9.3	7.1	7.1	7.1	7.1	7.1
Zelzah Avenue & Nordhoff Street	12.6	9.9	10.1	10.1	10.0	10.1	8.8	6.9	7.1	7.1	7.0	7.1
State Standard	20.0						9.0					

Note:
 Bold numbers indicate exceedance in the State standard.
 /a/ All concentrations include year 2005 one- and eight-hour ambient concentrations of 6.9 ppm and 4.8 ppm, respectively.
SOURCE: Terry A. Hayes Associates LLC. See **Appendix C**.

Operational Phase Mitigation Measures

- AQ 13 The proposed project shall establish a shuttle service from the project site to residential and commercial areas.
- AQ 14 The proposed project shall construct on-site or off-site bus turnouts, passenger benches, and shelters.
- AQ 15 The proposed project shall provide shuttles to major transit stations.
- AQ 16 The proposed project shall include bicycle parking facilities, such as bicycle lockers and racks.
- AQ 17 The proposed project shall construct on-site pedestrian facility improvements, such as walk paths and building access which is physically separated from street and parking lot traffic.
- AQ 18 The proposed project shall construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.

Impacts After Mitigation

Krausz Property Only Alternative A. **Table 3-9** shows daily operational emissions after implementation of mitigation measures AQ 13 to AQ 18. Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 8.0, 0.7, 0.9, and 0.4 ppd, respectively. However, Krausz Property Only Alternative A would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Krausz Property Only Alternative B. **Table 3-9** shows daily operational emissions after implementation of mitigation measures AQ 13 to AQ 18. Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 6.0, 0.6, 0.6, and 0.3 ppd, respectively. However, Krausz Property Only Alternative B would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Krausz Property Only Alternative C. **Table 3-9** shows daily operational emissions after implementation of mitigation measures AQ 13 to AQ 18. Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 7.8, 0.7, 0.8, and 0.4 ppd, respectively. However, Krausz Property Only Alternative C would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Krausz Property Only Alternative D. **Table 3-9** shows daily operational emissions after implementation of mitigation measures AQ 13 to AQ 18. Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 5.9, 0.6, 0.6, and 0.3 ppd, respectively. However, Krausz Property Only Alternative D would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

TABLE 3-9: DAILY OPERATIONS EMISSIONS WITH MITIGATION - KRAUSZ PROPERTY ONLY (pounds per day)					
Pollutants	CO	ROG	NO_x	SO_x	PM₁₀
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Krausz Property Only Alternative A					
Stationary Source /a/	4.7	25.9	6.4	0	0.02
Mobile Source	1,332.2	115.6	114.4	1.0	65.9
<i>Total Emissions</i>	<i>1,336.9</i>	<i>141.5</i>	<i>120.8</i>	<i>1.0</i>	<i>65.9</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative B					
Stationary Source /a/	5.9	26.2	9.3	0	0.02
Mobile Source	997.4	94.7	104.9	0.9	48.9
<i>Total Emissions</i>	<i>1,003.3</i>	<i>120.9</i>	<i>114.2</i>	<i>0.9</i>	<i>48.9</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative C					
Stationary Source /a/	6.0	40.9	7.8	0	0.02
Mobile Source	1,289.3	112.1	138.7	1.1	63.4
<i>Total Emissions</i>	<i>1,295.3</i>	<i>153.0</i>	<i>146.5</i>	<i>1.1</i>	<i>63.4</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Krausz Property Only Alternative D					
Stationary Source /a/	6.9	41.1	10.0	0	0.03
Mobile Source	981.9	95.6	102.7	0.9	47.9
<i>Total Emissions</i>	<i>988.8</i>	<i>136.7</i>	<i>112.7</i>	<i>0.9</i>	<i>47.9</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
/a/ Stationary sources include natural gas, landscaping, and consumer products. SOURCE: Terry A. Hayes Associates LLC. See Appendix G .					

3.5.1.3 Cumulative Impacts

Linscott, Law & Greenspan has identified eight related projects within the area that may be affected by the proposed project. Using the SCAQMD daily emissions thresholds for individual development projects, cumulative emissions thresholds were calculated (by multiplying each criteria pollutant threshold by the total number of individual projects) to establish a baseline from which to evaluate cumulative project emissions. **Table 3-10** shows the criteria pollutant emissions for the related projects. Criteria pollutant emissions from all related projects, as well as the proposed project, were modeled using the CARB's URBEMIS 2001 emissions model to estimate cumulative operational emissions.

TABLE 3-10: CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS - KRAUSZ PROPERTY ONLY					
Project	Operational Emissions (pounds per day)				
	CO	ROG	NO _x	SO _x	PM ₁₀
1) Courthouse	806.5	63.6	86.3	0.5	39.8
2) Shopping Center	206.4	16.2	22.5	0.1	10.2
3) Drug Store /a/	(23.8)	(2.1)	(2.7)	(0.01)	(1.1)
4) Church, Senior Residential Facility, Nursery School	50.8	9.0	5.7	0.03	2.4
5) Porter Ranch	17,530.7	1,417.3	1,890.5	11.2	867.8
6) Deer Lake Ranch	781.0	91.4	85.8	0.7	37.3
7) LAUSD	187.6	32.8	20.0	0.1	9.2
8) Office	196.6	15.6	21.1	0.1	9.6
9a) Krausz Property Only Alternative A	1,345.0	141.7	151.7	1.0	66.3
9b) Krausz Property Only Alternative B	1,009.3	121.5	114.8	0.9	49.2
9c) Krausz Property Only Alternative C	1,303.1	153.7	147.3	1.1	63.8
9d) Krausz Property Only Alternative D	994.7	137.2	113.3	0.9	48.2
Total Emissions (Krausz Property Only Alternative A)					
	21,080.8	1,785.5	2,280.9	13.7	1,041.5
Krausz Property Only Alternative A - Percent of Total					
	6.4%	7.9%	6.7%	7.3%	6.4%
Total Emissions (Krausz Property Only Alternative B)					
	20,745.1	1,765.3	2,244.0	13.6	1,024.4
Krausz Property Only Alternative B - Percent of Total					
	4.9%	6.9%	5.1%	6.6%	4.8%
Total Emissions (Krausz Property Only Alternative C)					
	21,038.9	1,797.5	2,276.5	13.8	1,039.0
Krausz Property Only Alternative C - Percent of Total					
	6.2%	8.6%	6.5%	8.0%	6.1%

TABLE 3-10: CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS - KRAUSZ PROPERTY ONLY					
Project	Operational Emissions (pounds per day)				
	CO	ROG	NO _x	SO _x	PM ₁₀
Total Emissions (Krausz Property Only Alternative D)	20,730.5	1,781.0	2,242.5	13.6	1,023.4
Krausz Property Only Alternative D - Percent of Total	4.8%	7.7%	5.1%	6.6%	4.7%
Cumulative SCAQMD Thresholds /b/	4,950.0	495.0	495.0	1,350.0	1,350.0
Cumulative Project - Percent of Threshold (Krausz Property Only Alternative A)	425.9%	360.7%	460.8%	1.0%	77.1%
Cumulative Project - Percent of Threshold (Krausz Property Only Alternative B)	419.1%	356.6%	453.3%	1.0%	75.9%
Cumulative Project - Percent of Threshold (Krausz Property Only Alternative C)	425.0%	363.1%	459.9%	1.0%	77.0%
Cumulative Project - Percent of Threshold (Krausz Property Only Alternative D)	418.8%	359.8%	453.0%	1.0%	75.8%
/a/ Operations emissions for the related project would be less than operation emissions for existing use. /b/ Individual project threshold multiplied by the number of individual projects. SOURCE: Terry A. Hayes Associates LLC. See Appendix F .					

Krausz Property Only Alternative A. As indicated in **Table 3-10**, the eight related projects in combination with Krausz Property Only Alternative A are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9a) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Krausz Property Only Alternative A would contribute to approximately 6.4 percent of the total CO emissions, approximately 7.9 percent of total ROG emissions and approximately 6.7 percent of the total NO_x emissions. As discussed in **Section 3.5.1.2**, Krausz Property Only Alternative A (number 9a) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Krausz Property Only Alternative A scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that this alternative would significantly contribute to cumulative emissions.

Krausz Property Only Alternative B. As indicated in **Table 3-10**, the eight related projects in combination with Krausz Property Only Alternative B are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9b) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Krausz Property Only Alternative B would contribute to approximately 6.4 percent of the total CO emissions, approximately 7.9 percent of total ROG emissions and approximately 6.7 percent of the total NO_x emissions. As discussed in **Section 3.5.1.2**, Krausz Property Only Alternative B (number 9b) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Krausz Property Only Alternative B scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that this alternative would significantly contribute to cumulative emissions.

Krausz Property Only Alternative C. As indicated in **Table 3-10**, the eight related projects in combination with Krausz Property Only Alternative C are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9c) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Krausz Property Only Alternative C would contribute to approximately 6.4 percent of the total CO emissions, approximately 7.9 percent of total ROG emissions and approximately 6.7 percent of the total NO_x emissions. As discussed in **Section 3.5.1.2**, Krausz Property Only Alternative C (number 9c) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Krausz Property Only Alternative C scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that this alternative would significantly contribute to cumulative emissions.

Krausz Property Only Alternative D. As indicated in **Table 3-10**, the eight related projects in combination with the proposed project are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9d) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. The proposed project would contribute to approximately 6.4 percent of the total CO emissions, approximately 7.9 percent of total ROG emissions and approximately 6.7 percent of the total NO_x emissions. As discussed in **Section 3.5.1.2**, the proposed project alternative (number 9d) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the proposed project, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated to exceed that the proposed project would significantly contribute to cumulative emissions.

3.5.2 Full Build-Out

3.5.2.1 Construction Impacts

Construction for the Full Build-Out scenario would generate pollutant emissions from the following construction activities: (1) demolition of existing structures, (2) grading, (3) construction workers traveling to and from project sites, (4) delivery and hauling of construction supplies and debris to and from project sites, (5) fuel combustion by on-site construction equipment, and (6) architectural coating. These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. However, PM₁₀ is the most significant source of air pollution from construction, particularly during site preparation and grading.

Table 3-11 shows the estimated daily emissions associated with each construction phase. Daily emissions were derived using the applicable emission factors and formulas found in the SCAQMD CEQA Handbook, Appendix to Chapter 9.

Full Build-Out Alternative A. As shown in **Table 3-11**, estimated daily construction emissions for Full Build-Out Alternative A are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-11** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement” in **Section 3.5.1.1**, above).²⁰ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures” in **Section 3.5.1.1**, above) would ensure proper implementation of Rule 403, which would reduce impacts to a less than significant level.

Full Build-Out Alternative B. As shown in **Table 3-11**, above, estimated daily construction emissions for Full Build-Out Alternative B are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-11** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement” in **Section 3.5.1.1**, above).²¹ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures” in **Section 3.5.1.1**, above) would ensure proper implementation of Rule 403, which would reduce impacts to a less than significant level.

Full Build-Out Alternative C. As shown in **Table 3-11**, above, estimated daily construction emissions for Full Build-Out Alternative C are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-11** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement” in **Section 3.5.1.1**, above).²² Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures” in **Section 3.5.1.1**, above) would ensure proper implementation of Rule 403, which would reduce impacts to a less than significant level.

²⁰ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 28 percent during the demolition phase and by approximately 63 percent during the grading phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-11**, would not exceed the SCAQMD significance threshold of 150 ppd.

²¹ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 28 percent during the demolition phase and by approximately 63 percent during the grading phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-11**, would not exceed the SCAQMD significance threshold of 150 ppd.

²² Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 28 percent during the demolition phase and by approximately 63 percent during the grading phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-11**, would not exceed the SCAQMD significance threshold of 150 ppd.

TABLE 3-11: ESTIMATED DAILY CONSTRUCTION EMISSIONS - FULL BUILD-OUT (pounds per day)

Construction Phase	CO	ROG	NO _x	SO _x	PM ₁₀ /a/
SCAQMD Threshold	550	75	100	150	150
Full Build-Out Alternative A					
Demolition	23	3	42	2	78
Grading/Excavation	20	3	41	2	105
Foundation	35	5	56	4	53
Finishing	2	84	1	1	1
<i>Maximum</i>	35	84	56	4	105
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Full Build-Out Alternative B					
Demolition	23	3	42	2	78
Grading/Excavation	20	3	41	2	105
Foundation	35	5	57	4	54
Finishing	2	78	1	1	1
<i>Maximum</i>	35	78	57	4	105
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Full Build-Out Alternative C					
Demolition	23	3	42	2	78
Grading/Excavation	20	3	41	2	105
Foundation	35	5	56	4	53
Finishing	2	89	1	1	1
<i>Maximum</i>	35	89	56	4	105
<i>Exceed Threshold?</i>	No	Yes	No	No	No
Full Build-Out Alternative D					
Demolition	23	3	42	2	78
Grading/Excavation	20	3	41	2	105
Foundation	34	5	55	4	52
Finishing	2	83	1	1	1
<i>Maximum</i>	34	83	55	4	105
<i>Exceed Threshold?</i>	No	Yes	No	No	No
/a/ Assumes proper implementation of SCAQMD Rule 403. SOURCE: Terry A. Hayes Associates LLC. See Appendix D.					

Full Build-Out Alternative D. As shown in **Table 3-11**, above, estimated daily construction emissions for Full Build-Out Alternative D are anticipated to exceed the SCAQMD threshold for ROG during the finishing phase. This exceedance primarily occurs from architectural coating and is considered a significant impact.

Daily PM₁₀ emissions identified in **Table 3-11** assume proper implementation of SCAQMD Rule 403 (see discussion on “Fugitive Dust Abatement” in **Section 3.5.1.1**, above).²³ Implementation of mitigation measures AQ 1 to AQ 11 (see “Construction Phase Mitigation Measures” in **Section 3.5.1.1**, above) would ensure proper implementation of Rule 403, which would reduce impacts to a less than significant level.

Construction Phase Mitigation Measures

See mitigation measures AQ 1 to AQ 12 in **Section 3.5.1.2**.

Impacts After Mitigation

Full Build-Out Alternative A. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 78 ppd during the demolition phase and 105 ppd during the grading/excavation phase. PM₁₀ emissions after implementation of mitigation measures would be less than the SCAQMD significance threshold of 150 ppd. Thus, less than significant impacts are anticipated.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 21 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Full Build-Out Alternative B. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 78 ppd during the demolition phase and 105 ppd during the grading/excavation phase, which is less than the SCAQMD significance threshold of 150 ppd. PM₁₀ emissions after implementation of mitigation measures would be less than the SCAQMD significance threshold of 150 ppd. Thus, less than significant impacts are anticipated.

²³ Implementation of Rule 403 is estimated to reduce dust and PM₁₀ emissions by approximately 28 percent during the demolition phase and by approximately 63 percent during the grading phase. The larger reduction in PM₁₀ emissions during the grading phase is due to the heightened level of activity that would occur during this phase, which includes the use of construction vehicles, earthmoving activities, and haul truck trips. The resulting daily PM₁₀ emissions, shown in **Table 3-11**, would not exceed the SCAQMD significance threshold of 150 ppd.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 20 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Full Build-Out Alternative C. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 78 ppd during the demolition phase and 105 ppd during the grading/excavation phase. PM₁₀ emissions after implementation of mitigation measures would be less than the SCAQMD significance threshold of 150 ppd. Thus, less than significant impacts are anticipated.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 22 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

Full Build-Out Alternative D. Site watering can reduce dust emission levels by approximately 50 percent. Reductions of up to 90 percent is possible through the use of other aggressive dust control measures, such as suspending construction during smog alerts and windy conditions and limiting the amount of dirt to be carried on trucks. With implementation of mitigation measures AQ 1 to AQ 11, PM₁₀ emissions would be reduced to approximately 78 ppd during the demolition phase and 105 ppd during the grading/excavation phase. PM₁₀ emissions after implementation of mitigation measures would be less than the SCAQMD significance threshold of 150 ppd. Thus, less than significant impacts are anticipated.

The use of coating transfers or spray equipment with a transfer efficiency rate of no less than 65 percent can reduce ROG emissions from architectural coating. Implementation of mitigation measure AQ 12 would reduce ROG emissions during the finishing phase to approximately 21 ppd, which is less than the SCAQMD significance threshold of 75 ppd. Thus, with implementation of mitigation measure AQ 12, a less than significant impact is anticipated.

3.5.2.2 *Operational Phase Impacts*

Regional Impacts

Full Build-Out Alternative A. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project,²⁴ Full Build-Out Alternative A is anticipated to generate an additional 13,136 daily vehicle trips.

²⁴ Linscott, Law & Greenspan, Traffic Impact Study, Krausz Property Project, Northridge, California, August 1, 2002.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-12**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for CO, ROG, and NO_x.

Full Build-Out Alternative B. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Full Build-Out Alternative B is anticipated to generate an additional 7,716 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-12**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for CO, ROG, and NO_x.

Full Build-Out Alternative C. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Full Build-Out Alternative C is anticipated to generate an additional 12,210 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-12**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for CO, ROG, and NO_x.

Full Build-Out Alternative D. Long-term project emissions would be generated by stationary sources (natural gas, landscaping, and consumer products) and mobile sources (motor vehicles). Motor vehicles are the predominate source of long-term project emissions. According to the traffic impact study for the proposed project, Full Build-Out Alternative D is anticipated to generate an additional 7,428 daily vehicle trips.

Operational emissions were estimated using the CARB's URBEMIS 2001 operational emissions model, which considers the type of land use, vehicle mix, and average trip lengths. The results, shown in **Table 3-12**, indicate that the proposed project is anticipated to exceed the SCAQMD significance threshold for CO, ROG, and NO_x.

TABLE 3-12: DAILY OPERATIONS EMISSIONS - FULL BUILD-OUT (pounds per day)					
Pollutants	CO	ROG	NO_x	SO_x	PM₁₀
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Full Build-Out Alternative A					
Stationary Source /a/	1.0	25.5	5.6	0	0.01
Mobile Source	1,603.9	133.2	174.5	1.3	79.4
<i>Total Emissions</i>	<i>1,604.9</i>	<i>158.7</i>	<i>180.1</i>	<i>1.3</i>	<i>79.4</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative B					
Stationary Source /a/	2.9	25.8	10.5	0	0.01
Mobile Source	1,290.8	121.0	135.7	1.1	63.3
<i>Total Emissions</i>	<i>1,293.5</i>	<i>146.8</i>	<i>146.2</i>	<i>1.1</i>	<i>63.3</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative C					
Stationary Source /a/	2.4	45.3	7.3	0	0.01
Mobile Source	1,537.2	128.4	165.9	1.3	75.7
<i>Total Emissions</i>	<i>1,539.6</i>	<i>173.7</i>	<i>173.2</i>	<i>1.3</i>	<i>75.7</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative D					
Stationary Source /a/	3.9	45.5	10.9	0	0.01
Mobile Source	1,224.2	117.3	128.1	1.0	45.8
<i>Total Emissions</i>	<i>1,228.1</i>	<i>162.8</i>	<i>139.0</i>	<i>1.0</i>	<i>45.8</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
/a/ Stationary sources include natural gas, landscaping, and consumer products. SOURCE: Terry A. Hayes Associates LLC. See Appendix C .					

Localized Impacts

Overall, CO concentrations are expected to be lower than existing conditions in year 2005 due to stringent state and federal mandates for lowering vehicle emissions. Although traffic volumes would be higher in the future both with and without the implementation of the Full Build-Out scenario,²⁵ CO emissions from vehicles are expected to be much lower due to technological advances in vehicle emissions systems, as well as turnover in the vehicle fleet. In other words, increases in traffic volumes are expected to be offset by increases in cleaner-running cars as a percentage of the entire vehicle fleet on the road.

²⁵ See Traffic Impact Study, Krausz Property Project (Linscott, Law & Greenspan, August 1, 2002).

The USEPA CAL3QHC micro-scale dispersion model was used to calculate CO concentrations for year 2005 “no project” conditions, as well as for all four alternatives under the Full Build-Out scenario. CO concentrations at the 24 study intersections are shown in **Table 3-13**. CO concentrations at the study intersections are discussed below.

Full Build-Out Alternative A. As indicated in **Table 3-13**, one-hour CO concentrations under Full Build-Out Alternative A would range from approximately 9.5 ppm to 10.9 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.6 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Full Build-Out Alternative B. As indicated in **Table 3-13**, one-hour CO concentrations under Full Build-Out Alternative B would range from approximately 9.4 ppm to 10.8 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.6 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Full Build-Out Alternative C. As indicated in **Table 3-13**, one-hour CO concentrations under Full Build-Out Alternative C would range from approximately 9.3 ppm to 10.8 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.5 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

Full Build-Out Alternative D. As indicated in **Table 3-13**, one-hour CO concentrations under Full Build-Out Alternative D would range from approximately 9.3 ppm to 10.8 ppm at worst-case sidewalk receptors. Eight-hour CO concentrations are anticipated to range from approximately 6.5 ppm to 7.6 ppm. The State one- and eight-hour standards of 20.0 ppm and 9.0 ppm, respectively, would not be exceeded at worst-case sidewalk receptor locations for the 24 study intersections. Thus, a less than significant impact is anticipated.

TABLE 3-13: 2005 CARBON MONOXIDE (CO) CONCENTRATIONS - FULL BUILD-OUT (parts per million) /a/

Intersection	1-Hour						8-Hour					
	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D
De Soto Avenue & Plummer Street	12.6	10.2	10.3	10.3	10.3	10.3	8.8	7.1	7.2	7.2	7.2	7.2
De Soto Avenue & Nordhoff Street	12.6	10.0	10.1	10.1	10.1	10.1	8.8	7.0	7.1	7.1	7.1	7.1
Winnetka Avenue & Nordhoff Street	12.5	9.8	9.8	9.9	9.8	9.9	8.8	6.8	6.8	6.9	6.8	6.9
Winnetka Avenue & Parthenia Street	12.4	9.8	9.9	9.9	9.8	9.9	8.7	6.9	6.9	6.9	6.9	6.9
Winnetka Avenue & Roscoe Boulevard	12.3	9.9	9.9	10.0	9.9	10.0	8.6	6.9	6.9	7.0	6.9	7.0
Winnetka Avenue & Victory Boulevard	12.8	10.3	10.3	10.3	10.3	10.3	9.0	7.2	7.2	7.2	7.2	7.2
Corbin Avenue & Devonshire Street	12.0	9.6	9.9	10.0	9.9	10.0	8.4	6.7	6.9	7.0	6.9	7.0
Corbin Avenue & Lassen Street	12.1	10.0	9.8	10.1	9.8	10.0	8.5	7.0	6.8	7.1	6.8	7.0
Corbin Avenue & Plummer Street	12.1	9.7	9.9	10.0	9.9	10.0	8.5	6.8	6.9	7.0	6.9	7.0
Corbin Avenue & Prairie Street	11.5	9.3	9.5	9.4	9.3	9.3	8.1	6.5	6.6	6.6	6.5	6.5
Corbin Avenue & Nordhoff Place/Nordhoff Street	12.0	9.6	9.8	9.7	9.8	9.8	8.4	6.7	6.9	6.8	6.9	6.9
Corbin Avenue & Nordhoff Street/Nordhoff Way	12.9	10.5	10.9	10.8	10.8	10.8	9.0	7.3	7.6	7.6	7.6	7.6
Corbin Avenue & Parthenia Street	12.2	9.8	9.7	9.8	9.7	9.8	8.5	6.8	6.8	6.8	6.8	6.8
Corbin Avenue & Saticoy Street	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8

TABLE 3-13: 2005 CARBON MONOXIDE (CO) CONCENTRATIONS - FULL BUILD-OUT (parts per million) /a/

Intersection	1-Hour						8-Hour					
	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D	Existing	No Project	Alt. A	Alt. B	Alt. C	Alt. D
Tampa Avenue & Devonshire Street	12.3	9.7	9.8	9.9	9.7	9.8	8.6	6.8	6.9	6.9	6.8	6.9
Tampa Avenue & Lassen Street	12.5	10.0	10.0	10.0	10.0	9.9	8.8	7.0	7.0	7.0	7.0	7.0
Tampa Avenue & Plummer Street	12.2	10.0	10.0	9.9	10.0	9.9	8.5	7.0	7.0	7.0	7.0	7.0
Tampa Avenue & Nordhoff Street	12.1	9.8	9.9	9.9	9.9	9.9	8.5	6.9	6.9	6.9	6.9	6.9
Tampa Avenue & Roscoe Boulevard	12.1	9.5	9.5	9.6	9.5	9.6	8.5	6.6	6.6	6.7	6.6	6.7
Tampa Avenue & Saticoy Street	12.2	9.6	9.7	9.7	9.7	9.7	8.5	6.7	6.8	6.8	6.8	6.8
Reseda Boulevard & Plummer Street	13.1	10.4	10.4	10.4	10.4	10.4	9.2	7.3	7.3	7.3	7.3	7.3
Reseda Boulevard & Nordhoff Street	12.2	9.7	9.7	9.7	9.7	9.7	8.5	6.8	6.8	6.8	6.8	6.8
Reseda Boulevard & Victory Boulevard	13.3	10.1	10.1	10.1	10.1	10.1	9.3	7.1	7.1	7.1	7.1	7.1
Zelzah Avenue & Nordhoff Street	12.6	9.9	10.1	10.2	10.0	10.2	8.8	6.9	7.1	7.1	7.0	7.1
State Standard	20.0						9.0					

Note:
 Bold numbers indicate exceedance in the State standard.
 /a/ All concentrations include year 2005 one- and eight-hour ambient concentrations of 6.9 ppm and 4.8 ppm, respectively.
SOURCE: Terry A. Hayes Associates LLC. See **Appendix C**.

Operational Phase Mitigation Measures

See mitigation measures AQ 13 to AQ 18 in **Section 3.5.1.2**.

Impacts After Mitigation

Full Build-Out Alternative A. **Table 3-14** shows daily operational emissions after implementation of mitigation of mitigation measures AQ 13 to AQ 18 (see **Section 3.5.1.2**). Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 9.6, 0.8, 1.0, and 0.5 ppd, respectively. However, the proposed project would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Full Build-Out Alternative B. **Table 3-14** shows daily operational emissions after implementation of mitigation of mitigation measures AQ 13 to AQ 18 (see **Section 3.5.1.2**). Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 7.7, 0.7, 0.8, and 0.4 ppd, respectively. However, the proposed project would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Full Build-Out Alternative C. **Table 3-14** shows daily operational emissions after implementation of mitigation of mitigation measures AQ 13 to AQ 18 (see **Section 3.5.1.2**). Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 9.2, 0.8, 1.0, and 0.5 ppd, respectively. However, the proposed project would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

Full Build-Out Alternative D. **Table 3-14** shows daily operational emissions after implementation of mitigation of mitigation measures AQ 13 to AQ 18 (see **Section 3.5.1.2**). Implementation of mitigation measures AQ 13 to AQ 18 would reduce vehicle trips in the project area. The reduction in vehicle trips would reduce CO, ROG, NO_x and PM₁₀ emissions by approximately 7.3, 0.7, 0.8, and 0.4 ppd, respectively. However, the proposed project would still exceed the SCAQMD significance threshold for CO, ROG, and NO_x. This impact is considered significant and unavoidable.

TABLE 3-14: DAILY OPERATIONS EMISSIONS WITH MITIGATION - FULL BUILD-OUT (pounds per day)					
Pollutants	CO	ROG	NO_x	SO_x	PM₁₀
SCAQMD Threshold	550.0	55.0	55.0	150.0	150.0
Full Build-Out Alternative A					
Stationary Source /a/	1.0	25.5	5.6	0	0.01
Mobile Source	1,594.3	132.4	173.5	1.3	78.9
<i>Total Emissions</i>	<i>1595.3</i>	<i>157.9</i>	<i>179.1</i>	<i>1.3</i>	<i>78.9</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative B					
Stationary Source /a/	2.9	25.8	10.5	0	0.01
Mobile Source	1,283.0	120.2	134.9	1.1	63.0
<i>Total Emissions</i>	<i>1,285.9</i>	<i>146.0</i>	<i>145.4</i>	<i>1.1</i>	<i>63.0</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative C					
Stationary Source /a/	2.4	45.3	7.3	0	0.01
Mobile Source	1,528.0	127.7	164.9	1.2	75.2
<i>Total Emissions</i>	<i>1,530.4</i>	<i>173.0</i>	<i>172.2</i>	<i>1.2</i>	<i>75.2</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
Full Build-Out Alternative D					
Stationary Source /a/	3.9	45.5	10.9	0	0.01
Mobile Source	1,216.9	116.6	127.3	1.0	59.4
<i>Total Emissions</i>	<i>1,220.8</i>	<i>162.1</i>	<i>138.2</i>	<i>1.0</i>	<i>59.4</i>
<i>Exceed SCAQMD Threshold?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>	<i>No</i>
/a/ Stationary sources include natural gas, landscaping, and consumer products. SOURCE: Terry A. Hayes Associates LLC. See Appendix G .					

3.5.2.3 Cumulative Impacts

Linscott, Law & Greenspan has identified eight related projects within the area that may be affected by the proposed project. Using the SCAQMD daily emissions thresholds for individual development projects, cumulative emissions thresholds were calculated (by multiplying each criteria pollutant threshold by the total number of individual projects) to establish a baseline from which to evaluate cumulative project emissions. **Table 3-15** shows the criteria pollutant emissions for the related projects. Criteria pollutant emissions from all related projects, as well as the proposed project, were modeled using the CARB's URBEMIS 2001 emissions model to estimate cumulative operational emissions.

TABLE 3-15: CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS - FULL BUILD-OUT					
Project	Operational Emissions (pounds per day)				
	CO	ROG	NO_x	SO_x	PM₁₀
1) Courthouse	806.5	63.6	86.3	0.5	39.8
2) Shopping Center	206.4	16.2	22.5	0.1	10.2
3) Drug Store /a/	(23.8)	(2.1)	(2.7)	(0.01)	(1.1)
4) Church, Senior Residential Facility, Nursery School	50.8	9.0	5.7	0.03	2.4
5) Porter Ranch	17,530.7	1,417.3	1,890.5	11.2	867.8
6) Deer Lake Ranch	781.0	91.4	85.8	0.7	37.3
7) LAUSD	187.6	32.8	20.0	0.1	9.2
8) Office	196.6	15.6	21.1	0.1	9.6
9a) Full Build-Out Alternative A	1,604.9	158.7	180.1	1.3	79.4
9b) Full Build-Out Alternative B	1,293.7	146.8	146.1	1.1	63.4
9c) Full Build-Out Alternative C	1,539.6	173.7	173.1	1.3	75.7
9d) Full Build-Out Alternative D	1,228.1	162.9	138.9	1.0	59.8
Total Emissions (Full Build-Out Alternative A)					
	21,340.7	1,802.5	2,309.3	14.0	1,054.6
Full Build-Out Alternative A - Percent of Total					
	7.5%	8.8%	7.8%	9.3%	7.5%
Total Emissions (Full Build-Out Alternative B)					
	21,029.5	1,790.6	2,275.3	13.8	1,038.6
Full Build-Out Alternative B - Percent of Total					
	6.2%	8.2%	6.4%	8.0%	6.1%
Total Emissions (Full Build-Out Alternative C)					
	21,275.4	1,817.5	2,302.3	14.0	1,050.9
Full Build-Out Alternative C - Percent of Total					
	7.2%	9.6%	7.5%	9.3%	7.2%
Total Emissions (Full Build-Out Alternative D)					
	20,963.9	1,806.7	2,268.1	13.7	1,035.0
Full Build-Out Alternative D - Percent of Total					
	5.9%	9.0%	6.1%	7.3%	5.8%
Cumulative SCAQMD Thresholds /b/					
	4,950.0	495.0	495.0	1,350.0	1,350.0
Cumulative Project - Percent of Threshold (Full Build-Out Alternative A)					
	431.1%	364.1%	466.5%	1.0%	78.1%
Cumulative Project - Percent of Threshold (Full Build-Out Alternative B)					
	424.8%	361.7%	459.7%	1.0%	76.9%

TABLE 3-15: CUMULATIVE PROJECT OPERATIONAL IMPACT ANALYSIS - FULL BUILD-OUT					
Project	Operational Emissions (pounds per day)				
	CO	ROG	NO _x	SO _x	PM ₁₀
Cumulative Project - Percent of Threshold (Full Build-Out Alternative C)	429.8%	367.2%	465.1%	1.0%	77.8%
Cumulative Project - Percent of Threshold (Full Build-Out Alternative D)	423.5%	365.0%	458.2%	1.0%	76.7%
/a/ Operations emissions for the related project would be less than operation emissions for existing use. /b/ Individual project threshold multiplied by the number of individual projects. SOURCE: Terry A. Hayes Associates LLC. See Appendix F .					

Full Build-Out Alternative A. As indicated in **Table 3-15**, the eight related projects in combination with Full Build-Out Alternative A are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9a) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Full Build-Out Alternative A would contribute to approximately 7.5 percent of the total CO emissions, approximately 8.8 percent of total ROG emissions and approximately 7.8 percent of the total NO_x emissions. As discussed in **Section 3.5.2.2**, Full Build-Out Alternative A (number 9a) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Full Build-Out Alternative A scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that the Full Build-Out Alternative A scenario would significantly contribute to cumulative emissions.

Full Build-Out Alternative B. As indicated in **Table 3-15**, the eight related projects in combination with the Full Build-Out Alternative B are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9b) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Full Build-Out Alternative B would contribute to approximately 6.2 percent of the total CO emissions, approximately 8.2 percent of total ROG emissions and approximately 6.4 percent of the total NO_x emissions. As discussed in **Section 3.5.2.2**, Full Build-Out Alternative B (number 9b) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Full Build-Out Alternative B scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that the Full Build-Out Alternative B scenario would significantly contribute to cumulative emissions.

Full Build-Out Alternative C. As indicated in **Table 3-15**, the eight related projects in combination with the Full Build-Out Alternative C are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9c) are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Full Build-Out Alternative C would contribute to approximately 7.2 percent of the total CO emissions, approximately 9.6 percent of total ROG emissions and approximately 7.5 percent of the total NO_x emissions. As discussed in **Section 3.5.2.2**, Full Build-Out Alternative C (number 9c) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Full Build-Out Alternative C scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that the Full Build-Out Alternative C scenario would significantly contribute to cumulative emissions.

Full Build-Out Alternative D. As indicated in **Table 3-15**, the eight related projects in combination with Full Build-Out Alternative D are anticipated to exceed the cumulative SCAQMD operational emissions threshold for CO, ROG, and NO_x. Three of the nine projects (number 1, 5, 6 and 9d)

are anticipated to exceed three to four of the SCAQMD daily emissions thresholds for individual projects. Full Build-Out Alternative D would contribute to approximately 5.9 percent of the total CO emissions, approximately 9.0 percent of total ROG emissions and approximately 6.1 percent of the total NO_x emissions. As discussed in **Section 3.5.2.2**, the proposed project alternative (number 9d) is anticipated to exceed the SCAQMD operational emissions threshold for CO, ROG, and NO_x. Since the Full Build-Out Alternative D scenario, when combined with the eight related projects, would exceed the cumulative SCAQMD emissions thresholds, it is anticipated that the Full Build-Out Alternative D scenario would significantly contribute to cumulative emissions.

3.6 CONSISTENCY WITH THE AIR QUALITY MANAGEMENT PLAN

Criteria for determining consistency with the Air Quality Management Plan (AQMP) is defined in Chapter 12, Section 12.2 and Section 12.3 of the South Coast Air Quality Management District's CEQA Air Quality Handbook.

- ***Consistency Criterion No. 1:*** *The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*
- ***Consistency Criterion No. 2:*** *The proposed project will not exceed the assumptions in the AQMP in 2010 or increments based on the year of project build-out phase.*

3.6.1 Krausz Property Only

Krausz Property Only Alternative A

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.1.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by the Southern California Association of Governments (SCAG). SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the growth projections in the General Plan, then it is consistent with the growth assumptions in the AQMP.

The proposed project is located within the Chatsworth - Porter Ranch Community Planning Area (CPA). According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan Environmental Impact Report (EIR) estimates the population of the Chatsworth - Porter Ranch CPA to be approximately 102,360 by year 2010. Using population data for year 2000 and 2010, it is estimated that population within the Chatsworth - Porter Ranch CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the Chatsworth - Porter Ranch CPA by approximately 990 residents. Thus, the Chatsworth - Porter Ranch CPA would have a population of approximately 85,724 residents, which would not exceed or conflict with year 2005 population projections of approximately 119,990 residents.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there would be approximately 37,350 housing units in the Chatsworth - Porter Ranch CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the Chatsworth - Porter Ranch CPA by year 2005. Krausz Property Only Alternative A would incrementally increase housing units by approximately 486 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,551 housing units over existing conditions (19,335 single family housing units and 12,216 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units).²⁶

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Krausz Property Only Alternative A is anticipated to incrementally increase employment by approximately 1,045 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 50,559 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Krausz Property Only Alternative A would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Krausz Property Only Alternative A complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

Krausz Property Only Alternative B

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.1.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is considered consistent with the growth assumptions in the AQMP.

²⁶ If the number of housing units generated by Krausz Property Only Alternative A is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to be approximately 102,360 by year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 990 residents. Thus, the Chatsworth-Porter Ranch CPA would have a population of approximately 85,724 residents, which would not exceed or conflict with year 2005 population projections.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there would be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Krausz Property Only Alternative B would increase housing units by approximately 486 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,551 housing units over existing conditions (19,335 single family housing units and 12,216 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units).²⁷

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Krausz Property Only Alternative B is anticipated to incrementally increase employment by approximately 2,520 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 52,034 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Krausz Property Only Alternative B would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Krausz Property Only Alternative B complies with both Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

²⁷ If the number of housing units generated by Krausz Property Only Alternative B is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

Krausz Property Only Alternative C

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.1.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is considered consistent with the growth assumptions in the AQMP.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to be approximately 102,360 by year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 1,740 residents. Thus, the Chatsworth-Porter Ranch CPA would have a population of approximately 86,474 residents, which would not exceed or conflict with year 2005 population projections of approximately 119,990 residents.

Housing estimates provided by the City of Los Angeles City Planning Department for year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there would be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Krausz Property Only Alternative C would increase housing units by approximately 786 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,851 housing units over existing conditions (19,335 single family housing units and 12,516), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units).²⁸

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Krausz Property Only Alternative C is anticipated to incrementally increase employment by approximately 820 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 50,334 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

²⁸ If the number of housing units generated by Krausz Property Only Alternative C is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

Krausz Property Only Alternative C would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Krausz Property Only Alternative C complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

Krausz Property Only Alternative D

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.1.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standards and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is considered consistent with the growth assumptions in the AQMP.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to be approximately 102,360 by year 2010. Using population data for year 2000 and 2010, it is estimated that population within the Chatsworth - Porter Ranch CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 1,740 residents. Thus, the Chatsworth-Porter Ranch CPA would have a population of approximately 86,474 residents, which would not exceed or conflict with year 2005 population projections.

Housing estimates provided by the City of Los Angeles City Planning Department for year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there would be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Krausz Property Only Alternative D would increase housing units by approximately 786 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,851 housing units over existing conditions (19,335 single family housing units and 12,516 multi-family housing units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units).²⁹

²⁹ If the number of housing units generated by Krausz Property Only Alternative D is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Krausz Property Only Alternative D is anticipated to incrementally increase employment by approximately 1,920 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 51,434 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Krausz Property Only Alternative D would not exceed the City of Los Angeles General Plan or SCAG growth projections. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Krausz Property Only Alternative D complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

3.6.2 Full Build-Out

Full Build-Out Alternative A

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.2.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is considered consistent with the growth assumptions in the AQMP.

The proposed project is located within the Chatsworth - Porter Ranch CPA. According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to be approximately 102,360 by the year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 990 residents. Thus, the Chatsworth - Porter Ranch CPA would have a population of approximately 85,724 residents, which would not exceed or conflict with the population projections for year 2005.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there would be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Full Build-Out Alternative A would increase housing units by approximately 486 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,551

housing units over existing conditions (19,335 single family housing units and 12,216 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family units and 13,510 multi-family units).³⁰

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Full Build-Out Alternative A is anticipated to incrementally increase employment by approximately 1,545 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 51,059 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Full Build-Out Alternative A would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Full Build-Out Alternative A complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

Full Build-Out Alternative B

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.2.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is consistent with the growth assumptions in the AQMP.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to reach approximately 102,360 residents by the year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 990 residents. Thus, the Chatsworth - Porter Ranch CPA would have a population of approximately 85,724 residents, which would not exceed or conflict with the population projections for year 2005.

³⁰ If the number of housing units generated by Full Build-Out Alternative A is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there will be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Full Build-Out Alternative B would increase housing units by approximately 486 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,551 housing units over existing conditions (19,335 single family units and 12,216 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units).³¹

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Full Build-Out Alternative B is anticipated to incrementally increase employment by approximately 3,985 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 53,499 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Full Build-Out Alternative B would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Full Build-Out Alternative B complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

Full Build-Out Alternative C

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.2.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the growth projections in the General Plan, then it is consistent with the growth assumptions in the AQMP.

³¹ If the number of housing units generated by Full Build-Out Alternative B is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to reach approximately 102,360 residents by the year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 1,990 residents. Thus, the Chatsworth - Porter Ranch CPA would have a population of approximately 86,724 residents, which would not exceed or conflict with the population projections for year 2005.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there will be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Full Build-Out Alternative C would increase housing units by approximately 886 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,951 housing units over existing conditions (19,335 single family units and 12,616 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family units and 13,510 multi-family units).³²

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Full Build-Out Alternative C is anticipated to incrementally increase employment by approximately 1,195 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 50,709 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

Full Build-Out Alternative C would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

As discussed, Full Build-Out Alternative C complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

³² If the number of housing units generated by Full Build-Out Alternative C is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

Full Build-Out Alternative D

Consistency Criterion No. 1. The violations that Consistency Criterion No. 1 refers to are the CAAQS. The SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic. The CO hotspot analysis in **Section 3.5.2.2** indicates that the proposed project would not exacerbate existing violations of the State CO concentration standard and no significant adverse impacts are anticipated. Therefore, the proposed project complies with Consistency Criterion 1.

Consistency Criterion No. 2. The AQMP growth assumptions are generated by the SCAG. SCAG derives its assumptions, in part, based on the General Plans of cities located within the SCAG region. Therefore, if a project does not exceed the SCAG or General Plan growth projections, then it is consistent with the growth assumptions in the AQMP.

According to the year 2000 Census, the Chatsworth - Porter Ranch CPA has approximately 84,734 residents. The City of Los Angeles Citywide General Plan EIR estimates the population of the Chatsworth - Porter Ranch CPA to reach approximately 102,360 residents by the year 2010. Using population data for year 2000 and 2010, it is estimated that population within the CPA would increase to approximately 119,990 residents by year 2005. The proposed project would increase population in the CPA by approximately 1,990 residents. Thus, the Chatsworth - Porter Ranch CPA would have a population of approximately 86,724 residents, which would not exceed or conflict with the population projections for year 2005.

Housing estimates provided by the City of Los Angeles City Planning Department for the year 2000 indicate that the Chatsworth - Porter Ranch CPA currently has approximately 31,065 housing units (19,335 single family housing units and 11,730 multi-family units). The City of Los Angeles Citywide General Plan EIR estimates that there will be approximately 37,290 housing units in the CPA by year 2010 (22,062 single family housing units and 15,288 multi-family housing units). Using year 2000 and 2010 housing data, it is estimated that there would be approximately 34,210 housing units (20,700 single family housing units and 13,510 multi-family housing units) in the CPA by year 2005. Full Build-Out Alternative D would increase housing units by approximately 886 units. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 31,951 housing units over existing conditions (approximately 19,335 single family units and 12,616 multi-family units), which would not exceed year 2005 housing projections of approximately 34,210 housing units (20,700 single family units and 13,510 multi-family units).³³

The City of Los Angeles Planning Department indicates that there are approximately 49,514 jobs in the Chatsworth - Porter Ranch CPA for the year 2000. The SCAG employment projections indicate that there would be approximately 64,349 jobs in the area by year 2005. Full Build-Out Alternative D is anticipated to incrementally increase employment by approximately 3,008 jobs over existing conditions in the area. Thus, the Chatsworth - Porter Ranch CPA would have a total of approximately 52,522 jobs, which would not exceed year 2005 employment projections of 64,349 jobs.

³³ If the number of housing units generated by Full Build-Out Alternative D is combined with the housing units generated by the eight related projects in the area, the total number of housing, when added onto existing conditions, would exceed year 2005 housing projections. The AQMP consistency criteria, however, pertain to impacts associated with the proposed project rather than impacts of the proposed project when combined with other projects in the area.

Full Build-Out Alternative D would not exceed the City of Los Angeles General Plan or SCAG growth projections for population, housing, and employment. Thus, this alternative is considered consistent with the growth assumptions in the AQMP and complies with Consistency Criterion No. 2.

Full Build-Out Alternative D complies with Consistency Criterion No. 1 and Consistency Criterion No. 2. Therefore, the proposed project is considered consistent with the AQMP.

4.0 NOISE

This section evaluates noise impacts due to the implementation of the proposed Northridge Zone Change and Plan Amendment project. The noise analysis in this section assesses the following: existing noise conditions at the proposed project site and its vicinity, as well as short-term construction and long-term operational noise impacts associated with the proposed project. Mitigation measures for potentially significant impacts are recommended where appropriate.

4.1 NOISE CHARACTERISTICS AND EFFECTS

4.1.1 Characteristics of Sound

Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The “A-weighted scale,” abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA.

4.1.2 Definitions

This noise analysis discusses sound levels in terms of Community Noise Equivalent Level (CNEL) and Equivalent Noise Level (Leq).

Community Noise Equivalent Level. CNEL is an average sound level during a 24-hour day. CNEL is a noise measurement scale, which accounts for noise source, distance, single event duration, single event occurrence, frequency, and time of day. Human reaction to sound between 7:00 p.m. and 10:00 p.m. is as if the sound were actually five decibels higher than if it occurred from 7:00 a.m. to 7:00 p.m. From 10:00 p.m. to 7:00 a.m., humans perceive sound as if it were 10 dBA higher due to the lower background level. Hence, the CNEL is obtained by adding an additional five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m., and 10 dBA to sound levels in the night before 7:00 a.m. and after 10:00 p.m. Because CNEL accounts for human sensitivity to sound, the CNEL 24-hour figure is always a higher number than the actual 24-hour average.

Equivalent Noise Level. Leq is the average noise level on an energy basis for any specific time period. The Leq for one hour is the energy average noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. Leq can be thought of as the level of a continuous noise which has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

4.1.3 Effects of Noise

Noise is generally defined as unwanted sound. The degree to which noise can impact the human environment range from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.

4.1.4 Audible Noise Changes

Studies have shown that the smallest perceptible change in sound level is approximately three decibels. A change of at least five decibels would be noticeable and would likely evoke a community reaction. A ten decibel increase is subjectively heard as approximately a doubling in loudness and would most certainly cause a community response.

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or “point source,” will decrease by approximately six decibels over hard surfaces and nine decibels over soft surfaces for each doubling of the distance. For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet, and so on.

4.2 EXISTING ENVIRONMENTAL SETTING

4.2.1 Existing Noise Environment

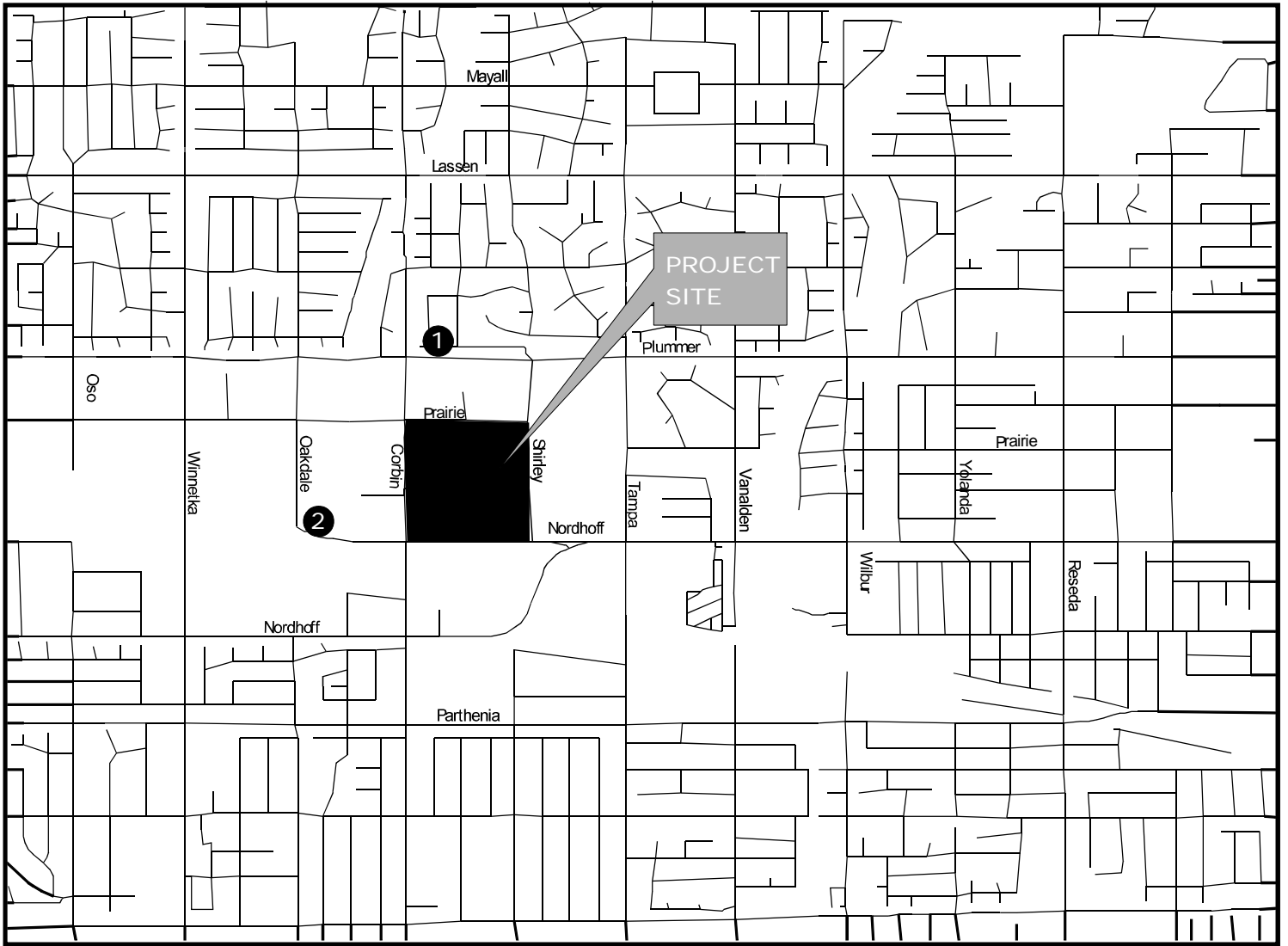
The proposed project is located in an urban environment. The existing noise environment is characterized by the mix of land uses within it, which includes residences, commercial and industrial developments, and arterial roadways. Vehicular traffic is the primary source of noise in the project vicinity and is the largest consistent noise source in the project vicinity.

4.2.2 Sensitive Receptors

Land uses that are considered sensitive to noise impacts are referred to as “sensitive receptors.” Noise sensitive receptors consist of, but are not limited to, schools, residences, libraries, hospitals, and other care facilities.

Sound measurements were taken using a Quest Q-400 Noise Dosimeter during the hours between 1:00 p.m. -2:30 p.m. on August 20, 2002 at various sensitive receptor locations within the vicinity of the project site. These readings were used to establish existing ambient conditions and provide a baseline from which to evaluate construction noise impacts. The locations of the noise monitoring positions are shown in **Figure 4-1**. These locations consist of representative noise sensitive land uses, which include nearby residences and a daycare center. The existing noise levels, as recorded, are listed in **Table 4-1**. As shown, existing ambient sound levels range between 56.1 and 59.6 dBA (Leq).

TABLE 4-1: EXISTING NOISE LEVELS (dBA, Leq)	
Sensitive Receptors	Sound Level
N1 Residential Uses (on Plummer Street and Corbin Avenue)	56.1
N2 Washington Mutual Child Care Center	59.6
SOURCE: Terry A. Hayes Associates LLC.	



LEGEND:



Project Site

- 1. Residential Uses
- 2. Washington Mutual Child Care Center



SOURCE: Terry A. Hayes Associates LLC



Northridge Zone Change &
Plan Amendment

PLANNING ASSOCIATES INC.

FIGURE 4-1

NOISE MONITORING POSITIONS

4.2.3 Vehicular Traffic

As stated earlier, vehicular traffic is the predominant noise source in the project vicinity. Using existing traffic volumes provided by the project traffic consultant and the Federal Highway Administration (FHWA) RD-77-108 noise calculation formulas, a CNEL has been calculated for the two sensitive receptors (N1 and N2). The CNEL is used as a baseline to measure the proposed projects' operational noise impacts (see **Table 4-2**).³⁴ The estimated noise levels represent the most conservative scenario, which assume that no shielding is provided between the traffic and the location of each sensitive receptor.

TABLE 4-2: EXISTING ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL (dBA, CNEL)	
Sensitive Receptor	Estimated dBA, CNEL
N1 Residential Uses (on Plummer Street and Corbin Avenue)	75.4
N2 Washington Mutual Child Care Center	67.0
SOURCE: Terry A. Hayes Associates LLC. See Appendix H .	

3.3 SIGNIFICANCE CRITERIA

3.3.1 Construction Phase Significance Criteria

A significant construction impact would result if:

- The proposed project were to add five decibels or more to the current ambient exterior noise level at a sensitive receptor location.


3.3.2 Operational Phase Significant Criteria


The proposed projects would result in a significant impact during the operational phase if:


- The proposed project causes the ambient noise level measured at the property line of the affected uses to increase by three decibels (CNEL) to or within the “normally unacceptable” or “clearly unacceptable” category (see **Table 4-3**) or any five decibel or more increase in noise level.


³⁴ The assumptions used in developing vehicular noise levels are provided in **Appendix H**.

TABLE 4-3: LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS							
Land Use Category	Community Noise Exposure (dBA, CNEL)						
	55	60	65	70	75	80	
Residential - Low Density Single-Family, Duplex, Mobile Homes	[Normally Acceptable]						
	[Conditionally Acceptable]				[Normally Unacceptable]		
	[Clearly Unacceptable]						
Residential - Multi-Family	[Normally Acceptable]						
	[Conditionally Acceptable]				[Normally Unacceptable]		
	[Clearly Unacceptable]						
Transient Lodging - Motels Hotels	[Normally Acceptable]						
	[Conditionally Acceptable]				[Normally Unacceptable]		
	[Clearly Unacceptable]						
Schools, Libraries, Churches, Hospitals, Nursing Homes	[Normally Acceptable]						
	[Conditionally Acceptable]				[Normally Unacceptable]		
	[Clearly Unacceptable]						
Auditoriums, Concert Halls, Amphitheaters	[Normally Acceptable]						
	[Conditionally Acceptable]				[Normally Unacceptable]		
	[Clearly Unacceptable]						
Sports Arena, Outdoor Spectator Sports	[Normally Acceptable]						
	[Conditionally Acceptable]				[Normally Unacceptable]		
	[Clearly Unacceptable]						
Playgrounds, Neighborhood Parks	[Normally Acceptable]						
	[Conditionally Acceptable]				[Normally Unacceptable]		
	[Clearly Unacceptable]						
Golf Courses, Riding Stables, Water Recreation, Cemeteries	[Normally Acceptable]						
	[Conditionally Acceptable]				[Normally Unacceptable]		
	[Clearly Unacceptable]						
Office Buildings, Business Commercial and Professional	[Normally Acceptable]						
	[Conditionally Acceptable]				[Normally Unacceptable]		
	[Clearly Unacceptable]						
Industrial, Manufacturing, Utilities, Agriculture	[Normally Acceptable]						
	[Conditionally Acceptable]				[Normally Unacceptable]		
	[Clearly Unacceptable]						

 **Normally Acceptable** - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

 **Conditionally Acceptable** - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditionally will normally suffice.

 **Normally Unacceptable** - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

 **Clearly Unacceptable** - New construction or development should generally not be undertaken.

SOURCE: California Office of Noise Control, Department of Health Services.

4.4 ENVIRONMENTAL IMPACTS

4.4.1 Krausz Property Only

4.4.1.1 Construction Phase Impacts

Construction of the Krausz Property Only scenario would result in temporary increases in ambient noise levels in the project area on an intermittent basis. The increase in noise would likely result in a temporary annoyance to nearby sensitive receptors. Noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

Construction activities require the use of numerous noise generating equipment, such as jack hammers, pneumatic impact equipment, saws, and tractors. Typical noise levels from various types of equipment that may be used during construction are listed in **Table 4-4**. The table shows noise levels at distances of 50 and 100 feet from the construction noise source.

TABLE 4-4: MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION EQUIPMENT - KRAUSZ PROPERTY ONLY		
Noise Source	Noise Level (dBA) /a/	
	50 Feet	100 Feet
Jackhammer	82	76
Steamroller	83	77
Street Paver	80	74
Backhoe	83	77
Street Compressor	67	61
Front-end Loader	79	73
Street Cleaner	70	64
Idling Haul Truck	72	66
Cement Mixer	72	66

/a/ Assumes a six decibel drop-off rate for noise generated by a "point source" and traveling over hard surfaces. Actual measured noise levels of the equipment listed in this table were taken at distances of 10 and 30 feet from the noise source.
SOURCE: Cowan, James P., Handbook of Environmental Acoustics, 1994.

Whereas **Table 4-4** shows the noise level of each equipment, the noise levels shown in **Table 4-5** take into account the likelihood that more than one piece of construction equipment would be in operation at the same time and lists the typical overall noise levels that would be expected for each phase of construction. These noise levels are based on surveys conducted by the USEPA in the early 1970's. Since 1970, regulations have been enforced to improve noise generated by certain types of construction equipment to meet worker noise exposure standards. However, many older pieces of equipment are still in use. Thus, the construction phase noise levels indicated in **Table 4-5** represent worst-case conditions. As the table shows, the highest noise levels are expected to occur during the grading/excavation and finishing phases of construction.

TABLE 4-5: OUTDOOR CONSTRUCTION NOISE LEVELS - KRAUSZ PROPERTY ONLY		
Construction Phase	Noise Level (dBA Leq)	
	At 50 Feet	At 50 Feet with Mufflers
Ground Clearing	84	82
Grading/Excavation	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

SOURCE: Environmental Protection Agency , Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

Krausz Property Only Alternative A. To ascertain worst-case noise impacts at sensitive receptor locations, construction noise has been modeled by introducing the noise level associated with the grading phase of a typical development. The noise source is assumed to be active for forty percent of the eight-hour work day (consistent with the EPA studies of construction noise), generating a noise level of 89 dBA (Leq) at a reference distance of 50 feet.

The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level.³⁵ The estimated construction noise levels at sensitive receptors are shown in **Table 4-6**.

TABLE 4-6: CONSTRUCTION NOISE IMPACT - KRAUSZ PROPERTY ONLY							
Receptor	Distance (feet) /a/	Maximum Construction Sound Level (dBA) /b/	Existing Ambient (dBA, Leq) /c/	New Ambient (dBA, Leq) /d/	Increase	Significance Threshold	Impact?
N1	950	63.4	56.1	57.8	1.7 dBA	\$ 5 dBA	No
N2	840	64.5	59.6	60.3	0.7 dBA	\$ 5 dBA	No

/a/ Distance of noise source from receptor.
/b/ Construction noise source's sound level at receptor location, with distance adjustment.
/c/ Pre-construction activity ambient sound level at receptor location.
/d/ New sound level at receptor location during the construction period, including noise from construction activity.
SOURCE: Terry A. Hayes Associates LLC.

As indicated in **Table 4-6**, the new ambient noise level during the construction phase of the proposed project would be approximately 1.7 dBA greater than the existing ambient noise level at N1 (residential uses) and approximately 0.7 dBA greater than existing ambient noise levels at N2 (Washington Mutual Child Care Center). The incremental increase in noise levels is less than the significance threshold of a five decibel increase over the existing ambient noise level. Thus, a less than significant impact would occur.

³⁵ United States Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974.

Krausz Property Only Alternative B. Construction impacts associated with this alternative is similar to the construction impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Krausz Property Only Alternative B. Construction impacts associated with this alternative is similar to the construction impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Krausz Property Only Alternative C. Construction impacts associated with this alternative is similar to the construction impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Krausz Property Only Alternative D. Construction impacts associated with this alternative is similar to the construction impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Construction Phase Mitigation Measures

None Required.

Impacts After Mitigation

Krausz Property Only Alternative A. Less than significant impact is anticipated since construction for the proposed project would not increase ambient noise levels by five decibels or more at sensitive receptor locations.

Krausz Property Only Alternative B. Construction impacts associated with this alternative is similar to the impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Krausz Property Only Alternative C. Construction impacts associated with this alternative is similar to the impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

Krausz Property Only Alternative D. Construction impacts associated with this alternative is similar to the impacts for Krausz Property Only Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Krausz Property Only Alternative A.

4.4.1.2 Operational Phase Impacts

Vehicular Noise

Krausz Property Only Alternative A. The predominant noise source for Krausz Property Only Alternative A, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law & Greenspan, Krausz Property Only Alternative A is forecasted to generate an additional 10,714 daily vehicle trips.³⁶

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-7**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Krausz Property Only Alternative A. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-7**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Krausz Property Only Alternative A” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three or more decibels. As shown in **Table 4-7**, Krausz Property Only Alternative A would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Krausz Property Only Alternative B. The predominant noise source for Krausz Property Only Alternative B, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law & Greenspan, Krausz Property Only Alternative B is forecasted to generate an additional 6,094 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-7**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Krausz Property Only Alternative B. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-7**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project”

³⁶ Traffic Impact Study, Karusz Property Project, Linscott, Law & Greenspan, August 1, 2002.

conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Krausz Property Only Alternative B” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three decibel or more. As shown in **Table 4-7**, Krausz Property Only Alternative B would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Krausz Property Only Alternative C. The predominant noise source for Krausz Property Only Alternative C, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law & Greenspan, Krausz Property Only Alternative C is forecasted to generate an additional 10,056 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-7**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Krausz Property Only Alternative C. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-7**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Krausz Property Only Alternative C” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three or more decibels. As shown in **Table 4-7**, Krausz Property Only Alternative C would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Krausz Property Only Alternative D. The predominant noise source for Krausz Property Only Alternative D, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law & Greenspan, Krausz Property Only Alternative D is forecasted to generate an additional 6,076 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-7**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Krausz Property Only Alternative D. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-7**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Krausz Property Only Alternative D” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three decibel or more. As shown in **Table 4-7**, Krausz Property Only Alternative D would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

TABLE 4-7: 2005 ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL - KRAUSZ PROPERTY ONLY

Sensitive Receptor	Estimated dBA, CNEL					
	Existing	No Project	Alternative A	Alternative B	Alternative C	Alternative D
N1	75.4	76.0	76.2	76.2	76.2	76.2
N2	67.0	68.7	68.7	68.7	68.7	68.7

Assumptions:
 Vehicular traffic is the predominate noise source.
 The 24-hour distribution is 75, 13, and 12 percent for 7:00 a.m. to 7:00 p.m., 7:00 to 10:00 p.m., and 10:00 p.m. to 7:00 a.m., respectively.
 The vehicle distribution is approximately 87 percent, 7 percent, and 6 percent for auto, medium truck, and heavy truck, respectively.
SOURCE: Terry A. Hayes Associates LLC. See **Appendix H**.

Operational Phase Mitigation Measures

None Required.

Impacts After Mitigation

Krausz Property Only Alternative A. Sensitive receptor N1 is currently within the “normally unacceptable” category of the Land Use Compatibility Chart. At N1, incremental increases in noise levels under Krausz Property Only Alternative A is less-than-one decibel when compared to “existing” and “no project” conditions. The incremental increase does not exceed the significance criteria of a three decibel or more increase to or within the “normally unacceptable” or “clearly unacceptable” category of the Land Use Compatibility Chart. Thus, a less than significant impact is anticipated at N1.

Sensitive receptor N2 is currently within the “conditionally acceptable” category of the Noise Land Use Compatibility Chart. N2 would remain within the “conditionally acceptable” category under Krausz Property Only Alternative A. Incremental increases at N2 is 1.7 decibels and less-than- one decibel when compared to “existing” and “no project” conditions, respectively. This incremental increase would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Krausz Property Only Alternative B. Impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since this alternative would have similar noise levels as Krausz Property Only Alternative A.

Krausz Property Only Alternative C. Impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since this alternative would have similar noise levels as Krausz Property Only Alternative A.

Krausz Property Only Alternative D. Impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since this alternative would have similar noise levels as Krausz Property Only Alternative A.

4.4.1.3 *Cumulative Impacts*

Krausz Property Only Alternative A. When calculating future traffic impacts, the traffic consultant took eight additional projects into consideration. Thus, future traffic volumes with and without the proposed project already account for the cumulative impacts from these other projects. Since noise impacts are generated directly from the traffic analysis results, future with project and future without project noise impacts described in this report already reflect cumulative impacts.

As discussed above in **Section 4.4.1.2**, Krausz Property Only Alternative A would incrementally increase noise levels by less-than-one decibel at N1 when compared to “existing” and “no project” conditions. The incremental increase does not exceed the noise threshold of a three or more decibel increase to or within the “normally unacceptable” or “clearly unacceptable” category. Incremental increases of 1.7 decibels at N2 is anticipated when compared to “existing” conditions. When compared to “no project” conditions, incremental increases of less-than-one decibel is expected at N2. The incremental increase does not exceed the noise threshold of a five or more decibels over ambient noise levels. Krausz Property Only Alternative A is not anticipated to exceed the operational phase significance criteria. Thus, it is anticipated that Krausz Property Only Alternative A would not significantly contribute to cumulative noise impacts.

Krausz Property Only Alternative B. Cumulative impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.1.2**, reflects cumulative impacts and would have similar noise levels as Krausz Property Only Alternative A.

Krausz Property Only Alternative C. Cumulative impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.1.2**, reflects cumulative impacts and would have similar noise levels as Krausz Property Only Alternative A.

Krausz Property Only Alternative D. Cumulative impacts associated with this alternative is similar to impacts for Krausz Property Only Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.1.2**, reflects cumulative impacts and would have similar noise levels as Krausz Property Only Alternative A.

4.4.2 Full Build-Out

4.4.2.1 Construction Phase Impacts

Construction of the Full Build-Out scenario would result in temporary increases in ambient noise levels in the project area on an intermittent basis. The increase in noise would likely result in a temporary annoyance to nearby sensitive receptors. Noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

Construction activities require the use of numerous noise generating equipment, such as jack hammers, pneumatic impact equipment, saws, and tractors. Typical noise levels from various types of equipment that may be used during construction are listed in **Table 4-8**. The table shows noise levels at distances of 50 and 100 feet from the construction noise source.

TABLE 4-8: MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION EQUIPMENT - FULL BUILD-OUT

Noise Source	Noise Level (dBA) /a/	
	50 Feet	100 Feet
Jackhammer	82	76
Steamroller	83	77
Street Paver	80	74
Backhoe	83	77
Street Compressor	67	61
Front-end Loader	79	73
Street Cleaner	70	64
Idling Haul Truck	72	66
Cement Mixer	72	66

/a/ Assumes a six decibel drop-off rate for noise generated by a "point source" and traveling over hard surfaces. Actual measured noise levels of the equipment listed in this table were taken at distances of 10 and 30 feet from the noise source.
SOURCE: Cowan, James P., *Handbook of Environmental Acoustics*, 1994.

Whereas **Table 4-8** shows the noise level of each equipment, the noise levels shown in **Table 4-9** take into account the likelihood that more than one piece of construction equipment would be in operation at the same time and lists the typical overall noise levels that would be expected for each phase of construction. These noise levels are based on surveys conducted by the USEPA in the early 1970's. Since 1970, regulations have been enforced to improve noise generated by certain types of construction equipment to meet worker noise exposure standards. However, many older pieces of equipment are still in use. Thus, the construction phase noise levels indicated in **Table 4-9** represent worst-case conditions. As the table shows, the highest noise levels are expected to occur during the grading/excavation and finishing phases of construction.

TABLE 4-9: OUTDOOR CONSTRUCTION NOISE LEVELS - FULL BUILD-OUT

Construction Phase	Noise Level (dBA Leq)	
	At 50 Feet	At 50 Feet with Mufflers
Ground Clearing	84	82
Grading/Excavation	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

SOURCE: Environmental Protection Agency , Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

Full Build-Out Alternative A. To ascertain worst-case noise impacts at sensitive receptor locations, construction noise has been modeled by introducing the noise level associated with the grading phase of a typical development. The noise source is assumed to be active for forty percent of the eight-hour work day (consistent with the EPA studies of construction noise), generating a noise level of 89 dBA (Leq) at a reference distance of 50 feet.

The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level.³⁷ The estimated construction noise levels at sensitive receptors are shown in **Table 4-10**.

TABLE 4-10: CONSTRUCTION NOISE IMPACT - FULL BUILD-OUT							
Receptor	Distance (feet) /a/	Maximum Construction Sound Level (dBA) /b/	Existing Ambient (dBA, Leq) /c/	New Ambient (dBA, Leq) /d/	Increase	Significance Threshold	Impact?
N1	800	64.9	56.1	58.6	2.5 dBA	\$ 5 dBA	No
N2	840	64.5	59.6	60.3	0.7 dBA	\$ 5 dBA	No

/a/ Distance of noise source from receptor.
/b/ Construction noise source's sound level at receptor location, with distance adjustment.
/c/ Pre-construction activity ambient sound level at receptor location.
/d/ New sound level at receptor location during the construction period, including noise from construction activity.
SOURCE: Terry A. Hayes Associates LLC.

As indicated in **Table 4-10**, the new ambient noise level during the construction phase of the proposed project would be approximately 2.5 dBA greater than the existing ambient noise level at N1 (residential uses) and approximately 0.7 dBA greater than existing ambient noise levels at N2 (Washington Mutual Child Care Center). The incremental increase in noise levels is less than the significance threshold of a five decibel increase over the existing ambient noise level. Thus, a less than significant impact would occur.

Full Build-Out Alternative B. Construction impacts associated with this alternative is similar to the construction impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

Full Build-Out Alternative C. Construction impacts associated with this alternative is similar to the construction impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

Full Build-Out Alternative D. Construction impacts associated with this alternative is similar to the construction impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

Construction Phase Mitigation Measures

None Required.

³⁷ United States Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974.

Impacts After Mitigation

Full Build-Out Alternative A. Less than significant impact is anticipated under Full Build-Out Alternative A since construction for the proposed project would not increase ambient noise levels by five decibels or more at sensitive receptor locations.

Full Build-Out Alternative B. Construction impacts associated with this alternative is similar to the impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

Full Build-Out Alternative C. Construction impacts associated with this alternative is similar to the impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

Full Build-Out Alternative D. Construction impacts associated with this alternative is similar to the impacts for Full Build-Out Alternative A since construction for this alternative would occur within the same area and would have similar construction phases as Full Build-Out Alternative A.

4.4.2.2 *Operational Phase Impacts*

Vehicular Noise

Full Build-Out Alternative A. The predominant noise source for Full Build-Out Alternative A, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law, and Greenspan, Full Build-Out Alternative A is forecasted to generate an additional 13,136 daily vehicle trips.³⁸

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-11**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Full Build-Out Alternative A. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-11**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

³⁸ Traffic Impact Study, Krausz Property Project, Linscott, Law & Greenspan, August 1, 2002.

Under “existing,” “no project,” and “Full Build-Out Alternative A” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three or more decibels. As shown in **Table 4-11**, Full Build-Out Alternative A would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Full Build-Out Alternative B. The predominant noise source for Full Build-Out Alternative B, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law, and Greenspan, Full Build-Out Alternative B is forecasted to generate an additional 7,716 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-8**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.3 dBA (CNEL) under Full Build-Out Alternative B. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-8**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Full Build-Out Alternative B” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three decibel or more. As shown in **Table 4-11**, Full Build-Out Alternative B would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Full Build-Out Alternative C. The predominant noise source for Full Build-Out Alternative C, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law, and Greenspan, Full Build-Out Alternative C is forecasted to generate an additional 12,210 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-11**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Full Build-Out Alternative C. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise

levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-11**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Full Build-Out Alternative C” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three decibel or more. As shown in **Table 4-11**, Full Build-Out Alternative C would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

Full Build-Out Alternative D. The predominant noise source for Full Build-Out Alternative D, as with most urbanized areas, is vehicular traffic. According to the project traffic report prepared by Linscott, Law, and Greenspan, Full Build-Out Alternative D is forecasted to generate an additional 7,428 daily vehicle trips.

Utilizing the FHWA RD77108 noise calculation formulas, predicted traffic volumes can be used to estimate project-related traffic noise impacts. Based on daily peak hour traffic volumes provided in the project traffic report, a CNEL was calculated for two sensitive receptors (N1 and N2). As indicated in **Table 4-11**, vehicular noise at sensitive receptor N1 (single family residential on Plummer Street and Corbin Avenue) is approximately 76.2 dBA (CNEL) under Full Build-Out Alternative D. Vehicular noise at sensitive receptor N2 (Washington Mutual Child Care Center) is approximately 68.7 dBA (CNEL). According to the Land Use Compatibility Chart (**Table 4-3**), noise levels at the two sensitive receptors must be 70 dBA or lower in order to be within the “normally compatible” or “conditionally acceptable” category. As shown in **Table 4-11**, N2 would remain within the “conditionally acceptable” category of the Land Use Compatibility Chart. Additionally, incremental increase in noise level at N2 is less-than-one decibel when compared to “no project” conditions and approximately 1.7 dBA when compared to “existing” conditions. The incremental increase in noise level would not be perceptible by the general public and would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Under “existing,” “no project,” and “Full Build-Out Alternative D” conditions, N1 is within the “normally unacceptable” category of the Land Use Compatibility Chart. According to the significance criteria, areas that are within the “normally unacceptable” or “clearly unacceptable” category would have a significant impact if ambient noise levels incrementally increase by three decibel or more. As shown in **Table 4-11**, Full Build-Out Alternative D would incrementally increase noise levels by less-than-one decibel when compared to “existing” and “no project” conditions, which would not exceed the significance criteria. Thus, a less than significant impact is anticipated at N1.

TABLE 4-11: 2005 ESTIMATED COMMUNITY NOISE EQUIVALENT LEVEL - FULL BUILD-OUT

Sensitive Receptor	Estimated dBA, CNEL					
	Existing	No Project	Alternative A	Alternative B	Alternative C	Alternative D
N1	75.4	76.0	76.2	76.3	76.2	76.2
N2	67.0	68.7	68.7	68.7	68.7	68.7

Assumptions:
 Vehicular traffic is the predominate noise source.
 The 24-hour distribution is 75, 20, and 5 percent for 7:00 a.m. to 7:00 p.m., 7:00 to 10:00 p.m., and 10:00 p.m. to 7:00 a.m., respectively.
 The vehicle distribution is approximately 91 percent, 6 percent, and 3 percent for auto, medium truck, and heavy truck, respectively.
 SOURCE: Terry A. Hayes Associates LLC. See **Appendix H**.

Operational Phase Mitigation Measures

None Required.

Impacts After Mitigation

Full Build-Out Alternative A. Sensitive receptor N1 is currently within the “normally unacceptable” category of the Land Use Compatibility Chart. At N1, incremental increases in noise levels under Full Build-Out Alternative A is less-than-one decibel when compared to “existing” and “no project” conditions. The incremental increase does not exceed the significance criteria of a three decibel or more increase to or within the “normally unacceptable” or “clearly unacceptable” category of the Land Use Compatibility Chart. Thus, a less than significant impact is anticipated at N1.

Sensitive receptor N2 is currently within the “conditionally acceptable” category of the Noise Land Use Compatibility Chart. N2 would remain within the “conditionally acceptable” category under Full Build-Out Alternative A. Incremental increases at N2 is 1.7 decibels and less-than-one decibel when compared to “existing” and “no project” conditions, respectively. This incremental increase would not exceed the significance criteria of a five decibel or more increase in noise level. Thus, a less than significant impact is anticipated at N2.

Full Build-Out Alternative B. Impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since this alternative would have similar noise levels as Full Build-Out Alternative A.

Full Build-Out Alternative C. Impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since this alternative would have similar noise levels as Full Build-Out Alternative A.

Full Build-Out Alternative D. Impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since this alternative would have similar noise levels as Full Build-Out Alternative A.

4.4.2.3 Cumulative Impacts

Full Build-Out Alternative A. When calculating future traffic impacts, the traffic consultant took eight additional projects into consideration. Thus, future traffic volumes with and without the proposed project already account for the cumulative impacts from these other projects. Since noise impacts are generated directly from the traffic analysis results, future with project and future without project noise impacts described in this report already reflect cumulative impacts.

As discussed above in **Section 4.4.2.2**, Full Build-Out Alternative A would incrementally increase noise levels by less-than-one decibel at N1 when compared to “existing” and “no project” conditions. The incremental increase does not exceed the noise threshold of a three or more decibels increase to or within the “normally unacceptable” or “clearly unacceptable” category. Incremental increases of 1.7 decibels at N2 is anticipated when compared to “existing” conditions. When compared to “no project” conditions, incremental increases of less-than-one decibel is expected at N2. The incremental increase does not exceed the noise threshold of a five or more decibels over ambient noise levels. Full Build-Out Alternative A is not anticipated to exceed the operational phase significance criteria. Thus, it is anticipated that Full Build-Out Alternative A would not significantly contribute to cumulative noise impacts.

Full Build-Out Alternative B. Cumulative impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.2.2**, reflects cumulative impacts and would have similar noise levels as Full Build-Out Alternative A.

Full Build-Out Alternative C. Cumulative impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.2.2**, reflects cumulative impacts and would have similar noise levels as Full Build-Out Alternative A.

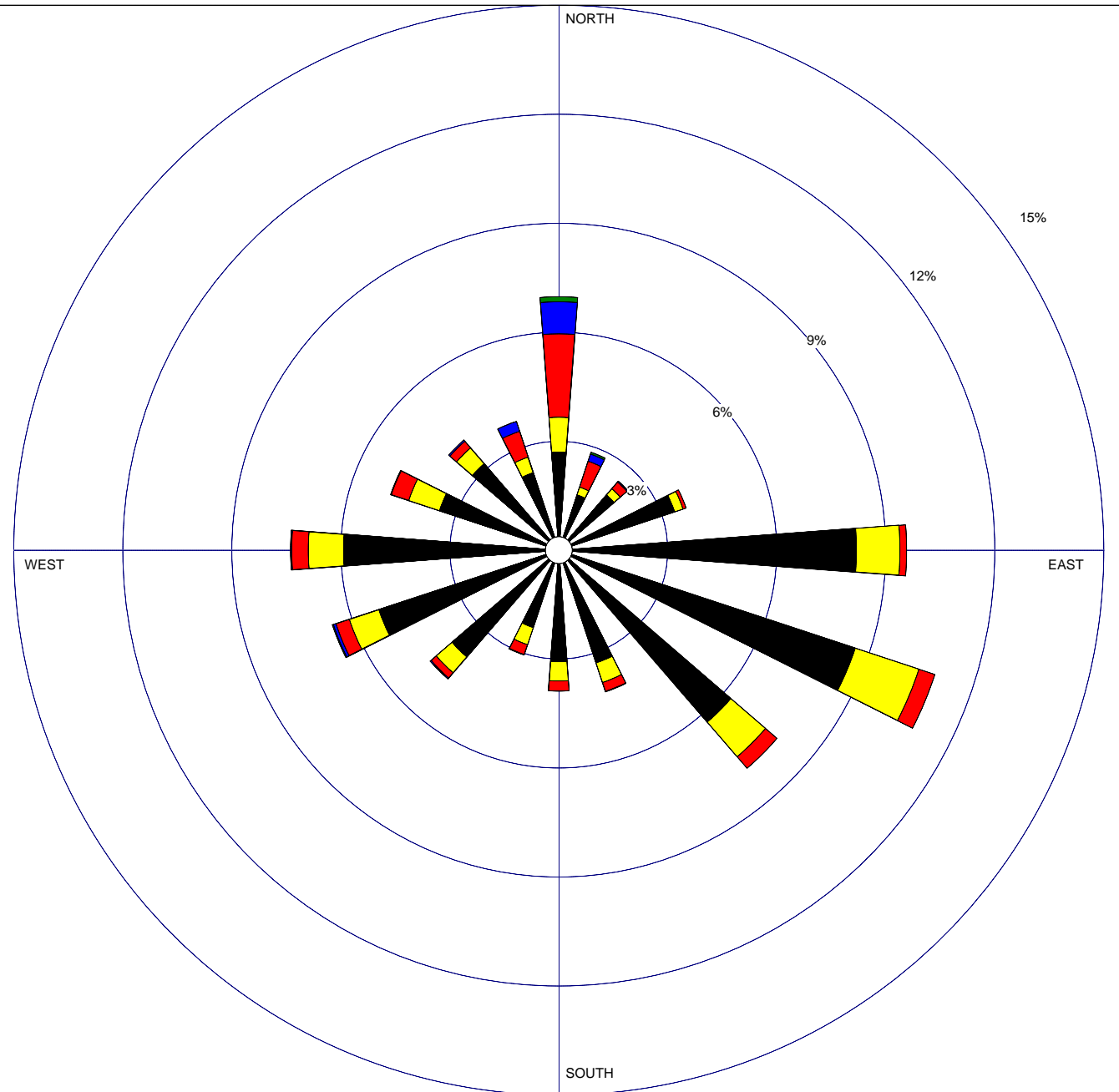
Full Build-Out Alternative D. Cumulative impacts associated with this alternative is similar to impacts for Full Build-Out Alternative A since noise impacts for this alternative, as discussed in **Section 4.4.2.2**, reflects cumulative impacts and would have similar noise levels as Full Build-Out Alternative A.

APPENDIX A

Climate Information

WIND ROSE PLOT

Station #51107 - Reseda, 1/1-12/31



<p>Wind Speed (m/s)</p>	<p>MODELER</p>	<p>DATE</p> <p>8/19/2002</p>	<p>COMPANY NAME</p>
	<p>DISPLAY</p> <p>Wind Speed</p>	<p>UNIT</p> <p>m/s</p>	<p>COMMENTS</p>
	<p>AVG. WIND SPEED</p> <p>1.79 m/s</p>	<p>CALM WINDS</p> <p>12.82%</p>	
	<p>ORIENTATION</p> <p>Direction (blowing from)</p>	<p>PLOT YEAR-DATE-TIME</p> <p>1981 Midnight - 11 PM</p>	<p>PROJECT/PLOT NO.</p>

Station ID : 51107

RUN ID : Reseda

Years : 1981

1/1-12/31

Start Time : Midnight

End Time : 11 PM

Frequency Distribution
(Count)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.51-2.06	2.06-3.60	3.60-5.66	5.66-8.75	8.75-10.80	>10.80	Total
N	237	84	201	78	13	0	613
NNE	141	20	66	19	4	0	250
NE	177	20	22	3	1	0	223
ENE	294	21	9	0	0	0	324
E	717	106	17	0	0	0	840
ESE	752	162	41	0	0	0	955
SE	547	111	38	0	0	0	696
SSE	286	51	23	2	0	0	362
S	270	46	25	1	0	0	342
SSW	198	44	25	2	0	0	269
SW	340	50	18	3	0	0	411
WSW	457	75	35	7	3	0	577
W	519	86	40	3	1	0	649
WNW	304	78	45	2	1	0	430
NW	276	50	21	4	0	0	351
NNW	198	40	66	25	1	0	330
Total	5713	1044	692	149	24	0	

Frequency of Calm Winds : 1121

Average Wind Speed : 1.79 m/s

Station ID : 51107

RUN ID : Reseda

Years : 1981

1/1-12/31

Start Time : Midnight

End Time : 11 PM

Frequency Distribution
(Normalized)

Wind Direction (Blowing From) / Wind Speed (m/s)

	0.51-2.06	2.06-3.60	3.60-5.66	5.66-8.75	8.75-10.80	>10.80	Total
N	0.027107	0.009608	0.022990	0.008921	0.001487	0.000000	0.070113
NNE	0.016127	0.002288	0.007549	0.002173	0.000458	0.000000	0.028594
NE	0.020245	0.002288	0.002516	0.000343	0.000114	0.000000	0.025506
ENE	0.033627	0.002402	0.001029	0.000000	0.000000	0.000000	0.037058
E	0.082008	0.012124	0.001944	0.000000	0.000000	0.000000	0.096077
ESE	0.086012	0.018529	0.004689	0.000000	0.000000	0.000000	0.109230
SE	0.062564	0.012696	0.004346	0.000000	0.000000	0.000000	0.079607
SSE	0.032712	0.005833	0.002631	0.000229	0.000000	0.000000	0.041405
S	0.030882	0.005261	0.002859	0.000114	0.000000	0.000000	0.039117
SSW	0.022647	0.005033	0.002859	0.000229	0.000000	0.000000	0.030767
SW	0.038888	0.005719	0.002059	0.000343	0.000000	0.000000	0.047009
WSW	0.052270	0.008578	0.004003	0.000801	0.000343	0.000000	0.065996
W	0.059362	0.009836	0.004575	0.000343	0.000114	0.000000	0.074231
WNW	0.034771	0.008921	0.005147	0.000229	0.000114	0.000000	0.049182
NW	0.031568	0.005719	0.002402	0.000458	0.000000	0.000000	0.040146
NNW	0.022647	0.004575	0.007549	0.002859	0.000114	0.000000	0.037744
Total	0.653437	0.119410	0.079149	0.017042	0.002745	0.000000	

Frequency of Calm Winds : 12.82%

Average Wind Speed : 1.79 m/s

CANOGA PARK PIERCE COLL, CALIFORNIA (041484)

Period of Record Monthly Climate Summary

Period of Record : 7/ 1/1949 to 12/31/2001

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	67.6	70.1	72.1	77.0	80.7	87.3	94.8	95.3	91.5	84.1	74.8	68.9	80.4
Average Min. Temperature (F)	39.2	40.7	41.7	44.7	48.9	52.9	56.9	57.4	54.6	48.8	42.4	38.8	47.3
Average Total Precipitation (in.)	3.79	3.66	2.87	1.13	0.26	0.05	0.01	0.11	0.17	0.43	1.87	2.23	16.58
Average Total SnowFall (in.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.

Max. Temp.: 99.9% Min. Temp.: 99.9% Precipitation: 99.7% Snowfall: 99.9% Snow Depth: 99.9%

Check [Station Metadata](#) or [Metadata graphics](#) for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

CANOGA PARK PIERCE COLL, CALIFORNIA

Period of Record General Climate Summary - Temperature

Station:(041484) CANOGA PARK PIERCE COLL															
From Year=1949 To Year=2000															
	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.		Min. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F	<= 32 F	<= 0 F
	F	F	F	F	dd/yyyy or yyyymmdd	F	dd/yyyy or yyyymmdd	F	-	F	-	# Days	# Days	# Days	# Days
January	67.6	39.2	53.4	93	14/1975	19	07/1950	58.6	86	45.6	50	0.1	0.0	5.8	0.0
February	70.1	40.7	55.4	94	26/1986	18	06/1989	61.5	63	48.2	56	0.2	0.0	3.1	0.0
March	72.1	41.7	56.9	101	26/1988	26	13/1954	63.6	72	50.1	52	0.7	0.0	1.8	0.0
April	77.0	44.7	60.8	105	06/1989	30	09/1953	67.4	89	51.3	67	3.6	0.0	0.3	0.0
May	80.7	48.9	64.8	113	29/1984	33	04/1950	72.7	84	57.6	98	5.8	0.0	0.0	0.0
June	87.3	52.9	70.1	113	15/1961	36	07/1950	77.8	81	63.0	52	13.1	0.0	0.0	0.0
July	94.8	56.9	75.9	115	16/1960	42	01/1952	81.0	85	71.7	49	24.2	0.0	0.0	0.0
August	95.3	57.4	76.3	116	24/1985	42	06/1950	81.7	92	70.3	54	24.7	0.0	0.0	0.0
September	91.5	54.6	73.1	115	06/1955	38	20/1954	79.6	84	67.8	50	17.5	0.0	0.0	0.0
October	84.1	48.8	66.5	110	01/1980	27	30/1971	71.5	91	61.3	54	9.0	0.0	0.2	0.0
November	74.8	42.4	58.6	99	03/1975	23	17/1958	63.3	76	52.0	94	1.8	0.0	1.2	0.0
December	68.9	38.8	53.9	96	03/1958	20	29/1954	58.8	58	49.0	71	0.1	0.0	5.4	0.0
Annual	80.4	47.3	63.8	116	19850824	18	19890206	66.3	84	60.5	52	100.7	0.0	17.9	0.0
Winter	68.9	39.6	54.2	96	19581203	18	19890206	57.6	86	49.4	50	0.4	0.0	14.3	0.0

Spring	76.6	45.1	60.9	113	19840529	26	19540313	65.5	93	56.1	98	10.2	0.0	2.1	0.0
Summer	92.5	55.7	74.1	116	19850824	36	19500607	77.6	81	69.8	52	61.9	0.0	0.0	0.0
Fall	83.5	48.6	66.1	115	19550906	23	19581117	70.0	91	62.4	94	28.3	0.0	1.4	0.0

Table updated on Jun 4, 2001

For monthly and annual means, thresholds, and sums:

Months with 5 or more missing days are not considered

Years with 1 or more missing months are not considered

Seasons are climatological not calendar seasons

Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May

Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

CANOGA PARK PIERCE COLL, CALIFORNIA

Period of Record General Climate Summary - Precipitation

Station:(041484) CANOGA PARK PIERCE COLL														
From Year=1949 To Year=2000														
	Precipitation											Total Snowfall		
	Mean	High	Year	Low	Year	1 Day Max.	>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year	
	in.	in.	-	in.	-	in. dd/yyyy or yyyyymmdd	# Days	# Days	# Days	# Days	in.	in.	-	
January	3.79	16.80	95	0.00	72	4.41 26/1956	6	5	2	1	0.0	0.0	50	
February	3.66	18.02	98	0.00	61	5.07 10/1992	5	4	2	1	0.0	0.5	89	
March	2.87	12.39	83	0.00	56	6.06 01/1983	6	4	2	1	0.0	0.0	50	
April	1.13	6.76	65	0.00	62	2.49 14/1988	3	2	1	0	0.0	0.0	50	
May	0.26	4.06	98	0.00	50	2.00 08/1977	1	1	0	0	0.0	0.0	50	
June	0.05	0.67	99	0.00	50	0.52 05/1993	0	0	0	0	0.0	0.0	50	
July	0.01	0.17	95	0.00	49	0.17 16/1995	0	0	0	0	0.0	0.0	49	
August	0.11	2.49	77	0.00	49	2.35 17/1977	1	0	0	0	0.0	0.0	49	
September	0.17	2.26	76	0.00	49	1.12 10/1976	1	1	0	0	0.0	0.0	49	
October	0.43	5.93	87	0.00	49	3.20 31/1987	2	1	0	0	0.0	0.0	49	
November	1.87	12.60	65	0.00	56	6.57 29/1970	4	2	1	1	0.0	0.0	49	
December	2.23	7.74	92	0.00	58	4.98 29/1965	5	3	2	1	0.0	0.0	49	
Annual	16.58	38.48	83	3.92	53	6.57 19701129	34	22	10	5	0.0	0.5	89	
Winter	9.68	30.13	93	1.94	64	5.07 19920210	16	12	6	3	0.0	0.5	89	
Spring	4.26	15.67	83	0.00	97	6.06 19830301	10	7	3	1	0.0	0.0	50	
Summer	0.17	2.49	77	0.00	50	2.35 19770817	1	0	0	0	0.0	0.0	50	
Fall	2.47	12.78	65	0.00	80	6.57 19701129	6	4	2	1	0.0	0.0	49	

Table updated on Jun 4, 2001

For monthly and annual means, thresholds, and sums:
 Months with 5 or more missing days are not considered
 Years with 1 or more missing months are not considered
 Seasons are climatological not calendar seasons

APPENDIX B

California Air Resources Board Data



View this page for another pollutant:

- Hourly O₃
- 8-Hour O₃
- PM 10
- PM 2.5
- CO
- NO₂
- SO₂
- H₂S

Highest 4 Daily Maximum Hourly Ozone Measurements and Number of Days Above the Hourly Standards at Reseda parts per million

	1999			2000		2001	
High	Jun 14	0.100		Aug 16	0.109	Aug 26	0.140
2nd High	Jun 20	0.100		Jul 30	0.106	Aug 12	0.125
3rd High	Jun 19	0.099		Sep 17	0.106	Jul 02	0.121
4th High	Jul 10	0.097		Aug 13	0.104	Aug 16	0.120
*Days > State Standard		5		8		27	
*Days > National Standard		0		0		2	
**Year Coverage		99		100		100	

Start Over:



* The number of days at least one measurement was greater than the level of the state hourly standard (0.09 parts per million) or the national hourly standard (0.12 parts per million). The number of days above the standard is not necessarily the number of violations of the standard for the year.

** Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is insufficient to determine when high concentrations are expected.



View this page for another pollutant:

- [Hourly O₃](#)
- [8-Hour O₃](#)
- [PM 10](#)
- [PM 2.5](#)
- [CO](#)
- [NO₂](#)
- [SO₂](#)
- [H₂S](#)

**Highest 4 Daily Maximum 8-Hour
Ozone Averages**
and Number of Days Above the 8-Hour Standard
at Reseda
parts per million



	1999		2000		2001	
High	Jun 20	0.084	Aug 13	0.084	Aug 26	0.116
2nd High	Jun 14	0.083	Sep 17	0.083	Aug 05	0.094
3rd High	Aug 22	0.081	Jul30	0.082	Jul 02	0.091
4th High	Jul 11	0.080	May 28	0.080	Jul 27	0.090
*Days > Nat'l Standard	0		0		7	
**Year Coverage	99		100		100	

Start Over:



[← Go Backward a Year](#)
[Go Forward a Year →](#)

[Make a New Request](#)

* The number of days at least one overlapping 8-hour average was greater than the level of the national 8-hour standard (0.08 parts per million). The number of days above the standard is not the number of violations of the standard for the year.

** Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is insufficient to determine when high concentrations are expected.



View this page for another pollutant:

- [Hourly O₃](#)
- [8-Hour O₃](#)
- [PM 10](#)
- [PM 2.5](#)
- [CO](#)
- [NO₂](#)
- [SO₂](#)
- [H₂S](#)

Highest 4 Daily PM10 Measurements
 and Annual PM10 Statistics
 at Burbank-W Palm Avenue
 micrograms per cubic meter

		1999		2000		2001	
	High	Sep 15	82.0	Dec 20	74.0	Jan 07	86.0
	2nd High	Jun 11	71.0	Jan 07	70.0	Jan 01	85.0
	3rd High	May 12	71.0	Mar 13	62.0	May 01	85.0
	4th High	Jan 18	69.0	Apr 06	60.0	Oct 22	79.0
Measured:							
	*Days > State Standard		21		14		14
	*Days > Nat'l Standard		0		0		0
Calculated:							
	*Days > State Standard		126.0		84.0		84.0
	*Days > Nat'l Standard		0.0		0.0		0.0
	99th Percentile		82		74		86
	**3-Year Average 99th		83		77		81
	***State Annual Average		40		36		36
	***Nat'l Annual Average		43		39		40
	**3-Year Nat'l Average		42		40		41
	****Year Coverage		100		98		100

Start Over:



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* Measured days are those days that an actual measurement was greater than the level of the state daily standard (50 micrograms per cubic meter) or the national daily standard (150 micrograms per cubic meter). Measurements are typically collected every six days. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

** The 3-year statistics include data from the listed year and the two years before the listed year.

*** The state annual average is a geometric mean of all measurements. The national annual average is an arithmetic average of the 4 arithmetic quarterly averages.

**** Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is



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View this page for another pollutant:

- [Hourly O₃](#)
- [8-Hour O₃](#)
- [PM 10](#)
- [PM 2.5](#)
- [CO](#)
- [NO₂](#)
- [SO₂](#)
- [H₂S](#)

Highest 4 Daily PM2.5 Measurements
 and Annual PM2.5 Statistics
at Reseda
 micrograms per cubic meter

	1999		2000		2001
High	Nov 05	79.0	Dec 23	67.5	Nov 06 71.1
2nd High	Oct 27	40.1	Nov 29	65.8	Oct 22 59.2
3rd High	Sep 15	38.8	Jan 10	50.0	Jan 07 56.9
4th High	Sep 18	36.7	Jan 01	47.3	Jan 01 48.4
*Days > Nat'l Standard		1		2	1
98th Percentile		40.1		50.0	56.9
**3-Year Average 98th					
Nat'l Annual Average		17.3		18.0	18.4
**3-Year Nat'l Average					17.9
***Year Coverage					

Start Over:



[← Go Backward a Year](#) [Go Forward a Year →](#)

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* The number of days a measurement was greater than the level of the national daily standard (65 micrograms per cubic meter). Measurements are collected everyday, every three days, or every six days, depending on the time of year and the site's monitor schedule. The number of days above the standard is not directly related to the number of violations of the standard for the year.

** The 3-year statistics include data from the listed year and the two years before the listed year.

*** Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is insufficient to determine when high concentrations are expected.



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Highest 4 Daily Maximum 8-Hour Carbon Monoxide Averages
and Number of Days Above the 8-Hour Standards at Reseda



parts per million

	1999		2000		2001	
High	Jan 06	7.51	Dec 01	9.83	Jan 04	6.13
2nd High	Dec 17	6.61	Jan 07	6.09	Jan 01	5.64
3rd High	Nov 28	6.05	Dec 20	5.93	Dec 26	4.48
4th High	Nov 01	5.89	Dec 30	5.69	Jan 05	4.34
*Days > State Standard		0		1		0
*Days > Nat'l Standard		0		1		0
**Year Coverage		98		99		98

Start Over:



[← Go Backward a Year](#) [Go Forward a Year →](#)

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* The number of days at least one non-overlapping 8-hour average was greater than the level of the state 8-hour standard (9.0 parts per million) or the national 8-hour standard (9 parts per million). The number of days above the standard is not necessarily the number of violations of the standard for the year.

** Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is insufficient to determine when high concentrations are expected.



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View this page for another pollutant:

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Highest 4 Daily Maximum Hourly Nitrogen Dioxide Measurements
 and Number of Days Above the Hourly Standard
 at Reseda
 parts per million



	1999		2000		2001	
High	Nov 01	0.114	Dec 01	0.112	Oct 15	0.090
2nd High	Jan 07	0.110	Apr 27	0.100	Oct 13	0.087
3rd High	Nov 04	0.104	Nov 28	0.096	Oct 25	0.083
4th High	Jan 11	0.096	Dec 22	0.095	Oct 16	0.083
*Days > State Standard	0		0		0	
Annual Average	0.028		0.028		0.026	
**Year Coverage	100		100		100	

Start Over:



[← Go Backward a Year](#) [Go Forward a Year →](#)

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* The number of days at least one measurement was greater than the level of the state hourly standard (0.25 parts per million). The number of days above the standard is not necessarily the number of violations of the standard for the year.

** Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is insufficient to determine when high concentrations are expected.



View this page for another pollutant:

- [Hourly O₃](#)
- [8-Hour O₃](#)
- [PM 10](#)
- [PM 2.5](#)
- [CO](#)
- [NO₂](#)
- [SO₂](#)
- [H₂S](#)

Highest 4 Daily Maximum 24-Hour Sulfur Dioxide Averages
and Number of Days Above the 24-Hour Standards
at Burbank-W Palm Avenue



parts per million

	1999		2000		2001	
High	Apr 29	0.003	Jan 15	0.004	Mar 04	0.005
2nd High	Jan 07	0.002	Jan 14	0.004	Mar 03	0.005
3rd High	Jul 07	0.002	Jan 29	0.003	Mar 02	0.005
4th High	Jun 14	0.002	Jan 16	0.003	Mar 01	0.005
*Days > State Standard		0		0		0
*Days > Nat'l Standard		0		0		0
Annual Average				0.001		0.001
**Year Coverage	100		100		100	

Start Over:



[← Go Backward a Year](#)
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* The number of days at least one non-overlapping 24-hour average was greater than the level of the state 24-hour standard (0.04 parts per million) or the national 24-hour standard (0.14 parts per million). The number of days above the standard is not necessarily the number of violations of the standard for the year.

** Year Coverage indicates how extensive monitoring was during the time of year when high pollutant concentrations are expected. Year coverage ranges from 0 to 100. For example, a Year Coverage of 75 indicates that monitoring occurred 75% of the time when high pollutant concentrations are expected. For the current year, Year Coverage will be 0 at the beginning of the year and will increase as the data for the year become available. Year Coverage is blank when the data history at the site is insufficient to determine when high concentrations are expected.

APPENDIX C

MEVI7G, EMFAC, CAL3QHC Printouts

PREDICTED CALIFORNIA VEHICLE EMISSIONS
CARBON MONOXIDE PLANNING INVENTORY

RUN DATE: 06/18/01

SCENARIO TITLE: MVEI7G Emission Factors Scenario

CALENDAR YEAR: 2002 __ Model Years 1968 to 2002 inclusive

LOS ANGELES COUNTY

EMISSION UNIT: TONS PER DAY

MVEI7G ver 1.0c/DAILY EMISSIONS

SOUTH COAST Air Basin

ENHANCED I & M PROGRAM IN EFFECT

ALL ON ROAD EMISSIONS

	LIGHT DUTY AUTOMOBILES				LIGHT DUTY TRUCKS < 6,000 lbs				MEDIUM DUTY TRUCKS(1) 6,001 to 14,000 lbs				HEAVY DUTY TRUCKS > 14,001 lbs				HDT	URBAN DIESEL	MOTOR_	ALL VEHICLES
	NON_CAT	GAS	CAT	DIESEL	LDA TOTAL	NON_CAT	GAS	DIESEL	LDT TOTAL	NON_CAT	GAS	DIESEL	MDT TOTAL	NON_CAT	GAS	DIESEL				
NO. OF IN USE VEHs	82410	3850871	17587	3950868	4070	1389819	7592	1401481	12555	252327	41345	306227	3159	6494	58556	68209	2395	75599	5804779	
DAILY VMT (X 1000)	1243	118131	284	119658	52	43778	111	43941	288	11165	1621	13074	82	476	6200	6758	332	795	184558	
NO. OF DAILY STARTS	375433	23263099	98745	23737277	23886	9159896	46693	9230475	57180	2167267	0	2224447	15928	91488	0	107416	0	67373	35366988	

REACTIVE ORGANIC GAS EMISSIONS																				
RUNNING EXHAUST	9.86	23.31	0.11	33.28	0.17	10.09	0.04	10.30	0.58	3.57	0.58	4.73	0.25	0.37	6.80	7.41	0.65	1.61	57.99	
START EXHAUST	4.32	49.40	0.04	53.76	0.20	22.76	0.03	22.99	0.01	4.21	0.00	4.22	0.00	0.00	0.00	0.00	0.00	0.39	81.37	
SUBTOTAL EXHAUST	14.18	72.71	0.15	87.05	0.37	32.85	0.07	33.30	0.59	7.78	0.58	8.95	0.25	0.37	6.80	7.41	0.65	2.00	139.35	
DIURNAL EVAPORATION	0.67	5.04	0.00	5.72	0.03	1.66	0.00	1.68	0.03	0.26	0.00	0.28	0.01	0.01	0.00	0.01	0.00	0.05	7.74	
HOT SOAK EVAPORATION	2.80	13.13	0.00	15.93	0.14	4.68	0.00	4.82	0.08	1.04	0.00	1.12	0.02	0.07	0.00	0.09	0.00	0.04	22.01	
RUNNING LOSSES	0.79	13.84	0.00	14.63	0.03	3.76	0.00	3.78	0.11	0.75	0.00	0.87	0.03	0.03	0.00	0.06	0.00	0.00	19.34	
RESTING LOSSES	0.17	5.40	0.00	5.57	0.02	1.82	0.00	1.84	0.00	0.18	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	7.60	
SUBTOTAL EVAPORATION	4.45	37.41	0.00	41.85	0.21	11.91	0.00	12.13	0.22	2.23	0.00	2.45	0.06	0.10	0.00	0.17	0.00	0.09	56.69	
TOTAL ROG EMISSION	18.63	110.12	0.15	128.90	0.59	44.76	0.07	45.42	0.81	10.01	0.58	11.40	0.31	0.47	6.80	7.58	0.65	2.09	196.04	

CARBON MONOXIDE EMISSIONS																				
RUNNING EXHAUST	69.45	463.87	0.41	533.73	3.58	192.16	0.16	195.90	13.36	55.27	7.89	76.51	5.70	6.17	51.16	63.03	0.64	7.28	877.09	
START EXHAUST	20.36	589.44	0.63	610.43	1.25	286.57	0.27	288.09	0.08	50.99	0.00	51.07	0.00	0.00	0.00	0.00	0.00	1.91	951.49	
TOTAL CO EMISSION	89.81	1053.31	1.04	1144.15	4.83	478.73	0.43	483.99	13.44	106.25	7.89	127.58	5.70	6.17	51.16	63.03	0.64	9.20	1828.59	

OXIDES OF NITROGEN EMISSIONS																				
RUNNING EXHAUST	4.54	72.35	0.49	77.38	0.17	42.12	0.18	42.46	2.16	22.12	8.22	32.50	0.96	3.30	64.27	68.53	5.82	0.97	227.66	
START EXHAUST	0.41	28.29	0.02	28.72	0.02	17.08	0.05	17.15	0.00	3.63	0.00	3.63	0.00	0.00	0.00	0.00	0.00	0.05	49.55	
TOTAL NOX EMISSION	4.95	100.64	0.52	106.10	0.19	59.20	0.23	59.62	2.16	25.75	8.22	36.13	0.96	3.30	64.27	68.53	5.82	1.01	277.21	

CARBON DIOXIDE EMISSIONS x100																				
RUNNING EXHAUST	8.03	380.71	N/A	388.75	0.33	167.81	N/A	168.14	0.03	36.67	N/A	36.69	N/A	N/A	N/A	N/A	N/A	N/A	593.58	
START EXHAUST	0.83	26.60	N/A	27.44	0.05	14.33	N/A	14.38	0.00	3.54	N/A	3.55	N/A	N/A	N/A	N/A	N/A	N/A	45.37	
TOTAL CO2 EMISSION	8.86	407.32	N/A	416.18	0.38	182.14	N/A	182.52	0.03	40.21	N/A	40.24	N/A	N/A	N/A	N/A	N/A	N/A	638.95	

PARTICULATE MATTER EMISSIONS LESS THAN 10 MICRONS																				
EXHAUST	0.04	0.57	0.10	0.71	0.00	0.21	0.05	0.26	0.02	0.25	0.51	0.77	0.00	0.03	3.26	3.29	0.04	0.04	5.11	
TIRE_WEAR	0.01	1.04	0.00	1.05	0.00	0.39	0.00	0.39	0.00	0.11	0.02	0.14	0.00	0.01	0.19	0.20	0.01	0.00	1.79	
BRAKE_WEAR	0.02	1.63	0.00	1.65	0.00	0.60	0.00	0.61	0.00	0.15	0.02	0.18	0.00	0.01	0.09	0.09	0.00	0.01	2.55	
TOTAL PM10 EMISSION	0.07	3.24	0.11	3.41	0.00	1.20	0.05	1.26	0.02	0.52	0.55	1.09	0.01	0.04	3.53	3.58	0.05	0.05	9.45	

LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SULFUR OXIDES_ as SO2	0.03	1.09	0.03	1.15	0.00	0.49	0.02	0.51	0.01	0.27	0.91	1.19	0.00	0.02	3.48	3.50	0.19	0.00	6.55	

FUEL CONSUMED IN 1000 GALLONS																				
GASOLINE	110.22	4371.94		4482.16	4.78	1955.62		1960.40	50.42	1076.11		1126.53	14.54	83.49		98.02		15.91	7683.02	
DIESEL			9.56	9.56			4.27	4.27			257.36	257.36			984.04	984.04	53.84		1309.08	

(1) _ MEDIUM DUTY TRUCKS INCLUDES LIGHT HEAVY DUTY TRUCK EMISSIONS

PREDICTED CALIFORNIA VEHICLE EMISSIONS
CARBON MONOXIDE PLANNING INVENTORY

RUN DATE: 06/18/01

SCENARIO TITLE: MVEI7G Emission Factors Scenario

CALENDAR YEAR: 2005 __ Model Years 1971 to 2005 inclusive

LOS ANGELES COUNTY

EMISSION UNIT: TONS PER DAY

MVEI7G ver 1.0c/DAILY EMISSIONS

SOUTH COAST Air Basin

ENHANCED I & M PROGRAM IN EFFECT

ALL ON ROAD EMISSIONS

	LIGHT DUTY AUTOMOBILES				LIGHT DUTY TRUCKS < 6,000 lbs				MEDIUM DUTY TRUCKS(1) 6,001 to 14,000 lbs				HEAVY DUTY TRUCKS > 14,001 lbs				URBAN		ALL VEHICLES
	NON_CAT	GAS CAT	DIESEL	LDA TOTAL	NON_CAT	GAS CAT	DIESEL	TOTAL	NON_CAT	GAS CAT	DIESEL	TOTAL	NON_CAT	GAS CAT	DIESEL	TOTAL	HDT TOTAL	DIESEL BUSES	
NO. OF IN USE VEHs	41500	3980493	11977	4033970	0	1425993	4967	1430960	8725	265552	44012	318289	1707	7620	57420	66747	2425	75599	592790
DAILY VMT (X 1000)	613	122086	178	122877	0	46329	72	46401	170	12241	1755	14166	38	497	6452	6987	336	826	191593
NO. OF DAILY STARTS	179572	23930421	64730	24174723	0	9636105	30557	9666662	35562	2408514	0	2444076	7448	95497	0	102945	0	69401	36457807

REACTIVE ORGANIC GAS EMISSIONS																			
RUNNING EXHAUST	4.96	17.38	0.07	22.42	0.00	6.63	0.03	6.66	0.36	2.93	0.42	3.71	0.11	0.38	6.31	6.80	0.66	1.71	41.96
START EXHAUST	2.13	36.93	0.03	39.09	0.00	16.36	0.02	16.38	0.01	3.52	0.00	3.53	0.00	0.00	0.00	0.00	0.00	0.40	59.40
SUBTOTAL EXHAUST	7.10	54.31	0.10	61.51	0.00	22.99	0.05	23.04	0.36	6.45	0.42	7.24	0.11	0.38	6.31	6.80	0.66	2.11	101.36
DIURNAL EVAPORATION	0.35	4.33	0.00	4.67	0.00	1.28	0.00	1.28	0.02	0.24	0.00	0.25	0.00	0.01	0.00	0.01	0.00	0.05	6.26
HOT SOAK EVAPORATION	1.37	11.12	0.00	12.49	0.00	3.41	0.00	3.41	0.04	1.04	0.00	1.08	0.01	0.07	0.00	0.08	0.00	0.00	17.10
RUNNING LOSSES	0.42	11.97	0.00	12.38	0.00	3.30	0.00	3.30	0.07	0.70	0.00	0.77	0.02	0.03	0.00	0.04	0.00	0.00	16.49
RESTING LOSSES	0.10	4.00	0.00	4.10	0.00	1.25	0.00	1.25	0.00	0.13	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	5.48
SUBTOTAL EVAPORATION	2.23	31.41	0.00	33.65	0.00	9.24	0.00	9.24	0.13	2.10	0.00	2.23	0.03	0.10	0.00	0.13	0.00	0.09	45.34
TOTAL ROG EMISSION	9.33	85.72	0.10	95.15	0.00	32.23	0.05	32.28	0.49	8.55	0.42	9.47	0.14	0.48	6.31	6.93	0.66	2.21	146.69

CARBON MONOXIDE EMISSIONS																			
RUNNING EXHAUST	36.15	407.36	0.28	443.78	0.00	149.59	0.11	149.71	8.14	56.80	8.67	73.61	2.35	7.01	53.44	62.80	0.64	7.81	738.36
START EXHAUST	10.02	451.30	0.44	461.76	0.00	194.75	0.19	194.93	0.03	41.54	0.00	41.57	0.00	0.00	0.00	0.00	0.00	1.97	700.23
TOTAL CO EMISSION	46.17	858.65	0.72	905.54	0.00	344.34	0.30	344.64	8.16	98.34	8.67	115.18	2.35	7.01	53.44	62.80	0.64	9.78	1438.59

OXIDES OF NITROGEN EMISSIONS																			
RUNNING EXHAUST	2.25	58.91	0.32	61.48	0.00	34.72	0.12	34.84	1.30	19.75	7.57	28.61	0.45	3.09	60.12	63.66	5.45	0.99	195.03
START EXHAUST	0.20	25.25	0.02	25.46	0.00	15.76	0.03	15.79	0.00	3.74	0.00	3.74	0.00	0.00	0.00	0.00	0.00	0.05	45.04
TOTAL NOX EMISSION	2.45	84.16	0.33	86.95	0.00	50.48	0.15	50.63	1.30	23.49	7.57	32.35	0.45	3.09	60.12	63.66	5.45	1.04	240.07

CARBON DIOXIDE EMISSIONS x100																			
RUNNING EXHAUST	3.97	383.72	N/A	387.69	0.00	178.34	N/A	178.34	0.01	41.57	N/A	41.58	N/A	N/A	N/A	N/A	N/A	N/A	607.62
START EXHAUST	0.40	24.24	N/A	24.64	0.00	14.86	N/A	14.86	0.00	3.93	N/A	3.93	N/A	N/A	N/A	N/A	N/A	N/A	43.43
TOTAL CO2 EMISSION	4.37	407.96	N/A	412.33	0.00	193.20	N/A	193.20	0.01	45.50	N/A	45.52	N/A	N/A	N/A	N/A	N/A	N/A	651.05

PARTICULATE MATTER EMISSIONS LESS THAN 10 MICRONS																			
EXHAUST	0.02	0.56	0.07	0.64	0.00	0.21	0.03	0.24	0.01	0.26	0.47	0.74	0.00	0.03	2.61	2.64	0.02	0.04	4.32
TIRE WEAR	0.01	1.08	0.00	1.08	0.00	0.41	0.00	0.41	0.00	0.12	0.02	0.15	0.00	0.01	0.20	0.20	0.01	0.00	1.86
BRAKE WEAR	0.01	1.69	0.00	1.70	0.00	0.64	0.00	0.64	0.00	0.17	0.02	0.20	0.00	0.01	0.09	0.10	0.00	0.01	2.65
TOTAL PM10 EMISSION	0.03	3.32	0.07	3.42	0.00	1.26	0.03	1.29	0.01	0.55	0.52	1.09	0.00	0.04	2.89	2.94	0.04	0.05	8.83

LEAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SULFUR OXIDES_ as SO2	0.01	1.08	0.02	1.12	0.00	0.51	0.01	0.52	0.01	0.29	0.96	1.26	0.00	0.02	3.52	3.55	0.19	0.00	6.64

FUEL CONSUMED IN 1000 GALLONS																			
GASOLINE	54.70	4339.78		4394.48	0.00	2043.41		2043.41	29.76	1152.87		1182.63	6.81	87.31		94.12		16.52	7731.15
DIESEL			6.03	6.03			2.64	2.64			272.02	272.02		996.77	996.77	52.81			1330.28

(1) _ MEDIUM DUTY TRUCKS INCLUDES LIGHT HEAVY DUTY TRUCK EMISSIONS

Title : Los Angeles County Avg 2002 Winter Default Title
 Version : Emfac2001 Draft V2.08 Oct 17 2001 Release
 Run Date : 08/14/02 10:13:12
 Scen Year: 2002 -- Model Years: 1965 to 2002
 Season : Winter
 Area : Los Angeles County

 Year:2002 -- Model Years 1965 to 2002 Inclusive -- Winter
 Emfac2001 Draft Emission Factors: V2.08 Oct 17 2001 Release

County Average Los Angeles Count County Average

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	1.811	1.813	3.783	2.788	6.262	5.871	2.012
15	0.746	0.754	1.661	1.550	2.995	3.788	0.858

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	16.863	20.563	45.296	29.528	43.112	45.865	20.391
15	10.512	12.826	23.446	14.138	19.544	32.540	12.184

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	1.538	2.453	3.276	24.941	36.322	1.229	2.957
15	1.120	1.716	2.601	18.010	23.149	1.335	2.137

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	1137.598	1330.793	1845.737	2016.038	2751.461	216.759	1272.201
15	597.382	698.888	963.166	1830.926	2262.226	160.801	702.575

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.015	0.018	0.028	0.143	0.165	0.004	0.023
15	0.008	0.009	0.016	0.141	0.158	0.003	0.015

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.062	0.090	0.104	1.050	0.806	0.069	0.115
15	0.025	0.037	0.047	0.660	0.437	0.045	0.057

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.008	0.014	0.015	0.026	0.009	0.004	0.011
15	0.008	0.014	0.015	0.026	0.009	0.004	0.011

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.013	0.022	0.022	0.013	0.013	0.013	0.015
15	0.013	0.022	0.022	0.013	0.013	0.013	0.015

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	7.563	6.433	4.327	3.243	3.272	27.195	7.079
15	14.380	12.228	8.397	6.938	7.004	37.549	13.446

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	27.077	28.608	23.452	5.361	3.489	0.000	9.728
15	27.077	28.608	23.452	5.361	3.489	0.000	9.728

Title : Los Angeles County Avg 2005 Winter Default Title
 Version : Emfac2001 Draft V2.08 Oct 17 2001 Release
 Run Date : 08/14/02 10:13:12
 Scen Year: 2005 -- Model Years: 1965 to 2005
 Season : Winter
 Area : Los Angeles County

Year:2005 -- Model Years 1965 to 2005 Inclusive -- Winter
 Emfac2001 Draft Emission Factors: V2.08 Oct 17 2001 Release

County Average Los Angeles Count County Average

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	1.304	1.359	2.871	2.320	5.908	5.699	1.496
15	0.530	0.559	1.254	1.307	2.823	3.673	0.636

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	12.543	15.592	33.014	22.897	39.635	43.823	15.321
15	7.949	9.872	17.382	10.997	17.964	31.103	9.289

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	1.120	1.830	2.725	21.584	33.558	1.247	2.373
15	0.823	1.290	2.135	15.574	21.448	1.353	1.719

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	1119.324	1331.838	1839.324	2010.780	2725.698	222.533	1261.786
15	587.577	699.561	960.042	1838.284	2214.246	165.016	697.962

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.011	0.013	0.021	0.143	0.156	0.003	0.018
15	0.006	0.007	0.012	0.141	0.151	0.002	0.013

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.065	0.103	0.113	0.901	0.747	0.067	0.115
15	0.026	0.041	0.050	0.567	0.404	0.044	0.056

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.008	0.014	0.015	0.026	0.010	0.004	0.011
15	0.008	0.014	0.015	0.026	0.010	0.004	0.011

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	0.013	0.022	0.022	0.013	0.013	0.013	0.015
15	0.013	0.022	0.022	0.013	0.013	0.013	0.015

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	7.745	6.470	4.394	3.300	3.297	27.085	7.216
15	14.733	12.304	8.523	7.061	7.058	37.374	13.708

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
3	27.181	28.817	23.304	5.362	3.528	0.000	9.481
15	27.181	28.817	23.304	5.362	3.528	0.000	9.481

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT1_P.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer DeSoto Existing PM RUN: 1

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2710.	12.2	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2538.	12.2	0.0	56.0		
3. NBQ	*	524.0	476.0	524.0	435.3	*	41.	180. AG	119.	100.0	0.0	48.0	0.58	2.1
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1435.	12.2	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1897.	12.2	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	557.6	*	22.	360. AG	119.	100.0	0.0	48.0	0.31	1.1
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	355.	12.2	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	572.	12.2	0.0	32.0		
9. EBQ	*	452.0	488.0	399.5	488.0	*	52.	270. AG	249.	100.0	0.0	24.0	0.74	2.7
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	689.	12.2	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	182.	12.2	0.0	44.0		
12. WBQ	*	548.0	518.0	660.5	518.0	*	112.	90. AG	374.	100.0	0.0	36.0	0.96	5.7

1 PAGE 2

JOB: Plummer DeSoto Existing PM RUN: 1

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
3. NBQ	*	60	11	3.0	2710	1600	60.55	3	3
6. SBQ	*	60	11	3.0	1435	1600	60.55	3	3
9. EBQ	*	60	46	3.0	355	1600	60.55	3	3
12. WBQ	*	60	46	3.0	689	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	456.0	5.4	*
4. SE	*	568.0	456.0	5.4	*

1 PAGE 3

JOB: Plummer DeSoto Existing PM RUN: 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
0.	*	9.1	9.3	10.2	10.8
10.	*	10.2	8.7	11.4	9.9
20.	*	10.7	8.7	11.5	10.0
30.	*	10.4	8.7	11.0	10.0
40.	*	10.1	8.7	10.8	10.0
50.	*	10.0	8.7	10.6	10.1
60.	*	9.9	8.7	11.0	9.7
70.	*	9.9	8.7	11.5	9.5
80.	*	9.9	8.7	11.3	9.4
90.	*	10.6	8.9	10.5	9.0
100.	*	11.7	9.6	10.1	8.7
110.	*	11.4	10.2	10.0	8.7
120.	*	10.6	10.5	10.2	8.7
130.	*	10.4	10.5	10.2	8.7
140.	*	10.6	10.4	10.3	8.7
150.	*	10.9	10.3	10.6	8.7
160.	*	11.4	10.1	11.0	8.7
170.	*	11.5	10.1	10.6	8.8
180.	*	10.1	11.1	9.3	9.5

```

190. * 9.4 12.6 8.7 11.1
200. * 9.3 12.6 8.7 11.2
210. * 9.1 11.7 8.7 10.8
220. * 8.9 11.2 8.7 10.5
230. * 8.9 10.9 8.7 10.4
240. * 8.9 10.6 8.7 10.3
250. * 9.0 10.6 8.7 10.3
260. * 8.9 10.4 8.7 10.4
270. * 8.8 10.2 8.8 10.7
280. * 8.7 9.8 9.1 11.1
290. * 8.7 9.9 9.1 10.9
300. * 8.7 10.0 9.1 10.8
310. * 8.7 10.1 9.3 10.6
320. * 8.7 10.2 9.6 10.8
330. * 8.7 10.5 9.6 11.1
340. * 8.7 10.9 9.6 11.7
350. * 8.7 10.7 9.6 12.1
360. * 9.1 9.3 10.2 10.8
-----*
MAX * 11.7 12.6 11.5 12.1
DEGR. * 100 200 20 350

```

THE HIGHEST CONCENTRATION IS 12.60 PPM AT 200 DEGREES FROM REC2 .
1

PAGE 4

JOB: Plummer DeSoto Existing PM

RUN: 1

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 200 20 350
-----*
1 * 0.0 1.4 0.0 0.1
2 * 0.6 0.3 1.0 1.8
3 * 0.0 0.2 0.0 0.0
4 * 0.5 0.0 0.8 0.4
5 * 0.0 0.8 0.1 0.0
6 * 0.3 0.0 0.1 0.0
7 * 0.0 0.0 0.1 0.0
8 * 0.2 0.2 0.0 0.2
9 * 0.0 0.0 0.6 0.0
10 * 0.5 0.2 0.0 0.2
11 * 0.0 0.0 0.1 0.0
12 * 0.9 0.8 0.0 0.7

```

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT1FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-DeSoto Future Pre-Project PM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	3027.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2850.	9.3	0.0	56.0		
3. NBQ	*	524.0	476.0	524.0	430.5	*	45.	180. AG	90.	100.0	0.0	48.0	0.64	2.3
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1562.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2051.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	559.5	*	23.	360. AG	90.	100.0	0.0	48.0	0.33	1.2
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	379.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	606.	9.3	0.0	32.0		
9. EBQ	*	452.0	488.0	391.4	488.0	*	61.	270. AG	189.	100.0	0.0	24.0	0.79	3.1
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	732.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	193.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	735.9	518.0	*	188.	90. AG	284.	100.0	0.0	36.0	1.02	9.5

1 PAGE 2

JOB: Plummer-DeSoto Future Pre-Project PM RUN: 3

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
3. NBQ	*	60	11	3.0	3027	1600	45.96	3	3
6. SBQ	*	60	11	3.0	1562	1600	45.96	3	3
9. EBQ	*	60	46	3.0	379	1600	45.96	3	3
12. WBQ	*	60	46	3.0	732	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	456.0	5.4	*
4. SE	*	568.0	456.0	5.4	*

1 PAGE 3

JOB: Plummer-DeSoto Future Pre-Project PM RUN: 3

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
0.	*	7.3	7.4	8.0	8.6
10.	*	8.2	6.9	9.0	7.9
20.	*	8.5	6.9	9.3	8.0
30.	*	8.2	6.9	8.8	8.0
40.	*	8.1	6.9	8.5	8.0
50.	*	8.0	6.9	8.4	8.1
60.	*	7.9	6.9	8.9	8.1
70.	*	7.9	6.9	9.4	8.0
80.	*	7.9	6.9	9.4	7.6
90.	*	8.5	7.2	8.6	7.2
100.	*	9.6	8.2	8.1	6.9
110.	*	9.2	8.7	8.1	6.9
120.	*	8.4	8.5	8.1	6.9
130.	*	8.3	8.3	8.1	6.9
140.	*	8.5	8.1	8.3	6.9
150.	*	8.8	8.1	8.5	6.9
160.	*	9.1	8.0	8.8	6.9
170.	*	9.2	8.1	8.4	7.0
180.	*	8.1	8.9	7.4	7.6

190.	*	7.4	10.2	6.9	8.9
200.	*	7.5	9.9	6.9	9.0
210.	*	7.3	9.3	6.9	8.6
220.	*	7.2	8.9	6.9	8.4
230.	*	7.1	8.6	6.9	8.3
240.	*	7.1	8.6	6.9	8.2
250.	*	7.1	8.4	6.9	8.3
260.	*	7.1	8.3	6.9	8.3
270.	*	6.9	8.1	7.0	8.5
280.	*	6.9	7.9	7.2	8.9
290.	*	6.9	7.9	7.2	8.8
300.	*	6.9	8.0	7.4	8.5
310.	*	6.9	8.1	7.5	8.5
320.	*	6.9	8.3	7.5	8.8
330.	*	6.9	8.4	7.6	9.0
340.	*	6.9	8.8	7.5	9.5
350.	*	6.9	8.6	7.5	9.9
360.	*	7.3	7.4	8.0	8.6

MAX	*	9.6	10.2	9.4	9.9
DEGR.	*	100	190	70	350

THE HIGHEST CONCENTRATION IS 10.18 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-DeSoto Future Pre-Project PM

RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	70	350

1	*	0.0	1.6	0.4	0.1
2	*	0.5	0.0	0.2	1.6
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.0	0.4
5	*	0.0	0.5	0.5	0.0
6	*	0.2	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.0
8	*	0.2	0.1	0.2	0.2
9	*	0.0	0.0	0.0	0.0
10	*	0.4	0.2	0.3	0.2
11	*	0.0	0.0	0.0	0.0
12	*	1.0	0.8	0.8	0.5

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT1AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-DeSoto Alt A Krausz PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	3051.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2874.	9.3	0.0	56.0		
3. NBQ	*	524.0	476.0	524.0	430.2	*	46.	180. AG	90.	100.0	0.0	48.0	0.65 2.3	
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1604.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2093.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	560.1	*	24.	360. AG	90.	100.0	0.0	48.0	0.34 1.2	
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	384.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	611.	9.3	0.0	32.0		
9. EBQ	*	452.0	488.0	389.0	488.0	*	63.	270. AG	189.	100.0	0.0	24.0	0.80 3.2	
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	735.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	196.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	746.3	518.0	*	198.	90. AG	284.	100.0	0.0	36.0	1.03 10.1	

1 PAGE 2

JOB: Plummer-DeSoto Alt A Krausz PM RUN: 4

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
3. NBQ	*	60	11	3.0	3051	1600	45.96	3	3
6. SBQ	*	60	11	3.0	1604	1600	45.96	3	3
9. EBQ	*	60	46	3.0	384	1600	45.96	3	3
12. WBQ	*	60	46	3.0	735	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	456.0	5.4	*
4. SE	*	568.0	456.0	5.4	*

1 PAGE 3

JOB: Plummer-DeSoto Alt A Krausz PM RUN: 4

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
0.	*	7.3	7.4	8.0	8.6
10.	*	8.3	6.9	9.0	7.9
20.	*	8.5	6.9	9.3	8.0
30.	*	8.3	6.9	8.8	8.0
40.	*	8.1	6.9	8.5	8.0
50.	*	8.0	6.9	8.4	8.1
60.	*	7.9	6.9	8.9	8.1
70.	*	7.9	6.9	9.4	8.1
80.	*	7.9	6.9	9.4	7.6
90.	*	8.6	7.2	8.6	7.2
100.	*	9.6	8.2	8.1	6.9
110.	*	9.2	8.7	8.1	6.9
120.	*	8.4	8.5	8.1	6.9
130.	*	8.3	8.3	8.1	6.9
140.	*	8.5	8.1	8.3	6.9
150.	*	8.8	8.1	8.5	6.9
160.	*	9.2	8.0	8.8	6.9
170.	*	9.2	8.1	8.5	7.0
180.	*	8.1	8.9	7.4	7.6

190.	*	7.4	10.3	6.9	8.9
200.	*	7.5	9.9	6.9	9.0
210.	*	7.3	9.4	6.9	8.7
220.	*	7.2	8.9	6.9	8.4
230.	*	7.1	8.7	6.9	8.3
240.	*	7.1	8.6	6.9	8.2
250.	*	7.1	8.4	6.9	8.3
260.	*	7.1	8.3	6.9	8.3
270.	*	6.9	8.1	7.0	8.5
280.	*	6.9	7.9	7.2	8.9
290.	*	6.9	7.9	7.3	8.8
300.	*	6.9	8.0	7.4	8.5
310.	*	6.9	8.1	7.5	8.5
320.	*	6.9	8.3	7.6	8.8
330.	*	6.9	8.4	7.6	9.0
340.	*	6.9	8.8	7.5	9.5
350.	*	6.9	8.6	7.5	9.9
360.	*	7.3	7.4	8.0	8.6
-----*					
MAX	*	9.6	10.3	9.4	9.9
DEGR.	*	100	190	70	350

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-DeSoto Alt A Krausz PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	70	350
-----*					
1	*	0.0	1.7	0.4	0.1
2	*	0.5	0.0	0.2	1.6
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.0	0.4
5	*	0.0	0.5	0.5	0.0
6	*	0.2	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.0
8	*	0.2	0.1	0.2	0.2
9	*	0.0	0.0	0.0	0.0
10	*	0.4	0.2	0.3	0.2
11	*	0.0	0.0	0.0	0.0
12	*	1.0	0.8	0.8	0.5

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT1BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: u RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	3079.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2902.	9.3	0.0	56.0		
3. NBQ	*	524.0	476.0	524.0	429.8	*	46.	180. AG	90.	100.0	0.0	48.0	0.66	2.3
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1576.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2065.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	559.7	*	24.	360. AG	90.	100.0	0.0	48.0	0.34	1.2
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	381.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	608.	9.3	0.0	32.0		
9. EBQ	*	452.0	488.0	390.6	488.0	*	61.	270. AG	189.	100.0	0.0	24.0	0.79	3.1
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	738.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	199.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	756.7	518.0	*	209.	90. AG	284.	100.0	0.0	36.0	1.03	10.6

1 PAGE 2

JOB: u RUN: 6

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
3. NBQ	*	60	11	3.0	3079	1600	45.96	3	3
6. SBQ	*	60	11	3.0	1576	1600	45.96	3	3
9. EBQ	*	60	46	3.0	381	1600	45.96	3	3
12. WBQ	*	60	46	3.0	738	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	456.0	5.4	*
4. SE	*	568.0	456.0	5.4	*

1 PAGE 3

JOB: u RUN: 6

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
0.	*	7.3	7.4	8.0	8.6
10.	*	8.3	6.9	9.0	7.9
20.	*	8.5	6.9	9.3	8.0
30.	*	8.3	6.9	8.8	8.0
40.	*	8.1	6.9	8.5	8.0
50.	*	8.0	6.9	8.4	8.1
60.	*	7.9	6.9	8.9	8.2
70.	*	7.9	6.9	9.5	8.2
80.	*	7.9	6.9	9.4	7.7
90.	*	8.6	7.2	8.6	7.2
100.	*	9.6	8.3	8.1	6.9
110.	*	9.2	8.7	8.1	6.9
120.	*	8.4	8.5	8.1	6.9
130.	*	8.3	8.3	8.1	6.9
140.	*	8.5	8.1	8.3	6.9
150.	*	8.8	8.1	8.5	6.9
160.	*	9.2	8.0	8.8	6.9
170.	*	9.3	8.1	8.5	7.0
180.	*	8.1	8.9	7.4	7.6

190.	*	7.5	10.3	6.9	8.9
200.	*	7.5	9.9	6.9	9.1
210.	*	7.3	9.3	6.9	8.6
220.	*	7.2	8.9	6.9	8.4
230.	*	7.1	8.7	6.9	8.3
240.	*	7.1	8.6	6.9	8.2
250.	*	7.1	8.4	6.9	8.3
260.	*	7.1	8.3	6.9	8.3
270.	*	6.9	8.2	7.0	8.5
280.	*	6.9	7.9	7.2	8.9
290.	*	6.9	7.9	7.2	8.8
300.	*	6.9	8.0	7.4	8.5
310.	*	6.9	8.1	7.5	8.5
320.	*	6.9	8.3	7.6	8.8
330.	*	6.9	8.4	7.6	9.0
340.	*	6.9	8.8	7.5	9.5
350.	*	6.9	8.7	7.5	9.9
360.	*	7.3	7.4	8.0	8.6

MAX	*	9.6	10.3	9.5	9.9
DEGR.	*	100	190	70	350

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: u

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	70	350

1	*	0.0	1.7	0.5	0.1
2	*	0.5	0.0	0.2	1.6
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.0	0.4
5	*	0.0	0.5	0.5	0.0
6	*	0.2	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.0
8	*	0.2	0.1	0.2	0.2
9	*	0.0	0.0	0.0	0.0
10	*	0.4	0.2	0.3	0.2
11	*	0.0	0.0	0.0	0.0
12	*	1.0	0.8	0.8	0.5

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT1CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-DeSoto Alt C Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	3046.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2869.	9.3	0.0	56.0		
3. NBQ	*	524.0	476.0	524.0	430.2	*	46.	180. AG	90.	100.0	0.0	48.0	0.65	2.3
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1603.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2092.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	560.1	*	24.	360. AG	90.	100.0	0.0	48.0	0.34	1.2
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	384.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	611.	9.3	0.0	32.0		
9. EBQ	*	452.0	488.0	389.0	488.0	*	63.	270. AG	189.	100.0	0.0	24.0	0.80	3.2
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	734.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	195.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	735.9	518.0	*	188.	90. AG	284.	100.0	0.0	36.0	1.02	9.5

1 PAGE 2

JOB: Plummer-DeSoto Alt C Krausz Future PM RUN: 8

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
3. NBQ	*	60	11	3.0	3046	1600	45.96	3	3
6. SBQ	*	60	11	3.0	1603	1600	45.96	3	3
9. EBQ	*	60	46	3.0	384	1600	45.96	3	3
12. WBQ	*	60	46	3.0	734	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	456.0	5.4	*
4. SE	*	568.0	456.0	5.4	*

1 PAGE 3

JOB: Plummer-DeSoto Alt C Krausz Future PM RUN: 8

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
0.	*	7.3	7.4	8.0	8.6
10.	*	8.3	6.9	9.0	7.9
20.	*	8.5	6.9	9.3	8.0
30.	*	8.3	6.9	8.8	8.0
40.	*	8.1	6.9	8.5	8.0
50.	*	8.0	6.9	8.4	8.1
60.	*	7.9	6.9	8.9	8.1
70.	*	7.9	6.9	9.4	8.0
80.	*	7.9	6.9	9.4	7.6
90.	*	8.5	7.2	8.6	7.2
100.	*	9.6	8.2	8.1	6.9
110.	*	9.2	8.7	8.1	6.9
120.	*	8.4	8.5	8.1	6.9
130.	*	8.3	8.3	8.1	6.9
140.	*	8.5	8.1	8.3	6.9
150.	*	8.8	8.1	8.5	6.9
160.	*	9.2	8.0	8.8	6.9
170.	*	9.2	8.1	8.5	7.0
180.	*	8.1	8.9	7.4	7.6

190.	*	7.4	10.3	6.9	8.9
200.	*	7.5	9.9	6.9	9.0
210.	*	7.3	9.4	6.9	8.6
220.	*	7.2	8.9	6.9	8.4
230.	*	7.1	8.7	6.9	8.3
240.	*	7.1	8.6	6.9	8.2
250.	*	7.1	8.4	6.9	8.3
260.	*	7.1	8.3	6.9	8.3
270.	*	6.9	8.1	7.0	8.5
280.	*	6.9	7.9	7.2	8.9
290.	*	6.9	7.9	7.3	8.8
300.	*	6.9	8.0	7.4	8.5
310.	*	6.9	8.1	7.5	8.5
320.	*	6.9	8.3	7.6	8.8
330.	*	6.9	8.4	7.6	9.0
340.	*	6.9	8.8	7.5	9.5
350.	*	6.9	8.6	7.5	9.9
360.	*	7.3	7.4	8.0	8.6
-----*					
MAX	*	9.6	10.3	9.4	9.9
DEGR.	*	100	190	70	350

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-DeSoto Alt C Krausz Future PM

RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	70	350
-----*					
1	*	0.0	1.7	0.4	0.1
2	*	0.5	0.0	0.2	1.6
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.0	0.4
5	*	0.0	0.5	0.5	0.0
6	*	0.2	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.0
8	*	0.2	0.1	0.2	0.2
9	*	0.0	0.0	0.0	0.0
10	*	0.4	0.2	0.3	0.2
11	*	0.0	0.0	0.0	0.0
12	*	1.0	0.8	0.8	0.5

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT1DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-DeSoto Alt D Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	3065.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2888.	9.3	0.0	56.0		
3. NBQ	*	524.0	476.0	524.0	429.9	*	46.	180. AG	90.	100.0	0.0	48.0	0.65	2.3
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1579.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2068.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	559.7	*	24.	360. AG	90.	100.0	0.0	48.0	0.34	1.2
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	381.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	608.	9.3	0.0	32.0		
9. EBQ	*	452.0	488.0	390.6	488.0	*	61.	270. AG	189.	100.0	0.0	24.0	0.79	3.1
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	737.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	198.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	746.3	518.0	*	198.	90. AG	284.	100.0	0.0	36.0	1.03	10.1

1

PAGE 2

JOB: Plummer-DeSoto Alt D Krausz Future PM RUN: 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
3. NBQ	*	60	11	3.0	3065	1600	45.96	3	3
6. SBQ	*	60	11	3.0	1579	1600	45.96	3	3
9. EBQ	*	60	46	3.0	381	1600	45.96	3	3
12. WBQ	*	60	46	3.0	737	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	456.0	5.4	*
4. SE	*	568.0	456.0	5.4	*

1

PAGE 3

JOB: Plummer-DeSoto Alt D Krausz Future PM RUN: 10

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
0.	*	7.3	7.4	8.0	8.6
10.	*	8.3	6.9	9.0	7.9
20.	*	8.5	6.9	9.3	8.0
30.	*	8.3	6.9	8.8	8.0
40.	*	8.1	6.9	8.5	8.0
50.	*	8.0	6.9	8.4	8.1
60.	*	7.9	6.9	8.9	8.1
70.	*	7.9	6.9	9.5	8.1
80.	*	7.9	6.9	9.4	7.6
90.	*	8.6	7.2	8.6	7.2
100.	*	9.6	8.2	8.1	6.9
110.	*	9.2	8.7	8.1	6.9
120.	*	8.4	8.5	8.1	6.9
130.	*	8.3	8.3	8.1	6.9
140.	*	8.5	8.1	8.3	6.9
150.	*	8.8	8.1	8.5	6.9
160.	*	9.2	8.0	8.8	6.9
170.	*	9.3	8.1	8.5	7.0
180.	*	8.1	8.9	7.4	7.6

190.	*	7.5	10.3	6.9	8.9
200.	*	7.5	9.9	6.9	9.0
210.	*	7.3	9.3	6.9	8.6
220.	*	7.2	8.9	6.9	8.4
230.	*	7.1	8.7	6.9	8.3
240.	*	7.1	8.6	6.9	8.2
250.	*	7.1	8.4	6.9	8.3
260.	*	7.1	8.3	6.9	8.3
270.	*	6.9	8.1	7.0	8.5
280.	*	6.9	7.9	7.2	8.9
290.	*	6.9	7.9	7.2	8.8
300.	*	6.9	8.0	7.4	8.5
310.	*	6.9	8.1	7.5	8.5
320.	*	6.9	8.3	7.6	8.8
330.	*	6.9	8.4	7.6	9.0
340.	*	6.9	8.8	7.5	9.5
350.	*	6.9	8.7	7.5	9.9
360.	*	7.3	7.4	8.0	8.6
-----*					
MAX	*	9.6	10.3	9.5	9.9
DEGR.	*	100	190	70	350

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-DeSoto Alt D Krausz Future PM

RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	70	350
-----*					
1	*	0.0	1.7	0.5	0.1
2	*	0.5	0.0	0.2	1.6
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.0	0.4
5	*	0.0	0.5	0.5	0.0
6	*	0.2	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.0
8	*	0.2	0.1	0.2	0.2
9	*	0.0	0.0	0.0	0.0
10	*	0.4	0.2	0.3	0.2
11	*	0.0	0.0	0.0	0.0
12	*	1.0	0.8	0.8	0.5

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT1ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-DeSoto Alt A Future Buildout PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	3055.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2878.	9.3	0.0	56.0		
3. NBQ	*	524.0	476.0	524.0	430.1	*	46.	180. AG	90.	100.0	0.0	48.0	0.65	2.3
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1614.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2103.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	560.3	*	24.	360. AG	90.	100.0	0.0	48.0	0.34	1.2
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	386.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	613.	9.3	0.0	32.0		
9. EBQ	*	452.0	488.0	388.2	488.0	*	64.	270. AG	189.	100.0	0.0	24.0	0.81	3.2
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	735.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	196.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	746.3	518.0	*	198.	90. AG	284.	100.0	0.0	36.0	1.03	10.1

1 PAGE 2

JOB: Plummer-DeSoto Alt A Future Buildout PM RUN: 5
 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
3. NBQ	*	60	11	3.0	3055	1600	45.96	3	3
6. SBQ	*	60	11	3.0	1614	1600	45.96	3	3
9. EBQ	*	60	46	3.0	386	1600	45.96	3	3
12. WBQ	*	60	46	3.0	735	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	456.0	5.4	*
4. SE	*	568.0	456.0	5.4	*

1 PAGE 3

JOB: Plummer-DeSoto Alt A Future Buildout PM RUN: 5

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
0.	*	7.3	7.4	8.0	8.6
10.	*	8.3	6.9	9.0	7.9
20.	*	8.5	6.9	9.3	8.0
30.	*	8.3	6.9	8.9	8.0
40.	*	8.1	6.9	8.5	8.0
50.	*	8.0	6.9	8.4	8.1
60.	*	7.9	6.9	8.9	8.1
70.	*	7.9	6.9	9.5	8.1
80.	*	7.9	6.9	9.4	7.6
90.	*	8.6	7.2	8.6	7.2
100.	*	9.6	8.2	8.1	6.9
110.	*	9.2	8.7	8.1	6.9
120.	*	8.4	8.5	8.1	6.9
130.	*	8.3	8.4	8.1	6.9
140.	*	8.5	8.1	8.3	6.9
150.	*	8.8	8.1	8.5	6.9
160.	*	9.2	8.0	8.8	6.9
170.	*	9.2	8.1	8.5	7.0
180.	*	8.1	8.9	7.4	7.6

190.	*	7.4	10.3	6.9	8.9
200.	*	7.5	9.9	6.9	9.0
210.	*	7.4	9.4	6.9	8.7
220.	*	7.2	8.9	6.9	8.4
230.	*	7.1	8.7	6.9	8.3
240.	*	7.1	8.6	6.9	8.2
250.	*	7.1	8.4	6.9	8.3
260.	*	7.1	8.3	6.9	8.3
270.	*	6.9	8.1	7.0	8.5
280.	*	6.9	7.9	7.2	8.9
290.	*	6.9	7.9	7.3	8.8
300.	*	6.9	8.0	7.4	8.5
310.	*	6.9	8.1	7.5	8.5
320.	*	6.9	8.3	7.6	8.8
330.	*	6.9	8.4	7.6	9.0
340.	*	6.9	8.8	7.5	9.5
350.	*	6.9	8.7	7.5	9.9
360.	*	7.3	7.4	8.0	8.6

MAX	*	9.6	10.3	9.5	9.9
DEGR.	*	100	190	70	350

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-DeSoto Alt A Future Buildout PM

RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	70	350

1	*	0.0	1.7	0.5	0.1
2	*	0.5	0.0	0.2	1.6
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.0	0.4
5	*	0.0	0.5	0.5	0.0
6	*	0.2	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.0
8	*	0.2	0.1	0.2	0.2
9	*	0.0	0.0	0.0	0.0
10	*	0.4	0.2	0.3	0.2
11	*	0.0	0.0	0.0	0.0
12	*	1.0	0.8	0.8	0.5

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT1BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-DeSoto Alt B Future Buildout PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

V/C QUEUE (VEH)	LINK DESCRIPTION	LINK COORDINATES (FT)				LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)
		X1	Y1	X2	Y2						
0.66	1. NBA	524.0	0.0	524.0	500.0	500.	360. AG	3109.	9.3	0.0	68.0
	2. NBD	524.0	500.0	524.0	1000.0	500.	360. AG	2932.	9.3	0.0	56.0
	3. NBQ	524.0	476.0	524.0	429.3	47.	180. AG	90.	100.0	0.0	48.0
	2.4										
	4. SBA	476.0	1000.0	476.0	500.0	500.	180. AG	1580.	9.3	0.0	68.0
	5. SBD	476.0	500.0	476.0	0.0	500.	180. AG	2069.	9.3	0.0	56.0
	6. SBQ	476.0	536.0	476.0	559.8	24.	360. AG	90.	100.0	0.0	48.0
0.34	1.2										
	7. EBA	0.0	488.0	500.0	488.0	500.	90. AG	381.	9.3	0.0	44.0
	8. EBD	500.0	488.0	1000.0	488.0	500.	90. AG	608.	9.3	0.0	32.0
	9. EBQ	452.0	488.0	390.6	488.0	61.	270. AG	189.	100.0	0.0	24.0
0.79	3.1										
	10. WBA	1000.0	518.0	500.0	518.0	500.	270. AG	742.	9.3	0.0	56.0
	11. WBD	500.0	518.0	0.0	518.0	500.	270. AG	203.	9.3	0.0	44.0
	12. WBQ	548.0	518.0	767.1	518.0	219.	90. AG	284.	100.0	0.0	36.0
1.03	11.1										

PAGE

2 JOB: Plummer-DeSoto Alt B Future Buildout PM RUN: 7

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
3. NBQ	60	11	3.0	3109	1600	45.96	3	3
6. SBQ	60	11	3.0	1580	1600	45.96	3	3
9. EBQ	60	46	3.0	381	1600	45.96	3	3
12. WBQ	60	46	3.0	742	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT)		
	X	Y	Z
1. NW	432.0	556.0	5.4
2. NE	568.0	556.0	5.4
3. SW	432.0	456.0	5.4
4. SE	568.0	456.0	5.4

PAGE

3 JOB: Plummer-DeSoto Alt B Future Buildout PM RUN: 7

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
0.	7.3	7.4	8.0	8.6
10.	8.3	6.9	9.0	7.9
20.	8.5	6.9	9.3	8.0
30.	8.3	6.9	8.8	8.0
40.	8.1	6.9	8.5	8.0
50.	8.0	6.9	8.4	8.1
60.	7.9	6.9	8.9	8.2
70.	7.9	6.9	9.6	8.2
80.	7.9	6.9	9.4	7.7
90.	8.6	7.3	8.6	7.2

100.	*	9.7	8.4	8.1	6.9
110.	*	9.2	8.8	8.1	6.9
120.	*	8.4	8.5	8.2	6.9
130.	*	8.4	8.3	8.1	6.9
140.	*	8.5	8.1	8.3	6.9
150.	*	8.8	8.1	8.5	6.9
160.	*	9.2	8.0	8.8	6.9
170.	*	9.3	8.1	8.5	7.0
180.	*	8.1	8.9	7.4	7.6
190.	*	7.5	10.3	6.9	8.9
200.	*	7.5	9.9	6.9	9.1
210.	*	7.3	9.3	6.9	8.6
220.	*	7.2	8.9	6.9	8.4
230.	*	7.1	8.7	6.9	8.3
240.	*	7.1	8.6	6.9	8.3
250.	*	7.1	8.4	6.9	8.3
260.	*	7.1	8.3	6.9	8.3
270.	*	6.9	8.2	7.0	8.5
280.	*	6.9	7.9	7.2	8.9
290.	*	6.9	7.9	7.2	8.8
300.	*	6.9	8.0	7.4	8.6
310.	*	6.9	8.1	7.5	8.5
320.	*	6.9	8.3	7.6	8.8
330.	*	6.9	8.4	7.6	9.1
340.	*	6.9	8.8	7.5	9.7
350.	*	6.9	8.7	7.5	9.9
360.	*	7.3	7.4	8.0	8.6

 MAX * 9.7 10.3 9.6 9.9
 DEGR. * 100 190 70 350

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE

4

JOB: Plummer-DeSoto Alt B Future Buildout PM

RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
 THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

LINK #	CO/LINK (PPM)			
	REC1	REC2	REC3	REC4
	100	190	70	350
1	0.0	1.7	0.5	0.1
2	0.5	0.0	0.2	1.6
3	0.0	0.1	0.0	0.0
4	0.4	0.0	0.0	0.4
5	0.0	0.5	0.5	0.0
6	0.2	0.0	0.0	0.0
7	0.0	0.0	0.1	0.0
8	0.2	0.1	0.2	0.2
9	0.0	0.0	0.0	0.0
10	0.4	0.2	0.3	0.2
11	0.0	0.0	0.0	0.0
12	1.1	0.8	0.9	0.5

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT1CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-DeSoto Alt C Buildout Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

V/C QUEUE	LINK DESCRIPTION	* X1	Y1	X2	Y2	* LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)
	1. NBA	* 524.0	0.0	524.0	500.0	* 500.	360. AG	3048.	9.3	0.0	68.0
	2. NBD	* 524.0	500.0	524.0	1000.0	* 500.	360. AG	2871.	9.3	0.0	56.0
0.65	3. NBQ	* 524.0	476.0	524.0	430.2	* 46.	180. AG	90.	100.0	0.0	48.0
	2.3										
	4. SBA	* 476.0	1000.0	476.0	500.0	* 500.	180. AG	1613.	9.3	0.0	68.0
	5. SBD	* 476.0	500.0	476.0	0.0	* 500.	180. AG	2102.	9.3	0.0	56.0
	6. SBQ	* 476.0	536.0	476.0	560.3	* 24.	360. AG	90.	100.0	0.0	48.0
0.34	1.2										
	7. EBA	* 0.0	488.0	500.0	488.0	* 500.	90. AG	385.	9.3	0.0	44.0
	8. EBD	* 500.0	488.0	1000.0	488.0	* 500.	90. AG	612.	9.3	0.0	32.0
	9. EBQ	* 452.0	488.0	389.0	488.0	* 63.	270. AG	189.	100.0	0.0	24.0
0.80	3.2										
	10. WBA	* 1000.0	518.0	500.0	518.0	* 500.	270. AG	735.	9.3	0.0	56.0
	11. WBD	* 500.0	518.0	0.0	518.0	* 500.	270. AG	196.	9.3	0.0	44.0
	12. WBQ	* 548.0	518.0	746.3	518.0	* 198.	90. AG	284.	100.0	0.0	36.0
1.03	10.1										

PAGE

2 JOB: Plummer-DeSoto Alt C Buildout Future PM RUN: 9

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
3. NBQ	* 60	11	3.0	3048	1600	45.96	3	3
6. SBQ	* 60	11	3.0	1613	1600	45.96	3	3
9. EBQ	* 60	46	3.0	385	1600	45.96	3	3
12. WBQ	* 60	46	3.0	735	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	* X	Y	Z	*
1. NW	* 432.0	556.0	5.4	*
2. NE	* 568.0	556.0	5.4	*
3. SW	* 432.0	456.0	5.4	*
4. SE	* 568.0	456.0	5.4	*

PAGE

3 JOB: Plummer-DeSoto Alt C Buildout Future PM RUN: 9

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
0.	* 7.3	7.4	8.0	8.6	
10.	* 8.3	6.9	9.0	7.9	
20.	* 8.5	6.9	9.3	8.0	
30.	* 8.3	6.9	8.9	8.0	
40.	* 8.1	6.9	8.5	8.0	
50.	* 8.0	6.9	8.4	8.1	
60.	* 7.9	6.9	8.9	8.1	
70.	* 7.9	6.9	9.4	8.1	
80.	* 7.9	6.9	9.4	7.6	
90.	* 8.6	7.2	8.6	7.2	

100.	*	9.6	8.2	8.1	6.9
110.	*	9.2	8.7	8.1	6.9
120.	*	8.4	8.5	8.1	6.9
130.	*	8.3	8.4	8.1	6.9
140.	*	8.5	8.1	8.3	6.9
150.	*	8.8	8.1	8.5	6.9
160.	*	9.2	8.0	8.8	6.9
170.	*	9.2	8.1	8.5	7.0
180.	*	8.1	8.9	7.4	7.6
190.	*	7.4	10.3	6.9	8.9
200.	*	7.5	9.9	6.9	9.0
210.	*	7.3	9.4	6.9	8.7
220.	*	7.2	8.9	6.9	8.4
230.	*	7.1	8.7	6.9	8.3
240.	*	7.1	8.6	6.9	8.2
250.	*	7.1	8.4	6.9	8.3
260.	*	7.1	8.3	6.9	8.3
270.	*	6.9	8.1	7.0	8.5
280.	*	6.9	7.9	7.2	8.9
290.	*	6.9	7.9	7.3	8.8
300.	*	6.9	8.0	7.4	8.5
310.	*	6.9	8.1	7.5	8.5
320.	*	6.9	8.3	7.6	8.8
330.	*	6.9	8.4	7.6	9.0
340.	*	6.9	8.8	7.5	9.5
350.	*	6.9	8.6	7.5	9.9
360.	*	7.3	7.4	8.0	8.6

 MAX * 9.6 10.3 9.4 9.9
 DEGR. * 100 190 70 350

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE

4

JOB: Plummer-DeSoto Alt C Buildout Future PM

RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
 THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

LINK #	CO/LINK (PPM)			
	REC1	REC2	REC3	REC4
	100	190	70	350
1	0.0	1.7	0.4	0.1
2	0.5	0.0	0.2	1.6
3	0.0	0.1	0.0	0.0
4	0.4	0.0	0.0	0.4
5	0.0	0.5	0.5	0.0
6	0.2	0.0	0.0	0.0
7	0.0	0.0	0.1	0.0
8	0.2	0.1	0.2	0.2
9	0.0	0.0	0.0	0.0
10	0.4	0.2	0.3	0.2
11	0.0	0.0	0.0	0.0
12	1.0	0.8	0.8	0.5

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT1DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-DeSoto Alt D Buildout Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

V/C QUEUE (VEH)	LINK DESCRIPTION	LINK COORDINATES (FT)				LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)
		X1	Y1	X2	Y2						
0.66	1. NBA	524.0	0.0	524.0	500.0	500.	360. AG	3085.	9.3	0.0	68.0
	2. NBD	524.0	500.0	524.0	1000.0	500.	360. AG	2908.	9.3	0.0	56.0
	3. NBQ	524.0	476.0	524.0	429.6	46.	180. AG	90.	100.0	0.0	48.0
	2.4										
	4. SBA	476.0	1000.0	476.0	500.0	500.	180. AG	1583.	9.3	0.0	68.0
	5. SBD	476.0	500.0	476.0	0.0	500.	180. AG	2072.	9.3	0.0	56.0
	6. SBQ	476.0	536.0	476.0	559.8	24.	360. AG	90.	100.0	0.0	48.0
0.34	1.2										
	7. EBA	0.0	488.0	500.0	488.0	500.	90. AG	382.	9.3	0.0	44.0
	8. EBD	500.0	488.0	1000.0	488.0	500.	90. AG	609.	9.3	0.0	32.0
	9. EBQ	452.0	488.0	389.8	488.0	62.	270. AG	189.	100.0	0.0	24.0
0.80	3.2										
	10. WBA	1000.0	518.0	500.0	518.0	500.	270. AG	739.	9.3	0.0	56.0
	11. WBD	500.0	518.0	0.0	518.0	500.	270. AG	200.	9.3	0.0	44.0
	12. WBQ	548.0	518.0	756.7	518.0	209.	90. AG	284.	100.0	0.0	36.0
1.03	10.6										

PAGE

2

JOB: Plummer-DeSoto Alt D Buildout Future PM RUN: 11

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
3. NBQ	60	11	3.0	3085	1600	45.96	3	3
6. SBQ	60	11	3.0	1583	1600	45.96	3	3
9. EBQ	60	46	3.0	382	1600	45.96	3	3
12. WBQ	60	46	3.0	739	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT)		
	X	Y	Z
1. NW	432.0	556.0	5.4
2. NE	568.0	556.0	5.4
3. SW	432.0	456.0	5.4
4. SE	568.0	456.0	5.4

1

PAGE

3

JOB: Plummer-DeSoto Alt D Buildout Future PM RUN: 11

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
0.	7.3	7.4	8.0	8.6
10.	8.3	6.9	9.0	7.9
20.	8.5	6.9	9.3	8.0
30.	8.3	6.9	8.8	8.0
40.	8.1	6.9	8.5	8.0
50.	8.0	6.9	8.4	8.1
60.	7.9	6.9	8.9	8.2
70.	7.9	6.9	9.5	8.2
80.	7.9	6.9	9.4	7.7
90.	8.6	7.2	8.6	7.2

100.	*	9.6	8.3	8.1	6.9
110.	*	9.2	8.7	8.1	6.9
120.	*	8.4	8.5	8.2	6.9
130.	*	8.3	8.3	8.1	6.9
140.	*	8.5	8.1	8.3	6.9
150.	*	8.8	8.1	8.5	6.9
160.	*	9.2	8.0	8.8	6.9
170.	*	9.3	8.1	8.5	7.0
180.	*	8.1	8.9	7.4	7.6
190.	*	7.5	10.3	6.9	8.9
200.	*	7.5	9.9	6.9	9.1
210.	*	7.3	9.3	6.9	8.6
220.	*	7.2	8.9	6.9	8.4
230.	*	7.1	8.7	6.9	8.3
240.	*	7.1	8.6	6.9	8.2
250.	*	7.1	8.4	6.9	8.3
260.	*	7.1	8.3	6.9	8.3
270.	*	6.9	8.2	7.0	8.5
280.	*	6.9	7.9	7.2	8.9
290.	*	6.9	7.9	7.2	8.8
300.	*	6.9	8.0	7.4	8.5
310.	*	6.9	8.1	7.5	8.5
320.	*	6.9	8.3	7.6	8.8
330.	*	6.9	8.4	7.6	9.0
340.	*	6.9	8.8	7.5	9.5
350.	*	6.9	8.7	7.5	9.9
360.	*	7.3	7.4	8.0	8.6

 MAX * 9.6 10.3 9.5 9.9
 DEGR. * 100 190 70 350

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE

4

JOB: Plummer-DeSoto Alt D Buildout Future PM

RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
 THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

LINK #	*	CO/LINK (PPM)			
		REC1	REC2	REC3	REC4
	*	ANGLE (DEGREES)			
	*	100	190	70	350
1	*	0.0	1.7	0.5	0.1
2	*	0.5	0.0	0.2	1.6
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.0	0.4
5	*	0.0	0.5	0.5	0.0
6	*	0.2	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.0
8	*	0.2	0.1	0.2	0.2
9	*	0.0	0.0	0.0	0.0
10	*	0.4	0.2	0.3	0.2
11	*	0.0	0.0	0.0	0.0
12	*	1.0	0.8	0.8	0.5

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nodeex.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Krausz Property

RUN: Nordhoff Desoto Existing

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1730.	12.2	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1941.	12.2	0.0	48.0		
3. nbq	*	524.0	452.0	524.0	409.5	*	43.	180. AG	195.	100.0	0.0	48.0	0.44	2.2
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1814.	12.2	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1468.	12.2	0.0	56.0		
6. sbq	*	476.0	548.0	476.0	592.6	*	45.	360. AG	195.	100.0	0.0	48.0	0.46	2.3
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	682.	12.2	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	571.	12.2	0.0	48.0		
9. ebq	*	452.0	476.0	415.8	476.0	*	36.	270. AG	422.	100.0	0.0	48.0	0.40	1.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	962.	12.2	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1208.	12.2	0.0	48.0		
12. wbq	*	548.0	524.0	599.2	524.0	*	51.	90. AG	422.	100.0	0.0	48.0	0.56	2.6

1

PAGE 2

JOB: Krausz Property

RUN: Nordhoff Desoto Existing

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
3. nbq	*	60	18	3.0	1730	1600	60.55	3	3
6. sbq	*	60	18	3.0	1814	1600	60.55	3	3
9. ebq	*	60	39	3.0	682	1600	60.55	3	3
12. wbq	*	60	39	3.0	962	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Krausz Property

RUN: Nordhoff Desoto Existing

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
0.	*	9.2	9.1	11.3	10.7
10.	*	10.4	8.7	12.6	9.9
20.	*	10.6	8.7	12.6	9.7
30.	*	10.4	8.7	11.7	9.4
40.	*	10.3	8.7	11.2	9.2
50.	*	10.2	8.7	11.2	9.3
60.	*	10.4	8.8	11.2	9.4
70.	*	10.3	8.8	10.8	9.5
80.	*	10.4	8.9	10.7	9.5
90.	*	11.0	9.4	10.5	8.9
100.	*	11.8	9.9	10.0	8.7
110.	*	11.3	9.9	9.9	8.7
120.	*	10.8	10.1	9.8	8.7
130.	*	10.7	10.1	9.8	8.7
140.	*	10.8	10.3	9.8	8.7
150.	*	11.1	10.5	10.1	8.7
160.	*	11.3	10.6	10.3	8.7
170.	*	11.5	10.5	10.1	8.7
180.	*	10.8	11.2	9.1	9.2

```

190. * 9.8 12.3 8.7 10.3
200. * 9.4 12.2 8.7 10.4
210. * 9.4 11.4 8.7 10.2
220. * 9.4 11.1 8.7 10.1
230. * 9.5 11.2 8.7 10.1
240. * 9.7 11.4 8.7 10.1
250. * 9.9 11.1 8.7 10.2
260. * 10.0 11.3 8.8 10.3
270. * 9.2 11.0 9.2 10.9
280. * 8.7 10.1 9.7 11.4
290. * 8.7 10.1 9.8 11.2
300. * 8.7 10.1 9.7 10.5
310. * 8.7 10.0 9.7 10.7
320. * 8.7 10.1 9.7 10.8
330. * 8.7 10.3 9.9 11.0
340. * 8.7 10.5 10.3 11.4
350. * 8.7 10.3 10.5 11.7
360. * 9.2 9.1 11.3 10.7
-----*
MAX * 11.8 12.3 12.6 11.7
DEGR. * 100 190 10 350

```

THE HIGHEST CONCENTRATION IS 12.60 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Krausz Property

RUN: Nordhoff Desoto Existing

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 190 10 350
-----*
1 * 0.0 1.2 0.0 0.1
2 * 0.5 0.0 0.6 1.3
3 * 0.0 0.2 0.0 0.0
4 * 0.6 0.0 1.3 0.6
5 * 0.0 0.4 0.0 0.0
6 * 0.3 0.0 0.2 0.0
7 * 0.0 0.0 0.2 0.0
8 * 0.2 0.1 0.0 0.2
9 * 0.0 0.0 1.3 0.0
10 * 0.7 0.4 0.0 0.2
11 * 0.2 0.0 0.3 0.0
12 * 0.6 1.3 0.0 0.6

```

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nodepre.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-DeSoto Future Pre-Project AM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1938.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1926.	9.3	0.0	48.0		
3. nbq	*	524.0	452.0	524.0	404.4	*	48.	180. AG	148.	100.0	0.0	48.0	0.49 2.4	
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1966.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1841.	9.3	0.0	56.0		
6. sbq	*	476.0	548.0	476.0	596.3	*	48.	360. AG	148.	100.0	0.0	48.0	0.50 2.5	
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1050.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1038.	9.3	0.0	48.0		
9. ebq	*	452.0	476.0	396.1	476.0	*	56.	270. AG	321.	100.0	0.0	48.0	0.62 2.8	
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	814.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	963.	9.3	0.0	48.0		
12. wbq	*	548.0	524.0	591.3	524.0	*	43.	90. AG	321.	100.0	0.0	48.0	0.48 2.2	

1 PAGE 2

JOB: Nordhoff-DeSoto Future Pre-Project AM RUN: 3

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
3. nbq	*	60	18	3.0	1938	1600	45.96	3	3
6. sbq	*	60	18	3.0	1966	1600	45.96	3	3
9. ebq	*	60	39	3.0	1050	1600	45.96	3	3
12. wbq	*	60	39	3.0	814	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1 PAGE 3

JOB: Nordhoff-DeSoto Future Pre-Project AM RUN: 3

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
0.	*	7.3	7.2	9.0	8.5
10.	*	8.3	6.9	10.0	7.9
20.	*	8.4	6.9	10.0	7.6
30.	*	8.3	6.9	9.4	7.4
40.	*	8.2	6.9	8.9	7.4
50.	*	8.2	6.9	8.9	7.5
60.	*	8.2	6.9	9.0	7.6
70.	*	8.2	6.9	8.9	7.8
80.	*	8.2	7.0	9.0	7.8
90.	*	8.5	7.3	8.6	7.2
100.	*	9.1	7.7	8.2	6.9
110.	*	8.8	7.8	8.0	6.9
120.	*	8.6	7.9	7.9	6.9
130.	*	8.5	7.9	7.9	6.9
140.	*	8.6	7.9	8.0	6.9
150.	*	8.8	8.0	8.1	6.9
160.	*	9.1	8.2	8.4	6.9
170.	*	9.4	8.3	8.1	6.9
180.	*	8.5	8.9	7.2	7.3

190.	*	8.0	9.9	6.9	8.3
200.	*	7.9	9.8	6.9	8.4
210.	*	7.6	9.2	6.9	8.3
220.	*	7.4	8.9	6.9	8.1
230.	*	7.6	8.9	6.9	8.2
240.	*	7.6	8.9	6.9	8.2
250.	*	7.7	9.0	7.0	8.2
260.	*	7.7	9.0	7.0	8.2
270.	*	7.2	8.7	7.5	8.7
280.	*	6.9	8.2	8.0	9.4
290.	*	6.9	8.0	8.1	9.0
300.	*	6.9	7.9	8.2	8.7
310.	*	6.9	7.9	8.2	8.7
320.	*	6.9	8.0	8.3	8.6
330.	*	6.9	8.1	8.4	8.8
340.	*	6.9	8.4	8.4	9.2
350.	*	6.9	8.1	8.4	9.5
360.	*	7.3	7.2	9.0	8.5
-----*					
MAX	*	9.4	9.9	10.0	9.5
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Nordhoff-DeSoto Future Pre-Project AM

RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.4	1.1	0.0	0.1
2	*	0.0	0.0	0.4	1.0
3	*	0.0	0.1	0.0	0.0
4	*	0.1	0.0	1.1	0.5
5	*	1.0	0.4	0.0	0.0
6	*	0.0	0.0	0.1	0.0
7	*	0.2	0.0	0.3	0.0
8	*	0.0	0.2	0.0	0.3
9	*	0.5	0.0	1.0	0.0
10	*	0.0	0.2	0.0	0.2
11	*	0.3	0.0	0.2	0.0
12	*	0.0	1.0	0.0	0.5

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nodefa.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-DeSoto Alt A Krausz Future AM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1935.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2170.	9.3	0.0	48.0		
3. nbq	*	524.0	452.0	524.0	404.5	*	48.	180. AG	148.	100.0	0.0	48.0	0.49	2.4
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1966.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1598.	9.3	0.0	56.0		
6. sbq	*	476.0	548.0	476.0	596.3	*	48.	360. AG	148.	100.0	0.0	48.0	0.50	2.5
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	810.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	685.	9.3	0.0	48.0		
9. ebq	*	452.0	476.0	408.9	476.0	*	43.	270. AG	321.	100.0	0.0	48.0	0.47	2.2
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1053.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1311.	9.3	0.0	48.0		
12. wbq	*	548.0	524.0	604.1	524.0	*	56.	90. AG	321.	100.0	0.0	48.0	0.62	2.8

1

PAGE 2

JOB: Nordhoff-DeSoto Alt A Krausz Future AM RUN: 6

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
3. nbq	*	60	18	3.0	1935	1600	45.96	3	3
6. sbq	*	60	18	3.0	1966	1600	45.96	3	3
9. ebq	*	60	39	3.0	810	1600	45.96	3	3
12. wbq	*	60	39	3.0	1053	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-DeSoto Alt A Krausz Future AM RUN: 6

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
0.	*	7.3	7.3	9.0	8.5
10.	*	8.3	6.9	10.0	7.9
20.	*	8.5	6.9	10.1	7.8
30.	*	8.4	6.9	9.4	7.5
40.	*	8.3	6.9	9.0	7.3
50.	*	8.2	6.9	8.9	7.5
60.	*	8.2	6.9	8.9	7.5
70.	*	8.2	7.0	8.7	7.6
80.	*	8.3	7.0	8.7	7.6
90.	*	8.8	7.5	8.5	7.1
100.	*	9.5	7.9	8.1	6.9
110.	*	9.0	8.0	7.9	6.9
120.	*	8.7	8.1	7.8	6.9
130.	*	8.7	8.2	7.8	6.9
140.	*	8.7	8.2	7.9	6.9
150.	*	8.8	8.3	8.0	6.9
160.	*	9.1	8.3	8.3	6.9
170.	*	9.4	8.3	8.0	6.9
180.	*	8.6	8.8	7.2	7.3

190.	*	8.0	9.9	6.9	8.3
200.	*	7.7	9.7	6.9	8.4
210.	*	7.5	9.2	6.9	8.2
220.	*	7.5	8.9	6.9	8.1
230.	*	7.6	8.9	6.9	8.1
240.	*	7.7	9.0	6.9	8.1
250.	*	7.9	9.1	6.9	8.1
260.	*	8.0	9.2	7.0	8.1
270.	*	7.3	8.7	7.3	8.6
280.	*	6.9	8.2	7.8	9.2
290.	*	6.9	8.0	7.9	8.9
300.	*	6.9	8.0	8.0	8.5
310.	*	6.9	8.0	7.9	8.5
320.	*	6.9	8.1	8.0	8.6
330.	*	6.9	8.2	8.1	8.8
340.	*	6.9	8.5	8.3	9.2
350.	*	6.9	8.3	8.4	9.5
360.	*	7.3	7.3	9.0	8.5
-----*					
MAX	*	9.5	9.9	10.1	9.5
DEGR.	*	100	190	20	350

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 20 DEGREES FROM REC3 .

1

PAGE 4

JOB: Nordhoff-DeSoto Alt A Krausz Future AM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	20	350
-----*					
1	*	0.0	1.1	0.0	0.1
2	*	0.4	0.0	0.7	1.1
3	*	0.0	0.1	0.0	0.0
4	*	0.5	0.0	0.8	0.5
5	*	0.0	0.4	0.1	0.0
6	*	0.2	0.0	0.2	0.0
7	*	0.0	0.0	0.2	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	0.9	0.0
10	*	0.6	0.3	0.0	0.2
11	*	0.2	0.0	0.3	0.0
12	*	0.5	1.0	0.0	0.5

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nodefb.DAT

RUN BEGIN ON 08/22/02 AT 08:37

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-DeSoto Alt B Krausz Future AM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1951.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2170.	9.3	0.0	48.0		
3. nbq	*	524.0	452.0	524.0	401.4	*	51.	180. AG	156.	100.0	0.0	48.0	0.51	2.6
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1966.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1599.	9.3	0.0	56.0		
6. sbq	*	476.0	548.0	476.0	599.0	*	51.	360. AG	156.	100.0	0.0	48.0	0.51	2.6
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	834.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	725.	9.3	0.0	48.0		
9. ebq	*	452.0	476.0	408.8	476.0	*	43.	270. AG	312.	100.0	0.0	48.0	0.46	2.2
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1054.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1311.	9.3	0.0	48.0		
12. wbq	*	548.0	524.0	602.7	524.0	*	55.	90. AG	312.	100.0	0.0	48.0	0.58	2.8

1

PAGE 2

JOB: Nordhoff-DeSoto Alt B Krausz Future AM RUN: 6

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
6. sbq	*	60	19	3.0	1966	1600	45.96	3	3
9. ebq	*	60	38	3.0	834	1600	45.96	3	3
12. wbq	*	60	38	3.0	1054	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-DeSoto Alt B Krausz Future AM RUN: 6

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
0.	7.3	7.3	9.0	8.5
10.	8.3	6.9	10.1	7.9
20.	8.5	6.9	10.0	7.8
30.	8.4	6.9	9.4	7.5
40.	8.3	6.9	9.0	7.3
50.	8.2	6.9	8.9	7.5
60.	8.2	6.9	9.0	7.5
70.	8.2	7.0	8.8	7.6
80.	8.3	7.0	8.7	7.6
90.	8.8	7.5	8.5	7.1
100.	9.4	7.9	8.1	6.9
110.	9.0	8.0	7.9	6.9
120.	8.7	8.1	7.8	6.9
130.	8.8	8.1	7.8	6.9
140.	8.7	8.2	7.9	6.9
150.	8.9	8.2	8.0	6.9
160.	9.1	8.4	8.3	6.9
170.	9.5	8.2	8.0	6.9
180.	8.6	8.8	7.2	7.3

190.	*	8.0	10.0	6.9	8.3
200.	*	7.7	9.7	6.9	8.4
210.	*	7.5	9.2	6.9	8.2
220.	*	7.5	8.9	6.9	8.2
230.	*	7.6	9.0	6.9	8.1
240.	*	7.7	9.0	6.9	8.1
250.	*	7.9	9.1	6.9	8.1
260.	*	8.0	9.2	7.0	8.2
270.	*	7.3	8.7	7.4	8.6
280.	*	6.9	8.2	7.8	9.3
290.	*	6.9	8.0	7.9	9.0
300.	*	6.9	8.0	7.9	8.5
310.	*	6.9	8.0	7.9	8.7
320.	*	6.9	8.1	8.0	8.6
330.	*	6.9	8.2	8.1	8.9
340.	*	6.9	8.5	8.3	9.2
350.	*	6.9	8.3	8.4	9.5
360.	*	7.3	7.3	9.0	8.5
-----*					
MAX	*	9.5	10.0	10.1	9.5
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Nordhoff-DeSoto Alt B Krausz Future AM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	1.1	0.0	0.1
2	*	0.0	0.0	0.5	1.1
3	*	0.0	0.2	0.0	0.0
4	*	0.1	0.0	1.1	0.5
5	*	0.9	0.4	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.5	0.0	1.0	0.0
10	*	0.0	0.3	0.0	0.2
11	*	0.4	0.0	0.2	0.0
12	*	0.0	1.0	0.0	0.5

RUN ENDED ON 08/22/02 AT 08:37

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nodefc.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-DeSoto Alt C Krausz Future AM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1935.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2170.	9.3	0.0	48.0		
3. nbq	*	524.0	452.0	524.0	401.8	*	50.	180. AG	156.	100.0	0.0	48.0	0.50	2.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1966.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1600.	9.3	0.0	56.0		
6. sbq	*	476.0	548.0	476.0	599.0	*	51.	360. AG	156.	100.0	0.0	48.0	0.51	2.6
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	810.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	685.	9.3	0.0	48.0		
9. ebq	*	452.0	476.0	410.0	476.0	*	42.	270. AG	312.	100.0	0.0	48.0	0.45	2.1
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1057.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1313.	9.3	0.0	48.0		
12. wbq	*	548.0	524.0	602.9	524.0	*	55.	90. AG	312.	100.0	0.0	48.0	0.58	2.8

1

PAGE 2

JOB: Nordhoff-DeSoto Alt C Krausz Future AM RUN: 8

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
6. sbq	*	60	19	3.0	1966	1600	45.96	3	3
9. ebq	*	60	38	3.0	810	1600	45.96	3	3
12. wbq	*	60	38	3.0	1057	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-DeSoto Alt C Krausz Future AM RUN: 8

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
0.	7.3	7.3	9.0	8.5
10.	8.3	6.9	10.1	7.9
20.	8.5	6.9	10.0	7.8
30.	8.4	6.9	9.4	7.5
40.	8.3	6.9	9.0	7.3
50.	8.2	6.9	8.9	7.5
60.	8.2	6.9	8.9	7.5
70.	8.2	7.0	8.7	7.6
80.	8.3	7.0	8.7	7.6
90.	8.8	7.5	8.5	7.1
100.	9.4	7.9	8.1	6.9
110.	9.0	8.0	7.9	6.9
120.	8.7	8.1	7.8	6.9
130.	8.8	8.1	7.8	6.9
140.	8.7	8.2	7.9	6.9
150.	8.9	8.2	8.0	6.9
160.	9.1	8.3	8.3	6.9
170.	9.4	8.2	8.0	6.9
180.	8.6	8.8	7.2	7.3

190.	*	8.0	10.0	6.9	8.3
200.	*	7.7	9.6	6.9	8.4
210.	*	7.5	9.2	6.9	8.2
220.	*	7.5	8.9	6.9	8.1
230.	*	7.6	8.9	6.9	8.1
240.	*	7.7	9.0	6.9	8.1
250.	*	7.9	9.1	6.9	8.1
260.	*	8.0	9.2	7.0	8.1
270.	*	7.3	8.7	7.3	8.6
280.	*	6.9	8.2	7.8	9.1
290.	*	6.9	8.0	7.9	8.9
300.	*	6.9	8.0	7.9	8.5
310.	*	6.9	8.0	7.8	8.6
320.	*	6.9	8.1	8.0	8.6
330.	*	6.9	8.2	8.1	8.9
340.	*	6.9	8.5	8.3	9.2
350.	*	6.9	8.3	8.4	9.5
360.	*	7.3	7.3	9.0	8.5
-----*					
MAX	*	9.4	10.0	10.1	9.5
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Nordhoff-DeSoto Alt C Krausz Future AM

RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	1.1	0.0	0.1
2	*	0.4	0.0	0.5	1.1
3	*	0.0	0.2	0.0	0.0
4	*	0.5	0.0	1.1	0.5
5	*	0.0	0.4	0.0	0.0
6	*	0.2	0.0	0.2	0.0
7	*	0.0	0.0	0.2	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	1.0	0.0
10	*	0.6	0.3	0.0	0.2
11	*	0.2	0.0	0.2	0.0
12	*	0.4	1.0	0.0	0.5

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nodefd.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-DeSoto Alt D Krausz Future AM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1948.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2170.	9.3	0.0	48.0		
3. nbq	*	524.0	452.0	524.0	401.4	*	51.	180. AG	156.	100.0	0.0	48.0	0.51	2.6
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1966.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1600.	9.3	0.0	56.0		
6. sbq	*	476.0	548.0	476.0	599.0	*	51.	360. AG	156.	100.0	0.0	48.0	0.51	2.6
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	828.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	716.	9.3	0.0	48.0		
9. ebq	*	452.0	476.0	409.0	476.0	*	43.	270. AG	312.	100.0	0.0	48.0	0.46	2.2
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1057.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1313.	9.3	0.0	48.0		
12. wbq	*	548.0	524.0	602.9	524.0	*	55.	90. AG	312.	100.0	0.0	48.0	0.58	2.8

1

PAGE 2

JOB: Nordhoff-DeSoto Alt D Krausz Future AM RUN: 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
3. nbq	*	60	19	3.0	1948	1600	45.96	3	3
6. sbq	*	60	19	3.0	1966	1600	45.96	3	3
9. ebq	*	60	38	3.0	828	1600	45.96	3	3
12. wbq	*	60	38	3.0	1057	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-DeSoto Alt D Krausz Future AM RUN: 10

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
0.	*	7.3	7.3	9.0	8.5
10.	*	8.3	6.9	10.1	7.9
20.	*	8.5	6.9	10.0	7.8
30.	*	8.4	6.9	9.4	7.5
40.	*	8.3	6.9	9.0	7.3
50.	*	8.2	6.9	8.9	7.5
60.	*	8.2	6.9	8.9	7.5
70.	*	8.2	7.0	8.8	7.6
80.	*	8.3	7.0	8.7	7.6
90.	*	8.8	7.5	8.5	7.1
100.	*	9.4	7.9	8.1	6.9
110.	*	9.0	8.0	7.9	6.9
120.	*	8.7	8.1	7.8	6.9
130.	*	8.8	8.1	7.8	6.9
140.	*	8.7	8.2	7.9	6.9
150.	*	8.9	8.2	8.0	6.9
160.	*	9.1	8.3	8.3	6.9
170.	*	9.5	8.2	8.0	6.9
180.	*	8.6	8.8	7.2	7.3

190.	*	8.0	10.0	6.9	8.3
200.	*	7.7	9.7	6.9	8.4
210.	*	7.5	9.2	6.9	8.2
220.	*	7.5	8.9	6.9	8.1
230.	*	7.6	9.0	6.9	8.1
240.	*	7.7	9.0	6.9	8.1
250.	*	7.9	9.1	6.9	8.1
260.	*	8.0	9.2	7.0	8.2
270.	*	7.3	8.7	7.3	8.6
280.	*	6.9	8.2	7.8	9.3
290.	*	6.9	8.0	7.9	9.0
300.	*	6.9	8.0	7.9	8.5
310.	*	6.9	8.0	7.9	8.6
320.	*	6.9	8.1	8.0	8.6
330.	*	6.9	8.2	8.1	8.9
340.	*	6.9	8.5	8.3	9.2
350.	*	6.9	8.3	8.4	9.5
360.	*	7.3	7.3	9.0	8.5
-----*					
MAX	*	9.5	10.0	10.1	9.5
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Nordhoff-DeSoto Alt D Krausz Future AM RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	1.1	0.0	0.1
2	*	0.0	0.0	0.5	1.1
3	*	0.0	0.2	0.0	0.0
4	*	0.1	0.0	1.1	0.5
5	*	0.9	0.4	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.5	0.0	1.0	0.0
10	*	0.0	0.3	0.0	0.2
11	*	0.4	0.0	0.2	0.0
12	*	0.0	1.0	0.0	0.5

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nodeba.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-DeSoto Alt A Buildout Future AM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1933.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2170.	9.3	0.0	48.0		
3. nbq	*	524.0	452.0	524.0	404.5	*	48.	180. AG	148.	100.0	0.0	48.0	0.49	2.4
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1966.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1598.	9.3	0.0	56.0		
6. sbq	*	476.0	548.0	476.0	596.3	*	48.	360. AG	148.	100.0	0.0	48.0	0.50	2.5
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	807.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	680.	9.3	0.0	48.0		
9. ebq	*	452.0	476.0	409.2	476.0	*	43.	270. AG	321.	100.0	0.0	48.0	0.47	2.2
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1053.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1311.	9.3	0.0	48.0		
12. wbq	*	548.0	524.0	604.1	524.0	*	56.	90. AG	321.	100.0	0.0	48.0	0.62	2.8

1

PAGE 2

JOB: Nordhoff-DeSoto Alt A Buildout Future AM RUN: 5

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
3. nbq	*	60	18	3.0	1933	1600	45.96	3	3
6. sbq	*	60	18	3.0	1966	1600	45.96	3	3
9. ebq	*	60	39	3.0	807	1600	45.96	3	3
12. wbq	*	60	39	3.0	1053	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-DeSoto Alt A Buildout Future AM RUN: 5

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
0.	*	7.3	7.3	9.0	8.5
10.	*	8.3	6.9	10.0	7.9
20.	*	8.5	6.9	10.1	7.8
30.	*	8.4	6.9	9.4	7.5
40.	*	8.3	6.9	9.0	7.3
50.	*	8.2	6.9	8.9	7.5
60.	*	8.2	6.9	8.9	7.5
70.	*	8.2	7.0	8.7	7.6
80.	*	8.3	7.0	8.7	7.6
90.	*	8.8	7.5	8.4	7.1
100.	*	9.5	7.9	8.1	6.9
110.	*	9.0	8.0	7.9	6.9
120.	*	8.7	8.1	7.8	6.9
130.	*	8.7	8.2	7.8	6.9
140.	*	8.7	8.2	7.9	6.9
150.	*	8.8	8.3	8.0	6.9
160.	*	9.1	8.3	8.3	6.9
170.	*	9.4	8.3	8.0	6.9
180.	*	8.6	8.8	7.2	7.3

190.	*	8.0	9.8	6.9	8.3
200.	*	7.7	9.7	6.9	8.4
210.	*	7.5	9.2	6.9	8.2
220.	*	7.5	8.9	6.9	8.1
230.	*	7.6	8.9	6.9	8.1
240.	*	7.7	9.0	6.9	8.1
250.	*	7.9	9.1	6.9	8.1
260.	*	8.0	9.2	7.0	8.1
270.	*	7.3	8.7	7.3	8.6
280.	*	6.9	8.2	7.8	9.2
290.	*	6.9	8.0	7.9	8.9
300.	*	6.9	8.0	7.9	8.5
310.	*	6.9	8.0	7.9	8.5
320.	*	6.9	8.1	8.0	8.6
330.	*	6.9	8.2	8.1	8.8
340.	*	6.9	8.5	8.3	9.2
350.	*	6.9	8.3	8.4	9.5
360.	*	7.3	7.3	9.0	8.5
-----*					
MAX	*	9.5	9.8	10.1	9.5
DEGR.	*	100	190	20	350

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 20 DEGREES FROM REC3 .

1

PAGE 4

JOB: Nordhoff-DeSoto Alt A Buildout Future AM

RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	190	20	350
-----*					
1	*	0.0	1.0	0.0	0.1
2	*	0.4	0.0	0.7	1.1
3	*	0.0	0.1	0.0	0.0
4	*	0.5	0.0	0.8	0.5
5	*	0.0	0.4	0.1	0.0
6	*	0.2	0.0	0.2	0.0
7	*	0.0	0.0	0.2	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	0.9	0.0
10	*	0.6	0.3	0.0	0.2
11	*	0.2	0.0	0.3	0.0
12	*	0.5	1.0	0.0	0.5

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nodebb.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-DeSoto Alt B Buildout Future AM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1958.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2170.	9.3	0.0	48.0		
3. nbq	*	524.0	452.0	524.0	401.2	*	51.	180. AG	156.	100.0	0.0	48.0	0.51	2.6
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1966.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1599.	9.3	0.0	56.0		
6. sbq	*	476.0	548.0	476.0	599.0	*	51.	360. AG	156.	100.0	0.0	48.0	0.51	2.6
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	843.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	741.	9.3	0.0	48.0		
9. ebq	*	452.0	476.0	408.4	476.0	*	44.	270. AG	312.	100.0	0.0	48.0	0.46	2.2
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1055.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1312.	9.3	0.0	48.0		
12. wbq	*	548.0	524.0	602.7	524.0	*	55.	90. AG	312.	100.0	0.0	48.0	0.58	2.8

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PAGE 2

JOB: Nordhoff-DeSoto Alt B Buildout Future AM RUN: 7

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
3. nbq	*	60	19	3.0	1958	1600	45.96	3	3
6. sbq	*	60	19	3.0	1966	1600	45.96	3	3
9. ebq	*	60	38	3.0	843	1600	45.96	3	3
12. wbq	*	60	38	3.0	1055	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

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PAGE 3

JOB: Nordhoff-DeSoto Alt B Buildout Future AM RUN: 7

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
0.	*	7.3	7.3	9.0	8.5
10.	*	8.3	6.9	10.1	7.9
20.	*	8.5	6.9	10.0	7.8
30.	*	8.4	6.9	9.4	7.5
40.	*	8.3	6.9	9.0	7.3
50.	*	8.2	6.9	8.9	7.5
60.	*	8.2	6.9	9.0	7.5
70.	*	8.2	7.0	8.8	7.6
80.	*	8.3	7.0	8.7	7.6
90.	*	8.8	7.5	8.5	7.1
100.	*	9.4	7.9	8.1	6.9
110.	*	9.0	8.0	7.9	6.9
120.	*	8.7	8.1	7.8	6.9
130.	*	8.8	8.1	7.8	6.9
140.	*	8.7	8.3	7.9	6.9
150.	*	8.9	8.3	8.0	6.9
160.	*	9.1	8.4	8.3	6.9
170.	*	9.5	8.2	8.0	6.9
180.	*	8.6	8.8	7.2	7.3

190.	*	8.0	10.0	6.9	8.3
200.	*	7.7	9.7	6.9	8.4
210.	*	7.6	9.2	6.9	8.2
220.	*	7.5	8.9	6.9	8.2
230.	*	7.6	9.0	6.9	8.1
240.	*	7.7	9.0	6.9	8.1
250.	*	7.9	9.1	6.9	8.1
260.	*	8.0	9.3	7.0	8.2
270.	*	7.3	8.7	7.4	8.7
280.	*	6.9	8.2	7.8	9.3
290.	*	6.9	8.0	7.9	9.0
300.	*	6.9	8.0	8.0	8.5
310.	*	6.9	8.0	7.9	8.7
320.	*	6.9	8.1	8.0	8.6
330.	*	6.9	8.2	8.2	8.9
340.	*	6.9	8.5	8.3	9.2
350.	*	6.9	8.3	8.4	9.5
360.	*	7.3	7.3	9.0	8.5
-----*					
MAX	*	9.5	10.0	10.1	9.5
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Nordhoff-DeSoto Alt B Buildout Future AM

RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	1.1	0.0	0.1
2	*	0.0	0.0	0.5	1.1
3	*	0.0	0.2	0.0	0.0
4	*	0.1	0.0	1.1	0.5
5	*	0.9	0.4	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.5	0.0	1.0	0.0
10	*	0.0	0.3	0.0	0.2
11	*	0.4	0.0	0.2	0.0
12	*	0.0	1.0	0.0	0.5

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nodebc.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-DeSoto Alt C Buildout Future AM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1933.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2170.	9.3	0.0	48.0		
3. nbq	*	524.0	452.0	524.0	404.5	*	48.	180. AG	148.	100.0	0.0	48.0	0.49	2.4
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1966.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1600.	9.3	0.0	56.0		
6. sbq	*	476.0	548.0	476.0	596.3	*	48.	360. AG	148.	100.0	0.0	48.0	0.50	2.5
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	806.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	679.	9.3	0.0	48.0		
9. ebq	*	452.0	476.0	409.2	476.0	*	43.	270. AG	321.	100.0	0.0	48.0	0.47	2.2
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1057.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1313.	9.3	0.0	48.0		
12. wbq	*	548.0	524.0	604.3	524.0	*	56.	90. AG	321.	100.0	0.0	48.0	0.62	2.9

1

PAGE 2

JOB: Nordhoff-DeSoto Alt C Buildout Future AM RUN: 9

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
3. nbq	*	60	18	3.0	1933	1600	45.96	3	3
6. sbq	*	60	18	3.0	1966	1600	45.96	3	3
9. ebq	*	60	39	3.0	806	1600	45.96	3	3
12. wbq	*	60	39	3.0	1057	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-DeSoto Alt C Buildout Future AM RUN: 9

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
0.	*	7.3	7.3	9.0	8.5
10.	*	8.3	6.9	10.0	7.9
20.	*	8.5	6.9	10.1	7.8
30.	*	8.4	6.9	9.4	7.5
40.	*	8.3	6.9	9.0	7.3
50.	*	8.2	6.9	8.9	7.5
60.	*	8.2	6.9	8.9	7.5
70.	*	8.2	7.0	8.8	7.6
80.	*	8.3	7.0	8.7	7.6
90.	*	8.8	7.5	8.4	7.1
100.	*	9.5	7.9	8.1	6.9
110.	*	9.0	8.1	7.9	6.9
120.	*	8.7	8.1	7.8	6.9
130.	*	8.7	8.2	7.8	6.9
140.	*	8.7	8.2	7.9	6.9
150.	*	8.8	8.3	8.0	6.9
160.	*	9.1	8.3	8.3	6.9
170.	*	9.4	8.3	8.0	6.9
180.	*	8.6	8.8	7.2	7.3

190.	*	8.0	9.8	6.9	8.3
200.	*	7.7	9.7	6.9	8.4
210.	*	7.5	9.2	6.9	8.2
220.	*	7.5	8.9	6.9	8.1
230.	*	7.6	8.9	6.9	8.1
240.	*	7.7	9.0	6.9	8.1
250.	*	7.9	9.1	6.9	8.1
260.	*	8.0	9.2	7.0	8.1
270.	*	7.3	8.7	7.3	8.6
280.	*	6.9	8.2	7.8	9.2
290.	*	6.9	8.0	7.9	8.9
300.	*	6.9	8.0	7.9	8.5
310.	*	6.9	8.0	7.9	8.5
320.	*	6.9	8.1	8.0	8.6
330.	*	6.9	8.2	8.1	8.8
340.	*	6.9	8.5	8.3	9.2
350.	*	6.9	8.3	8.4	9.5
360.	*	7.3	7.3	9.0	8.5

MAX	*	9.5	9.8	10.1	9.5
DEGR.	*	100	190	20	350

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 20 DEGREES FROM REC3 .

1

PAGE 4

JOB: Nordhoff-DeSoto Alt C Buildout Future AM

RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	100	190	20	350

1	*	0.0	1.0	0.0	0.1
2	*	0.4	0.0	0.7	1.1
3	*	0.0	0.1	0.0	0.0
4	*	0.5	0.0	0.8	0.5
5	*	0.0	0.4	0.1	0.0
6	*	0.2	0.0	0.2	0.0
7	*	0.0	0.0	0.2	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	0.9	0.0
10	*	0.6	0.3	0.0	0.2
11	*	0.2	0.0	0.3	0.0
12	*	0.5	1.0	0.0	0.5

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nodebd.DAT

RUN BEGIN ON 08/22/02 AT 08:37

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-DeSoto Alt D Buildout Future AM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1948.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2170.	9.3	0.0	48.0		
3. nbq	*	524.0	452.0	524.0	401.4	*	51.	180. AG	156.	100.0	0.0	48.0	0.51	2.6
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1966.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1600.	9.3	0.0	56.0		
6. sbq	*	476.0	548.0	476.0	599.0	*	51.	360. AG	156.	100.0	0.0	48.0	0.51	2.6
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	828.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	716.	9.3	0.0	48.0		
9. ebq	*	452.0	476.0	409.0	476.0	*	43.	270. AG	312.	100.0	0.0	48.0	0.46	2.2
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1057.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1313.	9.3	0.0	48.0		
12. wbq	*	548.0	524.0	602.9	524.0	*	55.	90. AG	312.	100.0	0.0	48.0	0.58	2.8

1

PAGE 2

JOB: Nordhoff-DeSoto Alt D Buildout Future AM RUN: 5

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
3. nbq	*	60	19	3.0	1948	1600	45.96	3	3
6. sbq	*	60	19	3.0	1966	1600	45.96	3	3
9. ebq	*	60	38	3.0	828	1600	45.96	3	3
12. wbq	*	60	38	3.0	1057	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-DeSoto Alt D Buildout Future AM RUN: 5

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
0.	*	7.3	7.3	9.0	8.5
10.	*	8.3	6.9	10.1	7.9
20.	*	8.5	6.9	10.0	7.8
30.	*	8.4	6.9	9.4	7.5
40.	*	8.3	6.9	9.0	7.3
50.	*	8.2	6.9	8.9	7.5
60.	*	8.2	6.9	8.9	7.5
70.	*	8.2	7.0	8.8	7.6
80.	*	8.3	7.0	8.7	7.6
90.	*	8.8	7.5	8.5	7.1
100.	*	9.4	7.9	8.1	6.9
110.	*	9.0	8.0	7.9	6.9
120.	*	8.7	8.1	7.8	6.9
130.	*	8.8	8.1	7.8	6.9
140.	*	8.7	8.2	7.9	6.9
150.	*	8.9	8.2	8.0	6.9
160.	*	9.1	8.3	8.3	6.9
170.	*	9.5	8.2	8.0	6.9
180.	*	8.6	8.8	7.2	7.3

190.	*	8.0	10.0	6.9	8.3
200.	*	7.7	9.7	6.9	8.4
210.	*	7.5	9.2	6.9	8.2
220.	*	7.5	8.9	6.9	8.1
230.	*	7.6	9.0	6.9	8.1
240.	*	7.7	9.0	6.9	8.1
250.	*	7.9	9.1	6.9	8.1
260.	*	8.0	9.2	7.0	8.2
270.	*	7.3	8.7	7.3	8.6
280.	*	6.9	8.2	7.8	9.3
290.	*	6.9	8.0	7.9	9.0
300.	*	6.9	8.0	7.9	8.5
310.	*	6.9	8.0	7.9	8.6
320.	*	6.9	8.1	8.0	8.6
330.	*	6.9	8.2	8.1	8.9
340.	*	6.9	8.5	8.3	9.2
350.	*	6.9	8.3	8.4	9.5
360.	*	7.3	7.3	9.0	8.5
-----*					
MAX	*	9.5	10.0	10.1	9.5
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Nordhoff-DeSoto Alt D Buildout Future AM

RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	1.1	0.0	0.1
2	*	0.0	0.0	0.5	1.1
3	*	0.0	0.2	0.0	0.0
4	*	0.1	0.0	1.1	0.5
5	*	0.9	0.4	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.5	0.0	1.0	0.0
10	*	0.0	0.3	0.0	0.2
11	*	0.4	0.0	0.2	0.0
12	*	0.0	1.0	0.0	0.5

RUN ENDED ON 08/22/02 AT 08:37

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nowiex.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties RUN: Nordhoff Winetka Existing

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1511.	12.2	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1490.	12.2	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	391.5	*	61.	180. AG	179.	100.0	0.0	36.0	0.57 3.1	
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1843.	12.2	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1387.	12.2	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	603.4	*	55.	360. AG	238.	100.0	0.0	48.0	0.52 2.8	
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	835.	12.2	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	735.	12.2	0.0	44.0		
9. ebq	*	452.0	476.0	412.2	476.0	*	40.	270. AG	379.	100.0	0.0	48.0	0.39 2.0	
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1293.	12.2	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1870.	12.2	0.0	44.0		
12. wbq	*	536.0	524.0	597.8	524.0	*	62.	90. AG	379.	100.0	0.0	48.0	0.61 3.1	

1

PAGE 2

JOB: Klausz Properties RUN: Nordhoff Winetka Existing

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
3. nbq	*	60	22	3.0	1511	1600	60.55	3	3
6. sbq	*	60	22	3.0	1843	1600	60.55	3	3
9. ebq	*	60	35	3.0	835	1600	60.55	3	3
12. wbq	*	60	35	3.0	1293	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties RUN: Nordhoff Winetka Existing

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
0.	*	9.2	9.2	11.3	10.5
10.	*	10.3	8.7	12.5	9.9
20.	*	10.5	8.7	12.1	9.8
30.	*	10.3	8.7	11.3	9.6
40.	*	10.2	8.7	10.9	9.3
50.	*	10.2	8.7	11.0	9.4
60.	*	10.4	8.7	11.1	9.6
70.	*	10.3	8.7	10.9	9.6
80.	*	10.3	8.7	10.7	9.5
90.	*	10.9	9.1	10.2	8.9
100.	*	11.9	9.7	9.8	8.7
110.	*	11.8	10.0	9.9	8.7
120.	*	11.1	9.9	9.7	8.7
130.	*	10.9	10.0	9.6	8.7
140.	*	11.0	10.2	9.8	8.7
150.	*	11.2	10.4	9.9	8.7
160.	*	11.4	10.3	10.1	8.7
170.	*	11.6	10.3	10.0	8.7
180.	*	10.7	11.1	9.0	9.2

```

190. * 10.0 12.3 8.7 10.3
200. * 9.6 11.8 8.7 10.3
210. * 9.6 11.3 8.7 10.1
220. * 9.6 11.0 8.7 10.1
230. * 9.8 11.1 8.7 10.1
240. * 9.9 11.3 8.7 10.2
250. * 10.1 11.4 8.7 10.1
260. * 10.1 11.7 8.7 10.0
270. * 9.1 10.7 8.9 10.5
280. * 8.7 10.2 9.6 11.4
290. * 8.7 10.1 10.0 11.6
300. * 8.7 10.0 9.7 11.2
310. * 8.7 9.9 9.8 10.6
320. * 8.7 10.0 9.7 10.9
330. * 8.7 10.2 9.8 11.3
340. * 8.7 10.4 10.2 11.4
350. * 8.7 10.3 10.4 11.7
360. * 9.2 9.2 11.3 10.5
-----*
MAX * 11.9 12.3 12.5 11.7
DEGR. * 100 190 10 350

```

THE HIGHEST CONCENTRATION IS 12.50 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Winetka Existing

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 190 10 350
-----*
1 * 0.0 1.1 0.0 0.2
2 * 0.4 0.1 0.5 1.1
3 * 0.0 0.3 0.0 0.0
4 * 0.6 0.0 1.3 0.7
5 * 0.0 0.5 0.0 0.0
6 * 0.6 0.0 0.3 0.0
7 * 0.0 0.0 0.3 0.0
8 * 0.2 0.2 0.0 0.2
9 * 0.0 0.0 1.0 0.0
10 * 0.9 0.4 0.0 0.3
11 * 0.0 0.0 0.4 0.0
12 * 0.5 1.0 0.0 0.5

```

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nowipre.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Winetka Pre Project

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1639.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1679.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	383.3	*	69.	180. AG	142.	100.0	0.0	36.0	0.64	3.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1965.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1474.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	609.8	*	62.	360. AG	189.	100.0	0.0	48.0	0.58	3.1
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	971.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	802.	9.3	0.0	44.0		
9. ebq	*	452.0	476.0	407.0	476.0	*	45.	270. AG	279.	100.0	0.0	48.0	0.43	2.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1388.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2008.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	600.5	524.0	*	65.	90. AG	279.	100.0	0.0	48.0	0.62	3.3

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Winetka Pre Project

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
6. sbq	*	60	23	3.0	1965	1600	45.96	3	3
9. ebq	*	60	34	3.0	971	1600	45.96	3	3
12. wbq	*	60	34	3.0	1388	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Winetka Pre Project

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
0.	* 7.3	7.4	9.0	8.5
10.	* 8.3	6.9	9.8	7.9
20.	* 8.4	6.9	9.6	7.8
30.	* 8.2	6.9	9.0	7.6
40.	* 8.3	6.9	8.7	7.4
50.	* 8.2	6.9	8.7	7.5
60.	* 8.2	6.9	8.9	7.6
70.	* 8.2	6.9	8.7	7.7
80.	* 8.2	6.9	8.6	7.5
90.	* 8.7	7.2	8.1	7.0
100.	* 9.5	7.8	7.9	6.9
110.	* 9.4	7.9	7.9	6.9
120.	* 9.0	7.9	7.7	6.9
130.	* 8.7	8.0	7.6	6.9
140.	* 8.7	8.1	7.8	6.9
150.	* 9.0	8.2	7.8	6.9
160.	* 9.2	8.3	8.1	6.9
170.	* 9.3	8.0	7.9	6.9
180.	* 8.5	8.9	7.1	7.3

190.	*	8.0	9.7	6.9	8.2
200.	*	7.8	9.4	6.9	8.3
210.	*	7.7	8.9	6.9	8.2
220.	*	7.7	8.6	6.9	8.2
230.	*	7.7	8.9	6.9	8.1
240.	*	7.9	9.0	6.9	8.1
250.	*	8.1	9.2	6.9	8.0
260.	*	8.0	9.3	6.9	8.0
270.	*	7.2	8.5	7.1	8.5
280.	*	6.9	8.1	7.7	9.1
290.	*	6.9	8.0	8.0	9.3
300.	*	6.9	8.0	7.8	9.0
310.	*	6.9	7.9	7.8	8.6
320.	*	6.9	8.0	7.8	8.8
330.	*	6.9	8.2	8.0	9.0
340.	*	6.9	8.3	8.2	9.3
350.	*	6.9	8.2	8.2	9.3
360.	*	7.3	7.4	9.0	8.5
-----*					
MAX	*	9.5	9.7	9.8	9.3
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Winetka Pre Project

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	0.9	0.0	0.1
2	*	0.3	0.1	0.4	0.9
3	*	0.0	0.2	0.0	0.0
4	*	0.5	0.0	1.0	0.6
5	*	0.0	0.4	0.0	0.0
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.2	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	0.7	0.0
10	*	0.7	0.4	0.0	0.3
11	*	0.0	0.0	0.4	0.0
12	*	0.4	0.7	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nowifa.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1633.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1673.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	367.3	*	85.	180. AG	142.	100.0	0.0	36.0	0.77	4.3
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1967.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1476.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	609.8	*	62.	360. AG	189.	100.0	0.0	48.0	0.58	3.1
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	964.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	795.	9.3	0.0	44.0		
9. ebq	*	452.0	476.0	407.2	476.0	*	45.	270. AG	279.	100.0	0.0	48.0	0.43	2.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1391.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2011.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	600.5	524.0	*	65.	90. AG	279.	100.0	0.0	48.0	0.62	3.3

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative A

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
6. sbq	*	60	23	3.0	1967	1600	45.96	3	3
9. ebq	*	60	34	3.0	964	1600	45.96	3	3
12. wbq	*	60	34	3.0	1391	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative A

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
0.	7.3	7.4	9.0	8.5
10.	8.3	6.9	9.8	7.9
20.	8.4	6.9	9.6	7.8
30.	8.2	6.9	9.0	7.6
40.	8.3	6.9	8.7	7.4
50.	8.2	6.9	8.7	7.5
60.	8.2	6.9	8.9	7.6
70.	8.2	6.9	8.7	7.7
80.	8.2	6.9	8.6	7.5
90.	8.7	7.2	8.1	7.0
100.	9.5	7.8	7.9	6.9
110.	9.4	7.9	7.9	6.9
120.	9.0	7.9	7.8	6.9
130.	8.7	8.0	7.7	6.9
140.	8.7	8.1	7.8	6.9
150.	9.0	8.2	7.8	6.9
160.	9.2	8.3	8.1	6.9
170.	9.3	8.0	7.9	6.9
180.	8.5	8.9	7.1	7.3

190.	*	8.0	9.8	6.9	8.2
200.	*	7.8	9.4	6.9	8.4
210.	*	7.7	8.9	6.9	8.3
220.	*	7.7	8.6	6.9	8.3
230.	*	7.7	8.9	6.9	8.2
240.	*	7.9	9.0	6.9	8.1
250.	*	8.1	9.2	6.9	8.0
260.	*	8.0	9.3	6.9	8.0
270.	*	7.2	8.5	7.1	8.4
280.	*	6.9	8.1	7.7	9.1
290.	*	6.9	8.0	8.0	9.3
300.	*	6.9	8.0	7.8	9.0
310.	*	6.9	8.0	7.8	8.6
320.	*	6.9	8.0	7.8	8.8
330.	*	6.9	8.2	8.0	9.0
340.	*	6.9	8.3	8.1	9.3
350.	*	6.9	8.2	8.2	9.3
360.	*	7.3	7.4	9.0	8.5

MAX	*	9.5	9.8	9.8	9.3
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 190 DEGREES FROM REC2 .

1

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative A

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	10	350

1	*	0.0	0.9	0.0	0.1
2	*	0.3	0.1	0.4	0.9
3	*	0.0	0.3	0.0	0.0
4	*	0.5	0.0	1.0	0.6
5	*	0.0	0.4	0.0	0.0
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.2	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	0.7	0.0
10	*	0.7	0.4	0.0	0.3
11	*	0.0	0.0	0.4	0.0
12	*	0.4	0.7	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nowifb.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1666.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1706.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	382.2	*	70.	180. AG	142.	100.0	0.0	36.0	0.65	3.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1968.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1477.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	609.9	*	62.	360. AG	189.	100.0	0.0	48.0	0.58	3.1
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1004.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	835.	9.3	0.0	44.0		
9. ebq	*	452.0	476.0	405.4	476.0	*	47.	270. AG	279.	100.0	0.0	48.0	0.45	2.4
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1392.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2012.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	600.7	524.0	*	65.	90. AG	279.	100.0	0.0	48.0	0.62	3.3

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative B

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
6. sbq	*	60	23	3.0	1968	1600	45.96	3	3
9. ebq	*	60	34	3.0	1004	1600	45.96	3	3
12. wbq	*	60	34	3.0	1392	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative B

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
0.	* 7.3	7.4	9.0	8.5
10.	* 8.3	6.9	9.9	7.9
20.	* 8.4	6.9	9.7	7.8
30.	* 8.2	6.9	9.0	7.6
40.	* 8.3	6.9	8.7	7.4
50.	* 8.2	6.9	8.7	7.5
60.	* 8.2	6.9	8.9	7.6
70.	* 8.2	6.9	8.7	7.7
80.	* 8.2	6.9	8.6	7.5
90.	* 8.7	7.2	8.1	7.0
100.	* 9.5	7.8	7.9	6.9
110.	* 9.4	7.9	7.9	6.9
120.	* 9.0	7.9	7.7	6.9
130.	* 8.7	8.0	7.6	6.9
140.	* 8.7	8.1	7.8	6.9
150.	* 9.0	8.3	7.9	6.9
160.	* 9.2	8.3	8.1	6.9
170.	* 9.3	8.0	7.9	6.9
180.	* 8.5	8.9	7.1	7.3

190.	*	8.0	9.7	6.9	8.2
200.	*	7.8	9.4	6.9	8.4
210.	*	7.7	8.9	6.9	8.2
220.	*	7.7	8.7	6.9	8.2
230.	*	7.7	8.9	6.9	8.1
240.	*	7.9	9.1	6.9	8.1
250.	*	8.1	9.2	6.9	8.0
260.	*	8.0	9.3	6.9	8.0
270.	*	7.2	8.6	7.1	8.5
280.	*	6.9	8.1	7.8	9.1
290.	*	6.9	8.0	8.0	9.3
300.	*	6.9	8.0	7.8	9.0
310.	*	6.9	8.0	7.8	8.6
320.	*	6.9	8.0	7.9	8.8
330.	*	6.9	8.2	8.1	9.0
340.	*	6.9	8.3	8.3	9.3
350.	*	6.9	8.2	8.3	9.4
360.	*	7.3	7.4	9.0	8.5
-----*					
MAX	*	9.5	9.7	9.9	9.4
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	0.9	0.0	0.1
2	*	0.3	0.1	0.4	1.0
3	*	0.0	0.2	0.0	0.0
4	*	0.5	0.0	1.0	0.6
5	*	0.0	0.4	0.0	0.0
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	0.7	0.0
10	*	0.7	0.4	0.0	0.3
11	*	0.0	0.0	0.4	0.0
12	*	0.4	0.7	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nowifc.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1633.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1673.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	383.6	*	68.	180. AG	142.	100.0	0.0	36.0	0.64	3.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1970.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1479.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	609.9	*	62.	360. AG	189.	100.0	0.0	48.0	0.58	3.1
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	964.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	795.	9.3	0.0	44.0		
9. ebq	*	452.0	476.0	407.2	476.0	*	45.	270. AG	279.	100.0	0.0	48.0	0.43	2.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1394.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2014.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	600.7	524.0	*	65.	90. AG	279.	100.0	0.0	48.0	0.62	3.3

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative C

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
6. sbq	*	60	23	3.0	1970	1600	45.96	3	3
9. ebq	*	60	34	3.0	964	1600	45.96	3	3
12. wbq	*	60	34	3.0	1394	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative C

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
0.	* 7.3	7.4	9.0	8.5
10.	* 8.3	6.9	9.8	7.9
20.	* 8.4	6.9	9.6	7.8
30.	* 8.2	6.9	9.0	7.6
40.	* 8.3	6.9	8.7	7.4
50.	* 8.2	6.9	8.7	7.5
60.	* 8.2	6.9	8.9	7.6
70.	* 8.2	6.9	8.7	7.7
80.	* 8.2	6.9	8.6	7.5
90.	* 8.7	7.2	8.1	7.0
100.	* 9.5	7.8	7.9	6.9
110.	* 9.4	7.9	7.9	6.9
120.	* 9.0	7.9	7.7	6.9
130.	* 8.7	8.0	7.6	6.9
140.	* 8.7	8.1	7.8	6.9
150.	* 9.0	8.2	7.8	6.9
160.	* 9.2	8.3	8.1	6.9
170.	* 9.3	8.1	7.9	6.9
180.	* 8.5	8.9	7.1	7.3

190.	*	8.0	9.7	6.9	8.2
200.	*	7.8	9.4	6.9	8.3
210.	*	7.7	8.9	6.9	8.2
220.	*	7.7	8.6	6.9	8.2
230.	*	7.7	8.9	6.9	8.1
240.	*	7.9	9.0	6.9	8.1
250.	*	8.1	9.2	6.9	8.0
260.	*	8.0	9.3	6.9	8.0
270.	*	7.2	8.5	7.1	8.4
280.	*	6.9	8.1	7.7	9.1
290.	*	6.9	8.0	8.0	9.3
300.	*	6.9	8.0	7.8	9.0
310.	*	6.9	8.0	7.8	8.6
320.	*	6.9	8.0	7.8	8.8
330.	*	6.9	8.2	8.0	9.0
340.	*	6.9	8.3	8.1	9.3
350.	*	6.9	8.2	8.2	9.3
360.	*	7.3	7.4	9.0	8.5
-----*					
MAX	*	9.5	9.7	9.8	9.3
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	0.9	0.0	0.1
2	*	0.3	0.1	0.4	0.9
3	*	0.0	0.2	0.0	0.0
4	*	0.5	0.0	1.0	0.6
5	*	0.0	0.4	0.0	0.0
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.2	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	0.7	0.0
10	*	0.7	0.4	0.0	0.3
11	*	0.0	0.0	0.4	0.0
12	*	0.4	0.7	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nowifd.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1658.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1698.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	382.6	*	69.	180. AG	142.	100.0	0.0	36.0	0.65	3.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1971.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1480.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	609.9	*	62.	360. AG	189.	100.0	0.0	48.0	0.58	3.1
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	995.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	826.	9.3	0.0	44.0		
9. ebq	*	452.0	476.0	405.9	476.0	*	46.	270. AG	279.	100.0	0.0	48.0	0.44	2.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1395.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2015.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	600.7	524.0	*	65.	90. AG	279.	100.0	0.0	48.0	0.62	3.3

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative D

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
6. sbq	*	60	23	3.0	1971	1600	45.96	3	3
9. ebq	*	60	34	3.0	995	1600	45.96	3	3
12. wbq	*	60	34	3.0	1395	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative D

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
0.	* 7.3	7.4	9.0	8.5
10.	* 8.3	6.9	9.8	7.9
20.	* 8.4	6.9	9.7	7.8
30.	* 8.2	6.9	9.0	7.6
40.	* 8.3	6.9	8.7	7.4
50.	* 8.2	6.9	8.7	7.5
60.	* 8.2	6.9	8.9	7.6
70.	* 8.2	6.9	8.7	7.7
80.	* 8.2	6.9	8.6	7.5
90.	* 8.7	7.2	8.1	7.0
100.	* 9.5	7.8	7.9	6.9
110.	* 9.4	7.9	7.9	6.9
120.	* 9.0	7.9	7.7	6.9
130.	* 8.7	8.0	7.6	6.9
140.	* 8.7	8.1	7.8	6.9
150.	* 9.0	8.2	7.9	6.9
160.	* 9.2	8.3	8.1	6.9
170.	* 9.3	8.1	7.9	6.9
180.	* 8.5	8.9	7.1	7.3

190.	*	8.0	9.7	6.9	8.2
200.	*	7.8	9.4	6.9	8.3
210.	*	7.7	8.9	6.9	8.2
220.	*	7.7	8.7	6.9	8.2
230.	*	7.7	8.9	6.9	8.1
240.	*	7.9	9.1	6.9	8.1
250.	*	8.1	9.2	6.9	8.0
260.	*	8.0	9.3	6.9	8.0
270.	*	7.2	8.6	7.1	8.5
280.	*	6.9	8.1	7.7	9.1
290.	*	6.9	8.0	8.0	9.3
300.	*	6.9	8.0	7.8	9.0
310.	*	6.9	8.0	7.8	8.6
320.	*	6.9	8.0	7.9	8.8
330.	*	6.9	8.2	8.0	9.0
340.	*	6.9	8.3	8.3	9.3
350.	*	6.9	8.2	8.2	9.3
360.	*	7.3	7.4	9.0	8.5
-----*					
MAX	*	9.5	9.7	9.8	9.3
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Winetka Future Alternative D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	0.9	0.0	0.1
2	*	0.3	0.1	0.4	0.9
3	*	0.0	0.2	0.0	0.0
4	*	0.5	0.0	1.0	0.6
5	*	0.0	0.4	0.0	0.0
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.2	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	0.7	0.0
10	*	0.7	0.4	0.0	0.3
11	*	0.0	0.0	0.4	0.0
12	*	0.4	0.7	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nowiba.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1629.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1669.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	383.7	*	68.	180. AG	142.	100.0	0.0	36.0	0.64	3.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1967.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1476.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	609.8	*	62.	360. AG	189.	100.0	0.0	48.0	0.58	3.1
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	959.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	790.	9.3	0.0	44.0		
9. ebq	*	452.0	476.0	407.6	476.0	*	44.	270. AG	279.	100.0	0.0	48.0	0.43	2.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1391.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2011.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	600.5	524.0	*	65.	90. AG	279.	100.0	0.0	48.0	0.62	3.3

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt A

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
6. sbq	*	60	23	3.0	1967	1600	45.96	3	3
9. ebq	*	60	34	3.0	959	1600	45.96	3	3
12. wbq	*	60	34	3.0	1391	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt A

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
0.	7.3	7.4	9.0	8.5
10.	8.3	6.9	9.8	7.9
20.	8.4	6.9	9.6	7.8
30.	8.2	6.9	9.0	7.6
40.	8.3	6.9	8.7	7.4
50.	8.2	6.9	8.7	7.5
60.	8.2	6.9	8.9	7.6
70.	8.2	6.9	8.7	7.6
80.	8.2	6.9	8.6	7.5
90.	8.7	7.2	8.1	7.0
100.	9.5	7.8	7.9	6.9
110.	9.4	7.9	7.9	6.9
120.	9.0	7.9	7.7	6.9
130.	8.7	8.0	7.6	6.9
140.	8.7	8.1	7.8	6.9
150.	9.0	8.2	7.8	6.9
160.	9.2	8.2	8.1	6.9
170.	9.3	8.0	7.9	6.9
180.	8.5	8.9	7.1	7.3

190.	*	8.0	9.7	6.9	8.2
200.	*	7.7	9.4	6.9	8.3
210.	*	7.7	8.9	6.9	8.2
220.	*	7.7	8.6	6.9	8.2
230.	*	7.7	8.9	6.9	8.1
240.	*	7.9	9.0	6.9	8.1
250.	*	8.1	9.2	6.9	8.0
260.	*	8.0	9.3	6.9	8.0
270.	*	7.2	8.5	7.1	8.4
280.	*	6.9	8.1	7.7	9.1
290.	*	6.9	8.0	8.0	9.3
300.	*	6.9	8.0	7.8	9.0
310.	*	6.9	8.0	7.8	8.6
320.	*	6.9	8.0	7.8	8.8
330.	*	6.9	8.2	8.0	9.0
340.	*	6.9	8.3	8.1	9.3
350.	*	6.9	8.2	8.2	9.3
360.	*	7.3	7.4	9.0	8.5
-----*					
MAX	*	9.5	9.7	9.8	9.3
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt A

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	0.9	0.0	0.1
2	*	0.3	0.1	0.4	0.9
3	*	0.0	0.2	0.0	0.0
4	*	0.5	0.0	1.0	0.6
5	*	0.0	0.4	0.0	0.0
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.2	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	0.7	0.0
10	*	0.7	0.4	0.0	0.3
11	*	0.0	0.0	0.4	0.0
12	*	0.4	0.7	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nowibb.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1678.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1718.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	381.7	*	70.	180. AG	142.	100.0	0.0	36.0	0.66	3.6
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1969.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1478.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	609.9	*	62.	360. AG	189.	100.0	0.0	48.0	0.58	3.1
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1020.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	851.	9.3	0.0	44.0		
9. ebq	*	452.0	476.0	404.6	476.0	*	47.	270. AG	279.	100.0	0.0	48.0	0.46	2.4
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1394.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2014.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	600.7	524.0	*	65.	90. AG	279.	100.0	0.0	48.0	0.62	3.3

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt B

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
6. sbq	*	60	23	3.0	1969	1600	45.96	3	3
9. ebq	*	60	34	3.0	1020	1600	45.96	3	3
12. wbq	*	60	34	3.0	1394	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt B

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
0.	7.3	7.4	9.0	8.5
10.	8.3	6.9	9.9	7.9
20.	8.4	6.9	9.7	7.8
30.	8.2	6.9	9.0	7.6
40.	8.3	6.9	8.7	7.5
50.	8.2	6.9	8.7	7.5
60.	8.2	6.9	8.9	7.6
70.	8.2	6.9	8.7	7.7
80.	8.2	6.9	8.6	7.5
90.	8.7	7.2	8.1	7.0
100.	9.5	7.8	7.9	6.9
110.	9.5	7.9	7.9	6.9
120.	9.0	7.9	7.8	6.9
130.	8.7	8.0	7.6	6.9
140.	8.7	8.1	7.8	6.9
150.	9.0	8.3	7.9	6.9
160.	9.2	8.3	8.1	6.9
170.	9.3	8.2	7.9	6.9
180.	8.5	9.0	7.1	7.3

190.	*	8.0	9.8	6.9	8.2
200.	*	7.8	9.4	6.9	8.4
210.	*	7.7	8.9	6.9	8.2
220.	*	7.7	8.7	6.9	8.2
230.	*	7.7	8.9	6.9	8.1
240.	*	7.9	9.1	6.9	8.1
250.	*	8.1	9.2	6.9	8.0
260.	*	8.0	9.3	6.9	8.0
270.	*	7.2	8.6	7.1	8.5
280.	*	6.9	8.1	7.8	9.3
290.	*	6.9	8.1	8.0	9.3
300.	*	6.9	8.0	7.8	9.0
310.	*	6.9	8.0	7.8	8.6
320.	*	6.9	8.0	7.9	8.8
330.	*	6.9	8.2	8.1	9.0
340.	*	6.9	8.3	8.3	9.3
350.	*	6.9	8.2	8.3	9.4
360.	*	7.3	7.4	9.0	8.5

MAX	*	9.5	9.8	9.9	9.4
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350

1	*	0.0	0.9	0.0	0.1
2	*	0.3	0.1	0.4	1.0
3	*	0.0	0.2	0.0	0.0
4	*	0.5	0.0	1.0	0.6
5	*	0.0	0.4	0.0	0.0
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.0
8	*	0.2	0.2	0.0	0.2
9	*	0.0	0.0	0.7	0.0
10	*	0.7	0.4	0.0	0.3
11	*	0.0	0.0	0.4	0.0
12	*	0.4	0.7	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nowibc.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1629.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1669.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	383.7	*	68.	180. AG	142.	100.0	0.0	36.0	0.64	3.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1971.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1480.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	609.9	*	62.	360. AG	189.	100.0	0.0	48.0	0.58	3.1
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	958.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	789.	9.3	0.0	44.0		
9. ebq	*	452.0	476.0	407.6	476.0	*	44.	270. AG	279.	100.0	0.0	48.0	0.43	2.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1395.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2015.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	600.7	524.0	*	65.	90. AG	279.	100.0	0.0	48.0	0.62	3.3

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt C

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
6. sbq	*	60	23	3.0	1971	1600	45.96	3	3
9. ebq	*	60	34	3.0	958	1600	45.96	3	3
12. wbq	*	60	34	3.0	1395	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt C

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
0.	7.3	7.4	9.0	8.5
10.	8.3	6.9	9.8	7.9
20.	8.4	6.9	9.6	7.8
30.	8.2	6.9	9.0	7.6
40.	8.3	6.9	8.7	7.4
50.	8.2	6.9	8.7	7.4
60.	8.2	6.9	8.9	7.6
70.	8.2	6.9	8.7	7.6
80.	8.2	6.9	8.6	7.5
90.	8.7	7.2	8.1	7.0
100.	9.5	7.8	7.9	6.9
110.	9.4	7.9	7.9	6.9
120.	9.0	7.9	7.7	6.9
130.	8.7	8.0	7.6	6.9
140.	8.7	8.1	7.8	6.9
150.	9.0	8.2	7.8	6.9
160.	9.2	8.2	8.1	6.9
170.	9.3	8.1	7.9	6.9
180.	8.5	8.9	7.1	7.3

190.	*	8.0	9.7	6.9	8.2
200.	*	7.7	9.4	6.9	8.3
210.	*	7.7	8.9	6.9	8.2
220.	*	7.7	8.6	6.9	8.2
230.	*	7.7	8.9	6.9	8.1
240.	*	7.9	9.0	6.9	8.1
250.	*	8.1	9.2	6.9	8.0
260.	*	8.0	9.3	6.9	8.0
270.	*	7.2	8.5	7.1	8.4
280.	*	6.9	8.1	7.7	9.1
290.	*	6.9	8.0	8.0	9.3
300.	*	6.9	8.0	7.8	9.0
310.	*	6.9	8.0	7.8	8.6
320.	*	6.9	8.0	7.8	8.8
330.	*	6.9	8.2	8.0	9.0
340.	*	6.9	8.3	8.1	9.3
350.	*	6.9	8.2	8.2	9.3
360.	*	7.3	7.4	9.0	8.5
-----*					
MAX	*	9.5	9.7	9.8	9.3
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	0.9	0.0	0.1
2	*	0.3	0.1	0.4	0.9
3	*	0.0	0.2	0.0	0.0
4	*	0.5	0.0	1.0	0.6
5	*	0.0	0.4	0.0	0.0
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.2	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	0.7	0.0
10	*	0.7	0.4	0.0	0.3
11	*	0.0	0.0	0.4	0.0
12	*	0.4	0.7	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nowibd.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1667.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1707.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	382.2	*	70.	180. AG	142.	100.0	0.0	36.0	0.65	3.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1972.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1481.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	610.0	*	62.	360. AG	189.	100.0	0.0	48.0	0.58	3.1
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1006.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	837.	9.3	0.0	44.0		
9. ebq	*	452.0	476.0	405.4	476.0	*	47.	270. AG	279.	100.0	0.0	48.0	0.45	2.4
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1397.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2017.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	600.9	524.0	*	65.	90. AG	279.	100.0	0.0	48.0	0.62	3.3

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt D

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
6. sbq	*	60	23	3.0	1972	1600	45.96	3	3
9. ebq	*	60	34	3.0	1006	1600	45.96	3	3
12. wbq	*	60	34	3.0	1397	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt D

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
0.	* 7.3	7.4	9.0	8.5
10.	* 8.3	6.9	9.9	7.9
20.	* 8.4	6.9	9.7	7.8
30.	* 8.2	6.9	9.0	7.6
40.	* 8.3	6.9	8.7	7.4
50.	* 8.2	6.9	8.7	7.5
60.	* 8.2	6.9	8.9	7.6
70.	* 8.2	6.9	8.7	7.7
80.	* 8.2	6.9	8.6	7.5
90.	* 8.7	7.2	8.1	7.0
100.	* 9.5	7.8	7.9	6.9
110.	* 9.4	7.9	7.9	6.9
120.	* 9.0	7.9	7.7	6.9
130.	* 8.7	8.0	7.6	6.9
140.	* 8.7	8.1	7.8	6.9
150.	* 9.0	8.3	7.9	6.9
160.	* 9.2	8.3	8.1	6.9
170.	* 9.3	8.2	7.9	6.9
180.	* 8.5	8.9	7.1	7.3

190.	*	8.0	9.7	6.9	8.2
200.	*	7.8	9.4	6.9	8.4
210.	*	7.7	8.9	6.9	8.2
220.	*	7.7	8.7	6.9	8.2
230.	*	7.7	8.9	6.9	8.1
240.	*	7.9	9.1	6.9	8.1
250.	*	8.1	9.2	6.9	8.0
260.	*	8.0	9.3	6.9	8.0
270.	*	7.2	8.6	7.1	8.5
280.	*	6.9	8.1	7.8	9.1
290.	*	6.9	8.0	8.0	9.3
300.	*	6.9	8.0	7.8	9.0
310.	*	6.9	8.0	7.8	8.6
320.	*	6.9	8.0	7.9	8.8
330.	*	6.9	8.2	8.1	9.0
340.	*	6.9	8.3	8.3	9.3
350.	*	6.9	8.2	8.3	9.4
360.	*	7.3	7.4	9.0	8.5
-----*					
MAX	*	9.5	9.7	9.9	9.4
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Winetka Build Out Alt D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	0.9	0.0	0.1
2	*	0.3	0.1	0.4	1.0
3	*	0.0	0.2	0.0	0.0
4	*	0.5	0.0	1.0	0.6
5	*	0.0	0.4	0.0	0.0
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.0
8	*	0.2	0.1	0.0	0.2
9	*	0.0	0.0	0.7	0.0
10	*	0.7	0.4	0.0	0.3
11	*	0.0	0.0	0.4	0.0
12	*	0.4	0.7	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT9XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Parthenia Winnetka Existing Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1617.	12.2	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1636.	12.2	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	390.3	*	74.	180. AG	203.	100.0	0.0	36.0	0.67	3.7
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1766.	12.2	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1690.	12.2	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	616.4	*	80.	360. AG	203.	100.0	0.0	36.0	0.74	4.1
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1388.	12.2	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1528.	12.2	0.0	44.0		
9. EBQ	*	464.0	482.0	378.8	482.0	*	85.	270. AG	260.	100.0	0.0	36.0	0.75	4.3
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1325.	12.2	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1242.	12.2	0.0	44.0		
12. WBQ	*	536.0	518.0	614.1	518.0	*	78.	90. AG	260.	100.0	0.0	36.0	0.72	4.0

1

PAGE 2

JOB: Parthenia Winnetka Existing Ambient PM RUN: 2

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
3. NBQ	*	60	25	3.0	1617	1600	60.55	3	3
6. SBQ	*	60	25	3.0	1766	1600	60.55	3	3
9. EBQ	*	60	32	3.0	1388	1600	60.55	3	3
12. WBQ	*	60	32	3.0	1325	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Parthenia Winnetka Existing Ambient PM RUN: 2

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
0.	*	9.4	9.3	11.1	10.8
10.	*	10.6	8.7	12.6	10.0
20.	*	10.7	8.7	12.3	10.2
30.	*	10.7	8.7	11.6	10.2
40.	*	10.6	8.7	11.4	10.0
50.	*	10.6	8.7	11.5	9.9
60.	*	10.5	8.7	11.7	10.0
70.	*	10.4	8.7	11.8	10.3
80.	*	10.2	8.7	11.7	10.2
90.	*	11.0	9.3	10.7	9.2
100.	*	12.3	10.2	10.1	8.7
110.	*	12.2	10.5	10.2	8.7
120.	*	11.7	10.5	10.1	8.7
130.	*	11.1	10.5	10.1	8.7
140.	*	11.4	10.4	10.0	8.7
150.	*	11.6	10.4	10.2	8.7
160.	*	11.8	10.3	10.5	8.7
170.	*	12.0	10.3	10.4	8.7
180.	*	10.7	11.2	9.3	9.4

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190. * 10.0 12.5 8.7 10.5
200. * 10.1 12.3 8.7 10.6
210. * 10.1 11.7 8.7 10.5
220. * 9.9 11.3 8.7 10.5
230. * 9.9 11.3 8.7 10.5
240. * 9.9 11.6 8.7 10.4
250. * 10.1 11.8 8.7 10.4
260. * 10.1 11.6 8.7 10.2
270. * 9.2 10.7 9.3 11.1
280. * 8.7 10.1 10.2 12.3
290. * 8.7 10.2 10.4 12.2
300. * 8.7 10.2 10.6 11.6
310. * 8.7 10.1 10.5 11.2
320. * 8.7 10.1 10.4 11.3
330. * 8.7 10.3 10.3 11.7
340. * 8.7 10.5 10.2 12.0
350. * 8.7 10.5 10.3 11.9
360. * 9.4 9.3 11.1 10.8
-----*-----
MAX * 12.3 12.5 12.6 12.3
DEGR. * 100 190 10 280

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THE HIGHEST CONCENTRATION IS 12.60 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Parthenia Winnetka Existing Ambient PM RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

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* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 190 10 280
-----*-----
1 * 0.0 1.2 0.0 0.6
2 * 0.4 0.0 0.6 0.0
3 * 0.0 0.3 0.0 0.5
4 * 0.6 0.0 1.4 0.0
5 * 0.0 0.7 0.0 0.4
6 * 0.5 0.0 0.4 0.0
7 * 0.0 0.0 0.5 1.1
8 * 0.6 0.4 0.0 0.0
9 * 0.0 0.0 0.7 0.5
10 * 1.0 0.5 0.0 0.0
11 * 0.0 0.0 0.3 0.5
12 * 0.5 0.7 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT9FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Parthenia-Winnetka Future Pre-Project PM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1629.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1651.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	389.8	*	74.	180. AG	154.	100.0	0.0	36.0	0.68	3.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1790.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1714.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	617.8	*	82.	360. AG	154.	100.0	0.0	36.0	0.75	4.2
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1397.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1536.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	377.6	482.0	*	86.	270. AG	197.	100.0	0.0	36.0	0.76	4.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1333.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1248.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	615.1	518.0	*	79.	90. AG	197.	100.0	0.0	36.0	0.72	4.0

1

PAGE 2

JOB: Parthenia-Winnetka Future Pre-Project PM RUN: 3

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
3. NBQ	*	60	25	3.0	1629	1600	45.96	3	3
6. SBQ	*	60	25	3.0	1790	1600	45.96	3	3
9. EBQ	*	60	32	3.0	1397	1600	45.96	3	3
12. WBQ	*	60	32	3.0	1333	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Parthenia-Winnetka Future Pre-Project PM RUN: 3

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
0.	*	7.5	7.4	8.8	8.5
10.	*	8.4	6.9	9.8	8.0
20.	*	8.4	6.9	9.7	8.0
30.	*	8.5	6.9	9.2	8.0
40.	*	8.4	6.9	8.8	7.9
50.	*	8.3	6.9	8.9	7.8
60.	*	8.2	6.9	9.3	7.9
70.	*	8.2	6.9	9.2	8.1
80.	*	8.1	6.9	9.2	8.0
90.	*	8.7	7.3	8.5	7.3
100.	*	9.8	8.1	7.9	6.9
110.	*	9.5	8.2	8.0	6.9
120.	*	9.1	8.3	8.1	6.9
130.	*	8.7	8.4	7.9	6.9
140.	*	8.7	8.2	7.9	6.9
150.	*	9.3	8.2	8.1	6.9
160.	*	9.4	8.1	8.3	6.9
170.	*	9.4	8.0	8.2	6.9
180.	*	8.5	8.8	7.4	7.4

190.	*	7.9	9.7	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	8.0	9.3	6.9	8.3
220.	*	7.9	8.8	6.9	8.3
230.	*	7.8	8.8	6.9	8.3
240.	*	7.8	9.2	6.9	8.3
250.	*	8.0	9.2	6.9	8.1
260.	*	7.9	9.1	6.9	8.0
270.	*	7.3	8.4	7.3	8.6
280.	*	6.9	8.0	8.0	9.6
290.	*	6.9	8.0	8.2	9.3
300.	*	6.9	8.1	8.3	9.1
310.	*	6.9	8.0	8.3	8.8
320.	*	6.9	8.1	8.2	9.0
330.	*	6.9	8.1	8.2	9.1
340.	*	6.9	8.3	8.1	9.4
350.	*	6.9	8.2	8.0	9.5
360.	*	7.5	7.4	8.8	8.5
-----*					
MAX	*	9.8	9.7	9.8	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Parthenia-Winnetka Future Pre-Project PM RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.4
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.5	0.0	1.0	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.4	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.8	0.3	0.0	0.0
11	*	0.0	0.0	0.2	0.4
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT9AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Parthenia-Winnetka Alta Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1650.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1672.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	388.8	*	75.	180. AG	154.	100.0	0.0	36.0	0.69	3.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1802.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1726.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	619.0	*	83.	360. AG	154.	100.0	0.0	36.0	0.75	4.2
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1407.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1546.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	376.1	482.0	*	88.	270. AG	197.	100.0	0.0	36.0	0.77	4.5
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1339.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1254.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	615.7	518.0	*	80.	90. AG	197.	100.0	0.0	36.0	0.73	4.0

1

PAGE 2

JOB: Parthenia-Winnetka Alta Krausz Future PM RUN: 4

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
3. NBQ	*	60	25	3.0	1650	1600	45.96	3	3
6. SBQ	*	60	25	3.0	1802	1600	45.96	3	3
9. EBQ	*	60	32	3.0	1407	1600	45.96	3	3
12. WBQ	*	60	32	3.0	1339	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Parthenia-Winnetka Alta Krausz Future PM RUN: 4

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 REC1	REC2	REC3	REC4
0.	*	7.5	7.4	8.8	8.6
10.	*	8.4	6.9	9.8	8.0
20.	*	8.5	6.9	9.7	8.0
30.	*	8.5	6.9	9.2	8.0
40.	*	8.4	6.9	8.8	7.9
50.	*	8.4	6.9	8.9	7.8
60.	*	8.3	6.9	9.3	7.9
70.	*	8.2	6.9	9.2	8.1
80.	*	8.1	6.9	9.2	8.0
90.	*	8.7	7.3	8.5	7.3
100.	*	9.8	8.1	7.9	6.9
110.	*	9.5	8.2	8.1	6.9
120.	*	9.1	8.3	8.1	6.9
130.	*	8.7	8.4	7.9	6.9
140.	*	8.8	8.2	7.9	6.9
150.	*	9.3	8.2	8.1	6.9
160.	*	9.4	8.1	8.3	6.9
170.	*	9.4	8.0	8.2	6.9
180.	*	8.5	8.8	7.4	7.4

190.	*	7.9	9.8	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	8.0	9.3	6.9	8.3
220.	*	7.9	8.8	6.9	8.3
230.	*	7.8	8.8	6.9	8.3
240.	*	7.8	9.2	6.9	8.3
250.	*	8.0	9.3	6.9	8.1
260.	*	8.0	9.1	6.9	8.0
270.	*	7.3	8.4	7.3	8.7
280.	*	6.9	8.0	8.0	9.6
290.	*	6.9	8.0	8.2	9.4
300.	*	6.9	8.1	8.4	9.1
310.	*	6.9	8.0	8.3	8.8
320.	*	6.9	8.1	8.2	9.0
330.	*	6.9	8.1	8.2	9.1
340.	*	6.9	8.3	8.1	9.4
350.	*	6.9	8.3	8.0	9.6
360.	*	7.5	7.4	8.8	8.6

MAX	*	9.8	9.8	9.8	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Parthenia-Winnetka Alta Krausz Future PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280

1	*	0.0	1.0	0.0	0.4
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.5	0.0	1.0	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.4	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.8	0.3	0.0	0.0
11	*	0.0	0.0	0.2	0.4
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT9BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Parthenia-Winnetka AltB Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2	Y2								
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1636.	9.3	0.0	56.0	
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1658.	9.3	0.0	44.0	
3. NBQ	*	518.0	464.0	518.0	389.5	*	75.	180. AG	154.	100.0	0.0	36.0	0.68 3.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1816.	9.3	0.0	56.0	
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1740.	9.3	0.0	44.0	
6. SBQ	*	482.0	536.0	482.0	620.4	*	84.	360. AG	154.	100.0	0.0	36.0	0.76 4.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1400.	9.3	0.0	56.0	
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1539.	9.3	0.0	44.0	
9. EBQ	*	464.0	482.0	377.3	482.0	*	87.	270. AG	197.	100.0	0.0	36.0	0.76 4.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1346.	9.3	0.0	56.0	
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1261.	9.3	0.0	44.0	
12. WBQ	*	536.0	518.0	616.4	518.0	*	80.	90. AG	197.	100.0	0.0	36.0	0.73 4.1

1

PAGE 2

JOB: Parthenia-Winnetka AltB Krausz Future PM RUN: 6

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
3. NBQ	*	60	25	3.0	1636	1600	45.96	3	3
6. SBQ	*	60	25	3.0	1816	1600	45.96	3	3
9. EBQ	*	60	32	3.0	1400	1600	45.96	3	3
12. WBQ	*	60	32	3.0	1346	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Parthenia-Winnetka AltB Krausz Future PM RUN: 6

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
0.	*	7.5	7.4	8.8	8.5
10.	*	8.4	6.9	9.9	8.0
20.	*	8.5	6.9	9.7	8.0
30.	*	8.5	6.9	9.2	8.0
40.	*	8.4	6.9	8.9	7.9
50.	*	8.4	6.9	8.9	7.8
60.	*	8.2	6.9	9.3	7.9
70.	*	8.2	6.9	9.3	8.1
80.	*	8.1	6.9	9.2	8.0
90.	*	8.7	7.4	8.5	7.3
100.	*	9.8	8.1	7.9	6.9
110.	*	9.5	8.2	8.1	6.9
120.	*	9.1	8.3	8.1	6.9
130.	*	8.7	8.4	7.9	6.9
140.	*	8.9	8.2	7.9	6.9
150.	*	9.3	8.2	8.1	6.9
160.	*	9.4	8.1	8.3	6.9
170.	*	9.4	8.1	8.3	6.9
180.	*	8.5	8.8	7.4	7.4

190.	*	7.9	9.9	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	8.0	9.3	6.9	8.3
220.	*	7.9	8.8	6.9	8.3
230.	*	7.8	8.8	6.9	8.3
240.	*	7.8	9.2	6.9	8.3
250.	*	8.0	9.3	6.9	8.1
260.	*	8.0	9.1	6.9	8.0
270.	*	7.3	8.4	7.3	8.7
280.	*	6.9	8.0	8.0	9.6
290.	*	6.9	8.0	8.2	9.4
300.	*	6.9	8.1	8.3	9.1
310.	*	6.9	8.0	8.3	8.8
320.	*	6.9	8.1	8.2	9.0
330.	*	6.9	8.1	8.2	9.1
340.	*	6.9	8.3	8.1	9.4
350.	*	6.9	8.3	8.0	9.6
360.	*	7.5	7.4	8.8	8.5

MAX	*	9.8	9.9	9.9	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Parthenia-Winnetka AltB Krausz Future PM RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	10	280

1	*	0.0	1.0	0.0	0.4
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.5	0.0	1.1	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.4	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.4
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT9CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Parthenia-Winnetka AltC Krausz Fut PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1649.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1671.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	389.0	*	75.	180. AG	154.	100.0	0.0	36.0	0.69	3.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1800.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1724.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	619.0	*	83.	360. AG	154.	100.0	0.0	36.0	0.75	4.2
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1407.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1546.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	376.1	482.0	*	88.	270. AG	197.	100.0	0.0	36.0	0.77	4.5
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1338.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1253.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	615.7	518.0	*	80.	90. AG	197.	100.0	0.0	36.0	0.73	4.0

1

PAGE 2

JOB: Parthenia-Winnetka AltC Krausz Fut PM RUN: 8

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
3. NBQ	*	60	25	3.0	1649	1600	45.96	3	3
6. SBQ	*	60	25	3.0	1800	1600	45.96	3	3
9. EBQ	*	60	32	3.0	1407	1600	45.96	3	3
12. WBQ	*	60	32	3.0	1338	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Parthenia-Winnetka AltC Krausz Fut PM RUN: 8

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
0.	*	7.5	7.4	8.8	8.6
10.	*	8.4	6.9	9.8	8.0
20.	*	8.5	6.9	9.7	8.0
30.	*	8.5	6.9	9.2	8.0
40.	*	8.4	6.9	8.8	7.9
50.	*	8.4	6.9	8.9	7.8
60.	*	8.3	6.9	9.3	7.9
70.	*	8.2	6.9	9.2	8.1
80.	*	8.1	6.9	9.2	8.0
90.	*	8.7	7.3	8.5	7.3
100.	*	9.8	8.1	7.9	6.9
110.	*	9.5	8.2	8.1	6.9
120.	*	9.1	8.3	8.1	6.9
130.	*	8.7	8.4	7.9	6.9
140.	*	8.8	8.2	7.9	6.9
150.	*	9.3	8.2	8.1	6.9
160.	*	9.4	8.1	8.3	6.9
170.	*	9.4	8.0	8.2	6.9
180.	*	8.5	8.8	7.4	7.4

190.	*	7.9	9.8	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	8.0	9.3	6.9	8.3
220.	*	7.9	8.8	6.9	8.3
230.	*	7.8	8.8	6.9	8.3
240.	*	7.8	9.2	6.9	8.3
250.	*	8.0	9.3	6.9	8.1
260.	*	8.0	9.1	6.9	8.0
270.	*	7.3	8.4	7.3	8.7
280.	*	6.9	8.0	8.0	9.6
290.	*	6.9	8.0	8.2	9.4
300.	*	6.9	8.1	8.4	9.1
310.	*	6.9	8.0	8.3	8.8
320.	*	6.9	8.1	8.2	9.0
330.	*	6.9	8.1	8.2	9.1
340.	*	6.9	8.3	8.1	9.4
350.	*	6.9	8.3	8.0	9.6
360.	*	7.5	7.4	8.8	8.6
-----*					
MAX	*	9.8	9.8	9.8	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Parthenia-Winnetka AltC Krausz Fut PM

RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	1.0	0.0	0.4
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.5	0.0	1.0	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.4	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.8	0.3	0.0	0.0
11	*	0.0	0.0	0.2	0.4
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT9DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Parthenia-Winnetka AltD Krausz Fut PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1638.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1660.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	389.4	*	75.	180. AG	154.	100.0	0.0	36.0	0.68	3.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1809.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1733.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	619.8	*	84.	360. AG	154.	100.0	0.0	36.0	0.75	4.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1401.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1540.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	376.9	482.0	*	87.	270. AG	197.	100.0	0.0	36.0	0.76	4.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1342.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1257.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	616.0	518.0	*	80.	90. AG	197.	100.0	0.0	36.0	0.73	4.1

1

PAGE 2

JOB: Parthenia-Winnetka AltD Krausz Fut PM RUN: 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
3. NBQ	*	60	25	3.0	1638	1600	45.96	3	3
6. SBQ	*	60	25	3.0	1809	1600	45.96	3	3
9. EBQ	*	60	32	3.0	1401	1600	45.96	3	3
12. WBQ	*	60	32	3.0	1342	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Parthenia-Winnetka AltD Krausz Fut PM RUN: 10

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
0.	*	7.5	7.4	8.8	8.5
10.	*	8.4	6.9	9.9	8.0
20.	*	8.5	6.9	9.7	8.0
30.	*	8.5	6.9	9.2	8.0
40.	*	8.4	6.9	8.8	7.9
50.	*	8.4	6.9	8.9	7.8
60.	*	8.3	6.9	9.3	7.9
70.	*	8.2	6.9	9.3	8.1
80.	*	8.1	6.9	9.2	8.0
90.	*	8.7	7.4	8.5	7.3
100.	*	9.8	8.1	7.9	6.9
110.	*	9.5	8.2	8.1	6.9
120.	*	9.1	8.3	8.1	6.9
130.	*	8.7	8.4	7.9	6.9
140.	*	8.8	8.2	7.9	6.9
150.	*	9.3	8.2	8.1	6.9
160.	*	9.4	8.1	8.3	6.9
170.	*	9.4	8.1	8.2	6.9
180.	*	8.5	8.8	7.4	7.4

190.	*	7.9	9.9	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	8.0	9.3	6.9	8.3
220.	*	7.9	8.8	6.9	8.3
230.	*	7.8	8.8	6.9	8.3
240.	*	7.8	9.2	6.9	8.3
250.	*	8.0	9.2	6.9	8.1
260.	*	8.0	9.1	6.9	8.0
270.	*	7.3	8.4	7.3	8.7
280.	*	6.9	8.0	8.0	9.6
290.	*	6.9	8.0	8.2	9.4
300.	*	6.9	8.1	8.3	9.1
310.	*	6.9	8.0	8.3	8.8
320.	*	6.9	8.1	8.2	9.0
330.	*	6.9	8.1	8.2	9.1
340.	*	6.9	8.3	8.1	9.4
350.	*	6.9	8.3	8.0	9.6
360.	*	7.5	7.4	8.8	8.5

MAX	*	9.8	9.9	9.9	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Parthenia-Winnetka AltD Krausz Fut PM

RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280

1	*	0.0	1.0	0.0	0.4
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.5	0.0	1.1	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.4	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.4
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT9ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Parthenia-Winnetka Alta Buildout Fut PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1655.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1677.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	388.7	*	75.	180. AG	154.	100.0	0.0	36.0	0.69 3.8	
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1804.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1728.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	619.2	*	83.	360. AG	154.	100.0	0.0	36.0	0.75 4.2	
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1410.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1549.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	375.7	482.0	*	88.	270. AG	197.	100.0	0.0	36.0	0.77 4.5	
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1340.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1255.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	615.7	518.0	*	80.	90. AG	197.	100.0	0.0	36.0	0.73 4.0	

1

PAGE 2

JOB: Parthenia-Winnetka Alta Buildout Fut PM RUN: 5

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
3. NBQ	*	60	25	3.0	1655	1600	45.96	3	3
6. SBQ	*	60	25	3.0	1804	1600	45.96	3	3
9. EBQ	*	60	32	3.0	1410	1600	45.96	3	3
12. WBQ	*	60	32	3.0	1340	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Parthenia-Winnetka Alta Buildout Fut PM RUN: 5

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
0.	*	7.5	7.4	8.8	8.6
10.	*	8.4	6.9	9.9	8.0
20.	*	8.5	6.9	9.7	8.0
30.	*	8.5	6.9	9.2	8.0
40.	*	8.4	6.9	8.8	7.9
50.	*	8.4	6.9	9.0	7.8
60.	*	8.3	6.9	9.3	7.9
70.	*	8.2	6.9	9.3	8.1
80.	*	8.1	6.9	9.2	8.0
90.	*	8.7	7.3	8.5	7.3
100.	*	9.8	8.1	7.9	6.9
110.	*	9.5	8.2	8.1	6.9
120.	*	9.1	8.3	8.1	6.9
130.	*	8.7	8.4	7.9	6.9
140.	*	8.8	8.2	7.9	6.9
150.	*	9.3	8.2	8.1	6.9
160.	*	9.4	8.1	8.3	6.9
170.	*	9.4	8.1	8.2	6.9
180.	*	8.5	8.8	7.4	7.4

190.	*	7.9	9.9	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	8.0	9.3	6.9	8.3
220.	*	7.9	8.8	6.9	8.3
230.	*	7.8	8.8	6.9	8.3
240.	*	7.8	9.2	6.9	8.3
250.	*	8.0	9.2	6.9	8.1
260.	*	8.0	9.1	6.9	8.0
270.	*	7.3	8.4	7.3	8.7
280.	*	6.9	8.0	8.0	9.6
290.	*	6.9	8.0	8.2	9.4
300.	*	6.9	8.1	8.4	9.1
310.	*	6.9	8.0	8.3	8.8
320.	*	6.9	8.1	8.2	9.0
330.	*	6.9	8.1	8.2	9.1
340.	*	6.9	8.3	8.1	9.4
350.	*	6.9	8.3	8.0	9.6
360.	*	7.5	7.4	8.8	8.6

MAX	*	9.8	9.9	9.9	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Parthenia-Winnetka AltA Buildout Fut PM

RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280

1	*	0.0	1.0	0.0	0.4
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.5	0.0	1.1	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.4	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.4
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT9BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Parthenia-Winnetka AltB Buildout Fut PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1638.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1660.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	389.4	*	75.	180. AG	154.	100.0	0.0	36.0	0.68	3.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1831.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1755.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	621.9	*	86.	360. AG	154.	100.0	0.0	36.0	0.76	4.4
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1401.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1540.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	376.9	482.0	*	87.	270. AG	197.	100.0	0.0	36.0	0.76	4.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1354.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1269.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	617.4	518.0	*	81.	90. AG	197.	100.0	0.0	36.0	0.74	4.1

1

PAGE 2

JOB: Parthenia-Winnetka AltB Buildout Fut PM RUN: 7

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
3. NBQ	*	60	25	3.0	1638	1600	45.96	3	3
6. SBQ	*	60	25	3.0	1831	1600	45.96	3	3
9. EBQ	*	60	32	3.0	1401	1600	45.96	3	3
12. WBQ	*	60	32	3.0	1354	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Parthenia-Winnetka AltB Buildout Fut PM RUN: 7

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
0.	*	7.5	7.4	8.9	8.5
10.	*	8.4	6.9	9.9	8.0
20.	*	8.5	6.9	9.7	8.0
30.	*	8.5	6.9	9.2	8.0
40.	*	8.4	6.9	8.9	7.9
50.	*	8.4	6.9	8.9	7.8
60.	*	8.3	6.9	9.3	7.9
70.	*	8.2	6.9	9.3	8.1
80.	*	8.1	6.9	9.2	8.0
90.	*	8.7	7.4	8.5	7.3
100.	*	9.8	8.1	7.9	6.9
110.	*	9.5	8.2	8.1	6.9
120.	*	9.1	8.3	8.1	6.9
130.	*	8.7	8.4	8.0	6.9
140.	*	9.0	8.2	7.9	6.9
150.	*	9.3	8.2	8.1	6.9
160.	*	9.4	8.1	8.3	6.9
170.	*	9.4	8.1	8.3	6.9
180.	*	8.5	8.8	7.4	7.4

190.	*	7.9	9.9	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	8.0	9.3	6.9	8.3
220.	*	7.9	8.8	6.9	8.3
230.	*	7.8	8.8	6.9	8.3
240.	*	7.8	9.2	6.9	8.3
250.	*	8.0	9.2	6.9	8.1
260.	*	8.0	9.1	6.9	8.0
270.	*	7.3	8.4	7.3	8.7
280.	*	6.9	8.0	8.0	9.6
290.	*	6.9	8.0	8.2	9.4
300.	*	6.9	8.1	8.3	9.2
310.	*	6.9	8.0	8.3	8.8
320.	*	6.9	8.1	8.2	9.0
330.	*	6.9	8.1	8.2	9.1
340.	*	6.9	8.3	8.1	9.4
350.	*	6.9	8.3	8.0	9.6
360.	*	7.5	7.4	8.9	8.5
-----*					
MAX	*	9.8	9.9	9.9	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Parthenia-Winnetka AltB Buildout Fut PM

RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	1.0	0.0	0.4
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.5	0.0	1.1	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.4	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.4
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT9CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Parthenia-Winnetka AltC Buildout Fut PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1655.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1677.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	388.7	*	75.	180. AG	154.	100.0	0.0	36.0	0.69	3.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1800.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1724.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	619.0	*	83.	360. AG	154.	100.0	0.0	36.0	0.75	4.2
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1410.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1549.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	375.7	482.0	*	88.	270. AG	197.	100.0	0.0	36.0	0.77	4.5
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1338.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1253.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	615.7	518.0	*	80.	90. AG	197.	100.0	0.0	36.0	0.73	4.0

1

PAGE 2

JOB: Parthenia-Winnetka AltC Buildout Fut PM RUN: 9

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
3. NBQ	*	60	25	3.0	1655	1600	45.96	3	3
6. SBQ	*	60	25	3.0	1800	1600	45.96	3	3
9. EBQ	*	60	32	3.0	1410	1600	45.96	3	3
12. WBQ	*	60	32	3.0	1338	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Parthenia-Winnetka AltC Buildout Fut PM RUN: 9

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
0.	*	7.5	7.4	8.8	8.6
10.	*	8.4	6.9	9.8	8.0
20.	*	8.5	6.9	9.7	8.0
30.	*	8.5	6.9	9.2	8.0
40.	*	8.4	6.9	8.8	7.9
50.	*	8.4	6.9	9.0	7.8
60.	*	8.3	6.9	9.3	7.9
70.	*	8.2	6.9	9.2	8.1
80.	*	8.1	6.9	9.2	8.0
90.	*	8.7	7.3	8.5	7.3
100.	*	9.8	8.1	7.9	6.9
110.	*	9.5	8.2	8.1	6.9
120.	*	9.1	8.3	8.1	6.9
130.	*	8.7	8.4	7.9	6.9
140.	*	8.8	8.2	7.9	6.9
150.	*	9.3	8.2	8.1	6.9
160.	*	9.4	8.1	8.3	6.9
170.	*	9.4	8.0	8.2	6.9
180.	*	8.5	8.8	7.4	7.4

190.	*	7.9	9.8	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	8.0	9.3	6.9	8.3
220.	*	7.9	8.8	6.9	8.3
230.	*	7.8	8.8	6.9	8.3
240.	*	7.8	9.2	6.9	8.3
250.	*	8.0	9.2	6.9	8.1
260.	*	8.0	9.1	6.9	8.0
270.	*	7.3	8.4	7.3	8.7
280.	*	6.9	8.0	8.0	9.6
290.	*	6.9	8.0	8.2	9.4
300.	*	6.9	8.1	8.4	9.1
310.	*	6.9	8.0	8.3	8.8
320.	*	6.9	8.1	8.2	9.0
330.	*	6.9	8.1	8.2	9.1
340.	*	6.9	8.3	8.1	9.4
350.	*	6.9	8.3	8.0	9.6
360.	*	7.5	7.4	8.8	8.6

MAX	*	9.8	9.8	9.8	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Parthenia-Winnetka AltC Buildout Fut PM RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280

1	*	0.0	1.0	0.0	0.4
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.5	0.0	1.0	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.4	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.8	0.3	0.0	0.0
11	*	0.0	0.0	0.2	0.4
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT9DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Parthenia-Winnetka AltD Buildout Fut PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1640.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1662.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	389.4	*	75.	180. AG	154.	100.0	0.0	36.0	0.68	3.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1819.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1743.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	620.7	*	85.	360. AG	154.	100.0	0.0	36.0	0.76	4.3
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1402.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1541.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	376.9	482.0	*	87.	270. AG	197.	100.0	0.0	36.0	0.76	4.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1347.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1262.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	616.7	518.0	*	81.	90. AG	197.	100.0	0.0	36.0	0.73	4.1

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PAGE 2

JOB: Parthenia-Winnetka AltD Buildout Fut PM RUN: 11

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
3. NBQ	*	60	25	3.0	1640	1600	45.96	3	3
6. SBQ	*	60	25	3.0	1819	1600	45.96	3	3
9. EBQ	*	60	32	3.0	1402	1600	45.96	3	3
12. WBQ	*	60	32	3.0	1347	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

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PAGE 3

JOB: Parthenia-Winnetka AltD Buildout Fut PM RUN: 11

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
0.	*	7.5	7.4	8.8	8.5
10.	*	8.4	6.9	9.9	8.0
20.	*	8.5	6.9	9.7	8.0
30.	*	8.5	6.9	9.2	8.0
40.	*	8.4	6.9	8.9	7.9
50.	*	8.4	6.9	8.9	7.8
60.	*	8.3	6.9	9.3	7.9
70.	*	8.2	6.9	9.3	8.1
80.	*	8.1	6.9	9.2	8.0
90.	*	8.7	7.4	8.5	7.3
100.	*	9.8	8.1	7.9	6.9
110.	*	9.5	8.2	8.1	6.9
120.	*	9.1	8.3	8.1	6.9
130.	*	8.7	8.4	7.9	6.9
140.	*	8.9	8.2	7.9	6.9
150.	*	9.3	8.2	8.1	6.9
160.	*	9.4	8.1	8.3	6.9
170.	*	9.4	8.1	8.3	6.9
180.	*	8.5	8.8	7.4	7.4

190.	*	7.9	9.9	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	8.0	9.3	6.9	8.3
220.	*	7.9	8.8	6.9	8.3
230.	*	7.8	8.8	6.9	8.3
240.	*	7.8	9.2	6.9	8.3
250.	*	8.0	9.2	6.9	8.1
260.	*	8.0	9.1	6.9	8.0
270.	*	7.3	8.4	7.3	8.7
280.	*	6.9	8.0	8.0	9.6
290.	*	6.9	8.0	8.2	9.4
300.	*	6.9	8.1	8.3	9.1
310.	*	6.9	8.0	8.3	8.8
320.	*	6.9	8.1	8.2	9.0
330.	*	6.9	8.1	8.2	9.1
340.	*	6.9	8.3	8.1	9.4
350.	*	6.9	8.3	8.0	9.6
360.	*	7.5	7.4	8.8	8.5
-----*					
MAX	*	9.8	9.9	9.9	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Parthenia-Winnetka AltD Buildout Fut PM

RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	1.0	0.0	0.4
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.5	0.0	1.1	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.4	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.4
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rowiex.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties RUN: run tRoscoe Winnetka Existing

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1198.	12.2	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1272.	12.2	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	409.5	*	43.	180. AG	282.	100.0	0.0	48.0	0.39 2.2	
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1502.	12.2	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1396.	12.2	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	619.1	*	71.	360. AG	211.	100.0	0.0	36.0	0.65 3.6	
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1077.	12.2	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1022.	12.2	0.0	56.0		
9. ebq	*	464.0	476.0	418.4	476.0	*	46.	270. AG	336.	100.0	0.0	48.0	0.42 2.3	
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1137.	12.2	0.0	68.0		
11. wbd	*	500.0	524.0	1000.0	524.0	*	500.	90. AG	1224.	12.2	0.0	56.0		
12. wbq	*	548.0	524.0	499.9	524.0	*	48.	270. AG	336.	100.0	0.0	48.0	0.44 2.4	

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PAGE 2

JOB: Klausz Properties RUN: run tRoscoe Winnetka Existing

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
3. nbq	*	60	26	3.0	1198	1600	60.55	3	3
6. sbq	*	60	26	3.0	1502	1600	60.55	3	3
9. ebq	*	60	31	3.0	1077	1600	60.55	3	3
12. wbq	*	60	31	3.0	1137	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

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PAGE 3

JOB: Klausz Properties RUN: run tRoscoe Winnetka Existing

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
0.	*	9.2	9.0	10.8	10.1
10.	*	10.2	8.7	12.0	9.6
20.	*	10.3	8.7	11.5	9.6
30.	*	10.3	8.7	11.1	9.7
40.	*	10.3	8.7	11.3	9.7
50.	*	10.2	8.7	11.3	10.0
60.	*	10.2	8.7	10.9	10.0
70.	*	10.1	8.7	11.3	10.2
80.	*	10.1	8.7	11.4	9.8
90.	*	10.9	9.3	10.4	8.9
100.	*	12.3	10.5	10.0	8.7
110.	*	12.1	10.7	9.7	8.7
120.	*	11.8	10.3	9.6	8.7
130.	*	10.9	10.0	9.7	8.7
140.	*	10.7	9.9	9.7	8.7
150.	*	10.5	9.8	9.8	8.7
160.	*	10.9	9.8	10.1	8.7
170.	*	11.1	9.7	10.0	8.7
180.	*	10.2	10.2	9.1	9.0

190.	*	9.5	11.3	8.7	9.9
200.	*	9.2	11.7	8.7	10.0
210.	*	9.0	11.6	8.7	9.8
220.	*	9.0	11.8	8.7	9.7
230.	*	9.0	11.9	8.7	9.8
240.	*	9.1	11.6	8.7	9.8
250.	*	9.1	10.8	8.7	10.1
260.	*	8.9	10.3	8.7	10.1
270.	*	8.7	9.9	9.0	10.7
280.	*	8.7	9.9	9.5	11.1
290.	*	8.7	9.9	9.4	11.1
300.	*	8.7	9.8	9.3	10.6
310.	*	8.7	9.7	9.3	10.2
320.	*	8.7	9.7	9.4	10.7
330.	*	8.7	9.8	9.6	11.6
340.	*	8.7	10.0	9.9	11.8
350.	*	8.7	9.8	10.0	11.4
360.	*	9.2	9.0	10.8	10.1
-----*					
MAX	*	12.3	11.9	12.0	11.8
DEGR.	*	100	230	10	340

THE HIGHEST CONCENTRATION IS 12.30 PPM AT 100 DEGREES FROM REC1 .

1

JOB: Klausz Properties

RUN: run tRoscoe Winnetka Existing

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	230	10	340
-----*					
1	*	0.0	0.0	0.0	0.3
2	*	0.3	0.5	0.5	0.6
3	*	0.0	0.0	0.0	0.0
4	*	0.5	0.2	1.1	0.6
5	*	0.0	0.2	0.1	0.0
6	*	0.6	0.0	0.3	0.2
7	*	0.0	0.3	0.4	0.0
8	*	0.3	0.0	0.0	0.3
9	*	0.0	0.4	0.9	0.0
10	*	0.8	0.4	0.0	0.3
11	*	0.9	0.4	0.0	0.3
12	*	0.2	0.8	0.0	0.5

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rowipre.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Winnetka Pre Project

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1286.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1364.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	404.6	*	47.	180. AG	222.	100.0	0.0	48.0	0.43	2.4
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1596.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1664.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	626.6	*	79.	360. AG	166.	100.0	0.0	36.0	0.71	4.0
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1145.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1087.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	417.1	476.0	*	47.	270. AG	247.	100.0	0.0	48.0	0.43	2.4
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1391.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	1000.0	524.0	*	500.	90. AG	1303.	9.3	0.0	56.0		
12. wbq	*	548.0	524.0	491.1	524.0	*	57.	270. AG	247.	100.0	0.0	48.0	0.52	2.9

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PAGE 2

JOB: Klausz Properties

RUN: Roscoe Winnetka Pre Project

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
3. nbq	*	60	27	3.0	1286	1600	45.96	3	3
6. sbq	*	60	27	3.0	1596	1600	45.96	3	3
9. ebq	*	60	30	3.0	1145	1600	45.96	3	3
12. wbq	*	60	30	3.0	1391	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Winnetka Pre Project

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
0.	*	7.3	7.1	8.6	8.1
10.	*	8.1	6.9	9.5	7.7
20.	*	8.2	6.9	9.3	7.8
30.	*	8.3	6.9	9.2	7.8
40.	*	8.3	6.9	9.2	7.8
50.	*	8.2	6.9	8.9	7.9
60.	*	8.2	6.9	9.0	8.0
70.	*	8.1	6.9	9.0	8.2
80.	*	8.0	6.9	9.2	7.8
90.	*	8.8	7.4	8.3	7.1
100.	*	9.9	8.5	8.0	6.9
110.	*	9.7	8.5	7.8	6.9
120.	*	9.4	8.3	7.8	6.9
130.	*	8.8	8.1	7.7	6.9
140.	*	8.5	7.9	7.8	6.9
150.	*	8.4	7.9	8.0	6.9
160.	*	8.6	7.8	8.1	6.9
170.	*	8.8	7.7	8.1	6.9
180.	*	8.2	8.2	7.3	7.2

190.	*	7.5	9.0	6.9	7.9
200.	*	7.3	9.4	6.9	8.0
210.	*	7.1	9.4	6.9	7.8
220.	*	7.1	9.4	6.9	7.8
230.	*	7.2	9.5	6.9	7.8
240.	*	7.2	9.3	6.9	7.9
250.	*	7.2	8.7	6.9	8.1
260.	*	7.1	8.2	6.9	8.1
270.	*	6.9	7.8	7.2	8.4
280.	*	6.9	7.8	7.5	8.9
290.	*	6.9	7.8	7.5	8.7
300.	*	6.9	7.8	7.4	8.4
310.	*	6.9	7.7	7.4	8.2
320.	*	6.9	7.7	7.4	8.5
330.	*	6.9	7.8	7.6	9.3
340.	*	6.9	8.0	7.8	9.4
350.	*	6.9	7.8	7.9	9.1
360.	*	7.3	7.1	8.6	8.1

MAX	*	9.9	9.5	9.5	9.4
DEGR.	*	100	230	10	340

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Winnetka Pre Project

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	100	230	10	340

1	*	0.0	0.0	0.0	0.2
2	*	0.3	0.4	0.4	0.5
3	*	0.0	0.0	0.0	0.0
4	*	0.4	0.2	0.9	0.5
5	*	0.0	0.2	0.1	0.0
6	*	0.4	0.0	0.3	0.1
7	*	0.0	0.2	0.3	0.0
8	*	0.2	0.0	0.0	0.3
9	*	0.0	0.3	0.6	0.0
10	*	0.8	0.3	0.0	0.3
11	*	0.7	0.3	0.0	0.2
12	*	0.2	0.7	0.0	0.4

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rowifa.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1300.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1378.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	404.0	*	48.	180. AG	222.	100.0	0.0	48.0	0.44	2.4
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1598.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1666.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	626.6	*	79.	360. AG	166.	100.0	0.0	36.0	0.71	4.0
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1138.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1080.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	417.4	476.0	*	47.	270. AG	247.	100.0	0.0	48.0	0.43	2.4
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1394.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	1000.0	524.0	*	500.	90. AG	1306.	9.3	0.0	56.0		
12. wbq	*	548.0	524.0	490.9	524.0	*	57.	270. AG	247.	100.0	0.0	48.0	0.52	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt A

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
6. sbq	*	60	27	3.0	1598	1600	45.96	3	3
9. ebq	*	60	30	3.0	1138	1600	45.96	3	3
12. wbq	*	60	30	3.0	1394	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt A

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
0.	7.3	7.1	8.6	8.1
10.	8.1	6.9	9.5	7.7
20.	8.2	6.9	9.3	7.8
30.	8.3	6.9	9.2	7.8
40.	8.3	6.9	9.2	7.8
50.	8.2	6.9	8.9	7.9
60.	8.2	6.9	9.0	8.0
70.	8.1	6.9	9.0	8.2
80.	8.0	6.9	9.2	7.8
90.	8.8	7.4	8.3	7.1
100.	9.9	8.5	8.0	6.9
110.	9.7	8.5	7.8	6.9
120.	9.4	8.3	7.8	6.9
130.	8.8	8.1	7.7	6.9
140.	8.5	7.9	7.8	6.9
150.	8.5	7.9	8.0	6.9
160.	8.6	7.8	8.1	6.9
170.	8.8	7.7	8.1	6.9
180.	8.2	8.3	7.3	7.2

190.	*	7.5	9.0	6.9	7.9
200.	*	7.3	9.4	6.9	8.1
210.	*	7.1	9.5	6.9	7.8
220.	*	7.1	9.5	6.9	7.8
230.	*	7.2	9.5	6.9	7.8
240.	*	7.2	9.3	6.9	8.0
250.	*	7.2	8.7	6.9	8.1
260.	*	7.1	8.2	6.9	8.1
270.	*	6.9	7.8	7.2	8.4
280.	*	6.9	7.8	7.5	8.9
290.	*	6.9	7.8	7.5	8.7
300.	*	6.9	7.8	7.4	8.4
310.	*	6.9	7.7	7.4	8.3
320.	*	6.9	7.7	7.4	8.5
330.	*	6.9	7.8	7.6	9.3
340.	*	6.9	8.0	7.8	9.4
350.	*	6.9	7.8	7.9	9.1
360.	*	7.3	7.1	8.6	8.1

MAX	*	9.9	9.5	9.5	9.4
DEGR.	*	100	210	10	340

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt A

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	100	210	10	340

1	*	0.0	0.3	0.0	0.2
2	*	0.3	0.2	0.4	0.5
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.9	0.5
5	*	0.0	0.4	0.1	0.0
6	*	0.4	0.0	0.3	0.1
7	*	0.0	0.1	0.3	0.0
8	*	0.2	0.2	0.0	0.3
9	*	0.0	0.0	0.6	0.0
10	*	0.8	0.4	0.0	0.3
11	*	0.7	0.4	0.0	0.2
12	*	0.2	0.5	0.0	0.4

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rowifb.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1324.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1402.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	403.1	*	49.	180. AG	222.	100.0	0.0	48.0	0.44	2.5
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1598.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1666.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	626.6	*	79.	360. AG	166.	100.0	0.0	36.0	0.71	4.0
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1178.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1120.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	415.8	476.0	*	48.	270. AG	247.	100.0	0.0	48.0	0.44	2.5
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1395.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	1000.0	524.0	*	500.	90. AG	1307.	9.3	0.0	56.0		
12. wbq	*	548.0	524.0	490.9	524.0	*	57.	270. AG	247.	100.0	0.0	48.0	0.52	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt B

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
6. sbq	*	60	27	3.0	1598	1600	45.96	3	3
9. ebq	*	60	30	3.0	1178	1600	45.96	3	3
12. wbq	*	60	30	3.0	1395	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt B

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
0.	* 7.3	7.1	8.6	8.1
10.	* 8.1	6.9	9.5	7.7
20.	* 8.2	6.9	9.4	7.8
30.	* 8.3	6.9	9.2	7.8
40.	* 8.3	6.9	9.2	7.8
50.	* 8.2	6.9	8.9	7.9
60.	* 8.2	6.9	9.0	8.0
70.	* 8.1	6.9	9.0	8.2
80.	* 8.0	6.9	9.2	7.9
90.	* 8.8	7.4	8.3	7.1
100.	* 10.0	8.6	8.0	6.9
110.	* 9.7	8.5	7.8	6.9
120.	* 9.4	8.3	7.8	6.9
130.	* 8.9	8.1	7.7	6.9
140.	* 8.6	7.9	7.8	6.9
150.	* 8.5	7.9	8.0	6.9
160.	* 8.7	7.8	8.1	6.9
170.	* 8.8	7.7	8.1	6.9
180.	* 8.2	8.3	7.3	7.2

190.	*	7.5	9.0	6.9	7.9
200.	*	7.3	9.4	6.9	8.1
210.	*	7.1	9.5	6.9	7.8
220.	*	7.1	9.5	6.9	7.8
230.	*	7.2	9.5	6.9	7.8
240.	*	7.2	9.3	6.9	8.0
250.	*	7.2	8.7	6.9	8.1
260.	*	7.1	8.2	6.9	8.1
270.	*	6.9	7.8	7.2	8.5
280.	*	6.9	7.8	7.6	8.9
290.	*	6.9	7.9	7.5	8.7
300.	*	6.9	7.8	7.4	8.5
310.	*	6.9	7.7	7.4	8.3
320.	*	6.9	7.7	7.6	8.5
330.	*	6.9	7.8	7.6	9.3
340.	*	6.9	8.0	7.8	9.4
350.	*	6.9	7.9	7.9	9.1
360.	*	7.3	7.1	8.6	8.1

MAX	*	10.0	9.5	9.5	9.4
DEGR.	*	100	210	10	340

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	210	10	340

1	*	0.0	0.3	0.0	0.2
2	*	0.3	0.2	0.4	0.5
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.9	0.5
5	*	0.0	0.4	0.1	0.0
6	*	0.4	0.0	0.3	0.1
7	*	0.0	0.1	0.3	0.0
8	*	0.3	0.2	0.0	0.3
9	*	0.0	0.0	0.6	0.0
10	*	0.8	0.4	0.0	0.3
11	*	0.7	0.4	0.0	0.2
12	*	0.2	0.5	0.0	0.4

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rowifc.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1300.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1378.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	404.0	*	48.	180. AG	222.	100.0	0.0	48.0	0.44	2.4
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1600.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1668.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	626.7	*	79.	360. AG	166.	100.0	0.0	36.0	0.71	4.0
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1138.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1080.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	417.4	476.0	*	47.	270. AG	247.	100.0	0.0	48.0	0.43	2.4
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1397.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	1000.0	524.0	*	500.	90. AG	1309.	9.3	0.0	56.0		
12. wbq	*	548.0	524.0	490.8	524.0	*	57.	270. AG	247.	100.0	0.0	48.0	0.52	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt C

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
3. nbq	*	60	27	3.0	1300	1600	45.96	3	3
6. sbq	*	60	27	3.0	1600	1600	45.96	3	3
9. ebq	*	60	30	3.0	1138	1600	45.96	3	3
12. wbq	*	60	30	3.0	1397	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt C

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
0.	*	7.3	7.1	8.6	8.1
10.	*	8.2	6.9	9.5	7.7
20.	*	8.2	6.9	9.3	7.8
30.	*	8.3	6.9	9.2	7.8
40.	*	8.3	6.9	9.2	7.8
50.	*	8.2	6.9	8.9	7.9
60.	*	8.2	6.9	9.0	8.0
70.	*	8.1	6.9	9.0	8.2
80.	*	8.0	6.9	9.2	7.8
90.	*	8.8	7.4	8.3	7.1
100.	*	9.9	8.6	8.0	6.9
110.	*	9.7	8.5	7.8	6.9
120.	*	9.4	8.3	7.8	6.9
130.	*	8.8	8.1	7.7	6.9
140.	*	8.5	7.9	7.8	6.9
150.	*	8.5	7.9	8.0	6.9
160.	*	8.6	7.8	8.1	6.9
170.	*	8.8	7.8	8.1	6.9
180.	*	8.2	8.3	7.3	7.2

190.	*	7.5	9.1	6.9	7.9
200.	*	7.3	9.4	6.9	8.1
210.	*	7.1	9.5	6.9	7.8
220.	*	7.1	9.5	6.9	7.8
230.	*	7.2	9.5	6.9	7.8
240.	*	7.2	9.3	6.9	8.0
250.	*	7.2	8.7	6.9	8.1
260.	*	7.1	8.2	6.9	8.1
270.	*	6.9	7.8	7.2	8.4
280.	*	6.9	7.8	7.5	8.9
290.	*	6.9	7.8	7.5	8.7
300.	*	6.9	7.8	7.4	8.4
310.	*	6.9	7.7	7.4	8.3
320.	*	6.9	7.7	7.4	8.5
330.	*	6.9	7.8	7.6	9.3
340.	*	6.9	8.0	7.8	9.4
350.	*	6.9	7.8	7.9	9.1
360.	*	7.3	7.1	8.6	8.1

MAX	*	9.9	9.5	9.5	9.4
DEGR.	*	100	210	10	340

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	100	210	10	340

1	*	0.0	0.3	0.0	0.2
2	*	0.3	0.2	0.4	0.5
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.9	0.5
5	*	0.0	0.4	0.1	0.0
6	*	0.4	0.0	0.3	0.1
7	*	0.0	0.1	0.3	0.0
8	*	0.2	0.2	0.0	0.3
9	*	0.0	0.0	0.6	0.0
10	*	0.8	0.4	0.0	0.3
11	*	0.7	0.4	0.0	0.2
12	*	0.2	0.5	0.0	0.4

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rowifd.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1318.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1396.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	403.4	*	49.	180. AG	222.	100.0	0.0	48.0	0.44	2.5
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1600.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1668.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	626.7	*	79.	360. AG	166.	100.0	0.0	36.0	0.71	4.0
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1169.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1111.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	416.1	476.0	*	48.	270. AG	247.	100.0	0.0	48.0	0.44	2.4
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1398.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	1000.0	524.0	*	500.	90. AG	1310.	9.3	0.0	56.0		
12. wbq	*	548.0	524.0	490.8	524.0	*	57.	270. AG	247.	100.0	0.0	48.0	0.52	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt D

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
3. nbq	*	60	27	3.0	1318	1600	45.96	3	3
6. sbq	*	60	27	3.0	1600	1600	45.96	3	3
9. ebq	*	60	30	3.0	1169	1600	45.96	3	3
12. wbq	*	60	30	3.0	1398	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt D

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
0.	*	7.3	7.1	8.6	8.1	
10.	*	8.2	6.9	9.5	7.7	
20.	*	8.2	6.9	9.4	7.8	
30.	*	8.3	6.9	9.2	7.8	
40.	*	8.3	6.9	9.2	7.8	
50.	*	8.2	6.9	8.9	7.9	
60.	*	8.2	6.9	9.0	8.0	
70.	*	8.1	6.9	9.0	8.2	
80.	*	8.0	6.9	9.2	7.9	
90.	*	8.8	7.4	8.3	7.1	
100.	*	9.9	8.6	8.0	6.9	
110.	*	9.7	8.5	7.8	6.9	
120.	*	9.4	8.3	7.8	6.9	
130.	*	8.9	8.1	7.7	6.9	
140.	*	8.6	7.9	7.8	6.9	
150.	*	8.5	7.9	8.0	6.9	
160.	*	8.7	7.8	8.1	6.9	
170.	*	8.8	7.8	8.1	6.9	
180.	*	8.2	8.3	7.3	7.2	

190.	*	7.5	9.1	6.9	7.9
200.	*	7.3	9.4	6.9	8.1
210.	*	7.1	9.5	6.9	7.8
220.	*	7.1	9.5	6.9	7.8
230.	*	7.2	9.5	6.9	7.8
240.	*	7.2	9.3	6.9	8.0
250.	*	7.2	8.7	6.9	8.1
260.	*	7.1	8.2	6.9	8.1
270.	*	6.9	7.8	7.2	8.4
280.	*	6.9	7.8	7.5	8.9
290.	*	6.9	7.9	7.5	8.7
300.	*	6.9	7.8	7.4	8.5
310.	*	6.9	7.7	7.4	8.3
320.	*	6.9	7.7	7.6	8.5
330.	*	6.9	7.8	7.6	9.3
340.	*	6.9	8.0	7.8	9.4
350.	*	6.9	7.9	7.9	9.1
360.	*	7.3	7.1	8.6	8.1

MAX	*	9.9	9.5	9.5	9.4
DEGR.	*	100	210	10	340

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Winnetka Future Alt D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	210	10	340

1	*	0.0	0.3	0.0	0.2
2	*	0.3	0.2	0.4	0.5
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.9	0.5
5	*	0.0	0.4	0.1	0.0
6	*	0.4	0.0	0.3	0.1
7	*	0.0	0.1	0.3	0.0
8	*	0.2	0.2	0.0	0.3
9	*	0.0	0.0	0.6	0.0
10	*	0.8	0.4	0.0	0.3
11	*	0.7	0.4	0.0	0.2
12	*	0.2	0.5	0.0	0.4

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rowiba.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1297.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1375.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	404.2	*	48.	180. AG	222.	100.0	0.0	48.0	0.43	2.4
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1598.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	166.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	626.6	*	79.	360. AG	166.	100.0	0.0	36.0	0.71	4.0
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1133.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1075.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	417.6	476.0	*	46.	270. AG	247.	100.0	0.0	48.0	0.42	2.4
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1394.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	1000.0	524.0	*	500.	90. AG	1306.	9.3	0.0	56.0		
12. wbq	*	548.0	524.0	490.9	524.0	*	57.	270. AG	247.	100.0	0.0	48.0	0.52	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt A

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
6. sbq	*	60	27	3.0	1598	1600	45.96	3	3
9. ebq	*	60	30	3.0	1133	1600	45.96	3	3
12. wbq	*	60	30	3.0	1394	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt A

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
0.	* 7.3	7.1	8.6	8.1
10.	* 8.1	6.9	9.4	7.7
20.	* 8.2	6.9	9.1	7.8
30.	* 8.3	6.9	8.8	7.8
40.	* 8.3	6.9	8.8	7.8
50.	* 8.2	6.9	8.5	7.9
60.	* 8.2	6.9	8.5	8.0
70.	* 8.1	6.9	8.6	8.2
80.	* 8.0	6.9	8.8	7.8
90.	* 8.8	7.4	7.9	7.1
100.	* 9.9	8.5	7.6	6.9
110.	* 9.7	8.5	7.4	6.9
120.	* 9.4	8.3	7.3	6.9
130.	* 8.8	8.1	7.3	6.9
140.	* 8.4	7.9	7.3	6.9
150.	* 8.1	7.9	7.4	6.9
160.	* 8.1	7.8	7.4	6.9
170.	* 8.0	7.7	7.3	6.9
180.	* 7.7	8.2	6.9	7.2

190.	*	7.5	8.6	6.9	7.6
200.	*	7.3	9.0	6.9	7.6
210.	*	7.1	9.1	6.9	7.4
220.	*	7.1	9.2	6.9	7.4
230.	*	7.2	9.3	6.9	7.5
240.	*	7.2	9.2	6.9	7.7
250.	*	7.2	8.7	6.9	7.8
260.	*	7.1	8.2	6.9	7.8
270.	*	6.9	7.8	7.2	8.1
280.	*	6.9	7.8	7.5	8.6
290.	*	6.9	7.8	7.5	8.4
300.	*	6.9	7.8	7.4	8.1
310.	*	6.9	7.7	7.4	8.0
320.	*	6.9	7.7	7.4	8.5
330.	*	6.9	7.8	7.6	9.3
340.	*	6.9	8.0	7.8	9.4
350.	*	6.9	7.8	7.9	9.1
360.	*	7.3	7.1	8.6	8.1
-----*					
MAX	*	9.9	9.3	9.4	9.4
DEGR.	*	100	230	10	340

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt A

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	230	10	340
-----*					
1	*	0.0	0.0	0.0	0.2
2	*	0.3	0.4	0.4	0.5
3	*	0.0	0.0	0.0	0.0
4	*	0.4	0.2	0.9	0.5
5	*	0.0	0.0	0.0	0.0
6	*	0.4	0.0	0.3	0.1
7	*	0.0	0.2	0.3	0.0
8	*	0.2	0.0	0.0	0.3
9	*	0.0	0.3	0.6	0.0
10	*	0.8	0.3	0.0	0.3
11	*	0.7	0.3	0.0	0.2
12	*	0.2	0.7	0.0	0.4

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rowibb.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1333.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1411.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	402.9	*	49.	180. AG	222.	100.0	0.0	48.0	0.45	2.5
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1599.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1667.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	626.7	*	79.	360. AG	166.	100.0	0.0	36.0	0.71	4.0
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1194.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1136.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	415.1	476.0	*	49.	270. AG	247.	100.0	0.0	48.0	0.45	2.5
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1397.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	1000.0	524.0	*	500.	90. AG	1309.	9.3	0.0	56.0		
12. wbq	*	548.0	524.0	490.8	524.0	*	57.	270. AG	247.	100.0	0.0	48.0	0.52	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt B

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
3. nbq	*	60	27	3.0	1333	1600	45.96	3	3
6. sbq	*	60	27	3.0	1599	1600	45.96	3	3
9. ebq	*	60	30	3.0	1194	1600	45.96	3	3
12. wbq	*	60	30	3.0	1397	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt B

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 REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	*	7.3	7.1	8.6	8.1
10.	*	8.2	6.9	9.5	7.7
20.	*	8.2	6.9	9.4	7.8
30.	*	8.3	6.9	9.2	7.8
40.	*	8.3	6.9	9.2	7.8
50.	*	8.2	6.9	8.9	7.9
60.	*	8.2	6.9	9.0	8.0
70.	*	8.1	6.9	9.1	8.2
80.	*	8.0	6.9	9.2	7.9
90.	*	8.8	7.4	8.3	7.1
100.	*	10.0	8.6	8.0	6.9
110.	*	9.7	8.5	7.8	6.9
120.	*	9.4	8.3	7.8	6.9
130.	*	8.9	8.1	7.7	6.9
140.	*	8.6	7.9	7.8	6.9
150.	*	8.5	7.9	8.0	6.9
160.	*	8.7	7.8	8.1	6.9
170.	*	8.8	7.8	8.1	6.9
180.	*	8.2	8.3	7.3	7.2

190.	*	7.5	9.1	6.9	7.9
200.	*	7.3	9.4	6.9	8.1
210.	*	7.2	9.5	6.9	7.8
220.	*	7.1	9.5	6.9	7.8
230.	*	7.2	9.5	6.9	7.9
240.	*	7.2	9.3	6.9	8.0
250.	*	7.3	8.8	6.9	8.1
260.	*	7.1	8.2	6.9	8.1
270.	*	6.9	7.9	7.2	8.5
280.	*	6.9	7.8	7.6	8.9
290.	*	6.9	7.9	7.5	8.7
300.	*	6.9	7.8	7.4	8.5
310.	*	6.9	7.7	7.4	8.3
320.	*	6.9	7.7	7.6	8.5
330.	*	6.9	7.8	7.7	9.3
340.	*	6.9	8.0	7.8	9.4
350.	*	6.9	7.9	7.9	9.1
360.	*	7.3	7.1	8.6	8.1

MAX	*	10.0	9.5	9.5	9.4
DEGR.	*	100	210	10	340

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	100	210	10	340

1	*	0.0	0.3	0.0	0.2
2	*	0.3	0.2	0.4	0.5
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.9	0.5
5	*	0.0	0.4	0.1	0.0
6	*	0.4	0.0	0.3	0.1
7	*	0.0	0.1	0.3	0.0
8	*	0.3	0.2	0.0	0.3
9	*	0.0	0.0	0.6	0.0
10	*	0.8	0.4	0.0	0.3
11	*	0.7	0.4	0.0	0.2
12	*	0.2	0.5	0.0	0.4

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rowibc.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1296.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1374.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	404.2	*	48.	180. AG	222.	100.0	0.0	48.0	0.43	2.4
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1600.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1668.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	626.7	*	79.	360. AG	166.	100.0	0.0	36.0	0.71	4.0
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1132.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1074.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	417.6	476.0	*	46.	270. AG	247.	100.0	0.0	48.0	0.42	2.4
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1398.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	1000.0	524.0	*	500.	90. AG	1310.	9.3	0.0	56.0		
12. wbq	*	548.0	524.0	490.8	524.0	*	57.	270. AG	247.	100.0	0.0	48.0	0.52	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt C

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
3. nbq	*	60	27	3.0	1296	1600	45.96	3	3
6. sbq	*	60	27	3.0	1600	1600	45.96	3	3
9. ebq	*	60	30	3.0	1132	1600	45.96	3	3
12. wbq	*	60	30	3.0	1398	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

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PAGE 3

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt C

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
0.	*	7.3	7.1	8.6	8.1
10.	*	8.2	6.9	9.5	7.7
20.	*	8.2	6.9	9.3	7.8
30.	*	8.3	6.9	9.2	7.8
40.	*	8.3	6.9	9.2	7.8
50.	*	8.2	6.9	8.9	7.9
60.	*	8.2	6.9	9.0	8.0
70.	*	8.1	6.9	9.0	8.2
80.	*	8.0	6.9	9.2	7.8
90.	*	8.8	7.4	8.3	7.1
100.	*	9.9	8.6	8.0	6.9
110.	*	9.7	8.5	7.8	6.9
120.	*	9.4	8.3	7.8	6.9
130.	*	8.8	8.1	7.7	6.9
140.	*	8.5	7.9	7.8	6.9
150.	*	8.4	7.9	8.0	6.9
160.	*	8.6	7.8	8.1	6.9
170.	*	8.8	7.8	8.1	6.9
180.	*	8.2	8.3	7.3	7.2

190.	*	7.5	9.1	6.9	7.9
200.	*	7.3	9.4	6.9	8.1
210.	*	7.1	9.5	6.9	7.8
220.	*	7.1	9.5	6.9	7.8
230.	*	7.2	9.5	6.9	7.8
240.	*	7.2	9.3	6.9	8.0
250.	*	7.2	8.7	6.9	8.1
260.	*	7.1	8.2	6.9	8.1
270.	*	6.9	7.8	7.2	8.4
280.	*	6.9	7.8	7.5	8.9
290.	*	6.9	7.8	7.5	8.7
300.	*	6.9	7.8	7.4	8.4
310.	*	6.9	7.7	7.4	8.2
320.	*	6.9	7.7	7.4	8.5
330.	*	6.9	7.8	7.6	9.3
340.	*	6.9	8.0	7.8	9.4
350.	*	6.9	7.8	7.9	9.1
360.	*	7.3	7.1	8.6	8.1

MAX	*	9.9	9.5	9.5	9.4
DEGR.	*	100	210	10	340

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	100	210	10	340

1	*	0.0	0.3	0.0	0.2
2	*	0.3	0.2	0.4	0.5
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.9	0.5
5	*	0.0	0.4	0.1	0.0
6	*	0.4	0.0	0.3	0.1
7	*	0.0	0.1	0.3	0.0
8	*	0.2	0.2	0.0	0.3
9	*	0.0	0.0	0.6	0.0
10	*	0.8	0.4	0.0	0.3
11	*	0.7	0.4	0.0	0.2
12	*	0.2	0.5	0.0	0.4

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rowibd.DAT

RUN BEGIN ON 08/21/02 AT 12:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1325.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1403.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	403.1	*	49.	180. AG	222.	100.0	0.0	48.0	0.44	2.5
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1602.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1670.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	626.9	*	79.	360. AG	166.	100.0	0.0	36.0	0.72	4.0
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1180.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1122.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	415.6	476.0	*	48.	270. AG	247.	100.0	0.0	48.0	0.44	2.5
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1400.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	1000.0	524.0	*	500.	90. AG	1312.	9.3	0.0	56.0		
12. wbq	*	548.0	524.0	490.6	524.0	*	57.	270. AG	247.	100.0	0.0	48.0	0.53	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt D

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
6. sbq	*	60	27	3.0	1602	1600	45.96	3	3
9. ebq	*	60	30	3.0	1180	1600	45.96	3	3
12. wbq	*	60	30	3.0	1400	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt D

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
0.	7.3	7.1	8.6	8.1
10.	8.2	6.9	9.5	7.7
20.	8.2	6.9	9.4	7.8
30.	8.3	6.9	9.2	7.8
40.	8.3	6.9	9.2	7.8
50.	8.2	6.9	8.9	7.9
60.	8.2	6.9	9.0	8.0
70.	8.1	6.9	9.0	8.2
80.	8.0	6.9	9.2	7.9
90.	8.8	7.4	8.3	7.1
100.	10.0	8.6	8.0	6.9
110.	9.7	8.5	7.8	6.9
120.	9.4	8.3	7.8	6.9
130.	8.9	8.1	7.7	6.9
140.	8.6	7.9	7.8	6.9
150.	8.5	7.9	8.0	6.9
160.	8.7	7.8	8.1	6.9
170.	8.8	7.8	8.1	6.9
180.	8.2	8.3	7.3	7.2

190.	*	7.5	9.1	6.9	7.9
200.	*	7.3	9.4	6.9	8.1
210.	*	7.1	9.5	6.9	7.8
220.	*	7.1	9.5	6.9	7.8
230.	*	7.2	9.5	6.9	7.8
240.	*	7.2	9.3	6.9	8.0
250.	*	7.3	8.7	6.9	8.1
260.	*	7.1	8.2	6.9	8.1
270.	*	6.9	7.8	7.2	8.5
280.	*	6.9	7.8	7.6	8.9
290.	*	6.9	7.9	7.5	8.7
300.	*	6.9	7.8	7.4	8.5
310.	*	6.9	7.7	7.4	8.3
320.	*	6.9	7.7	7.6	8.5
330.	*	6.9	7.8	7.6	9.4
340.	*	6.9	8.0	7.8	9.4
350.	*	6.9	7.9	7.9	9.1
360.	*	7.3	7.1	8.6	8.1

MAX	*	10.0	9.5	9.5	9.4
DEGR.	*	100	210	10	330

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Winnetka Build Out Alt D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	210	10	330

1	*	0.0	0.3	0.0	0.3
2	*	0.3	0.2	0.4	0.3
3	*	0.0	0.1	0.0	0.0
4	*	0.4	0.0	0.9	0.4
5	*	0.0	0.4	0.1	0.0
6	*	0.4	0.0	0.3	0.3
7	*	0.0	0.1	0.3	0.0
8	*	0.3	0.2	0.0	0.3
9	*	0.0	0.0	0.6	0.0
10	*	0.8	0.4	0.0	0.2
11	*	0.7	0.4	0.0	0.2
12	*	0.2	0.5	0.0	0.5

RUN ENDED ON 08/21/02 AT 12:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT11XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka Existing W/ Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1630.	12.2	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1664.	12.2	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	264.2	*	188.	180. AG	276.	100.0	0.0	36.0	0.97 9.5	
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1071.	12.2	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1221.	12.2	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	597.7	*	50.	360. AG	368.	100.0	0.0	48.0	0.48 2.5	
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2313.	12.2	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2161.	12.2	0.0	56.0		
9. EBQ	*	452.0	476.0	379.3	476.0	*	73.	270. AG	249.	100.0	0.0	48.0	0.68 3.7	
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1797.	12.2	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1765.	12.2	0.0	56.0		
12. WBQ	*	536.0	524.0	592.5	524.0	*	56.	90. AG	249.	100.0	0.0	48.0	0.53 2.9	

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PAGE 2

JOB: Victory-Winnetka Existing W/ Ambient PM RUN: 2

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
3. NBQ	*	60	34	3.0	1630	1600	60.55	3	3
6. SBQ	*	60	34	3.0	1071	1600	60.55	3	3
9. EBQ	*	60	23	3.0	2313	1600	60.55	3	3
12. WBQ	*	60	23	3.0	1797	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka Existing W/ Ambient PM RUN: 2

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
0.	*	9.0	9.2	11.2	11.0
10.	*	9.9	8.7	12.1	10.3
20.	*	10.0	8.7	12.2	10.2
30.	*	10.0	8.7	11.7	10.1
40.	*	9.9	8.7	11.3	10.1
50.	*	9.9	8.7	11.4	10.3
60.	*	10.2	8.7	11.7	10.4
70.	*	10.5	8.7	11.9	10.7
80.	*	10.5	8.7	12.2	10.5
90.	*	11.3	9.2	10.8	9.2
100.	*	12.7	10.4	10.0	8.7
110.	*	12.6	10.7	10.0	8.7
120.	*	11.9	10.4	10.0	8.7
130.	*	11.2	10.5	10.2	8.7
140.	*	11.2	10.4	10.3	8.7
150.	*	11.7	10.5	10.4	8.7
160.	*	12.1	10.6	10.2	8.7
170.	*	11.9	10.5	9.9	8.7
180.	*	10.8	11.6	8.9	9.3

```

190. * 10.4 13.0 8.7 11.0
200. * 10.4 12.4 8.7 11.4
210. * 10.2 11.6 8.7 11.1
220. * 10.1 11.4 8.7 10.9
230. * 10.2 11.6 8.7 10.6
240. * 10.4 11.8 8.7 10.5
250. * 10.7 12.0 8.7 10.4
260. * 10.4 12.2 8.8 10.4
270. * 9.1 10.9 9.4 11.4
280. * 8.7 10.3 10.7 12.8
290. * 8.7 10.0 11.0 12.8
300. * 8.7 9.7 10.8 11.9
310. * 8.7 9.7 10.7 11.3
320. * 8.7 9.9 10.8 11.5
330. * 8.7 10.0 10.7 11.7
340. * 8.7 10.3 10.7 11.8
350. * 8.7 10.2 10.6 11.9
360. * 9.0 9.2 11.2 11.0
-----*
MAX * 12.7 13.0 12.2 12.8
DEGR. * 100 190 20 280

```

THE HIGHEST CONCENTRATION IS 13.00 PPM AT 190 DEGREES FROM REC2 .
1

PAGE 4

JOB: Victory-Winnetka Existing W/ Ambient PM RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 190 20 280
-----*
1 * 0.0 1.2 0.0 0.6
2 * 0.4 0.1 0.7 0.0
3 * 0.0 0.9 0.0 0.7
4 * 0.4 0.0 0.5 0.0
5 * 0.0 0.4 0.1 0.3
6 * 0.9 0.0 0.5 0.0
7 * 0.0 0.0 0.8 1.6
8 * 0.7 0.5 0.0 0.0
9 * 0.0 0.0 0.5 0.4
10 * 1.2 0.6 0.0 0.0
11 * 0.1 0.0 0.4 0.5
12 * 0.3 0.6 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT11FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka Future Pre-Project PM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1630.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1664.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	264.2	*	188.	180. AG	210.	100.0	0.0	36.0	0.97	9.5
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1071.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1221.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	597.7	*	50.	360. AG	279.	100.0	0.0	48.0	0.48	2.5
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2313.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2161.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	379.3	476.0	*	73.	270. AG	189.	100.0	0.0	48.0	0.68	3.7
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1797.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1765.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	592.5	524.0	*	56.	90. AG	189.	100.0	0.0	48.0	0.53	2.9

1

PAGE 2

JOB: Victory-Winnetka Future Pre-Project PM RUN: 3
 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
3. NBQ	*	60	34	3.0	1630	1600	45.96	3	3
6. SBQ	*	60	34	3.0	1071	1600	45.96	3	3
9. EBQ	*	60	23	3.0	2313	1600	45.96	3	3
12. WBQ	*	60	23	3.0	1797	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka Future Pre-Project PM RUN: 3

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
0.	*	7.1	7.3	8.8	8.8
10.	*	7.8	6.9	9.6	8.0
20.	*	7.9	6.9	9.6	8.0
30.	*	7.8	6.9	9.0	8.0
40.	*	7.9	6.9	8.9	8.0
50.	*	7.8	6.9	9.1	8.0
60.	*	8.0	6.9	9.2	8.2
70.	*	8.2	6.9	9.5	8.4
80.	*	8.2	6.9	9.5	8.3
90.	*	8.9	7.3	8.5	7.3
100.	*	9.8	8.2	7.9	6.9
110.	*	9.8	8.4	7.9	6.9
120.	*	9.3	8.3	7.9	6.9
130.	*	8.9	8.2	8.1	6.9
140.	*	8.9	8.1	8.2	6.9
150.	*	9.2	8.3	8.1	6.9
160.	*	9.5	8.3	8.0	6.9
170.	*	9.1	8.3	7.8	6.9
180.	*	8.6	9.1	7.1	7.4

190.	*	8.1	10.3	6.9	8.6
200.	*	8.1	9.8	6.9	9.1
210.	*	8.1	9.2	6.9	8.7
220.	*	8.0	9.0	6.9	8.5
230.	*	8.0	8.9	6.9	8.4
240.	*	8.2	9.2	6.9	8.3
250.	*	8.4	9.3	6.9	8.2
260.	*	8.2	9.5	6.9	8.1
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.0	8.5	10.1
290.	*	6.9	7.8	8.7	9.9
300.	*	6.9	7.7	8.5	9.4
310.	*	6.9	7.6	8.5	8.9
320.	*	6.9	7.8	8.4	9.0
330.	*	6.9	7.9	8.4	9.1
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	8.0	8.3	9.2
360.	*	7.1	7.3	8.8	8.8
-----*					
MAX	*	9.8	10.3	9.6	10.1
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka Future Pre-Project PM

RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.4
2	*	0.3	0.1	0.4	0.0
3	*	0.0	0.7	0.0	0.6
4	*	0.3	0.0	0.6	0.0
5	*	0.0	0.3	0.0	0.2
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.6	1.3
8	*	0.5	0.4	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.5	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT11AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka Alt A Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1640.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1674.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	258.7	*	193.	180. AG	210.	100.0	0.0	36.0	0.98	9.8
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1077.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1227.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	598.0	*	50.	360. AG	279.	100.0	0.0	48.0	0.48	2.5
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2313.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2161.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	379.3	476.0	*	73.	270. AG	189.	100.0	0.0	48.0	0.68	3.7
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1797.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1765.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	592.5	524.0	*	56.	90. AG	189.	100.0	0.0	48.0	0.53	2.9

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PAGE 2

JOB: Victory-Winnetka Alt A Krausz Future PM RUN: 4

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
3. NBQ	*	60	34	3.0	1640	1600	45.96	3	3
6. SBQ	*	60	34	3.0	1077	1600	45.96	3	3
9. EBQ	*	60	23	3.0	2313	1600	45.96	3	3
12. WBQ	*	60	23	3.0	1797	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka Alt A Krausz Future PM RUN: 4

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
0.	*	7.1	7.3	8.8	8.8
10.	*	7.8	6.9	9.6	8.0
20.	*	7.9	6.9	9.6	8.0
30.	*	7.8	6.9	9.0	8.0
40.	*	7.9	6.9	8.9	8.0
50.	*	7.8	6.9	9.1	8.0
60.	*	8.0	6.9	9.2	8.2
70.	*	8.2	6.9	9.5	8.4
80.	*	8.2	6.9	9.5	8.3
90.	*	8.9	7.3	8.5	7.3
100.	*	9.8	8.2	7.9	6.9
110.	*	9.8	8.4	7.9	6.9
120.	*	9.3	8.3	7.9	6.9
130.	*	8.9	8.2	8.1	6.9
140.	*	8.9	8.1	8.2	6.9
150.	*	9.2	8.3	8.2	6.9
160.	*	9.5	8.3	8.0	6.9
170.	*	9.2	8.3	7.8	6.9
180.	*	8.6	9.2	7.1	7.4

190.	*	8.1	10.3	6.9	8.6
200.	*	8.1	9.8	6.9	9.1
210.	*	8.1	9.2	6.9	8.7
220.	*	8.0	9.0	6.9	8.5
230.	*	8.0	8.9	6.9	8.4
240.	*	8.2	9.2	6.9	8.3
250.	*	8.4	9.3	6.9	8.2
260.	*	8.2	9.5	6.9	8.1
270.	*	7.2	8.6	7.4	9.0
280.	*	6.9	8.0	8.5	10.1
290.	*	6.9	7.8	8.7	9.9
300.	*	6.9	7.7	8.5	9.4
310.	*	6.9	7.6	8.5	8.9
320.	*	6.9	7.8	8.4	9.0
330.	*	6.9	7.9	8.4	9.1
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	8.0	8.3	9.2
360.	*	7.1	7.3	8.8	8.8
-----*					
MAX	*	9.8	10.3	9.6	10.1
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka Alt A Krausz Future PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.4
2	*	0.3	0.1	0.4	0.0
3	*	0.0	0.7	0.0	0.6
4	*	0.3	0.0	0.6	0.0
5	*	0.0	0.3	0.0	0.2
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.6	1.3
8	*	0.5	0.4	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.5	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT11BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltB Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1633.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1667.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	262.4	*	190.	180. AG	210.	100.0	0.0	36.0	0.97	9.6
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1084.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1234.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	598.4	*	50.	360. AG	279.	100.0	0.0	48.0	0.48	2.6
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2313.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2161.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	379.3	476.0	*	73.	270. AG	189.	100.0	0.0	48.0	0.68	3.7
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1797.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1765.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	592.5	524.0	*	56.	90. AG	189.	100.0	0.0	48.0	0.53	2.9

1

PAGE 2

JOB: Victory-Winnetka AltB Krausz Future PM RUN: 6

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
3. NBQ	*	60	34	3.0	1633	1600	45.96	3	3
6. SBQ	*	60	34	3.0	1084	1600	45.96	3	3
9. EBQ	*	60	23	3.0	2313	1600	45.96	3	3
12. WBQ	*	60	23	3.0	1797	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka AltB Krausz Future PM RUN: 6

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
0.	*	7.1	7.3	8.8	8.8
10.	*	7.8	6.9	9.6	8.0
20.	*	7.9	6.9	9.6	8.0
30.	*	7.8	6.9	9.0	8.0
40.	*	7.9	6.9	8.9	8.0
50.	*	7.8	6.9	9.1	8.0
60.	*	8.1	6.9	9.2	8.2
70.	*	8.2	6.9	9.5	8.4
80.	*	8.2	6.9	9.5	8.3
90.	*	8.9	7.3	8.5	7.3
100.	*	9.8	8.2	7.9	6.9
110.	*	9.8	8.4	7.9	6.9
120.	*	9.3	8.3	7.9	6.9
130.	*	8.9	8.2	8.1	6.9
140.	*	8.9	8.1	8.2	6.9
150.	*	9.2	8.3	8.2	6.9
160.	*	9.5	8.3	8.0	6.9
170.	*	9.2	8.3	7.8	6.9
180.	*	8.6	9.1	7.1	7.4

190.	*	8.1	10.3	6.9	8.6
200.	*	8.1	9.8	6.9	9.1
210.	*	8.1	9.2	6.9	8.7
220.	*	8.0	9.0	6.9	8.5
230.	*	8.0	8.9	6.9	8.4
240.	*	8.2	9.2	6.9	8.3
250.	*	8.4	9.3	6.9	8.2
260.	*	8.2	9.5	6.9	8.1
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.0	8.5	10.1
290.	*	6.9	7.8	8.7	9.9
300.	*	6.9	7.7	8.5	9.4
310.	*	6.9	7.6	8.5	8.9
320.	*	6.9	7.8	8.4	9.0
330.	*	6.9	7.9	8.4	9.1
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	8.0	8.3	9.2
360.	*	7.1	7.3	8.8	8.8
-----*					
MAX	*	9.8	10.3	9.6	10.1
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltB Krausz Future PM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.4
2	*	0.3	0.1	0.4	0.0
3	*	0.0	0.7	0.0	0.6
4	*	0.3	0.0	0.6	0.0
5	*	0.0	0.3	0.0	0.2
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.6	1.3
8	*	0.5	0.4	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.5	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT11CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1640.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1674.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	258.7	*	193.	180. AG	210.	100.0	0.0	36.0	0.98	9.8
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1076.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1226.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	598.0	*	50.	360. AG	279.	100.0	0.0	48.0	0.48	2.5
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2313.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2161.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	379.3	476.0	*	73.	270. AG	189.	100.0	0.0	48.0	0.68	3.7
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1797.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1765.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	592.5	524.0	*	56.	90. AG	189.	100.0	0.0	48.0	0.53	2.9

1

PAGE 2

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 8

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
3. NBQ	*	60	34	3.0	1640	1600	45.96	3	3
6. SBQ	*	60	34	3.0	1076	1600	45.96	3	3
9. EBQ	*	60	23	3.0	2313	1600	45.96	3	3
12. WBQ	*	60	23	3.0	1797	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 8

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
0.	*	7.1	7.3	8.8	8.8
10.	*	7.8	6.9	9.6	8.0
20.	*	7.9	6.9	9.6	8.0
30.	*	7.8	6.9	9.0	8.0
40.	*	7.9	6.9	8.9	8.0
50.	*	7.8	6.9	9.1	8.0
60.	*	8.0	6.9	9.2	8.2
70.	*	8.2	6.9	9.5	8.4
80.	*	8.2	6.9	9.5	8.3
90.	*	8.9	7.3	8.5	7.3
100.	*	9.8	8.2	7.9	6.9
110.	*	9.8	8.4	7.9	6.9
120.	*	9.3	8.3	7.9	6.9
130.	*	8.9	8.2	8.1	6.9
140.	*	8.9	8.1	8.2	6.9
150.	*	9.2	8.3	8.2	6.9
160.	*	9.5	8.3	8.0	6.9
170.	*	9.2	8.3	7.8	6.9
180.	*	8.6	9.2	7.1	7.4

190.	*	8.1	10.3	6.9	8.6
200.	*	8.1	9.8	6.9	9.1
210.	*	8.1	9.2	6.9	8.7
220.	*	8.0	9.0	6.9	8.5
230.	*	8.0	8.9	6.9	8.4
240.	*	8.2	9.2	6.9	8.3
250.	*	8.4	9.3	6.9	8.2
260.	*	8.2	9.5	6.9	8.1
270.	*	7.2	8.6	7.4	9.0
280.	*	6.9	8.0	8.5	10.1
290.	*	6.9	7.8	8.7	9.9
300.	*	6.9	7.7	8.5	9.4
310.	*	6.9	7.6	8.5	8.9
320.	*	6.9	7.8	8.4	9.0
330.	*	6.9	7.9	8.4	9.1
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	8.0	8.3	9.2
360.	*	7.1	7.3	8.8	8.8
-----*					
MAX	*	9.8	10.3	9.6	10.1
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.4
2	*	0.3	0.1	0.4	0.0
3	*	0.0	0.7	0.0	0.6
4	*	0.3	0.0	0.6	0.0
5	*	0.0	0.3	0.0	0.2
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.6	1.3
8	*	0.5	0.4	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.5	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT11DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1634.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1668.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	256.9	*	195.	180. AG	210.	100.0	0.0	36.0	0.98	9.9
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1080.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1230.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	598.2	*	50.	360. AG	279.	100.0	0.0	48.0	0.48	2.5
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2313.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2161.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	379.3	476.0	*	73.	270. AG	189.	100.0	0.0	48.0	0.68	3.7
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1797.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1765.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	592.5	524.0	*	56.	90. AG	189.	100.0	0.0	48.0	0.53	2.9

1

PAGE 2

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 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
3. NBQ	*	60	34	3.0	1643	1600	45.96	3	3
6. SBQ	*	60	34	3.0	1080	1600	45.96	3	3
9. EBQ	*	60	23	3.0	2313	1600	45.96	3	3
12. WBQ	*	60	23	3.0	1797	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 10

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
0.	*	7.1	7.3	8.8	8.8
10.	*	7.8	6.9	9.6	8.0
20.	*	7.9	6.9	9.6	8.0
30.	*	7.8	6.9	9.0	8.0
40.	*	7.9	6.9	8.9	8.0
50.	*	7.8	6.9	9.1	8.0
60.	*	8.0	6.9	9.2	8.2
70.	*	8.2	6.9	9.5	8.4
80.	*	8.2	6.9	9.5	8.3
90.	*	8.9	7.3	8.5	7.3
100.	*	9.8	8.2	7.9	6.9
110.	*	9.8	8.4	7.9	6.9
120.	*	9.3	8.3	7.9	6.9
130.	*	8.9	8.2	8.1	6.9
140.	*	8.9	8.1	8.2	6.9
150.	*	9.2	8.3	8.2	6.9
160.	*	9.5	8.3	8.0	6.9
170.	*	9.2	8.3	7.8	6.9
180.	*	8.6	9.2	7.1	7.4

190.	*	8.1	10.3	6.9	8.6
200.	*	8.1	9.8	6.9	9.1
210.	*	8.1	9.2	6.9	8.7
220.	*	8.0	9.0	6.9	8.5
230.	*	8.0	8.9	6.9	8.4
240.	*	8.2	9.2	6.9	8.3
250.	*	8.4	9.3	6.9	8.2
260.	*	8.2	9.5	6.9	8.1
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.0	8.5	10.1
290.	*	6.9	7.8	8.7	9.9
300.	*	6.9	7.7	8.5	9.4
310.	*	6.9	7.6	8.5	8.9
320.	*	6.9	7.8	8.4	9.0
330.	*	6.9	7.9	8.4	9.1
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	8.0	8.3	9.2
360.	*	7.1	7.3	8.8	8.8
-----*					
MAX	*	9.8	10.3	9.6	10.1
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.4
2	*	0.3	0.1	0.4	0.0
3	*	0.0	0.7	0.0	0.6
4	*	0.3	0.0	0.6	0.0
5	*	0.0	0.3	0.0	0.2
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.6	1.3
8	*	0.5	0.4	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.5	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT11ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka Alta Buildout Future PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1643.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1677.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	256.9	*	195.	180. AG	210.	100.0	0.0	36.0	0.98	9.9
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1078.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1228.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	598.0	*	50.	360. AG	279.	100.0	0.0	48.0	0.48	2.5
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2313.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2161.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	379.3	476.0	*	73.	270. AG	189.	100.0	0.0	48.0	0.68	3.7
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1797.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1765.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	592.5	524.0	*	56.	90. AG	189.	100.0	0.0	48.0	0.53	2.9

1

PAGE 2

JOB: Victory-Winnetka Alta Buildout Future PM RUN: 5

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
3. NBQ	*	60	34	3.0	1643	1600	45.96	3	3
6. SBQ	*	60	34	3.0	1078	1600	45.96	3	3
9. EBQ	*	60	23	3.0	2313	1600	45.96	3	3
12. WBQ	*	60	23	3.0	1797	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka Alta Buildout Future PM RUN: 5

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 REC1	REC2	REC3	REC4
0.	*	7.1	7.3	8.8	8.8
10.	*	7.8	6.9	9.6	8.0
20.	*	7.9	6.9	9.6	8.0
30.	*	7.8	6.9	9.0	8.0
40.	*	7.9	6.9	8.9	8.0
50.	*	7.8	6.9	9.1	8.0
60.	*	8.0	6.9	9.2	8.2
70.	*	8.2	6.9	9.5	8.4
80.	*	8.2	6.9	9.5	8.3
90.	*	8.9	7.3	8.5	7.3
100.	*	9.8	8.2	7.9	6.9
110.	*	9.8	8.4	7.9	6.9
120.	*	9.3	8.3	7.9	6.9
130.	*	8.9	8.2	8.1	6.9
140.	*	8.9	8.1	8.2	6.9
150.	*	9.2	8.3	8.2	6.9
160.	*	9.5	8.3	8.0	6.9
170.	*	9.2	8.3	7.8	6.9
180.	*	8.6	9.2	7.1	7.4

190.	*	8.1	10.3	6.9	8.6
200.	*	8.1	9.8	6.9	9.1
210.	*	8.1	9.2	6.9	8.7
220.	*	8.0	9.0	6.9	8.5
230.	*	8.0	8.9	6.9	8.4
240.	*	8.2	9.2	6.9	8.3
250.	*	8.4	9.3	6.9	8.2
260.	*	8.2	9.5	6.9	8.1
270.	*	7.2	8.6	7.4	9.0
280.	*	6.9	8.0	8.5	10.1
290.	*	6.9	7.8	8.7	9.9
300.	*	6.9	7.7	8.5	9.4
310.	*	6.9	7.6	8.5	8.9
320.	*	6.9	7.8	8.4	9.0
330.	*	6.9	7.9	8.4	9.1
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	8.0	8.3	9.2
360.	*	7.1	7.3	8.8	8.8
-----*					
MAX	*	9.8	10.3	9.6	10.1
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltA Buildout Future PM

RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.4
2	*	0.3	0.1	0.4	0.0
3	*	0.0	0.7	0.0	0.6
4	*	0.3	0.0	0.6	0.0
5	*	0.0	0.3	0.0	0.2
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.6	1.3
8	*	0.5	0.4	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.5	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT11BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:20

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltB Buildout Future PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2	Y2								
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1634.	9.3	0.0	56.0	
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1668.	9.3	0.0	44.0	
3. NBQ	*	518.0	452.0	518.0	262.4	*	190.	180. AG	210.	100.0	0.0	36.0	0.97 9.6
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1092.	9.3	0.0	68.0	
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1242.	9.3	0.0	44.0	
6. SBQ	*	476.0	548.0	476.0	598.8	*	51.	360. AG	279.	100.0	0.0	48.0	0.49 2.6
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2313.	9.3	0.0	68.0	
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2161.	9.3	0.0	56.0	
9. EBQ	*	452.0	476.0	379.3	476.0	*	73.	270. AG	189.	100.0	0.0	48.0	0.68 3.7
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1797.	9.3	0.0	68.0	
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1765.	9.3	0.0	56.0	
12. WBQ	*	536.0	524.0	592.5	524.0	*	56.	90. AG	189.	100.0	0.0	48.0	0.53 2.9

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PAGE 2

JOB: Victory-Winnetka AltB Buildout Future PM RUN: 7

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
3. NBQ	*	60	34	3.0	1634	1600	45.96	3	3
6. SBQ	*	60	34	3.0	1092	1600	45.96	3	3
9. EBQ	*	60	23	3.0	2313	1600	45.96	3	3
12. WBQ	*	60	23	3.0	1797	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka AltB Buildout Future PM RUN: 7

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 REC1	REC2	REC3	REC4
0.	*	7.1	7.3	8.8	8.8
10.	*	7.8	6.9	9.6	8.0
20.	*	7.9	6.9	9.6	8.0
30.	*	7.8	6.9	9.0	8.0
40.	*	7.9	6.9	8.9	8.0
50.	*	7.9	6.9	9.1	8.0
60.	*	8.1	6.9	9.2	8.2
70.	*	8.2	6.9	9.5	8.4
80.	*	8.2	6.9	9.5	8.3
90.	*	8.9	7.3	8.5	7.3
100.	*	9.8	8.2	7.9	6.9
110.	*	9.8	8.4	7.9	6.9
120.	*	9.3	8.3	7.9	6.9
130.	*	8.9	8.2	8.1	6.9
140.	*	8.9	8.1	8.2	6.9
150.	*	9.2	8.3	8.2	6.9
160.	*	9.5	8.3	8.0	6.9
170.	*	9.2	8.3	7.8	6.9
180.	*	8.6	9.1	7.1	7.4

190.	*	8.1	10.3	6.9	8.6
200.	*	8.1	9.8	6.9	9.1
210.	*	8.1	9.2	6.9	8.7
220.	*	8.0	9.0	6.9	8.5
230.	*	8.0	8.9	6.9	8.4
240.	*	8.2	9.2	6.9	8.3
250.	*	8.4	9.3	6.9	8.2
260.	*	8.2	9.5	6.9	8.1
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.0	8.5	10.1
290.	*	6.9	7.8	8.7	9.9
300.	*	6.9	7.7	8.5	9.4
310.	*	6.9	7.6	8.5	8.9
320.	*	6.9	7.8	8.4	9.0
330.	*	6.9	7.9	8.4	9.1
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	8.0	8.3	9.2
360.	*	7.1	7.3	8.8	8.8
-----*					
MAX	*	9.8	10.3	9.6	10.1
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltB Buildout Future PM RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.4
2	*	0.3	0.1	0.4	0.0
3	*	0.0	0.7	0.0	0.6
4	*	0.3	0.0	0.6	0.0
5	*	0.0	0.3	0.0	0.2
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.6	1.3
8	*	0.5	0.4	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.5	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:20

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT11CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltC Buildout Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1643.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1677.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	256.9	*	195.	180. AG	210.	100.0	0.0	36.0	0.98	9.9
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1076.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1226.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	598.0	*	50.	360. AG	279.	100.0	0.0	48.0	0.48	2.5
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2313.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2161.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	379.3	476.0	*	73.	270. AG	189.	100.0	0.0	48.0	0.68	3.7
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1797.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1765.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	592.5	524.0	*	56.	90. AG	189.	100.0	0.0	48.0	0.53	2.9

1

PAGE 2

JOB: Victory-Winnetka AltC Buildout Future PM RUN: 9

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
3. NBQ	*	60	34	3.0	1643	1600	45.96	3	3
6. SBQ	*	60	34	3.0	1076	1600	45.96	3	3
9. EBQ	*	60	23	3.0	2313	1600	45.96	3	3
12. WBQ	*	60	23	3.0	1797	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka AltC Buildout Future PM RUN: 9

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 REC1	REC2	REC3	REC4
0.	*	7.1	7.3	8.8	8.8
10.	*	7.8	6.9	9.6	8.0
20.	*	7.9	6.9	9.6	8.0
30.	*	7.8	6.9	9.0	8.0
40.	*	7.9	6.9	8.9	8.0
50.	*	7.8	6.9	9.1	8.0
60.	*	8.0	6.9	9.2	8.2
70.	*	8.2	6.9	9.5	8.4
80.	*	8.2	6.9	9.5	8.3
90.	*	8.9	7.3	8.5	7.3
100.	*	9.8	8.2	7.9	6.9
110.	*	9.8	8.4	7.9	6.9
120.	*	9.3	8.3	7.9	6.9
130.	*	8.9	8.2	8.1	6.9
140.	*	8.9	8.1	8.2	6.9
150.	*	9.2	8.3	8.2	6.9
160.	*	9.5	8.3	8.0	6.9
170.	*	9.2	8.3	7.8	6.9
180.	*	8.6	9.2	7.1	7.4

190.	*	8.1	10.3	6.9	8.6
200.	*	8.1	9.8	6.9	9.1
210.	*	8.1	9.2	6.9	8.7
220.	*	8.0	9.0	6.9	8.5
230.	*	8.0	8.9	6.9	8.4
240.	*	8.2	9.2	6.9	8.3
250.	*	8.4	9.3	6.9	8.2
260.	*	8.2	9.5	6.9	8.1
270.	*	7.2	8.6	7.4	9.0
280.	*	6.9	8.0	8.5	10.1
290.	*	6.9	7.8	8.7	9.9
300.	*	6.9	7.7	8.5	9.4
310.	*	6.9	7.6	8.5	8.9
320.	*	6.9	7.8	8.4	9.0
330.	*	6.9	7.9	8.4	9.1
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	8.0	8.3	9.2
360.	*	7.1	7.3	8.8	8.8
-----*					
MAX	*	9.8	10.3	9.6	10.1
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltC Buildout Future PM

RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.4
2	*	0.3	0.1	0.4	0.0
3	*	0.0	0.7	0.0	0.6
4	*	0.3	0.0	0.6	0.0
5	*	0.0	0.3	0.0	0.2
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.6	1.3
8	*	0.5	0.4	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.5	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT11DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltC Buildout Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1635.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1669.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	260.6	*	191.	180. AG	210.	100.0	0.0	36.0	0.97 9.7	
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1085.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1235.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	598.4	*	50.	360. AG	279.	100.0	0.0	48.0	0.48 2.6	
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2313.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2161.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	379.3	476.0	*	73.	270. AG	189.	100.0	0.0	48.0	0.68 3.7	
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1797.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1765.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	592.5	524.0	*	56.	90. AG	189.	100.0	0.0	48.0	0.53 2.9	

1

PAGE 2

JOB: Victory-Winnetka AltC Buildout Future PM RUN: 11
 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
3. NBQ	*	60	34	3.0	1635	1600	45.96	3	3
6. SBQ	*	60	34	3.0	1085	1600	45.96	3	3
9. EBQ	*	60	23	3.0	2313	1600	45.96	3	3
12. WBQ	*	60	23	3.0	1797	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka AltC Buildout Future PM RUN: 11

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
0.	*	7.1	7.3	8.8	8.8
10.	*	7.8	6.9	9.6	8.0
20.	*	7.9	6.9	9.6	8.0
30.	*	7.8	6.9	9.0	8.0
40.	*	7.9	6.9	8.9	8.0
50.	*	7.8	6.9	9.1	8.0
60.	*	8.1	6.9	9.2	8.2
70.	*	8.2	6.9	9.5	8.4
80.	*	8.2	6.9	9.5	8.3
90.	*	8.9	7.3	8.5	7.3
100.	*	9.8	8.2	7.9	6.9
110.	*	9.8	8.4	7.9	6.9
120.	*	9.3	8.3	7.9	6.9
130.	*	8.9	8.2	8.1	6.9
140.	*	8.9	8.1	8.2	6.9
150.	*	9.2	8.3	8.2	6.9
160.	*	9.5	8.3	8.0	6.9
170.	*	9.2	8.3	7.8	6.9
180.	*	8.6	9.2	7.1	7.4

190.	*	8.1	10.3	6.9	8.6
200.	*	8.1	9.8	6.9	9.1
210.	*	8.1	9.2	6.9	8.7
220.	*	8.0	9.0	6.9	8.5
230.	*	8.0	8.9	6.9	8.4
240.	*	8.2	9.2	6.9	8.3
250.	*	8.4	9.3	6.9	8.2
260.	*	8.2	9.5	6.9	8.1
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.0	8.5	10.1
290.	*	6.9	7.8	8.7	9.9
300.	*	6.9	7.7	8.5	9.4
310.	*	6.9	7.6	8.5	8.9
320.	*	6.9	7.8	8.4	9.0
330.	*	6.9	7.9	8.4	9.1
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	8.0	8.3	9.2
360.	*	7.1	7.3	8.8	8.8
-----*					
MAX	*	9.8	10.3	9.6	10.1
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 10.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltC Buildout Future PM

RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.4
2	*	0.3	0.1	0.4	0.0
3	*	0.0	0.7	0.0	0.6
4	*	0.3	0.0	0.6	0.0
5	*	0.0	0.3	0.0	0.2
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.6	1.3
8	*	0.5	0.4	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.5	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT13XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire Corbin Existing Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1479.	12.2	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	872.	12.2	0.0	44.0		
3. NBQ	*	524.0	452.0	524.0	381.1	*	71.	180. AG	379.	100.0	0.0	48.0	0.69	3.6
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	503.	12.2	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	846.	12.2	0.0	44.0		
6. SBQ	*	482.0	548.0	482.0	580.0	*	32.	360. AG	284.	100.0	0.0	36.0	0.31	1.6
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1739.	12.2	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2165.	12.2	0.0	44.0		
9. EBQ	*	464.0	476.0	411.8	476.0	*	52.	270. AG	238.	100.0	0.0	48.0	0.49	2.7
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1355.	12.2	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1193.	12.2	0.0	44.0		
12. WBQ	*	548.0	524.0	588.7	524.0	*	41.	90. AG	238.	100.0	0.0	48.0	0.38	2.1

1

PAGE 2

JOB: Devonshire Corbin Existing Ambient PM RUN: 2

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
3. NBQ	*	60	35	3.0	1479	1600	60.55	3	3
6. SBQ	*	60	35	3.0	503	1600	60.55	3	3
9. EBQ	*	60	22	3.0	1739	1600	60.55	3	3
12. WBQ	*	60	22	3.0	1355	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	444.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Devonshire Corbin Existing Ambient PM RUN: 2

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
0.	*	8.9	8.9	10.5	10.3
10.	*	9.3	8.7	11.1	10.0
20.	*	9.4	8.7	10.9	9.9
30.	*	9.3	8.7	10.7	9.9
40.	*	9.2	8.7	10.6	9.9
50.	*	9.1	8.7	10.9	10.0
60.	*	9.2	8.7	11.2	10.2
70.	*	9.4	8.7	11.7	10.5
80.	*	9.7	8.7	12.0	10.3
90.	*	10.5	9.1	10.9	9.1
100.	*	11.7	10.1	10.2	8.7
110.	*	11.6	10.4	10.2	8.7
120.	*	11.1	10.1	9.9	8.7
130.	*	10.5	9.9	9.6	8.7
140.	*	10.8	9.9	9.6	8.7
150.	*	11.1	10.0	9.7	8.7
160.	*	11.2	10.2	9.8	8.7
170.	*	11.2	10.2	9.7	8.7
180.	*	10.3	10.9	9.0	9.1

```

190. * 9.9 12.0 8.7 10.0
200. * 9.8 11.8 8.7 10.1
210. * 9.7 11.0 8.7 10.2
220. * 9.7 10.6 8.7 10.3
230. * 9.7 10.6 8.7 10.5
240. * 9.9 10.7 8.7 10.5
250. * 10.1 10.9 8.7 10.4
260. * 9.8 10.9 8.7 10.4
270. * 8.9 9.9 9.2 11.0
280. * 8.7 9.3 10.2 12.1
290. * 8.7 9.1 10.3 12.0
300. * 8.7 9.1 10.1 11.3
310. * 8.7 9.1 10.1 10.9
320. * 8.7 9.3 10.0 11.0
330. * 8.7 9.3 10.1 10.9
340. * 8.7 9.4 10.2 10.8
350. * 8.7 9.3 10.2 11.0
360. * 8.9 8.9 10.5 10.3
-----*
MAX * 11.7 12.0 12.0 12.1
DEGR. * 100 190 80 280

```

THE HIGHEST CONCENTRATION IS 12.10 PPM AT 280 DEGREES FROM REC4 .

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PAGE 4

JOB: Devonshire Corbin Existing Ambient PM

RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 190 80 280
-----*
1 * 0.0 1.0 0.4 0.5
2 * 0.2 0.0 0.0 0.0
3 * 0.0 0.5 0.6 1.0
4 * 0.2 0.0 0.0 0.0
5 * 0.0 0.3 0.3 0.2
6 * 0.8 0.0 0.0 0.0
7 * 0.0 0.0 0.1 1.2
8 * 0.6 0.5 1.5 0.0
9 * 0.0 0.0 0.0 0.2
10 * 1.0 0.4 0.4 0.0
11 * 0.0 0.0 0.0 0.3
12 * 0.2 0.6 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT13FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire Corbin Future Pre-Project PM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1625.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1123.	9.3	0.0	44.0		
3. NBQ	*	524.0	452.0	524.0	378.8	*	73.	180. AG	271.	100.0	0.0	48.0	0.69	3.7
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	662.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	980.	9.3	0.0	44.0		
6. SBQ	*	482.0	548.0	482.0	587.7	*	40.	360. AG	203.	100.0	0.0	36.0	0.38	2.0
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1773.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2110.	9.3	0.0	44.0		
9. EBQ	*	464.0	476.0	405.9	476.0	*	58.	270. AG	197.	100.0	0.0	48.0	0.54	3.0
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1348.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1195.	9.3	0.0	44.0		
12. WBQ	*	548.0	524.0	592.2	524.0	*	44.	90. AG	197.	100.0	0.0	48.0	0.41	2.2

1

PAGE 2

JOB: Devonshire Corbin Future Pre-Project PM RUN: 3

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
3. NBQ	*	60	33	3.0	1625	1600	45.96	3	3
6. SBQ	*	60	33	3.0	662	1600	45.96	3	3
9. EBQ	*	60	24	3.0	1773	1600	45.96	3	3
12. WBQ	*	60	24	3.0	1348	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	444.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Devonshire Corbin Future Pre-Project PM RUN: 3

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
0.	*	7.1	7.1	8.4	8.3
10.	*	7.5	6.9	8.9	7.9
20.	*	7.6	6.9	8.9	7.8
30.	*	7.5	6.9	8.5	7.8
40.	*	7.4	6.9	8.4	7.8
50.	*	7.4	6.9	8.7	7.9
60.	*	7.6	6.9	9.0	8.1
70.	*	7.7	6.9	9.1	8.2
80.	*	7.8	6.9	9.3	8.1
90.	*	8.4	7.2	8.4	7.2
100.	*	9.2	7.9	8.0	6.9
110.	*	9.2	8.2	8.1	6.9
120.	*	8.7	7.9	8.0	6.9
130.	*	8.4	7.9	7.8	6.9
140.	*	8.5	7.9	7.6	6.9
150.	*	8.8	8.0	7.8	6.9
160.	*	9.0	8.0	7.9	6.9
170.	*	8.8	8.1	7.8	6.9
180.	*	8.3	8.7	7.1	7.3

190.	*	7.9	9.6	6.9	8.0
200.	*	7.9	9.4	6.9	8.1
210.	*	7.7	8.9	6.9	8.1
220.	*	7.7	8.4	6.9	8.2
230.	*	7.7	8.4	6.9	8.3
240.	*	7.8	8.6	6.9	8.3
250.	*	7.9	8.8	6.9	8.2
260.	*	7.8	8.7	6.9	8.2
270.	*	7.1	8.1	7.3	8.7
280.	*	6.9	7.6	8.1	9.6
290.	*	6.9	7.4	8.1	9.4
300.	*	6.9	7.3	8.0	9.0
310.	*	6.9	7.3	8.0	8.5
320.	*	6.9	7.5	8.0	8.6
330.	*	6.9	7.5	8.1	8.6
340.	*	6.9	7.6	8.1	8.8
350.	*	6.9	7.5	8.0	8.7
360.	*	7.1	7.1	8.4	8.3
-----*					
MAX	*	9.2	9.6	9.3	9.6
DEGR.	*	100	190	80	280

THE HIGHEST CONCENTRATION IS 9.58 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Devonshire Corbin Future Pre-Project PM RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	80	280
-----*					
1	*	0.0	0.9	0.3	0.4
2	*	0.2	0.0	0.0	0.0
3	*	0.0	0.4	0.4	0.7
4	*	0.2	0.0	0.0	0.0
5	*	0.0	0.2	0.2	0.2
6	*	0.5	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.9
8	*	0.5	0.4	1.1	0.0
9	*	0.0	0.0	0.0	0.2
10	*	0.7	0.3	0.3	0.0
11	*	0.0	0.0	0.0	0.3
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT13AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire Corbin Alta Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1661.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1147.	9.3	0.0	44.0		
3. NBQ	*	524.0	452.0	524.0	376.7	*	75.	180. AG	271.	100.0	0.0	48.0	0.71	3.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	704.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1042.	9.3	0.0	44.0		
6. SBQ	*	482.0	548.0	482.0	590.2	*	42.	360. AG	203.	100.0	0.0	36.0	0.40	2.1
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1783.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2116.	9.3	0.0	44.0		
9. EBQ	*	464.0	476.0	405.6	476.0	*	58.	270. AG	197.	100.0	0.0	48.0	0.54	3.0
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1358.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1201.	9.3	0.0	44.0		
12. WBQ	*	548.0	524.0	592.5	524.0	*	44.	90. AG	197.	100.0	0.0	48.0	0.41	2.3

1

PAGE 2

JOB: Devonshire Corbin Alta Krausz Future PM RUN: 4

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
3. NBQ	*	60	33	3.0	1661	1600	45.96	3	3
6. SBQ	*	60	33	3.0	704	1600	45.96	3	3
9. EBQ	*	60	24	3.0	1783	1600	45.96	3	3
12. WBQ	*	60	24	3.0	1358	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	444.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Devonshire Corbin Alta Krausz Future PM RUN: 4

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 REC1	REC2	REC3	REC4
0.	*	7.1	7.1	8.4	8.3
10.	*	7.5	6.9	9.0	8.0
20.	*	7.7	6.9	8.9	7.8
30.	*	7.5	6.9	8.5	7.8
40.	*	7.5	6.9	8.4	7.8
50.	*	7.5	6.9	8.7	7.9
60.	*	7.6	6.9	9.0	8.1
70.	*	7.8	6.9	9.1	8.2
80.	*	7.9	6.9	9.4	8.1
90.	*	8.4	7.2	8.4	7.2
100.	*	9.2	7.9	8.1	6.9
110.	*	9.2	8.2	8.1	6.9
120.	*	8.7	7.9	8.1	6.9
130.	*	8.4	8.0	7.8	6.9
140.	*	8.5	7.9	7.7	6.9
150.	*	8.8	8.0	7.8	6.9
160.	*	9.0	8.1	7.9	6.9
170.	*	8.9	8.1	7.9	6.9
180.	*	8.3	8.7	7.2	7.3

190.	*	7.9	9.7	6.9	8.0
200.	*	7.9	9.4	6.9	8.1
210.	*	7.7	8.9	6.9	8.3
220.	*	7.7	8.4	6.9	8.3
230.	*	7.7	8.5	6.9	8.4
240.	*	7.8	8.6	6.9	8.4
250.	*	7.9	8.8	6.9	8.2
260.	*	7.8	8.7	6.9	8.2
270.	*	7.1	8.1	7.3	8.7
280.	*	6.9	7.6	8.1	9.6
290.	*	6.9	7.4	8.1	9.4
300.	*	6.9	7.3	8.0	9.0
310.	*	6.9	7.3	8.0	8.5
320.	*	6.9	7.5	8.0	8.6
330.	*	6.9	7.5	8.1	8.6
340.	*	6.9	7.6	8.1	8.8
350.	*	6.9	7.5	8.0	8.8
360.	*	7.1	7.1	8.4	8.3
-----*					
MAX	*	9.2	9.7	9.4	9.6
DEGR.	*	100	190	80	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Devonshire Corbin Alta Krausz Future PM RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	80	280
-----*					
1	*	0.0	0.9	0.3	0.4
2	*	0.2	0.0	0.0	0.0
3	*	0.0	0.4	0.4	0.7
4	*	0.2	0.0	0.0	0.0
5	*	0.0	0.3	0.3	0.2
6	*	0.5	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.9
8	*	0.5	0.4	1.1	0.0
9	*	0.0	0.0	0.0	0.2
10	*	0.7	0.3	0.3	0.0
11	*	0.0	0.0	0.0	0.3
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT13BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltB Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1703.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1175.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	298.2	*	154.	180. AG	197.	100.0	0.0	36.0	0.92	7.8
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	676.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1000.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	577.6	*	30.	360. AG	263.	100.0	0.0	48.0	0.28	1.5
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1776.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2123.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	391.3	476.0	*	61.	270. AG	205.	100.0	0.0	48.0	0.56	3.1
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1351.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1208.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	582.1	524.0	*	46.	90. AG	205.	100.0	0.0	48.0	0.42	2.3

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PAGE 2

JOB: Victory-Winnetka AltB Krausz Future PM RUN: 6

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
3. NBQ	*	60	32	3.0	1703	1600	45.96	3	3
6. SBQ	*	60	32	3.0	676	1600	45.96	3	3
9. EBQ	*	60	25	3.0	1776	1600	45.96	3	3
12. WBQ	*	60	25	3.0	1351	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka AltB Krausz Future PM RUN: 6

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
0.	*	7.0	7.2	8.4	8.4
10.	*	7.5	6.9	8.9	8.0
20.	*	7.5	6.9	8.9	7.8
30.	*	7.5	6.9	8.6	7.8
40.	*	7.4	6.9	8.7	7.8
50.	*	7.3	6.9	8.6	7.9
60.	*	7.4	6.9	8.9	8.1
70.	*	7.5	6.9	9.0	8.3
80.	*	7.7	6.9	9.1	8.2
90.	*	8.5	7.2	8.3	7.3
100.	*	9.4	8.0	7.8	6.9
110.	*	9.3	8.2	7.9	6.9
120.	*	8.9	8.0	8.0	6.9
130.	*	8.4	8.0	7.9	6.9
140.	*	8.5	7.9	8.0	6.9
150.	*	8.7	8.0	8.0	6.9
160.	*	9.0	8.1	7.8	6.9
170.	*	8.8	8.2	7.7	6.9
180.	*	8.2	9.0	7.1	7.3

190.	*	7.9	10.0	6.9	8.4
200.	*	7.9	9.5	6.9	8.8
210.	*	7.7	9.0	6.9	8.7
220.	*	7.7	8.6	6.9	8.4
230.	*	7.7	8.6	6.9	8.2
240.	*	7.9	8.6	6.9	8.2
250.	*	8.0	8.8	6.9	8.2
260.	*	7.8	8.9	6.9	8.0
270.	*	7.1	8.1	7.3	8.6
280.	*	6.9	7.5	8.1	9.5
290.	*	6.9	7.3	8.1	9.6
300.	*	6.9	7.4	8.0	9.1
310.	*	6.9	7.5	8.1	8.6
320.	*	6.9	7.5	8.0	8.6
330.	*	6.9	7.6	8.1	8.8
340.	*	6.9	7.7	8.2	8.7
350.	*	6.9	7.6	8.0	8.9
360.	*	7.0	7.2	8.4	8.4
-----*					
MAX	*	9.4	10.0	9.1	9.6
DEGR.	*	100	190	80	290

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltB Krausz Future PM RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	80	290
-----*					
1	*	0.0	1.0	0.3	0.5
2	*	0.2	0.0	0.0	0.0
3	*	0.0	0.6	0.2	0.4
4	*	0.2	0.0	0.0	0.0
5	*	0.0	0.3	0.2	0.2
6	*	0.7	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.7
8	*	0.5	0.4	1.1	0.2
9	*	0.0	0.0	0.0	0.3
10	*	0.7	0.3	0.3	0.0
11	*	0.0	0.0	0.0	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT13CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1654.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1142.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	288.8	*	163.	180. AG	203.	100.0	0.0	36.0	0.94	8.3
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	703.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1041.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	579.6	*	32.	360. AG	271.	100.0	0.0	48.0	0.30	1.6
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1783.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2115.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	393.6	476.0	*	58.	270. AG	197.	100.0	0.0	48.0	0.54	3.0
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1358.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1200.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	580.5	524.0	*	44.	90. AG	197.	100.0	0.0	48.0	0.41	2.3

1

PAGE 2

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 8
 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
3. NBQ	*	60	33	3.0	1654	1600	45.96	3	3
6. SBQ	*	60	33	3.0	703	1600	45.96	3	3
9. EBQ	*	60	24	3.0	1783	1600	45.96	3	3
12. WBQ	*	60	24	3.0	1358	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 8

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
0.	*	7.1	7.1	8.3	8.4
10.	*	7.5	6.9	8.9	8.0
20.	*	7.6	6.9	8.9	7.8
30.	*	7.5	6.9	8.6	7.8
40.	*	7.4	6.9	8.6	7.8
50.	*	7.3	6.9	8.6	7.9
60.	*	7.4	6.9	8.9	8.1
70.	*	7.5	6.9	9.1	8.3
80.	*	7.8	6.9	9.3	8.2
90.	*	8.5	7.2	8.4	7.3
100.	*	9.4	8.0	7.9	6.9
110.	*	9.3	8.2	7.9	6.9
120.	*	8.8	8.0	7.9	6.9
130.	*	8.4	8.0	7.9	6.9
140.	*	8.5	7.9	8.0	6.9
150.	*	8.7	8.0	8.0	6.9
160.	*	9.0	8.1	7.9	6.9
170.	*	8.8	8.1	7.7	6.9
180.	*	8.2	8.9	7.1	7.4

190.	*	7.9	9.9	6.9	8.5
200.	*	7.9	9.5	6.9	8.9
210.	*	7.7	9.0	6.9	8.7
220.	*	7.7	8.6	6.9	8.5
230.	*	7.7	8.6	6.9	8.3
240.	*	7.9	8.5	6.9	8.2
250.	*	8.0	8.8	6.9	8.1
260.	*	7.8	8.8	6.9	8.0
270.	*	7.1	8.2	7.3	8.7
280.	*	6.9	7.5	8.1	9.5
290.	*	6.9	7.3	8.1	9.6
300.	*	6.9	7.4	8.0	9.1
310.	*	6.9	7.5	8.0	8.6
320.	*	6.9	7.5	8.0	8.6
330.	*	6.9	7.6	8.1	8.8
340.	*	6.9	7.7	8.1	8.7
350.	*	6.9	7.7	8.0	8.8
360.	*	7.1	7.1	8.3	8.4
-----*					
MAX	*	9.4	9.9	9.3	9.6
DEGR.	*	100	190	80	290

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltC Krausz Future PM RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	80	290
-----*					
1	*	0.0	0.9	0.3	0.4
2	*	0.2	0.0	0.0	0.0
3	*	0.0	0.6	0.3	0.5
4	*	0.2	0.0	0.0	0.0
5	*	0.0	0.3	0.3	0.2
6	*	0.7	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.7
8	*	0.5	0.4	1.1	0.2
9	*	0.0	0.0	0.0	0.3
10	*	0.7	0.3	0.3	0.0
11	*	0.0	0.0	0.0	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT13DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltD Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1681.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1161.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	306.0	*	146.	180. AG	197.	100.0	0.0	36.0	0.91	7.4
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	679.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1005.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	577.6	*	30.	360. AG	263.	100.0	0.0	48.0	0.28	1.5
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1777.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2119.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	391.3	476.0	*	61.	270. AG	205.	100.0	0.0	48.0	0.56	3.1
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1352.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1204.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	582.2	524.0	*	46.	90. AG	205.	100.0	0.0	48.0	0.42	2.3

1

PAGE 2

JOB: Victory-Winnetka AltD Krausz Future PM RUN: 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
3. NBQ	*	60	32	3.0	1681	1600	45.96	3	3
6. SBQ	*	60	32	3.0	679	1600	45.96	3	3
9. EBQ	*	60	25	3.0	1777	1600	45.96	3	3
12. WBQ	*	60	25	3.0	1352	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka AltD Krausz Future PM RUN: 10

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
0.	*	7.0	7.1	8.4	8.4
10.	*	7.5	6.9	8.9	8.0
20.	*	7.5	6.9	8.9	7.8
30.	*	7.5	6.9	8.6	7.8
40.	*	7.4	6.9	8.6	7.8
50.	*	7.3	6.9	8.6	7.9
60.	*	7.4	6.9	8.9	8.1
70.	*	7.5	6.9	9.0	8.3
80.	*	7.7	6.9	9.1	8.2
90.	*	8.5	7.2	8.4	7.3
100.	*	9.4	8.0	7.8	6.9
110.	*	9.3	8.2	7.9	6.9
120.	*	8.9	8.0	8.0	6.9
130.	*	8.4	8.0	7.9	6.9
140.	*	8.5	7.9	8.0	6.9
150.	*	8.7	8.0	8.0	6.9
160.	*	9.0	8.1	7.8	6.9
170.	*	8.8	8.2	7.7	6.9
180.	*	8.2	9.0	7.1	7.3

190.	*	7.9	9.9	6.9	8.4
200.	*	7.9	9.5	6.9	8.8
210.	*	7.7	9.0	6.9	8.7
220.	*	7.7	8.6	6.9	8.4
230.	*	7.7	8.6	6.9	8.2
240.	*	7.9	8.6	6.9	8.2
250.	*	8.0	8.8	6.9	8.1
260.	*	7.8	8.9	6.9	8.0
270.	*	7.1	8.1	7.3	8.6
280.	*	6.9	7.5	8.1	9.5
290.	*	6.9	7.3	8.1	9.5
300.	*	6.9	7.4	8.0	9.1
310.	*	6.9	7.5	8.1	8.6
320.	*	6.9	7.5	8.0	8.6
330.	*	6.9	7.6	8.1	8.8
340.	*	6.9	7.7	8.2	8.7
350.	*	6.9	7.6	8.0	8.8
360.	*	7.0	7.1	8.4	8.4
-----*					
MAX	*	9.4	9.9	9.1	9.5
DEGR.	*	100	190	80	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltD Krausz Future PM RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	80	280
-----*					
1	*	0.0	0.9	0.3	0.4
2	*	0.2	0.0	0.0	0.0
3	*	0.0	0.6	0.2	0.5
4	*	0.2	0.0	0.0	0.0
5	*	0.0	0.3	0.2	0.2
6	*	0.7	0.0	0.0	0.0
7	*	0.0	0.0	0.1	1.0
8	*	0.5	0.4	1.1	0.0
9	*	0.0	0.0	0.0	0.2
10	*	0.7	0.3	0.3	0.0
11	*	0.0	0.0	0.0	0.3
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT13ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka Alta Buildout Future PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1667.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1151.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	311.1	*	141.	180. AG	197.	100.0	0.0	36.0	0.91	7.2
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	714.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1058.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	579.2	*	31.	360. AG	263.	100.0	0.0	48.0	0.29	1.6
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1786.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2117.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	391.0	476.0	*	61.	270. AG	205.	100.0	0.0	48.0	0.56	3.1
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1361.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1202.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	582.5	524.0	*	46.	90. AG	205.	100.0	0.0	48.0	0.43	2.4

1

PAGE 2

JOB: Victory-Winnetka Alta Buildout Future PM RUN: 5

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
3. NBQ	*	60	32	3.0	1667	1600	45.96	3	3
6. SBQ	*	60	32	3.0	714	1600	45.96	3	3
9. EBQ	*	60	25	3.0	1786	1600	45.96	3	3
12. WBQ	*	60	25	3.0	1361	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka Alta Buildout Future PM RUN: 5

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
0.	*	7.1	7.1	8.4	8.4
10.	*	7.5	6.9	8.9	8.0
20.	*	7.6	6.9	9.0	7.8
30.	*	7.5	6.9	8.6	7.8
40.	*	7.4	6.9	8.6	7.8
50.	*	7.3	6.9	8.6	7.9
60.	*	7.4	6.9	8.9	8.1
70.	*	7.5	6.9	9.1	8.3
80.	*	7.8	6.9	9.2	8.2
90.	*	8.5	7.2	8.4	7.3
100.	*	9.4	8.0	7.9	6.9
110.	*	9.3	8.2	7.9	6.9
120.	*	8.9	8.0	7.9	6.9
130.	*	8.4	8.0	7.9	6.9
140.	*	8.5	7.9	8.0	6.9
150.	*	8.7	8.0	7.9	6.9
160.	*	9.0	8.1	7.9	6.9
170.	*	8.8	8.2	7.7	6.9
180.	*	8.2	9.0	7.1	7.3

190.	*	7.9	9.9	6.9	8.3
200.	*	7.9	9.5	6.9	8.7
210.	*	7.7	9.0	6.9	8.6
220.	*	7.7	8.6	6.9	8.5
230.	*	7.7	8.6	6.9	8.2
240.	*	7.9	8.6	6.9	8.2
250.	*	8.0	8.8	6.9	8.1
260.	*	7.8	8.8	6.9	8.0
270.	*	7.1	8.2	7.3	8.6
280.	*	6.9	7.5	8.1	9.5
290.	*	6.9	7.3	8.1	9.5
300.	*	6.9	7.4	8.0	9.1
310.	*	6.9	7.5	8.1	8.6
320.	*	6.9	7.5	8.0	8.6
330.	*	6.9	7.6	8.1	8.8
340.	*	6.9	7.7	8.2	8.7
350.	*	6.9	7.7	8.0	8.8
360.	*	7.1	7.1	8.4	8.4

MAX	*	9.4	9.9	9.2	9.5
DEGR.	*	100	190	80	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka Alta Buildout Future PM

RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	80	280

1	*	0.0	0.9	0.3	0.4
2	*	0.2	0.0	0.0	0.0
3	*	0.0	0.6	0.2	0.5
4	*	0.2	0.0	0.0	0.0
5	*	0.0	0.3	0.3	0.2
6	*	0.7	0.0	0.0	0.0
7	*	0.0	0.0	0.1	1.0
8	*	0.5	0.4	1.1	0.0
9	*	0.0	0.0	0.0	0.2
10	*	0.7	0.3	0.3	0.0
11	*	0.0	0.0	0.0	0.3
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT13BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltB Buildout Future PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1749.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1205.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	277.4	*	175.	180. AG	197.	100.0	0.0	36.0	0.95	8.9
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	680.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1006.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	577.8	*	30.	360. AG	263.	100.0	0.0	48.0	0.28	1.5
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1777.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2131.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	391.3	476.0	*	61.	270. AG	205.	100.0	0.0	48.0	0.56	3.1
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1352.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1216.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	582.2	524.0	*	46.	90. AG	205.	100.0	0.0	48.0	0.42	2.3

1

PAGE 2

JOB: Victory-Winnetka AltB Buildout Future PM RUN: 7

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
3. NBQ	*	60	32	3.0	1749	1600	45.96	3	3
6. SBQ	*	60	32	3.0	680	1600	45.96	3	3
9. EBQ	*	60	25	3.0	1777	1600	45.96	3	3
12. WBQ	*	60	25	3.0	1352	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka AltB Buildout Future PM RUN: 7

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
0.	*	7.0	7.2	8.4	8.5
10.	*	7.5	6.9	8.9	8.0
20.	*	7.6	6.9	8.9	7.8
30.	*	7.5	6.9	8.6	7.8
40.	*	7.4	6.9	8.7	7.8
50.	*	7.3	6.9	8.6	7.9
60.	*	7.4	6.9	8.9	8.1
70.	*	7.5	6.9	9.1	8.3
80.	*	7.7	6.9	9.1	8.2
90.	*	8.5	7.2	8.4	7.3
100.	*	9.4	8.0	7.8	6.9
110.	*	9.4	8.2	8.0	6.9
120.	*	8.9	8.0	8.0	6.9
130.	*	8.4	8.0	8.0	6.9
140.	*	8.6	7.9	8.0	6.9
150.	*	8.8	8.0	8.1	6.9
160.	*	9.1	8.1	7.9	6.9
170.	*	8.8	8.2	7.7	6.9
180.	*	8.2	9.0	7.1	7.4

190.	*	7.9	10.0	6.9	8.5
200.	*	7.9	9.6	6.9	8.9
210.	*	7.7	9.0	6.9	8.7
220.	*	7.7	8.6	6.9	8.4
230.	*	7.7	8.6	6.9	8.3
240.	*	7.9	8.6	6.9	8.2
250.	*	8.0	8.8	6.9	8.2
260.	*	7.8	8.9	6.9	8.1
270.	*	7.1	8.1	7.3	8.6
280.	*	6.9	7.5	8.1	9.6
290.	*	6.9	7.3	8.1	9.6
300.	*	6.9	7.4	8.0	9.1
310.	*	6.9	7.5	8.1	8.6
320.	*	6.9	7.5	8.0	8.6
330.	*	6.9	7.6	8.1	8.8
340.	*	6.9	7.7	8.2	8.7
350.	*	6.9	7.7	8.0	9.0
360.	*	7.0	7.2	8.4	8.5
-----*					
MAX	*	9.4	10.0	9.1	9.6
DEGR.	*	100	190	70	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltB Buildout Future PM RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	70	280
-----*					
1	*	0.0	1.0	0.3	0.5
2	*	0.2	0.0	0.0	0.0
3	*	0.0	0.6	0.1	0.5
4	*	0.2	0.0	0.0	0.0
5	*	0.0	0.3	0.3	0.2
6	*	0.7	0.0	0.0	0.0
7	*	0.0	0.0	0.3	1.0
8	*	0.5	0.4	0.8	0.0
9	*	0.0	0.0	0.0	0.2
10	*	0.7	0.3	0.4	0.0
11	*	0.0	0.0	0.0	0.3
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT13CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltC Buildout Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1656.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1144.	9.3	0.0	44.0		
3. NBQ	*	518.0	452.0	518.0	287.5	*	165.	180. AG	203.	100.0	0.0	36.0	0.94	8.4
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	713.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1057.	9.3	0.0	44.0		
6. SBQ	*	476.0	548.0	476.0	580.1	*	32.	360. AG	271.	100.0	0.0	48.0	0.30	1.6
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1786.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2115.	9.3	0.0	56.0		
9. EBQ	*	452.0	476.0	393.5	476.0	*	59.	270. AG	197.	100.0	0.0	48.0	0.54	3.0
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1361.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1200.	9.3	0.0	56.0		
12. WBQ	*	536.0	524.0	580.6	524.0	*	45.	90. AG	197.	100.0	0.0	48.0	0.41	2.3

1

PAGE 2

JOB: Victory-Winnetka AltC Buildout Future PM RUN: 9

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
3. NBQ	*	60	33	3.0	1656	1600	45.96	3	3
6. SBQ	*	60	33	3.0	713	1600	45.96	3	3
9. EBQ	*	60	24	3.0	1786	1600	45.96	3	3
12. WBQ	*	60	24	3.0	1361	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Victory-Winnetka AltC Buildout Future PM RUN: 9

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
0.	*	7.1	7.1	8.3	8.4
10.	*	7.5	6.9	8.9	8.0
20.	*	7.6	6.9	9.0	7.8
30.	*	7.5	6.9	8.6	7.8
40.	*	7.4	6.9	8.6	7.8
50.	*	7.3	6.9	8.6	7.9
60.	*	7.4	6.9	8.9	8.1
70.	*	7.6	6.9	9.1	8.3
80.	*	7.8	6.9	9.3	8.2
90.	*	8.5	7.2	8.4	7.3
100.	*	9.4	8.0	7.9	6.9
110.	*	9.3	8.2	7.9	6.9
120.	*	8.8	8.0	7.9	6.9
130.	*	8.4	8.0	7.9	6.9
140.	*	8.5	7.9	8.0	6.9
150.	*	8.7	8.0	8.1	6.9
160.	*	9.0	8.1	7.9	6.9
170.	*	8.8	8.1	7.7	6.9
180.	*	8.2	8.9	7.1	7.4

190.	*	7.9	9.9	6.9	8.5
200.	*	7.9	9.5	6.9	8.9
210.	*	7.7	9.0	6.9	8.7
220.	*	7.7	8.6	6.9	8.5
230.	*	7.7	8.6	6.9	8.3
240.	*	7.9	8.5	6.9	8.2
250.	*	8.0	8.8	6.9	8.1
260.	*	7.8	8.8	6.9	8.0
270.	*	7.1	8.2	7.3	8.7
280.	*	6.9	7.5	8.1	9.5
290.	*	6.9	7.4	8.1	9.6
300.	*	6.9	7.4	8.0	9.1
310.	*	6.9	7.5	8.0	8.6
320.	*	6.9	7.5	8.0	8.6
330.	*	6.9	7.6	8.1	8.8
340.	*	6.9	7.7	8.1	8.7
350.	*	6.9	7.7	8.0	8.8
360.	*	7.1	7.1	8.3	8.4
-----*					
MAX	*	9.4	9.9	9.3	9.6
DEGR.	*	100	190	80	290

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltC Buildout Future PM

RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	80	290
-----*					
1	*	0.0	0.9	0.3	0.4
2	*	0.2	0.0	0.0	0.0
3	*	0.0	0.6	0.3	0.5
4	*	0.2	0.0	0.0	0.0
5	*	0.0	0.3	0.3	0.2
6	*	0.7	0.0	0.0	0.0
7	*	0.0	0.0	0.1	0.7
8	*	0.5	0.4	1.1	0.2
9	*	0.0	0.0	0.0	0.3
10	*	0.7	0.3	0.3	0.0
11	*	0.0	0.0	0.0	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT13DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Victory-Winnetka AltD Buildout Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)
		X1	Y1	X2	Y2								
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1711.	9.3	0.0	56.0	
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1181.	9.3	0.0	44.0	
3. NBQ	*	518.0	452.0	518.0	294.7	*	157.	180. AG	197.	100.0	0.0	36.0	0.93 8.0
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	683.	9.3	0.0	68.0	
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1011.	9.3	0.0	44.0	
6. SBQ	*	476.0	548.0	476.0	577.8	*	30.	360. AG	263.	100.0	0.0	48.0	0.28 1.5
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1778.	9.3	0.0	68.0	
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2124.	9.3	0.0	56.0	
9. EBQ	*	452.0	476.0	391.3	476.0	*	61.	270. AG	205.	100.0	0.0	48.0	0.56 3.1
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1353.	9.3	0.0	68.0	
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1209.	9.3	0.0	56.0	
12. WBQ	*	536.0	524.0	582.2	524.0	*	46.	90. AG	205.	100.0	0.0	48.0	0.42 2.3

1

PAGE 2

JOB: Victory-Winnetka AltD Buildout Future PM RUN: 11

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
3. NBQ	*	60	32	3.0	1711	1600	45.96	3	3
6. SBQ	*	60	32	3.0	683	1600	45.96	3	3
9. EBQ	*	60	25	3.0	1778	1600	45.96	3	3
12. WBQ	*	60	25	3.0	1353	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	568.0	5.4	*
2. NE	*	556.0	568.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	556.0	432.0	5.4	*

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PAGE 3

JOB: Victory-Winnetka AltD Buildout Future PM RUN: 11

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
0.	*	7.0	7.2	8.4	8.4
10.	*	7.5	6.9	8.9	8.0
20.	*	7.5	6.9	8.9	7.8
30.	*	7.5	6.9	8.6	7.8
40.	*	7.4	6.9	8.7	7.8
50.	*	7.3	6.9	8.6	7.9
60.	*	7.4	6.9	8.9	8.1
70.	*	7.5	6.9	9.1	8.3
80.	*	7.7	6.9	9.1	8.2
90.	*	8.5	7.2	8.4	7.3
100.	*	9.4	8.0	7.8	6.9
110.	*	9.3	8.2	7.9	6.9
120.	*	8.9	8.0	8.0	6.9
130.	*	8.4	8.0	7.9	6.9
140.	*	8.5	7.9	8.0	6.9
150.	*	8.8	8.0	8.0	6.9
160.	*	9.0	8.1	7.8	6.9
170.	*	8.8	8.2	7.7	6.9
180.	*	8.2	9.0	7.1	7.3

190.	*	7.9	10.0	6.9	8.4
200.	*	7.9	9.6	6.9	8.8
210.	*	7.7	9.0	6.9	8.7
220.	*	7.7	8.6	6.9	8.4
230.	*	7.7	8.6	6.9	8.2
240.	*	7.9	8.6	6.9	8.2
250.	*	8.0	8.8	6.9	8.2
260.	*	7.8	8.9	6.9	8.0
270.	*	7.1	8.1	7.3	8.6
280.	*	6.9	7.5	8.1	9.5
290.	*	6.9	7.3	8.1	9.6
300.	*	6.9	7.4	8.0	9.1
310.	*	6.9	7.5	8.1	8.6
320.	*	6.9	7.5	8.0	8.6
330.	*	6.9	7.6	8.1	8.8
340.	*	6.9	7.7	8.2	8.7
350.	*	6.9	7.6	8.0	8.9
360.	*	7.0	7.2	8.4	8.4
-----*					
MAX	*	9.4	10.0	9.1	9.6
DEGR.	*	100	190	70	290

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Victory-Winnetka AltD Buildout Future PM RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	70	290
-----*					
1	*	0.0	1.0	0.3	0.5
2	*	0.2	0.0	0.0	0.0
3	*	0.0	0.6	0.1	0.4
4	*	0.2	0.0	0.0	0.0
5	*	0.0	0.3	0.3	0.2
6	*	0.7	0.0	0.0	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.5	0.4	0.8	0.2
9	*	0.0	0.0	0.0	0.3
10	*	0.7	0.3	0.4	0.0
11	*	0.0	0.0	0.0	0.4
12	*	0.2	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lacoex.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Lassen Corbin Existing

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	655.	12.2	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	562.	12.2	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	428.3	*	36.	180. AG	244.	100.0	0.0	48.0	0.33	1.8
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1698.	12.2	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1879.	12.2	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	663.0	*	115.	360. AG	244.	100.0	0.0	36.0	0.85	5.8
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1154.	12.2	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1083.	12.2	0.0	44.0		
9. ebq	*	464.0	482.0	407.3	482.0	*	57.	270. AG	219.	100.0	0.0	36.0	0.51	2.9
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1380.	12.2	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1363.	12.2	0.0	44.0		
12. wbq	*	548.0	518.0	599.0	518.0	*	51.	90. AG	292.	100.0	0.0	36.0	0.46	2.6

1

PAGE 2

JOB: Klausz Properties

RUN: Lassen Corbin Existing

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
3. nbq	*	60	30	3.0	655	1600	60.55	3	3
6. sbq	*	60	30	3.0	1698	1600	60.55	3	3
9. ebq	*	60	27	3.0	1154	1600	60.55	3	3
12. wbq	*	60	27	3.0	1380	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Lassen Corbin Existing

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
0.	*	9.3	8.8	11.0	10.4
10.	*	10.4	8.7	12.1	10.1
20.	*	10.8	8.7	11.8	9.9
30.	*	10.7	8.7	11.0	9.6
40.	*	10.5	8.7	10.6	9.5
50.	*	10.4	8.7	10.8	9.7
60.	*	10.2	8.7	11.0	9.8
70.	*	10.2	8.7	11.2	10.0
80.	*	10.1	8.7	11.4	9.9
90.	*	10.8	9.2	10.6	9.1
100.	*	11.7	10.1	9.8	8.7
110.	*	11.3	10.2	9.6	8.7
120.	*	10.7	10.0	9.6	8.7
130.	*	10.7	10.0	9.7	8.7
140.	*	11.0	10.1	9.8	8.7
150.	*	11.1	10.2	9.9	8.7
160.	*	11.3	10.3	10.2	8.7
170.	*	11.6	10.3	10.3	8.7
180.	*	10.6	10.6	9.2	8.9

190.	*	9.9	11.6	8.7	9.6
200.	*	9.9	11.6	8.7	9.8
210.	*	9.7	11.0	8.7	9.6
220.	*	9.6	10.5	8.7	9.6
230.	*	9.7	10.8	8.7	9.6
240.	*	9.8	10.9	8.7	9.6
250.	*	10.1	10.9	8.7	9.7
260.	*	10.1	11.1	8.7	10.0
270.	*	9.2	10.3	9.2	10.8
280.	*	8.7	9.8	10.0	11.6
290.	*	8.7	9.9	10.1	11.5
300.	*	8.7	9.9	9.9	10.8
310.	*	8.7	9.9	9.9	10.4
320.	*	8.7	9.7	10.1	10.7
330.	*	8.7	9.7	10.1	10.9
340.	*	8.7	9.7	10.1	11.1
350.	*	8.7	9.5	10.2	11.0
360.	*	9.3	8.8	11.0	10.4
-----*					
MAX	*	11.7	11.6	12.1	11.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 12.10 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Lassen Corbin Existing

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

LINK #	*	CO/LINK (PPM)			
		REC1	REC2	REC3	REC4
	*	100	200	10	280
-----*					
1	*	0.0	0.3	0.0	0.2
2	*	0.1	0.0	0.2	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.6	0.0	1.3	0.0
5	*	0.0	0.8	0.0	0.5
6	*	0.4	0.0	0.6	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	1.1	0.5	0.0	0.0
11	*	0.0	0.0	0.3	0.5
12	*	0.4	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lacopre.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Lassen Corbin Pre Project

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	768.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	671.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	424.8	*	39.	180. AG	173.	100.0	0.0	48.0	0.36	2.0
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2000.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2172.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	707.1	*	159.	360. AG	173.	100.0	0.0	36.0	0.93	8.1
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1224.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1161.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	399.3	482.0	*	65.	270. AG	179.	100.0	0.0	36.0	0.59	3.3
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1464.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1452.	9.3	0.0	44.0		
12. wbq	*	548.0	518.0	606.1	518.0	*	58.	90. AG	238.	100.0	0.0	36.0	0.53	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Lassen Corbin Pre Project

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
3. nbq	*	60	28	3.0	768	1600	45.96	3	3
6. sbq	*	60	28	3.0	2000	1600	45.96	3	3
9. ebq	*	60	29	3.0	1224	1600	45.96	3	3
12. wbq	*	60	29	3.0	1464	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Lassen Corbin Pre Project

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
0.	*	7.4	7.0	8.8	8.2
10.	*	8.5	6.9	10.0	8.0
20.	*	8.9	6.9	9.5	7.9
30.	*	8.6	6.9	8.9	7.7
40.	*	8.4	6.9	8.5	7.6
50.	*	8.2	6.9	8.7	7.7
60.	*	8.1	6.9	8.8	7.8
70.	*	8.0	6.9	9.2	8.0
80.	*	8.0	6.9	9.3	7.9
90.	*	8.7	7.3	8.4	7.2
100.	*	9.3	8.1	7.9	6.9
110.	*	9.1	8.1	7.8	6.9
120.	*	8.7	8.0	7.7	6.9
130.	*	8.8	8.0	7.8	6.9
140.	*	8.7	8.2	7.8	6.9
150.	*	8.9	8.2	8.0	6.9
160.	*	9.2	8.2	8.3	6.9
170.	*	9.3	8.1	8.3	6.9
180.	*	8.6	8.5	7.4	7.1

190.	*	7.9	9.1	6.9	7.7
200.	*	8.0	9.2	6.9	7.9
210.	*	7.8	8.9	6.9	7.8
220.	*	7.8	8.4	6.9	7.7
230.	*	7.7	8.5	6.9	7.6
240.	*	7.9	8.8	6.9	7.7
250.	*	8.0	8.9	6.9	7.8
260.	*	8.0	8.9	6.9	7.9
270.	*	7.2	8.3	7.2	8.6
280.	*	6.9	7.8	7.9	9.3
290.	*	6.9	7.8	8.0	9.1
300.	*	6.9	7.8	8.0	8.7
310.	*	6.9	7.9	8.0	8.5
320.	*	6.9	8.0	8.1	8.6
330.	*	6.9	7.8	8.1	8.7
340.	*	6.9	7.9	8.0	8.9
350.	*	6.9	7.6	8.0	8.8
360.	*	7.4	7.0	8.8	8.2
-----*					
MAX	*	9.3	9.2	10.0	9.3
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Lassen Corbin Pre Project

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.3	0.0	0.2
2	*	0.1	0.0	0.2	0.0
3	*	0.0	0.2	0.0	0.4
4	*	0.5	0.0	1.2	0.0
5	*	0.0	0.7	0.0	0.4
6	*	0.3	0.0	0.6	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.3	0.2	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lacofoa.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	776.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	678.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	424.5	*	40.	180. AG	173.	100.0	0.0	48.0	0.36	2.0
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1982.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2151.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	700.8	*	153.	360. AG	173.	100.0	0.0	36.0	0.92	7.8
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1224.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1162.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	399.3	482.0	*	65.	270. AG	179.	100.0	0.0	36.0	0.59	3.3
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1461.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1452.	9.3	0.0	44.0		
12. wbq	*	548.0	518.0	605.9	518.0	*	58.	90. AG	238.	100.0	0.0	36.0	0.53	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative A

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
3. nbq	*	60	28	3.0	776	1600	45.96	3	3
6. sbq	*	60	28	3.0	1982	1600	45.96	3	3
9. ebq	*	60	29	3.0	1224	1600	45.96	3	3
12. wbq	*	60	29	3.0	1461	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative A

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
0.	*	7.4	7.0	8.8	8.2
10.	*	8.5	6.9	9.9	8.0
20.	*	8.8	6.9	9.5	7.9
30.	*	8.6	6.9	8.9	7.7
40.	*	8.4	6.9	8.6	7.6
50.	*	8.2	6.9	8.7	7.7
60.	*	8.1	6.9	8.8	7.8
70.	*	8.0	6.9	9.2	8.0
80.	*	8.0	6.9	9.2	7.9
90.	*	8.6	7.3	8.4	7.2
100.	*	9.4	8.1	7.8	6.9
110.	*	9.1	8.1	7.8	6.9
120.	*	8.7	8.0	7.7	6.9
130.	*	8.8	8.0	7.8	6.9
140.	*	8.7	8.2	7.8	6.9
150.	*	8.9	8.2	8.0	6.9
160.	*	9.2	8.2	8.2	6.9
170.	*	9.3	8.1	8.3	6.9
180.	*	8.6	8.5	7.4	7.1

190.	*	7.9	9.1	6.9	7.7
200.	*	8.0	9.2	6.9	7.9
210.	*	7.8	8.9	6.9	7.8
220.	*	7.8	8.4	6.9	7.7
230.	*	7.7	8.5	6.9	7.6
240.	*	7.9	8.8	6.9	7.7
250.	*	8.0	8.9	6.9	7.8
260.	*	8.0	8.9	6.9	7.9
270.	*	7.2	8.3	7.2	8.6
280.	*	6.9	7.8	7.9	9.3
290.	*	6.9	7.8	8.0	9.1
300.	*	6.9	7.8	8.0	8.7
310.	*	6.9	7.9	8.0	8.5
320.	*	6.9	8.0	8.1	8.5
330.	*	6.9	7.8	8.1	8.7
340.	*	6.9	7.8	8.0	8.9
350.	*	6.9	7.6	8.0	8.9
360.	*	7.4	7.0	8.8	8.2
-----*					
MAX	*	9.4	9.2	9.9	9.3
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 10 DEGREES FROM REC3 .

1

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative A

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.3	0.0	0.2
2	*	0.1	0.0	0.2	0.0
3	*	0.0	0.2	0.0	0.4
4	*	0.5	0.0	1.2	0.0
5	*	0.0	0.7	0.0	0.4
6	*	0.3	0.0	0.5	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lacoEb.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	781.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	682.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	424.2	*	40.	180. AG	173.	100.0	0.0	48.0	0.36	2.0
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2087.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2272.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	745.3	*	197.	360. AG	173.	100.0	0.0	36.0	0.97	10.0
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1224.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1163.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	399.3	482.0	*	65.	270. AG	179.	100.0	0.0	36.0	0.59	3.3
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1477.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1452.	9.3	0.0	44.0		
12. wbq	*	548.0	518.0	606.5	518.0	*	59.	90. AG	238.	100.0	0.0	36.0	0.53	3.0

1

PAGE 2

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative B

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
3. nbq	*	60	28	3.0	781	1600	45.96	3	3
6. sbq	*	60	28	3.0	2087	1600	45.96	3	3
9. ebq	*	60	29	3.0	1224	1600	45.96	3	3
12. wbq	*	60	29	3.0	1477	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative B

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
0.	*	7.5	7.0	8.8	8.2
10.	*	8.8	6.9	10.0	8.0
20.	*	9.0	6.9	9.5	7.9
30.	*	8.7	6.9	9.0	7.7
40.	*	8.4	6.9	8.6	7.6
50.	*	8.3	6.9	8.8	7.7
60.	*	8.1	6.9	8.8	7.8
70.	*	8.1	6.9	9.2	8.0
80.	*	8.0	6.9	9.3	7.9
90.	*	8.7	7.3	8.4	7.2
100.	*	9.4	8.1	7.9	6.9
110.	*	9.2	8.1	7.8	6.9
120.	*	8.7	8.0	7.8	6.9
130.	*	8.8	8.1	7.8	6.9
140.	*	8.7	8.2	7.9	6.9
150.	*	8.9	8.2	8.0	6.9
160.	*	9.2	8.2	8.3	6.9
170.	*	9.4	8.1	8.3	6.9
180.	*	8.6	8.5	7.4	7.1

190.	*	7.9	9.1	6.9	7.7
200.	*	8.0	9.2	6.9	8.0
210.	*	7.8	8.9	6.9	7.8
220.	*	7.8	8.4	6.9	7.7
230.	*	7.7	8.5	6.9	7.7
240.	*	7.9	8.9	6.9	7.7
250.	*	8.0	8.9	6.9	7.8
260.	*	8.0	8.9	6.9	7.9
270.	*	7.2	8.3	7.2	8.6
280.	*	6.9	7.8	7.9	9.3
290.	*	6.9	7.8	8.0	9.1
300.	*	6.9	7.8	8.0	8.7
310.	*	6.9	7.9	8.0	8.5
320.	*	6.9	8.0	8.1	8.6
330.	*	6.9	8.2	8.1	8.8
340.	*	6.9	8.0	8.0	9.1
350.	*	6.9	7.6	8.0	8.9
360.	*	7.5	7.0	8.8	8.2
-----*					
MAX	*	9.4	9.2	10.0	9.3
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.3	0.0	0.2
2	*	0.1	0.0	0.2	0.0
3	*	0.0	0.2	0.0	0.4
4	*	0.5	0.0	1.2	0.0
5	*	0.0	0.7	0.0	0.4
6	*	0.3	0.0	0.6	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lacoFc.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	788.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	688.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	423.9	*	40.	180. AG	173.	100.0	0.0	48.0	0.36 2.0	
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1981.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2150.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	700.8	*	153.	360. AG	173.	100.0	0.0	36.0	0.92 7.8	
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1224.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1164.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	399.3	482.0	*	65.	270. AG	179.	100.0	0.0	36.0	0.59 3.3	
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1461.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1452.	9.3	0.0	44.0		
12. wbq	*	548.0	518.0	605.9	518.0	*	58.	90. AG	238.	100.0	0.0	36.0	0.53 2.9	

1

PAGE 2

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative C

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
3. nbq	*	60	28	3.0	788	1600	45.96	3	3
6. sbq	*	60	28	3.0	1981	1600	45.96	3	3
9. ebq	*	60	29	3.0	1224	1600	45.96	3	3
12. wbq	*	60	29	3.0	1461	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative C

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
0.	*	7.4	7.0	8.8	8.2
10.	*	8.5	6.9	9.9	8.0
20.	*	8.8	6.9	9.5	7.9
30.	*	8.6	6.9	8.9	7.7
40.	*	8.4	6.9	8.6	7.6
50.	*	8.2	6.9	8.7	7.7
60.	*	8.1	6.9	8.8	7.8
70.	*	8.0	6.9	9.2	8.0
80.	*	8.0	6.9	9.2	7.9
90.	*	8.6	7.3	8.4	7.2
100.	*	9.4	8.1	7.9	6.9
110.	*	9.1	8.1	7.8	6.9
120.	*	8.7	8.0	7.7	6.9
130.	*	8.8	8.0	7.8	6.9
140.	*	8.7	8.2	7.8	6.9
150.	*	8.9	8.2	8.0	6.9
160.	*	9.2	8.2	8.2	6.9
170.	*	9.3	8.1	8.3	6.9
180.	*	8.6	8.5	7.4	7.1

190.	*	7.9	9.1	6.9	7.7
200.	*	8.0	9.2	6.9	7.9
210.	*	7.8	8.9	6.9	7.8
220.	*	7.8	8.4	6.9	7.7
230.	*	7.7	8.5	6.9	7.6
240.	*	7.9	8.8	6.9	7.7
250.	*	8.0	8.9	6.9	7.8
260.	*	8.0	8.9	6.9	7.9
270.	*	7.2	8.3	7.2	8.6
280.	*	6.9	7.8	7.9	9.3
290.	*	6.9	7.8	8.0	9.1
300.	*	6.9	7.8	8.0	8.7
310.	*	6.9	7.9	8.0	8.5
320.	*	6.9	8.0	8.1	8.5
330.	*	6.9	7.9	8.1	8.7
340.	*	6.9	7.8	8.0	8.9
350.	*	6.9	7.6	8.0	8.9
360.	*	7.4	7.0	8.8	8.2
-----*					
MAX	*	9.4	9.2	9.9	9.3
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.3	0.0	0.2
2	*	0.1	0.0	0.2	0.0
3	*	0.0	0.2	0.0	0.4
4	*	0.5	0.0	1.2	0.0
5	*	0.0	0.7	0.0	0.4
6	*	0.3	0.0	0.5	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lacoofd.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	790.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	690.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	423.7	*	40.	180. AG	173.	100.0	0.0	48.0	0.37	2.0
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2063.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2245.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	733.3	*	185.	360. AG	173.	100.0	0.0	36.0	0.96	9.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1224.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1164.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	399.3	482.0	*	65.	270. AG	179.	100.0	0.0	36.0	0.59	3.3
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1474.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1452.	9.3	0.0	44.0		
12. wbq	*	548.0	518.0	606.4	518.0	*	58.	90. AG	238.	100.0	0.0	36.0	0.53	3.0

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PAGE 2

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative D

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
3. nbq	*	60	28	3.0	790	1600	45.96	3	3
6. sbq	*	60	28	3.0	2063	1600	45.96	3	3
9. ebq	*	60	29	3.0	1224	1600	45.96	3	3
12. wbq	*	60	29	3.0	1474	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative D

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
0.	*	7.5	7.0	8.8	8.2
10.	*	8.6	6.9	10.0	8.0
20.	*	8.9	6.9	9.5	7.9
30.	*	8.7	6.9	8.9	7.7
40.	*	8.4	6.9	8.6	7.6
50.	*	8.2	6.9	8.8	7.7
60.	*	8.1	6.9	8.8	7.8
70.	*	8.0	6.9	9.2	8.0
80.	*	8.0	6.9	9.3	7.9
90.	*	8.7	7.3	8.4	7.2
100.	*	9.4	8.1	8.0	6.9
110.	*	9.1	8.1	7.8	6.9
120.	*	8.7	8.0	7.8	6.9
130.	*	8.8	8.0	7.8	6.9
140.	*	8.7	8.2	7.9	6.9
150.	*	8.9	8.2	8.0	6.9
160.	*	9.2	8.2	8.3	6.9
170.	*	9.4	8.1	8.3	6.9
180.	*	8.6	8.5	7.4	7.1

190.	*	7.9	9.1	6.9	7.7
200.	*	8.0	9.2	6.9	8.0
210.	*	7.8	8.9	6.9	7.8
220.	*	7.8	8.4	6.9	7.7
230.	*	7.7	8.5	6.9	7.7
240.	*	7.9	8.9	6.9	7.7
250.	*	8.0	8.9	6.9	7.8
260.	*	8.0	8.9	6.9	7.9
270.	*	7.2	8.3	7.2	8.6
280.	*	6.9	7.8	7.9	9.3
290.	*	6.9	7.8	8.0	9.1
300.	*	6.9	7.8	8.0	8.7
310.	*	6.9	7.9	8.0	8.5
320.	*	6.9	8.0	8.1	8.6
330.	*	6.9	8.1	8.1	8.8
340.	*	6.9	7.9	8.0	9.1
350.	*	6.9	7.6	8.0	8.9
360.	*	7.5	7.0	8.8	8.2
-----*					
MAX	*	9.4	9.2	10.0	9.3
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Lassen Corbin Future Alternative D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.3	0.0	0.2
2	*	0.1	0.0	0.2	0.0
3	*	0.0	0.2	0.0	0.4
4	*	0.5	0.0	1.2	0.0
5	*	0.0	0.7	0.0	0.4
6	*	0.3	0.0	0.6	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lacoba.DAT

RUN BEGIN ON 08/21/02 AT 09:16

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	776.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	678.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	424.5	*	40.	180. AG	173.	100.0	0.0	48.0	0.36	2.0
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1969.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2136.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	696.8	*	149.	360. AG	173.	100.0	0.0	36.0	0.91	7.6
7. eba	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1224.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1162.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	399.3	482.0	*	65.	270. AG	179.	100.0	0.0	36.0	0.59	3.3
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1459.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1452.	9.3	0.0	44.0		
12. wbq	*	548.0	518.0	605.7	518.0	*	58.	90. AG	238.	100.0	0.0	36.0	0.53	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt A

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
6. sbq	*	60	28	3.0	1969	1600	45.96	3	3
9. ebq	*	60	29	3.0	1224	1600	45.96	3	3
12. wbq	*	60	29	3.0	1459	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt A

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
0.	7.4	7.0	8.8	8.2
10.	8.5	6.9	9.8	8.0
20.	8.7	6.9	9.5	7.9
30.	8.6	6.9	8.9	7.7
40.	8.4	6.9	8.6	7.6
50.	8.2	6.9	8.7	7.7
60.	8.1	6.9	8.8	7.8
70.	8.0	6.9	9.2	8.0
80.	8.0	6.9	9.2	7.9
90.	8.6	7.3	8.4	7.2
100.	9.3	8.1	7.8	6.9
110.	9.1	8.1	7.8	6.9
120.	8.7	7.9	7.7	6.9
130.	8.7	8.0	7.8	6.9
140.	8.7	8.1	7.8	6.9
150.	8.9	8.2	8.0	6.9
160.	9.2	8.2	8.2	6.9
170.	9.3	8.1	8.3	6.9
180.	8.6	8.5	7.4	7.1

190.	*	7.9	9.1	6.9	7.7
200.	*	8.0	9.2	6.9	7.9
210.	*	7.8	8.9	6.9	7.8
220.	*	7.8	8.4	6.9	7.7
230.	*	7.7	8.5	6.9	7.6
240.	*	7.9	8.8	6.9	7.7
250.	*	8.0	8.9	6.9	7.8
260.	*	8.0	8.9	6.9	7.9
270.	*	7.2	8.3	7.2	8.6
280.	*	6.9	7.8	7.9	9.3
290.	*	6.9	7.8	8.0	9.1
300.	*	6.9	7.8	8.0	8.7
310.	*	6.9	7.9	8.0	8.5
320.	*	6.9	8.0	8.1	8.5
330.	*	6.9	7.8	8.1	8.7
340.	*	6.9	7.8	8.0	8.9
350.	*	6.9	7.6	8.0	8.9
360.	*	7.4	7.0	8.8	8.2
-----*					
MAX	*	9.3	9.2	9.8	9.3
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt A

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.3	0.0	0.2
2	*	0.1	0.0	0.2	0.0
3	*	0.0	0.2	0.0	0.4
4	*	0.5	0.0	1.1	0.0
5	*	0.0	0.7	0.0	0.4
6	*	0.3	0.0	0.5	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:16

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lacobb.DAT

RUN BEGIN ON 08/21/02 AT 09:16

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	784.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	685.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	424.1	*	40.	180. AG	173.	100.0	0.0	48.0	0.36	2.0
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2131.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2320.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	771.3	*	223.	360. AG	173.	100.0	0.0	36.0	0.99	11.3
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1226.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1165.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	399.3	482.0	*	65.	270. AG	179.	100.0	0.0	36.0	0.59	3.3
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1484.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1455.	9.3	0.0	44.0		
12. wbq	*	548.0	518.0	606.8	518.0	*	59.	90. AG	238.	100.0	0.0	36.0	0.54	3.0

1

PAGE 2

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt B

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
3. nbq	*	60	28	3.0	784	1600	45.96	3	3
6. sbq	*	60	28	3.0	2131	1600	45.96	3	3
9. ebq	*	60	29	3.0	1226	1600	45.96	3	3
12. wbq	*	60	29	3.0	1484	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt B

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
0.	*	7.6	7.0	8.9	8.2
10.	*	8.9	6.9	10.1	8.0
20.	*	9.0	6.9	9.5	7.9
30.	*	8.7	6.9	9.0	7.7
40.	*	8.5	6.9	8.6	7.6
50.	*	8.3	6.9	8.8	7.7
60.	*	8.1	6.9	9.0	7.8
70.	*	8.1	6.9	9.2	8.0
80.	*	8.1	6.9	9.3	7.9
90.	*	8.7	7.3	8.4	7.2
100.	*	9.5	8.1	8.0	6.9
110.	*	9.2	8.1	7.8	6.9
120.	*	8.7	8.0	7.8	6.9
130.	*	8.8	8.1	7.8	6.9
140.	*	8.7	8.2	7.9	6.9
150.	*	8.9	8.2	8.0	6.9
160.	*	9.2	8.2	8.3	6.9
170.	*	9.4	8.1	8.4	6.9
180.	*	8.6	8.5	7.4	7.1

190.	*	7.9	9.2	6.9	7.7
200.	*	8.0	9.2	6.9	8.0
210.	*	7.8	8.9	6.9	7.8
220.	*	7.8	8.4	6.9	7.7
230.	*	7.7	8.6	6.9	7.7
240.	*	7.9	8.9	6.9	7.7
250.	*	8.0	8.9	6.9	7.9
260.	*	8.0	8.9	6.9	7.9
270.	*	7.2	8.3	7.2	8.6
280.	*	6.9	7.8	7.9	9.3
290.	*	6.9	7.8	8.0	9.1
300.	*	6.9	7.8	8.0	8.7
310.	*	6.9	7.9	8.0	8.5
320.	*	6.9	8.0	8.1	8.6
330.	*	6.9	8.2	8.1	8.8
340.	*	6.9	8.0	8.0	9.1
350.	*	6.9	7.6	8.0	9.0
360.	*	7.6	7.0	8.9	8.2
-----*					
MAX	*	9.5	9.2	10.1	9.3
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.4	0.0	0.2
2	*	0.1	0.0	0.2	0.0
3	*	0.0	0.1	0.0	0.4
4	*	0.6	0.0	1.2	0.0
5	*	0.0	0.6	0.0	0.4
6	*	0.3	0.0	0.7	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:16

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lacobc.DAT

RUN BEGIN ON 08/21/02 AT 09:16

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	790.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	690.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	423.7	*	40.	180. AG	173.	100.0	0.0	48.0	0.37	2.0
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1967.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2134.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	695.9	*	148.	360. AG	173.	100.0	0.0	36.0	0.91	7.5
7. eba	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1224.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1164.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	399.3	482.0	*	65.	270. AG	179.	100.0	0.0	36.0	0.59	3.3
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1459.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1452.	9.3	0.0	44.0		
12. wbq	*	548.0	518.0	605.7	518.0	*	58.	90. AG	238.	100.0	0.0	36.0	0.53	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt C

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
6. sbq	*	60	28	3.0	1967	1600	45.96	3	3
9. ebq	*	60	29	3.0	1224	1600	45.96	3	3
12. wbq	*	60	29	3.0	1459	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt C

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
0.	7.4	7.0	8.7	8.2
10.	8.5	6.9	9.8	8.0
20.	8.7	6.9	9.5	7.9
30.	8.6	6.9	8.9	7.7
40.	8.4	6.9	8.6	7.6
50.	8.2	6.9	8.7	7.7
60.	8.1	6.9	8.8	7.8
70.	8.0	6.9	9.2	8.0
80.	8.0	6.9	9.2	7.9
90.	8.6	7.3	8.4	7.2
100.	9.3	8.1	7.9	6.9
110.	9.1	8.1	7.8	6.9
120.	8.7	7.9	7.7	6.9
130.	8.7	8.0	7.8	6.9
140.	8.7	8.1	7.8	6.9
150.	8.9	8.2	8.0	6.9
160.	9.2	8.2	8.2	6.9
170.	9.3	8.1	8.3	6.9
180.	8.6	8.5	7.4	7.1

190.	*	7.9	9.1	6.9	7.7
200.	*	8.0	9.2	6.9	7.9
210.	*	7.8	8.9	6.9	7.8
220.	*	7.8	8.4	6.9	7.7
230.	*	7.7	8.5	6.9	7.6
240.	*	7.9	8.8	6.9	7.7
250.	*	8.0	8.9	6.9	7.8
260.	*	8.0	8.9	6.9	7.9
270.	*	7.2	8.3	7.2	8.6
280.	*	6.9	7.8	7.9	9.3
290.	*	6.9	7.8	8.0	9.1
300.	*	6.9	7.8	8.0	8.7
310.	*	6.9	7.9	8.0	8.5
320.	*	6.9	8.0	8.1	8.5
330.	*	6.9	7.9	8.1	8.7
340.	*	6.9	7.8	8.0	8.9
350.	*	6.9	7.6	8.0	8.9
360.	*	7.4	7.0	8.7	8.2
-----*					
MAX	*	9.3	9.2	9.8	9.3
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

LINK #	*	CO/LINK (PPM)			
		REC1	REC2	REC3	REC4
	*	100	200	10	280
-----*					
1	*	0.0	0.3	0.0	0.2
2	*	0.1	0.0	0.2	0.0
3	*	0.0	0.2	0.0	0.4
4	*	0.5	0.0	1.1	0.0
5	*	0.0	0.7	0.0	0.4
6	*	0.3	0.0	0.5	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:16

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lacobd.DAT

RUN BEGIN ON 08/21/02 AT 09:16

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	796.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	695.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	423.4	*	41.	180. AG	173.	100.0	0.0	48.0	0.37	2.1
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2091.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2277.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	748.5	*	200.	360. AG	173.	100.0	0.0	36.0	0.97	10.2
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1224.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1165.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	399.3	482.0	*	65.	270. AG	179.	100.0	0.0	36.0	0.59	3.3
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1478.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1452.	9.3	0.0	44.0		
12. wbq	*	548.0	518.0	606.5	518.0	*	59.	90. AG	238.	100.0	0.0	36.0	0.53	3.0

1

PAGE 2

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt D

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
6. sbq	*	60	28	3.0	2091	1600	45.96	3	3
9. ebq	*	60	29	3.0	1224	1600	45.96	3	3
12. wbq	*	60	29	3.0	1478	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt D

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
0.	7.5	7.0	8.8	8.2
10.	8.8	6.9	10.0	8.0
20.	9.0	6.9	9.5	7.9
30.	8.7	6.9	9.0	7.7
40.	8.4	6.9	8.6	7.6
50.	8.3	6.9	8.8	7.7
60.	8.1	6.9	8.8	7.8
70.	8.1	6.9	9.2	8.0
80.	8.0	6.9	9.3	7.9
90.	8.7	7.3	8.4	7.2
100.	9.4	8.1	8.0	6.9
110.	9.2	8.1	7.8	6.9
120.	8.7	8.0	7.8	6.9
130.	8.8	8.1	7.8	6.9
140.	8.7	8.2	7.9	6.9
150.	8.9	8.2	8.0	6.9
160.	9.2	8.2	8.3	6.9
170.	9.4	8.1	8.3	6.9
180.	8.6	8.5	7.4	7.1

190.	*	7.9	9.1	6.9	7.7
200.	*	8.0	9.2	6.9	8.0
210.	*	7.8	8.9	6.9	7.8
220.	*	7.8	8.4	6.9	7.7
230.	*	7.7	8.6	6.9	7.7
240.	*	7.9	8.9	6.9	7.7
250.	*	8.0	8.9	6.9	7.8
260.	*	8.0	8.9	6.9	7.9
270.	*	7.2	8.3	7.2	8.6
280.	*	6.9	7.8	7.9	9.3
290.	*	6.9	7.8	8.0	9.1
300.	*	6.9	7.8	8.0	8.7
310.	*	6.9	7.9	8.0	8.5
320.	*	6.9	8.0	8.1	8.6
330.	*	6.9	8.2	8.1	8.8
340.	*	6.9	8.0	8.0	9.1
350.	*	6.9	7.6	8.0	8.9
360.	*	7.5	7.0	8.8	8.2
-----*					
MAX	*	9.4	9.2	10.0	9.3
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Lassen Corbin Build Out Alt D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.3	0.0	0.2
2	*	0.1	0.0	0.2	0.0
3	*	0.0	0.2	0.0	0.4
4	*	0.5	0.0	1.2	0.0
5	*	0.0	0.7	0.0	0.4
6	*	0.3	0.0	0.6	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT15XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Corbin Existing Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1907.	12.2	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1887.	12.2	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	369.7	*	94.	180. AG	203.	100.0	0.0	36.0	0.79	4.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	870.	12.2	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	957.	12.2	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	575.7	*	40.	360. AG	203.	100.0	0.0	36.0	0.36	2.0
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1467.	12.2	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1427.	12.2	0.0	44.0		
9. EBQ	*	464.0	482.0	367.6	482.0	*	96.	270. AG	260.	100.0	0.0	36.0	0.80	4.9
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	643.	12.2	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	616.	12.2	0.0	44.0		
12. WBQ	*	536.0	518.0	573.5	518.0	*	37.	90. AG	260.	100.0	0.0	36.0	0.35	1.9

1

PAGE 2

JOB: Plummer-Corbin Existing Ambient PM RUN: 2

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
3. NBQ	*	60	25	3.0	1907	1600	60.55	3	3
6. SBQ	*	60	25	3.0	870	1600	60.55	3	3
9. EBQ	*	60	32	3.0	1467	1600	60.55	3	3
12. WBQ	*	60	32	3.0	643	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Corbin Existing Ambient PM RUN: 2

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
0.	*	9.1	9.2	10.6	10.7
10.	*	10.0	8.7	11.7	9.8
20.	*	10.1	8.7	11.6	9.5
30.	*	9.9	8.7	10.8	9.4
40.	*	9.7	8.7	10.8	9.5
50.	*	9.7	8.7	10.9	9.5
60.	*	9.8	8.7	11.0	9.6
70.	*	9.9	8.7	11.1	9.9
80.	*	10.0	8.7	11.3	9.9
90.	*	10.5	9.0	10.5	9.1
100.	*	11.3	9.6	9.9	8.7
110.	*	11.3	9.7	9.9	8.7
120.	*	10.8	9.6	10.1	8.7
130.	*	10.4	9.5	10.1	8.7
140.	*	10.5	9.5	9.9	8.7
150.	*	10.9	9.6	9.9	8.7
160.	*	11.4	9.8	10.2	8.7
170.	*	11.3	10.1	10.0	8.7
180.	*	10.3	11.0	9.1	9.4

```

190. * 9.8 12.3 8.7 10.6
200. * 9.9 12.0 8.7 10.7
210. * 9.9 11.0 8.7 10.7
220. * 9.9 10.8 8.7 10.6
230. * 9.7 10.9 8.7 10.5
240. * 9.6 11.2 8.7 10.3
250. * 9.8 11.1 8.7 10.3
260. * 9.6 11.1 8.7 10.1
270. * 9.0 10.3 9.2 10.9
280. * 8.7 9.8 10.2 12.0
290. * 8.7 9.6 10.4 12.0
300. * 8.7 9.7 10.4 11.1
310. * 8.7 9.8 10.5 10.7
320. * 8.7 9.9 10.4 10.9
330. * 8.7 10.0 10.3 11.0
340. * 8.7 10.3 10.1 11.5
350. * 8.7 10.4 10.1 11.8
360. * 9.1 9.2 10.6 10.7
-----*
MAX * 11.4 12.3 11.7 12.0
DEGR. * 160 190 10 280

```

THE HIGHEST CONCENTRATION IS 12.30 PPM AT 190 DEGREES FROM REC2 .
1

PAGE 4

JOB: Plummer-Corbin Existing Ambient PM

RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 160 190 10 280
-----*
1 * 0.9 1.5 0.0 0.7
2 * 0.0 0.0 0.7 0.0
3 * 0.3 0.4 0.0 0.5
4 * 0.2 0.0 0.7 0.0
5 * 0.5 0.4 0.0 0.2
6 * 0.0 0.0 0.2 0.0
7 * 0.4 0.0 0.5 1.1
8 * 0.0 0.4 0.0 0.0
9 * 0.2 0.0 0.7 0.6
10 * 0.0 0.2 0.0 0.0
11 * 0.2 0.0 0.2 0.2
12 * 0.0 0.7 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT15FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Corbin Future Pre-Project PM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	2031.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2016.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	362.9	*	101.	180. AG	148.	100.0	0.0	36.0	0.82	5.1
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	989.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1080.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	579.2	*	43.	360. AG	148.	100.0	0.0	36.0	0.40	2.2
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1470.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1429.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	356.4	482.0	*	108.	270. AG	203.	100.0	0.0	36.0	0.84	5.5
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	654.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	619.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	575.4	518.0	*	39.	90. AG	203.	100.0	0.0	36.0	0.37	2.0

1

PAGE 2

JOB: Plummer-Corbin Future Pre-Project PM RUN: 3

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
3. NBQ	*	60	24	3.0	2031	1600	45.96	3	3
6. SBQ	*	60	24	3.0	989	1600	45.96	3	3
9. EBQ	*	60	33	3.0	1470	1600	45.96	3	3
12. WBQ	*	60	33	3.0	654	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Corbin Future Pre-Project PM RUN: 3

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
0.	*	7.3	7.3	8.4	8.4
10.	*	8.0	6.9	9.2	7.7
20.	*	8.1	6.9	9.3	7.5
30.	*	7.9	6.9	8.8	7.4
40.	*	7.8	6.9	8.5	7.4
50.	*	7.7	6.9	8.5	7.6
60.	*	7.9	6.9	8.7	7.7
70.	*	8.0	6.9	8.8	7.8
80.	*	8.0	6.9	8.9	7.9
90.	*	8.3	7.1	8.3	7.2
100.	*	9.0	7.6	7.9	6.9
110.	*	9.1	7.7	7.9	6.9
120.	*	8.6	7.6	8.0	6.9
130.	*	8.4	7.5	8.0	6.9
140.	*	8.4	7.5	8.0	6.9
150.	*	8.9	7.7	7.9	6.9
160.	*	8.9	7.8	8.1	6.9
170.	*	9.0	7.9	8.0	6.9
180.	*	8.2	8.8	7.2	7.4

190.	*	7.8	9.7	6.9	8.5
200.	*	7.8	9.6	6.9	8.6
210.	*	7.8	9.0	6.9	8.5
220.	*	7.8	8.4	6.9	8.4
230.	*	7.8	8.6	6.9	8.2
240.	*	7.6	8.7	6.9	8.2
250.	*	7.7	8.8	6.9	8.0
260.	*	7.6	8.8	6.9	8.0
270.	*	7.1	8.2	7.3	8.7
280.	*	6.9	7.9	8.0	9.6
290.	*	6.9	7.7	8.3	9.3
300.	*	6.9	7.7	8.3	8.9
310.	*	6.9	7.7	8.3	8.6
320.	*	6.9	7.9	8.2	8.6
330.	*	6.9	8.0	8.0	8.8
340.	*	6.9	8.2	8.0	9.0
350.	*	6.9	8.2	7.9	9.3
360.	*	7.3	7.3	8.4	8.4

MAX	*	9.1	9.7	9.3	9.6
DEGR.	*	110	190	20	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-Corbin Future Pre-Project PM

RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		110	190	20	280

1	*	0.0	1.2	0.0	0.5
2	*	0.4	0.0	0.7	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.3	0.0	0.4	0.0
5	*	0.0	0.3	0.1	0.2
6	*	0.3	0.0	0.2	0.0
7	*	0.0	0.0	0.4	0.9
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.5
10	*	0.3	0.2	0.0	0.0
11	*	0.1	0.0	0.1	0.2
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT15AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Corbin Alt A Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	2097.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2064.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	364.2	*	100.	180. AG	142.	100.0	0.0	36.0	0.82 5.1	
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1072.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1194.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	580.9	*	45.	360. AG	142.	100.0	0.0	36.0	0.42 2.3	
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1485.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	337.2	482.0	*	127.	270. AG	210.	100.0	0.0	36.0	0.89 6.4	
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	686.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	628.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	578.4	518.0	*	42.	90. AG	210.	100.0	0.0	36.0	0.41 2.2	

1 PAGE 2

JOB: Plummer-Corbin Alt A Krausz Future PM RUN: 4

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
3. NBQ	*	60	23	3.0	2097	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1072	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1485	1600	45.96	3	3
12. WBQ	*	60	34	3.0	686	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1 PAGE 3

JOB: Plummer-Corbin Alt A Krausz Future PM RUN: 4

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
0.	*	7.3	7.4	8.4	8.5
10.	*	8.0	6.9	9.3	7.8
20.	*	8.2	6.9	9.3	7.6
30.	*	8.0	6.9	8.8	7.5
40.	*	7.9	6.9	8.6	7.6
50.	*	7.8	6.9	8.6	7.6
60.	*	7.9	6.9	8.8	7.7
70.	*	8.0	6.9	8.8	7.8
80.	*	8.0	6.9	8.9	7.9
90.	*	8.3	7.1	8.3	7.2
100.	*	9.0	7.6	7.9	6.9
110.	*	9.1	7.8	8.0	6.9
120.	*	8.6	7.6	8.0	6.9
130.	*	8.5	7.6	8.1	6.9
140.	*	8.5	7.6	7.9	6.9
150.	*	8.9	7.7	8.0	6.9
160.	*	9.1	7.9	8.2	6.9
170.	*	9.2	8.0	8.1	6.9
180.	*	8.2	8.8	7.3	7.4

190.	*	7.8	9.9	6.9	8.6
200.	*	7.9	9.6	6.9	8.6
210.	*	7.8	9.1	6.9	8.5
220.	*	7.9	8.5	6.9	8.4
230.	*	7.9	8.7	6.9	8.4
240.	*	7.8	8.9	6.9	8.2
250.	*	7.7	9.0	6.9	8.2
260.	*	7.6	8.8	6.9	8.0
270.	*	7.1	8.2	7.3	8.7
280.	*	6.9	7.9	8.1	9.7
290.	*	6.9	7.7	8.5	9.4
300.	*	6.9	7.7	8.5	9.0
310.	*	6.9	7.7	8.3	8.6
320.	*	6.9	7.9	8.2	8.6
330.	*	6.9	8.0	8.1	8.8
340.	*	6.9	8.3	8.0	9.1
350.	*	6.9	8.3	8.0	9.3
360.	*	7.3	7.4	8.4	8.5

MAX	*	9.2	9.9	9.3	9.7
DEGR.	*	170	190	20	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-Corbin Alt A Krausz Future PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		170	190	20	280

1	*	0.7	1.2	0.0	0.5
2	*	0.0	0.0	0.7	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.1	0.0	0.4	0.0
5	*	0.7	0.4	0.1	0.2
6	*	0.0	0.0	0.2	0.0
7	*	0.3	0.0	0.4	0.9
8	*	0.0	0.3	0.0	0.0
9	*	0.3	0.0	0.5	0.6
10	*	0.0	0.2	0.0	0.0
11	*	0.2	0.0	0.1	0.2
12	*	0.0	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT15BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Corbin Alt B Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	2173.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2120.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	353.0	*	111.	180. AG	142.	100.0	0.0	36.0	0.85	5.6
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1016.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1117.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	578.5	*	43.	360. AG	142.	100.0	0.0	36.0	0.40	2.2
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1475.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1464.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	340.7	482.0	*	123.	270. AG	210.	100.0	0.0	36.0	0.88	6.3
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	675.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	638.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	577.8	518.0	*	42.	90. AG	210.	100.0	0.0	36.0	0.40	2.1

1

PAGE 2

JOB: Plummer-Corbin Alt B Krausz Future PM RUN: 6

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
3. NBQ	*	60	23	3.0	2173	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1016	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1475	1600	45.96	3	3
12. WBQ	*	60	34	3.0	675	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Corbin Alt B Krausz Future PM RUN: 6

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
0.	*	7.3	7.4	8.4	8.5
10.	*	8.0	6.9	9.3	7.7
20.	*	8.1	6.9	9.3	7.5
30.	*	7.9	6.9	8.8	7.5
40.	*	7.8	6.9	8.6	7.6
50.	*	7.7	6.9	8.5	7.6
60.	*	7.8	6.9	8.7	7.7
70.	*	8.0	6.9	8.8	7.8
80.	*	8.0	6.9	8.9	7.9
90.	*	8.3	7.1	8.3	7.2
100.	*	9.0	7.6	7.9	6.9
110.	*	9.1	7.8	8.0	6.9
120.	*	8.6	7.6	8.0	6.9
130.	*	8.5	7.6	8.1	6.9
140.	*	8.5	7.6	8.1	6.9
150.	*	8.9	7.7	8.0	6.9
160.	*	9.1	7.9	8.1	6.9
170.	*	9.1	8.1	8.0	6.9
180.	*	8.2	8.9	7.2	7.5

190.	*	7.8	10.0	6.9	8.6
200.	*	7.9	9.6	6.9	8.8
210.	*	7.8	9.1	6.9	8.6
220.	*	7.9	8.4	6.9	8.5
230.	*	7.9	8.6	6.9	8.3
240.	*	7.8	8.9	6.9	8.1
250.	*	7.7	9.1	6.9	8.1
260.	*	7.6	8.8	6.9	8.1
270.	*	7.1	8.3	7.3	8.7
280.	*	6.9	7.8	8.2	9.8
290.	*	6.9	7.8	8.4	9.4
300.	*	6.9	7.7	8.4	9.0
310.	*	6.9	7.8	8.3	8.6
320.	*	6.9	7.9	8.2	8.6
330.	*	6.9	8.0	8.1	8.8
340.	*	6.9	8.2	8.0	9.2
350.	*	6.9	8.4	8.0	9.3
360.	*	7.3	7.4	8.4	8.5

MAX	*	9.1	10.0	9.3	9.8
DEGR.	*	110	190	20	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-Corbin Alt B Krausz Future PM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		110	190	20	280

1	*	0.0	1.3	0.0	0.6
2	*	0.4	0.0	0.7	0.0
3	*	0.0	0.4	0.0	0.4
4	*	0.3	0.0	0.4	0.0
5	*	0.0	0.3	0.1	0.2
6	*	0.3	0.0	0.2	0.0
7	*	0.0	0.0	0.4	0.9
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.6
10	*	0.3	0.2	0.0	0.0
11	*	0.1	0.0	0.1	0.2
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT15CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Corbin Alt C Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	2083.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2054.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	366.2	*	98.	180. AG	142.	100.0	0.0	36.0	0.81	5.0
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1071.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1193.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	580.9	*	45.	360. AG	142.	100.0	0.0	36.0	0.42	2.3
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1485.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1451.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	337.2	482.0	*	127.	270. AG	210.	100.0	0.0	36.0	0.89	6.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	685.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	626.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	578.4	518.0	*	42.	90. AG	210.	100.0	0.0	36.0	0.41	2.2

1

PAGE 2

JOB: Plummer-Corbin Alt C Krausz Future PM RUN: 8

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
3. NBQ	*	60	23	3.0	2083	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1071	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1485	1600	45.96	3	3
12. WBQ	*	60	34	3.0	685	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Corbin Alt C Krausz Future PM RUN: 8

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 REC1	REC2	REC3	REC4
0.	*	7.3	7.4	8.4	8.5
10.	*	8.0	6.9	9.3	7.8
20.	*	8.2	6.9	9.3	7.6
30.	*	7.9	6.9	8.8	7.5
40.	*	7.9	6.9	8.6	7.6
50.	*	7.8	6.9	8.6	7.6
60.	*	7.9	6.9	8.8	7.7
70.	*	8.0	6.9	8.8	7.8
80.	*	8.0	6.9	8.9	7.9
90.	*	8.3	7.1	8.3	7.2
100.	*	9.0	7.6	7.9	6.9
110.	*	9.1	7.8	7.9	6.9
120.	*	8.6	7.6	8.0	6.9
130.	*	8.5	7.6	8.1	6.9
140.	*	8.4	7.6	7.9	6.9
150.	*	8.9	7.7	8.0	6.9
160.	*	9.1	7.9	8.2	6.9
170.	*	9.2	8.0	8.1	6.9
180.	*	8.2	8.8	7.3	7.4

190.	*	7.8	9.9	6.9	8.6
200.	*	7.9	9.6	6.9	8.6
210.	*	7.8	9.1	6.9	8.5
220.	*	7.9	8.5	6.9	8.4
230.	*	7.9	8.7	6.9	8.4
240.	*	7.8	8.9	6.9	8.2
250.	*	7.7	9.0	6.9	8.2
260.	*	7.6	8.8	6.9	8.0
270.	*	7.1	8.2	7.3	8.7
280.	*	6.9	7.9	8.1	9.7
290.	*	6.9	7.7	8.5	9.4
300.	*	6.9	7.7	8.5	9.0
310.	*	6.9	7.7	8.3	8.6
320.	*	6.9	7.9	8.2	8.6
330.	*	6.9	8.0	8.1	8.8
340.	*	6.9	8.3	8.0	9.1
350.	*	6.9	8.3	8.0	9.3
360.	*	7.3	7.4	8.4	8.5

MAX	*	9.2	9.9	9.3	9.7
DEGR.	*	170	190	20	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-Corbin Alt C Krausz Future PM

RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		170	190	20	280

1	*	0.7	1.2	0.0	0.5
2	*	0.0	0.0	0.7	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.1	0.0	0.4	0.0
5	*	0.7	0.4	0.1	0.2
6	*	0.0	0.0	0.2	0.0
7	*	0.3	0.0	0.4	0.9
8	*	0.0	0.3	0.0	0.0
9	*	0.3	0.0	0.5	0.6
10	*	0.0	0.2	0.0	0.0
11	*	0.2	0.0	0.1	0.2
12	*	0.0	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT15DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Corbin Alt D Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	2135.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2091.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	359.1	*	105.	180. AG	142.	100.0	0.0	36.0	0.83	5.3
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1023.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1127.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	578.9	*	43.	360. AG	142.	100.0	0.0	36.0	0.40	2.2
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1476.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1457.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	339.8	482.0	*	124.	270. AG	210.	100.0	0.0	36.0	0.88	6.3
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	674.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	633.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	577.7	518.0	*	42.	90. AG	210.	100.0	0.0	36.0	0.40	2.1

1

PAGE 2

JOB: Plummer-Corbin Alt D Krausz Future PM RUN: 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
3. NBQ	*	60	23	3.0	2135	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1023	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1476	1600	45.96	3	3
12. WBQ	*	60	34	3.0	674	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Corbin Alt D Krausz Future PM RUN: 10

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
0.	*	7.3	7.4	8.4	8.5
10.	*	8.0	6.9	9.3	7.7
20.	*	8.1	6.9	9.3	7.5
30.	*	7.9	6.9	8.8	7.5
40.	*	7.8	6.9	8.6	7.6
50.	*	7.7	6.9	8.5	7.6
60.	*	7.8	6.9	8.7	7.7
70.	*	8.0	6.9	8.8	7.8
80.	*	8.0	6.9	8.9	7.9
90.	*	8.3	7.1	8.3	7.2
100.	*	9.0	7.6	7.9	6.9
110.	*	9.1	7.8	8.0	6.9
120.	*	8.6	7.6	8.0	6.9
130.	*	8.5	7.6	8.1	6.9
140.	*	8.5	7.6	8.0	6.9
150.	*	8.9	7.7	8.0	6.9
160.	*	9.0	7.9	8.1	6.9
170.	*	9.1	8.0	8.0	6.9
180.	*	8.2	8.9	7.2	7.5

190.	*	7.8	9.8	6.9	8.6
200.	*	7.9	9.6	6.9	8.7
210.	*	7.8	9.1	6.9	8.5
220.	*	7.9	8.4	6.9	8.5
230.	*	7.9	8.6	6.9	8.3
240.	*	7.8	8.9	6.9	8.1
250.	*	7.7	9.0	6.9	8.1
260.	*	7.6	8.8	6.9	8.1
270.	*	7.1	8.3	7.3	8.7
280.	*	6.9	7.8	8.2	9.8
290.	*	6.9	7.7	8.4	9.4
300.	*	6.9	7.7	8.4	9.0
310.	*	6.9	7.8	8.3	8.6
320.	*	6.9	7.9	8.2	8.6
330.	*	6.9	8.0	8.1	8.8
340.	*	6.9	8.2	8.0	9.1
350.	*	6.9	8.3	8.0	9.3
360.	*	7.3	7.4	8.4	8.5

MAX	*	9.1	9.8	9.3	9.8
DEGR.	*	110	190	20	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Plummer-Corbin Alt D Krausz Future PM

RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		110	190	20	280

1	*	0.0	1.2	0.0	0.6
2	*	0.4	0.0	0.7	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.3	0.0	0.4	0.0
5	*	0.0	0.3	0.1	0.2
6	*	0.3	0.0	0.2	0.0
7	*	0.0	0.0	0.4	0.9
8	*	0.5	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.6
10	*	0.3	0.2	0.0	0.0
11	*	0.1	0.0	0.1	0.2
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT15ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Corbin Alt A Buildout Future PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	2106.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2071.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	363.0	*	101.	180. AG	142.	100.0	0.0	36.0	0.82	5.1
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1094.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1225.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	581.8	*	46.	360. AG	142.	100.0	0.0	36.0	0.43	2.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1490.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1459.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	336.4	482.0	*	128.	270. AG	210.	100.0	0.0	36.0	0.89	6.5
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	694.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	629.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	579.0	518.0	*	43.	90. AG	210.	100.0	0.0	36.0	0.41	2.2

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PAGE 2

JOB: Plummer-Corbin Alt A Buildout Future PM RUN: 5

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
3. NBQ	*	60	23	3.0	2106	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1094	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1490	1600	45.96	3	3
12. WBQ	*	60	34	3.0	694	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Corbin Alt A Buildout Future PM RUN: 5

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
0.	*	7.3	7.4	8.4	8.5
10.	*	8.1	6.9	9.3	7.8
20.	*	8.2	6.9	9.3	7.6
30.	*	8.0	6.9	8.8	7.5
40.	*	7.9	6.9	8.6	7.6
50.	*	7.8	6.9	8.6	7.6
60.	*	7.9	6.9	8.8	7.7
70.	*	8.0	6.9	8.8	7.8
80.	*	8.0	6.9	8.9	7.9
90.	*	8.3	7.1	8.3	7.2
100.	*	9.0	7.6	7.9	6.9
110.	*	9.1	7.8	8.0	6.9
120.	*	8.7	7.6	8.1	6.9
130.	*	8.5	7.6	8.1	6.9
140.	*	8.5	7.6	8.0	6.9
150.	*	8.9	7.8	8.0	6.9
160.	*	9.1	7.9	8.2	6.9
170.	*	9.2	8.0	8.1	6.9
180.	*	8.2	8.9	7.3	7.4

190.	*	7.8	9.9	6.9	8.6
200.	*	7.9	9.6	6.9	8.6
210.	*	7.8	9.1	6.9	8.5
220.	*	7.9	8.5	6.9	8.4
230.	*	7.9	8.7	6.9	8.4
240.	*	7.8	8.9	6.9	8.2
250.	*	7.7	9.0	6.9	8.2
260.	*	7.6	8.8	6.9	8.1
270.	*	7.1	8.2	7.3	8.7
280.	*	6.9	7.9	8.1	9.8
290.	*	6.9	7.7	8.5	9.4
300.	*	6.9	7.8	8.5	9.0
310.	*	6.9	7.8	8.3	8.6
320.	*	6.9	7.9	8.2	8.6
330.	*	6.9	8.0	8.1	8.8
340.	*	6.9	8.3	8.0	9.1
350.	*	6.9	8.3	8.0	9.3
360.	*	7.3	7.4	8.4	8.5

MAX	*	9.2	9.9	9.3	9.8
DEGR.	*	170	190	20	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-Corbin Alt A Buildout Future PM RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		170	190	20	280

1	*	0.7	1.2	0.0	0.6
2	*	0.0	0.0	0.7	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.1	0.0	0.4	0.0
5	*	0.7	0.4	0.1	0.2
6	*	0.0	0.0	0.2	0.0
7	*	0.3	0.0	0.4	0.9
8	*	0.0	0.3	0.0	0.0
9	*	0.3	0.0	0.5	0.6
10	*	0.0	0.2	0.0	0.0
11	*	0.2	0.0	0.1	0.2
12	*	0.0	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT15BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Corbin Alt B Buildout Future PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	2256.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2180.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	336.9	*	127.	180. AG	142.	100.0	0.0	36.0	0.88	6.5
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1025.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1129.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	578.9	*	43.	360. AG	142.	100.0	0.0	36.0	0.40	2.2
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1476.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1484.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	339.8	482.0	*	124.	270. AG	210.	100.0	0.0	36.0	0.88	6.3
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	686.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	650.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	578.4	518.0	*	42.	90. AG	210.	100.0	0.0	36.0	0.41	2.2

1

PAGE 2

JOB: Plummer-Corbin Alt B Buildout Future PM RUN: 7

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
3. NBQ	*	60	23	3.0	2256	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1025	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1476	1600	45.96	3	3
12. WBQ	*	60	34	3.0	686	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Corbin Alt B Buildout Future PM RUN: 7

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
0.	*	7.3	7.4	8.4	8.5
10.	*	8.0	6.9	9.4	7.8
20.	*	8.1	6.9	9.3	7.6
30.	*	7.9	6.9	8.8	7.5
40.	*	7.8	6.9	8.6	7.6
50.	*	7.8	6.9	8.6	7.6
60.	*	7.9	6.9	8.8	7.7
70.	*	8.1	6.9	8.9	7.8
80.	*	8.0	6.9	9.1	7.9
90.	*	8.3	7.1	8.4	7.2
100.	*	9.0	7.7	8.0	6.9
110.	*	9.1	7.8	8.0	6.9
120.	*	8.6	7.6	8.0	6.9
130.	*	8.5	7.6	8.1	6.9
140.	*	8.7	7.6	8.2	6.9
150.	*	8.9	7.7	8.2	6.9
160.	*	9.3	7.9	8.2	6.9
170.	*	9.2	8.1	8.1	6.9
180.	*	8.2	8.9	7.2	7.5

190.	*	7.8	10.0	6.9	8.7
200.	*	7.9	9.8	6.9	8.9
210.	*	7.8	9.1	6.9	8.6
220.	*	7.9	8.5	6.9	8.5
230.	*	7.9	8.6	6.9	8.3
240.	*	7.8	9.0	6.9	8.1
250.	*	7.7	9.1	6.9	8.1
260.	*	7.7	8.9	6.9	8.1
270.	*	7.1	8.3	7.3	8.7
280.	*	6.9	7.9	8.2	9.8
290.	*	6.9	7.8	8.4	9.4
300.	*	6.9	7.7	8.4	9.0
310.	*	6.9	7.8	8.3	8.6
320.	*	6.9	8.0	8.2	8.7
330.	*	6.9	8.1	8.1	8.9
340.	*	6.9	8.3	8.0	9.2
350.	*	6.9	8.4	8.0	9.3
360.	*	7.3	7.4	8.4	8.5
-----*					
MAX	*	9.3	10.0	9.4	9.8
DEGR.	*	160	190	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-Corbin Alt B Buildout Future PM RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		160	190	10	280
-----*					
1	*	0.8	1.3	0.0	0.6
2	*	0.0	0.0	0.7	0.0
3	*	0.3	0.4	0.0	0.4
4	*	0.2	0.0	0.6	0.0
5	*	0.5	0.3	0.0	0.2
6	*	0.0	0.0	0.1	0.0
7	*	0.3	0.0	0.4	0.9
8	*	0.0	0.3	0.0	0.0
9	*	0.1	0.0	0.6	0.6
10	*	0.0	0.2	0.0	0.0
11	*	0.2	0.0	0.1	0.2
12	*	0.0	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT15CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Corbin Alt C Buildout Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	2089.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2058.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	365.4	*	99.	180. AG	142.	100.0	0.0	36.0	0.82	5.0
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1091.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1220.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	581.7	*	46.	360. AG	142.	100.0	0.0	36.0	0.43	2.3
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1489.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1455.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	336.4	482.0	*	128.	270. AG	210.	100.0	0.0	36.0	0.89	6.5
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	691.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	627.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	578.8	518.0	*	43.	90. AG	210.	100.0	0.0	36.0	0.41	2.2

1

PAGE 2

JOB: Plummer-Corbin Alt C Buildout Future PM RUN: 9

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
3. NBQ	*	60	23	3.0	2089	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1091	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1489	1600	45.96	3	3
12. WBQ	*	60	34	3.0	691	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Corbin Alt C Buildout Future PM RUN: 9

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
0.	*	7.3	7.4	8.4	8.5
10.	*	8.1	6.9	9.3	7.8
20.	*	8.2	6.9	9.3	7.6
30.	*	8.0	6.9	8.8	7.5
40.	*	7.9	6.9	8.6	7.6
50.	*	7.8	6.9	8.6	7.6
60.	*	7.9	6.9	8.8	7.7
70.	*	8.0	6.9	8.8	7.8
80.	*	8.0	6.9	8.9	7.9
90.	*	8.3	7.1	8.3	7.2
100.	*	9.0	7.6	7.9	6.9
110.	*	9.1	7.8	7.9	6.9
120.	*	8.7	7.6	8.1	6.9
130.	*	8.5	7.6	8.1	6.9
140.	*	8.4	7.6	7.9	6.9
150.	*	8.9	7.7	8.0	6.9
160.	*	9.1	7.9	8.2	6.9
170.	*	9.2	8.0	8.1	6.9
180.	*	8.2	8.8	7.3	7.4

190.	*	7.8	9.9	6.9	8.6
200.	*	7.9	9.6	6.9	8.6
210.	*	7.8	9.1	6.9	8.5
220.	*	7.9	8.5	6.9	8.4
230.	*	7.9	8.7	6.9	8.4
240.	*	7.8	8.9	6.9	8.2
250.	*	7.7	9.0	6.9	8.2
260.	*	7.6	8.8	6.9	8.0
270.	*	7.1	8.2	7.3	8.7
280.	*	6.9	7.9	8.1	9.7
290.	*	6.9	7.7	8.5	9.4
300.	*	6.9	7.8	8.5	9.0
310.	*	6.9	7.7	8.3	8.6
320.	*	6.9	7.9	8.2	8.6
330.	*	6.9	8.0	8.1	8.8
340.	*	6.9	8.3	8.0	9.1
350.	*	6.9	8.3	8.0	9.3
360.	*	7.3	7.4	8.4	8.5

MAX	*	9.2	9.9	9.3	9.7
DEGR.	*	170	190	20	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-Corbin Alt C Buildout Future PM

RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		170	190	20	280

1	*	0.7	1.2	0.0	0.5
2	*	0.0	0.0	0.7	0.0
3	*	0.0	0.3	0.0	0.4
4	*	0.1	0.0	0.4	0.0
5	*	0.7	0.4	0.1	0.2
6	*	0.0	0.0	0.2	0.0
7	*	0.3	0.0	0.4	0.9
8	*	0.0	0.3	0.0	0.0
9	*	0.3	0.0	0.5	0.6
10	*	0.0	0.2	0.0	0.0
11	*	0.2	0.0	0.1	0.2
12	*	0.0	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT15DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Corbin Alt D Buildout Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	2190.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2132.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	349.9	*	114.	180. AG	142.	100.0	0.0	36.0	0.86	5.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1031.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1138.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	579.2	*	43.	360. AG	142.	100.0	0.0	36.0	0.40	2.2
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1478.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1470.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	339.8	482.0	*	124.	270. AG	210.	100.0	0.0	36.0	0.88	6.3
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	681.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	640.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	578.2	518.0	*	42.	90. AG	210.	100.0	0.0	36.0	0.41	2.1

1

PAGE 2

JOB: Plummer-Corbin Alt D Buildout Future PM RUN: 11

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
3. NBQ	*	60	23	3.0	2190	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1031	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1478	1600	45.96	3	3
12. WBQ	*	60	34	3.0	681	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

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PAGE 3

JOB: Plummer-Corbin Alt D Buildout Future PM RUN: 11

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
0.	*	7.3	7.4	8.4	8.5
10.	*	8.0	6.9	9.3	7.7
20.	*	8.1	6.9	9.3	7.6
30.	*	7.9	6.9	8.8	7.5
40.	*	7.9	6.9	8.6	7.6
50.	*	7.8	6.9	8.5	7.6
60.	*	7.8	6.9	8.7	7.7
70.	*	8.1	6.9	8.9	7.8
80.	*	8.0	6.9	8.9	7.9
90.	*	8.3	7.1	8.3	7.2
100.	*	9.0	7.6	7.9	6.9
110.	*	9.1	7.8	8.0	6.9
120.	*	8.6	7.6	8.0	6.9
130.	*	8.5	7.6	8.1	6.9
140.	*	8.5	7.6	8.1	6.9
150.	*	8.9	7.7	8.1	6.9
160.	*	9.3	7.9	8.2	6.9
170.	*	9.2	8.1	8.0	6.9
180.	*	8.2	8.9	7.2	7.5

190.	*	7.8	10.0	6.9	8.6
200.	*	7.9	9.6	6.9	8.8
210.	*	7.8	9.1	6.9	8.6
220.	*	7.9	8.6	6.9	8.5
230.	*	7.9	8.6	6.9	8.3
240.	*	7.8	8.9	6.9	8.1
250.	*	7.7	9.1	6.9	8.1
260.	*	7.7	8.8	6.9	8.1
270.	*	7.1	8.3	7.3	8.7
280.	*	6.9	7.8	8.2	9.8
290.	*	6.9	7.8	8.4	9.4
300.	*	6.9	7.7	8.4	9.0
310.	*	6.9	7.8	8.3	8.6
320.	*	6.9	7.9	8.2	8.6
330.	*	6.9	8.1	8.1	8.8
340.	*	6.9	8.3	8.0	9.2
350.	*	6.9	8.4	8.0	9.3
360.	*	7.3	7.4	8.4	8.5
-----*					
MAX	*	9.3	10.0	9.3	9.8
DEGR.	*	160	190	20	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Plummer-Corbin Alt D Buildout Future PM RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	160	190	20	280
-----*					
1	*	0.8	1.3	0.0	0.6
2	*	0.0	0.0	0.7	0.0
3	*	0.3	0.4	0.0	0.4
4	*	0.2	0.0	0.4	0.0
5	*	0.5	0.3	0.1	0.2
6	*	0.0	0.0	0.2	0.0
7	*	0.3	0.0	0.4	0.9
8	*	0.0	0.3	0.0	0.0
9	*	0.1	0.0	0.5	0.6
10	*	0.0	0.2	0.0	0.0
11	*	0.2	0.0	0.1	0.2
12	*	0.0	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT16XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Prairie -Corbin Existing Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1710.	12.2	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1915.	12.2	0.0	44.0		
3. NBQ	*	518.0	476.0	518.0	441.7	*	34.	180. AG	89.	100.0	0.0	36.0	0.49	1.7
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1246.	12.2	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1396.	12.2	0.0	44.0		
6. SBQ	*	482.0	524.0	482.0	549.0	*	25.	360. AG	89.	100.0	0.0	36.0	0.35	1.3
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	527.	12.2	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	220.	12.2	0.0	32.0		
9. EBQ	*	464.0	512.0	78.9	492.1	*	386.	267. AG	249.	100.0	0.0	24.0	1.10	19.6
10. WBA	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	208.	12.2	0.0	44.0		
11. WBD	*	500.0	512.0	0.0	512.0	*	500.	270. AG	160.	12.2	0.0	32.0		
12. WBQ	*	536.0	518.0	562.2	517.7	*	26.	91. AG	249.	100.0	0.0	24.0	0.44	1.3

1

PAGE 2

JOB: Prairie -Corbin Existing Ambient PM RUN: 2

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
6. SBQ	*	60	11	3.0	1246	1600	60.55	3	3
9. EBQ	*	60	46	3.0	527	1600	60.55	3	3
12. WBQ	*	60	46	3.0	208	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. NW	*	444.0	544.0	5.4	*
2. NE	*	556.0	544.0	5.4	*
3. SW	*	444.0	456.0	5.4	*
4. SE	*	556.0	456.0	5.4	*

1

PAGE 3

JOB: Prairie -Corbin Existing Ambient PM RUN: 2

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
0.	9.2	9.4	10.0	10.1
10.	10.3	8.7	11.1	9.0
20.	10.4	8.7	10.9	8.9
30.	10.1	8.7	10.4	8.9
40.	9.9	8.7	10.1	8.9
50.	9.7	8.7	10.1	8.9
60.	9.7	8.7	10.3	8.9
70.	9.6	8.7	10.2	8.9
80.	9.7	8.7	10.1	9.0
90.	10.1	8.8	10.0	8.8
100.	10.3	9.0	9.8	8.7
110.	10.3	8.9	9.7	8.7
120.	9.9	8.9	9.7	8.7
130.	10.3	8.9	9.8	8.7
140.	10.3	8.9	9.9	8.7
150.	10.9	9.0	10.1	8.7
160.	11.4	9.1	10.4	8.7
170.	11.5	9.5	10.3	8.7
180.	10.3	10.4	9.2	9.4

```

190. * 9.7 11.5 8.7 10.6
200. * 9.7 11.4 8.7 10.5
210. * 9.7 11.0 8.7 10.1
220. * 9.8 10.7 8.7 10.0
230. * 9.9 10.3 8.7 9.8
240. * 10.0 10.3 8.7 9.8
250. * 10.4 10.9 8.7 9.8
260. * 10.3 11.5 8.7 9.9
270. * 9.1 10.5 9.2 10.4
280. * 8.7 9.6 10.1 11.3
290. * 8.7 9.8 10.1 11.0
300. * 8.7 9.8 9.8 10.5
310. * 8.7 9.9 9.8 10.3
320. * 8.7 10.0 9.5 10.2
330. * 8.7 10.2 9.4 10.4
340. * 8.7 10.5 9.5 11.0
350. * 8.7 10.5 9.4 11.4
360. * 9.2 9.4 10.0 10.1
-----*
MAX * 11.5 11.5 11.1 11.4
DEGR. * 170 190 10 350

```

THE HIGHEST CONCENTRATION IS 11.50 PPM AT 170 DEGREES FROM REC1 .
1

PAGE 4

JOB: Prairie -Corbin Existing Ambient PM

RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 170 190 10 350
-----*
1 * 0.7 1.3 0.0 0.1
2 * 0.0 0.0 0.7 1.5
3 * 0.0 0.1 0.0 0.0
4 * 0.0 0.0 1.0 0.5
5 * 1.1 0.5 0.0 0.0
6 * 0.0 0.0 0.0 0.0
7 * 0.2 0.0 0.2 0.0
8 * 0.0 0.1 0.0 0.1
9 * 0.7 0.0 0.5 0.0
10 * 0.0 0.1 0.0 0.1
11 * 0.1 0.0 0.0 0.0
12 * 0.0 0.7 0.0 0.4

```

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT16FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Prairie-Corbin Future Pre-Project PM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1810.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2049.	9.3	0.0	44.0		
3. NBQ	*	518.0	476.0	518.0	439.7	*	36.	180. AG	68.	100.0	0.0	36.0	0.51	1.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1358.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1503.	9.3	0.0	44.0		
6. SBQ	*	482.0	524.0	482.0	551.2	*	27.	360. AG	68.	100.0	0.0	36.0	0.39	1.4
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	558.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	221.	9.3	0.0	32.0		
9. EBQ	*	464.0	512.0	-87.5	483.5	*	552.	267. AG	189.	100.0	0.0	24.0	1.17	28.1
10. WBA	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	211.	9.3	0.0	44.0		
11. WBD	*	500.0	512.0	0.0	512.0	*	500.	270. AG	164.	9.3	0.0	32.0		
12. WBQ	*	536.0	518.0	562.4	517.7	*	26.	91. AG	189.	100.0	0.0	24.0	0.44	1.3

1 PAGE 2

JOB: Prairie-Corbin Future Pre-Project PM RUN: 3

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
3. NBQ	*	60	11	3.0	1810	1600	45.96	3	3
6. SBQ	*	60	11	3.0	1358	1600	45.96	3	3
9. EBQ	*	60	46	3.0	558	1600	45.96	3	3
12. WBQ	*	60	46	3.0	211	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	544.0	5.4	*
2. NE	*	556.0	544.0	5.4	*
3. SW	*	444.0	456.0	5.4	*
4. SE	*	556.0	456.0	5.4	*

1 PAGE 3

JOB: Prairie-Corbin Future Pre-Project PM RUN: 3

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
0.	*	7.4	7.5	8.0	7.9
10.	*	8.2	6.9	8.9	7.1
20.	*	8.3	6.9	8.8	7.0
30.	*	8.1	6.9	8.5	7.1
40.	*	7.9	6.9	8.1	7.1
50.	*	7.7	6.9	8.1	7.1
60.	*	7.7	6.9	8.1	7.1
70.	*	7.7	6.9	8.1	7.1
80.	*	7.8	6.9	8.0	7.1
90.	*	8.0	7.0	7.9	7.0
100.	*	8.3	7.1	7.8	6.9
110.	*	8.3	7.1	7.7	6.9
120.	*	7.9	7.1	7.7	6.9
130.	*	8.0	7.1	7.8	6.9
140.	*	8.3	7.1	7.9	6.9
150.	*	8.4	7.1	8.0	6.9
160.	*	8.9	7.3	8.2	6.9
170.	*	9.0	7.4	8.2	6.9
180.	*	8.0	8.2	7.3	7.5

190.	*	7.5	9.0	6.9	8.4
200.	*	7.5	9.0	6.9	8.4
210.	*	7.6	8.7	6.9	8.1
220.	*	7.7	8.4	6.9	7.9
230.	*	7.9	8.3	6.9	7.8
240.	*	8.0	8.2	6.9	7.8
250.	*	8.2	8.6	6.9	7.8
260.	*	8.3	9.3	6.9	7.9
270.	*	7.2	8.5	7.5	8.5
280.	*	6.9	7.7	8.2	9.1
290.	*	6.9	7.7	8.0	8.8
300.	*	6.9	7.8	7.8	8.2
310.	*	6.9	7.8	7.6	8.0
320.	*	6.9	7.9	7.5	8.0
330.	*	6.9	8.1	7.5	8.4
340.	*	6.9	8.4	7.5	8.8
350.	*	6.9	8.4	7.5	9.0
360.	*	7.4	7.5	8.0	7.9
-----*					
MAX	*	9.0	9.3	8.9	9.1
DEGR.	*	170	260	10	280

THE HIGHEST CONCENTRATION IS 9.28 PPM AT 260 DEGREES FROM REC2 .

1

PAGE 4

JOB: Prairie-Corbin Future Pre-Project PM

RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	260	10	280
-----*					
1	*	0.6	0.0	0.0	0.5
2	*	0.0	0.5	0.6	0.0
3	*	0.0	0.0	0.0	0.2
4	*	0.0	0.3	0.8	0.0
5	*	0.9	0.0	0.0	0.3
6	*	0.0	0.1	0.0	0.0
7	*	0.1	0.2	0.2	0.3
8	*	0.0	0.0	0.0	0.0
9	*	0.5	1.2	0.4	0.8
10	*	0.0	0.0	0.0	0.0
11	*	0.0	0.1	0.0	0.1
12	*	0.0	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT16AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Prairie-Corbin Alt A Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1877.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2148.	9.3	0.0	44.0		
3. NBQ	*	518.0	476.0	518.0	431.6	*	44.	180. AG	80.	100.0	0.0	36.0	0.56	2.3
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1502.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1601.	9.3	0.0	44.0		
6. SBQ	*	482.0	524.0	482.0	559.6	*	36.	360. AG	80.	100.0	0.0	36.0	0.45	1.8
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	656.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	365.	9.3	0.0	32.0		
9. EBQ	*	464.0	512.0	-52.5	485.3	*	517.	267. AG	181.	100.0	0.0	24.0	1.12	26.3
10. WBA	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	310.	9.3	0.0	44.0		
11. WBD	*	500.0	512.0	0.0	512.0	*	500.	270. AG	231.	9.3	0.0	32.0		
12. WBQ	*	536.0	518.0	573.3	517.5	*	37.	91. AG	181.	100.0	0.0	24.0	0.53	1.9

1

PAGE 2

JOB: Prairie-Corbin Alt A Krausz Future PM RUN: 4

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
3. NBQ	*	60	13	3.0	1877	1600	45.96	3	3
6. SBQ	*	60	13	3.0	1502	1600	45.96	3	3
9. EBQ	*	60	44	3.0	656	1600	45.96	3	3
12. WBQ	*	60	44	3.0	310	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	544.0	5.4	*
2. NE	*	556.0	544.0	5.4	*
3. SW	*	444.0	456.0	5.4	*
4. SE	*	556.0	456.0	5.4	*

1

PAGE 3

JOB: Prairie-Corbin Alt A Krausz Future PM RUN: 4

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
0.	*	7.4	7.5	8.1	8.2
10.	*	8.3	6.9	9.0	7.4
20.	*	8.4	6.9	8.9	7.2
30.	*	8.1	6.9	8.6	7.1
40.	*	7.9	6.9	8.1	7.1
50.	*	7.9	6.9	8.3	7.1
60.	*	7.9	6.9	8.3	7.1
70.	*	7.9	6.9	8.2	7.2
80.	*	7.9	6.9	8.1	7.2
90.	*	8.1	7.0	8.0	7.0
100.	*	8.4	7.2	7.8	6.9
110.	*	8.4	7.2	7.8	6.9
120.	*	8.2	7.1	7.8	6.9
130.	*	8.2	7.2	7.8	6.9
140.	*	8.2	7.3	8.0	6.9
150.	*	8.8	7.5	8.0	6.9
160.	*	9.1	7.6	8.3	6.9
170.	*	9.1	7.6	8.3	6.9
180.	*	8.1	8.3	7.4	7.5

190.	*	7.6	9.3	6.9	8.4
200.	*	7.7	9.1	6.9	8.4
210.	*	7.7	8.9	6.9	8.2
220.	*	7.8	8.5	6.9	8.0
230.	*	7.8	8.3	6.9	7.9
240.	*	8.0	8.2	6.9	7.8
250.	*	8.3	8.8	6.9	7.9
260.	*	8.2	9.3	6.9	7.9
270.	*	7.4	8.6	7.4	8.4
280.	*	6.9	7.8	8.1	9.1
290.	*	6.9	7.8	8.1	8.8
300.	*	6.9	7.8	7.8	8.5
310.	*	6.9	7.9	7.7	8.2
320.	*	6.9	8.0	7.6	8.3
330.	*	6.9	8.2	7.6	8.5
340.	*	6.9	8.4	7.6	8.9
350.	*	6.9	8.5	7.5	9.3
360.	*	7.4	7.5	8.1	8.2
-----*					
MAX	*	9.1	9.3	9.0	9.3
DEGR.	*	160	190	10	350

THE HIGHEST CONCENTRATION IS 9.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Prairie-Corbin Alt A Krausz Future PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		160	190	10	350
-----*					
1	*	0.7	1.1	0.0	0.1
2	*	0.0	0.0	0.6	1.3
3	*	0.0	0.1	0.0	0.0
4	*	0.1	0.0	0.9	0.5
5	*	0.7	0.5	0.0	0.0
6	*	0.0	0.0	0.1	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.1
9	*	0.4	0.0	0.3	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.0	0.0
12	*	0.0	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT16BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Prairie-Corbin Alt B Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1907.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2192.	9.3	0.0	44.0		
3. NBQ	*	518.0	476.0	518.0	430.9	*	45.	180. AG	80.	100.0	0.0	36.0	0.57	2.3
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1396.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1529.	9.3	0.0	44.0		
6. SBQ	*	482.0	524.0	482.0	557.1	*	33.	360. AG	80.	100.0	0.0	36.0	0.42	1.7
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	584.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	259.	9.3	0.0	32.0		
9. EBQ	*	464.0	512.0	312.4	504.2	*	152.	267. AG	181.	100.0	0.0	24.0	1.00	7.7
10. WBA	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	354.	9.3	0.0	44.0		
11. WBD	*	500.0	512.0	0.0	512.0	*	500.	270. AG	261.	9.3	0.0	32.0		
12. WBQ	*	536.0	518.0	578.8	517.5	*	43.	91. AG	181.	100.0	0.0	24.0	0.60	2.2

1 PAGE 2

JOB: Prairie-Corbin Alt B Krausz Future PM RUN: 6
 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
3. NBQ	*	60	13	3.0	1907	1600	45.96	3	3
6. SBQ	*	60	13	3.0	1396	1600	45.96	3	3
9. EBQ	*	60	44	3.0	584	1600	45.96	3	3
12. WBQ	*	60	44	3.0	354	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	544.0	5.4	*
2. NE	*	556.0	544.0	5.4	*
3. SW	*	444.0	456.0	5.4	*
4. SE	*	556.0	456.0	5.4	*

1 PAGE 3

JOB: Prairie-Corbin Alt B Krausz Future PM RUN: 6

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
0.	*	7.4	7.5	8.1	8.2
10.	*	8.2	6.9	8.9	7.4
20.	*	8.3	6.9	8.9	7.3
30.	*	8.1	6.9	8.6	7.2
40.	*	7.9	6.9	8.1	7.1
50.	*	7.8	6.9	8.3	7.1
60.	*	7.8	6.9	8.2	7.1
70.	*	7.9	6.9	8.2	7.1
80.	*	7.9	6.9	8.1	7.2
90.	*	8.1	7.0	8.0	7.0
100.	*	8.5	7.2	7.8	6.9
110.	*	8.4	7.2	7.8	6.9
120.	*	8.2	7.3	7.7	6.9
130.	*	8.0	7.3	7.8	6.9
140.	*	8.2	7.5	7.9	6.9
150.	*	8.7	7.6	8.1	6.9
160.	*	9.0	7.6	8.3	6.9
170.	*	9.1	7.6	8.2	6.9
180.	*	8.1	8.3	7.3	7.5

190.	*	7.6	9.3	6.9	8.5
200.	*	7.6	9.1	6.9	8.4
210.	*	7.6	8.8	6.9	8.1
220.	*	7.7	8.4	6.9	8.0
230.	*	7.8	8.3	6.9	7.9
240.	*	7.9	8.3	6.9	7.9
250.	*	7.8	8.7	6.9	7.9
260.	*	7.5	8.9	6.9	7.9
270.	*	7.1	8.2	7.1	8.1
280.	*	6.9	7.9	7.5	8.7
290.	*	6.9	7.8	7.6	8.7
300.	*	6.9	7.8	7.8	8.4
310.	*	6.9	7.9	7.7	8.1
320.	*	6.9	8.1	7.6	8.2
330.	*	6.9	8.2	7.6	8.4
340.	*	6.9	8.5	7.6	9.0
350.	*	6.9	8.5	7.6	9.2
360.	*	7.4	7.5	8.1	8.2
-----*					
MAX	*	9.1	9.3	8.9	9.2
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 9.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Prairie-Corbin Alt B Krausz Future PM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.6	1.1	0.0	0.1
2	*	0.0	0.0	0.6	1.3
3	*	0.0	0.1	0.0	0.0
4	*	0.0	0.0	0.8	0.4
5	*	0.9	0.5	0.0	0.0
6	*	0.0	0.0	0.0	0.0
7	*	0.1	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.1
9	*	0.5	0.0	0.3	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.1	0.0
12	*	0.0	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT16CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Prairie-Corbin Alt C Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1864.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2128.	9.3	0.0	44.0		
3. NBQ	*	518.0	476.0	518.0	435.3	*	41.	180. AG	74.	100.0	0.0	36.0	0.54	2.1
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1495.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1597.	9.3	0.0	44.0		
6. SBQ	*	482.0	524.0	482.0	556.7	*	33.	360. AG	74.	100.0	0.0	36.0	0.43	1.7
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	652.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	358.	9.3	0.0	32.0		
9. EBQ	*	464.0	512.0	-303.6	472.3	*	769.	267. AG	185.	100.0	0.0	24.0	1.23	39.0
10. WBA	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	290.	9.3	0.0	44.0		
11. WBD	*	500.0	512.0	0.0	512.0	*	500.	270. AG	218.	9.3	0.0	32.0		
12. WBQ	*	536.0	518.0	571.7	517.6	*	36.	91. AG	185.	100.0	0.0	24.0	0.55	1.8

1

PAGE 2

JOB: Prairie-Corbin Alt C Krausz Future PM RUN: 8

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
3. NBQ	*	60	12	3.0	1864	1600	45.96	3	3
6. SBQ	*	60	12	3.0	1495	1600	45.96	3	3
9. EBQ	*	60	45	3.0	652	1600	45.96	3	3
12. WBQ	*	60	45	3.0	290	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	544.0	5.4	*
2. NE	*	556.0	544.0	5.4	*
3. SW	*	444.0	456.0	5.4	*
4. SE	*	556.0	456.0	5.4	*

1

PAGE 3

JOB: Prairie-Corbin Alt C Krausz Future PM RUN: 8

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
0.	*	7.4	7.5	8.1	8.2
10.	*	8.3	6.9	9.0	7.4
20.	*	8.4	6.9	8.8	7.2
30.	*	8.1	6.9	8.5	7.1
40.	*	7.9	6.9	8.1	7.1
50.	*	7.8	6.9	8.3	7.1
60.	*	7.7	6.9	8.3	7.1
70.	*	7.9	6.9	8.2	7.2
80.	*	7.9	6.9	8.1	7.2
90.	*	8.1	7.0	7.9	7.0
100.	*	8.4	7.2	7.8	6.9
110.	*	8.4	7.2	7.7	6.9
120.	*	8.1	7.1	7.8	6.9
130.	*	8.2	7.2	7.8	6.9
140.	*	8.2	7.3	8.0	6.9
150.	*	8.7	7.4	8.0	6.9
160.	*	9.1	7.6	8.3	6.9
170.	*	9.1	7.6	8.3	6.9
180.	*	8.1	8.3	7.4	7.5

190.	*	7.6	9.3	6.9	8.4
200.	*	7.7	9.1	6.9	8.4
210.	*	7.8	9.0	6.9	8.2
220.	*	7.8	8.5	6.9	8.0
230.	*	7.9	8.3	6.9	7.9
240.	*	8.0	8.2	6.9	7.8
250.	*	8.3	8.8	6.9	7.9
260.	*	8.4	9.4	6.9	7.9
270.	*	7.5	8.6	7.6	8.6
280.	*	6.9	7.8	8.2	9.2
290.	*	6.9	7.8	8.1	8.8
300.	*	6.9	7.8	7.9	8.5
310.	*	6.9	7.9	7.7	8.1
320.	*	6.9	8.0	7.5	8.3
330.	*	6.9	8.2	7.5	8.4
340.	*	6.9	8.4	7.5	8.9
350.	*	6.9	8.5	7.5	9.2
360.	*	7.4	7.5	8.1	8.2
-----*					
MAX	*	9.1	9.4	9.0	9.2
DEGR.	*	160	260	10	280

THE HIGHEST CONCENTRATION IS 9.38 PPM AT 260 DEGREES FROM REC2 .

1

PAGE 4

JOB: Prairie-Corbin Alt C Krausz Future PM

RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	160	260	10	280
-----*					
1	*	0.7	0.0	0.0	0.5
2	*	0.0	0.5	0.6	0.0
3	*	0.0	0.0	0.0	0.2
4	*	0.1	0.3	0.9	0.0
5	*	0.7	0.0	0.0	0.3
6	*	0.0	0.1	0.0	0.0
7	*	0.1	0.3	0.2	0.4
8	*	0.0	0.0	0.0	0.0
9	*	0.5	1.2	0.4	0.8
10	*	0.0	0.0	0.0	0.0
11	*	0.1	0.1	0.0	0.1
12	*	0.0	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT16DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Prairie-Corbin Alt D Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1881.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2153.	9.3	0.0	44.0		
3. NBQ	*	518.0	476.0	518.0	434.9	*	41.	180. AG	74.	100.0	0.0	36.0	0.55	2.1
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1405.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1535.	9.3	0.0	44.0		
6. SBQ	*	482.0	524.0	482.0	554.7	*	31.	360. AG	74.	100.0	0.0	36.0	0.41	1.6
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	590.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	268.	9.3	0.0	32.0		
9. EBQ	*	464.0	512.0	18.1	488.9	*	447.	267. AG	185.	100.0	0.0	24.0	1.11	22.7
10. WBA	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	315.	9.3	0.0	44.0		
11. WBD	*	500.0	512.0	0.0	512.0	*	500.	270. AG	235.	9.3	0.0	32.0		
12. WBQ	*	536.0	518.0	574.9	517.5	*	39.	91. AG	185.	100.0	0.0	24.0	0.59	2.0

1 PAGE 2

JOB: Prairie-Corbin Alt D Krausz Future PM RUN: 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
3. NBQ	*	60	12	3.0	1881	1600	45.96	3	3
6. SBQ	*	60	12	3.0	1405	1600	45.96	3	3
9. EBQ	*	60	45	3.0	590	1600	45.96	3	3
12. WBQ	*	60	45	3.0	315	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	544.0	5.4	*
2. NE	*	556.0	544.0	5.4	*
3. SW	*	444.0	456.0	5.4	*
4. SE	*	556.0	456.0	5.4	*

1 PAGE 3

JOB: Prairie-Corbin Alt D Krausz Future PM RUN: 10

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	REC1	REC2	REC3	REC4
0.	*	7.4	7.5	8.0	8.2	
10.	*	8.3	6.9	8.9	7.4	
20.	*	8.3	6.9	8.9	7.2	
30.	*	8.1	6.9	8.6	7.1	
40.	*	7.9	6.9	8.1	7.1	
50.	*	7.8	6.9	8.3	7.1	
60.	*	7.8	6.9	8.3	7.1	
70.	*	7.9	6.9	8.2	7.1	
80.	*	7.9	6.9	8.1	7.2	
90.	*	8.1	7.0	7.9	7.0	
100.	*	8.5	7.2	7.8	6.9	
110.	*	8.4	7.2	7.7	6.9	
120.	*	8.2	7.1	7.7	6.9	
130.	*	8.0	7.2	7.8	6.9	
140.	*	8.2	7.4	7.9	6.9	
150.	*	8.6	7.5	8.0	6.9	
160.	*	9.1	7.6	8.2	6.9	
170.	*	9.1	7.6	8.2	6.9	
180.	*	8.1	8.3	7.3	7.5	

190.	*	7.6	9.3	6.9	8.4
200.	*	7.6	9.1	6.9	8.4
210.	*	7.7	8.9	6.9	8.1
220.	*	7.7	8.4	6.9	8.0
230.	*	7.9	8.3	6.9	7.9
240.	*	8.0	8.2	6.9	7.8
250.	*	8.2	8.7	6.9	7.9
260.	*	8.1	9.2	6.9	7.9
270.	*	7.3	8.5	7.4	8.4
280.	*	6.9	7.8	8.1	9.1
290.	*	6.9	7.8	8.0	8.8
300.	*	6.9	7.8	7.9	8.4
310.	*	6.9	7.9	7.7	8.1
320.	*	6.9	8.0	7.6	8.2
330.	*	6.9	8.2	7.6	8.4
340.	*	6.9	8.4	7.6	8.9
350.	*	6.9	8.5	7.5	9.2
360.	*	7.4	7.5	8.0	8.2
-----*					
MAX	*	9.1	9.3	8.9	9.2
DEGR.	*	160	190	10	350

THE HIGHEST CONCENTRATION IS 9.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Prairie-Corbin Alt D Krausz Future PM

RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		160	190	10	350
-----*					
1	*	0.7	1.1	0.0	0.1
2	*	0.0	0.0	0.6	1.3
3	*	0.0	0.1	0.0	0.0
4	*	0.1	0.0	0.8	0.4
5	*	0.7	0.5	0.0	0.0
6	*	0.0	0.0	0.0	0.0
7	*	0.1	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.1
9	*	0.5	0.0	0.4	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.0	0.0
12	*	0.0	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT16ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Prairie-Corbin Alt A Buildout Future PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1892.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2169.	9.3	0.0	44.0		
3. NBQ	*	518.0	476.0	518.0	431.2	*	45.	180. AG	80.	100.0	0.0	36.0	0.56	2.3
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1542.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1629.	9.3	0.0	44.0		
6. SBQ	*	482.0	524.0	482.0	560.6	*	37.	360. AG	80.	100.0	0.0	36.0	0.46	1.9
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	684.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	405.	9.3	0.0	32.0		
9. EBQ	*	464.0	512.0	-197.5	477.8	*	662.	267. AG	181.	100.0	0.0	24.0	1.17	33.6
10. WBA	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	331.	9.3	0.0	44.0		
11. WBD	*	500.0	512.0	0.0	512.0	*	500.	270. AG	246.	9.3	0.0	32.0		
12. WBQ	*	536.0	518.0	575.7	517.5	*	40.	91. AG	181.	100.0	0.0	24.0	0.56	2.0

1

PAGE 2

JOB: Prairie-Corbin Alt A Buildout Future PM RUN: 5

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
3. NBQ	*	60	13	3.0	1892	1600	45.96	3	3
6. SBQ	*	60	13	3.0	1542	1600	45.96	3	3
9. EBQ	*	60	44	3.0	684	1600	45.96	3	3
12. WBQ	*	60	44	3.0	331	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	544.0	5.4	*
2. NE	*	556.0	544.0	5.4	*
3. SW	*	444.0	456.0	5.4	*
4. SE	*	556.0	456.0	5.4	*

1

PAGE 3

JOB: Prairie-Corbin Alt A Buildout Future PM RUN: 5

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
0.	*	7.4	7.5	8.2	8.2
10.	*	8.3	6.9	9.1	7.4
20.	*	8.4	6.9	9.0	7.3
30.	*	8.1	6.9	8.6	7.1
40.	*	7.9	6.9	8.2	7.1
50.	*	7.9	6.9	8.3	7.1
60.	*	7.9	6.9	8.3	7.2
70.	*	7.9	6.9	8.3	7.2
80.	*	7.9	6.9	8.1	7.2
90.	*	8.1	7.0	8.0	7.0
100.	*	8.6	7.2	7.8	6.9
110.	*	8.5	7.2	7.8	6.9
120.	*	8.2	7.1	7.8	6.9
130.	*	8.2	7.2	7.8	6.9
140.	*	8.3	7.4	8.0	6.9
150.	*	8.9	7.5	8.2	6.9
160.	*	9.2	7.6	8.3	6.9
170.	*	9.2	7.6	8.3	6.9
180.	*	8.2	8.3	7.4	7.5

190.	*	7.6	9.3	6.9	8.4
200.	*	7.7	9.1	6.9	8.4
210.	*	7.7	8.9	6.9	8.2
220.	*	7.8	8.6	6.9	8.0
230.	*	7.8	8.3	6.9	7.9
240.	*	8.0	8.2	6.9	7.9
250.	*	8.3	8.8	6.9	7.9
260.	*	8.3	9.5	6.9	7.9
270.	*	7.4	8.7	7.5	8.5
280.	*	6.9	7.9	8.2	9.2
290.	*	6.9	7.8	8.1	8.9
300.	*	6.9	7.9	7.8	8.5
310.	*	6.9	7.9	7.8	8.3
320.	*	6.9	8.0	7.6	8.3
330.	*	6.9	8.3	7.6	8.5
340.	*	6.9	8.5	7.6	9.0
350.	*	6.9	8.5	7.6	9.3
360.	*	7.4	7.5	8.2	8.2
-----*					
MAX	*	9.2	9.5	9.1	9.3
DEGR.	*	160	260	10	350

THE HIGHEST CONCENTRATION IS 9.48 PPM AT 260 DEGREES FROM REC2 .

1

PAGE 4

JOB: Prairie-Corbin Alt A Buildout Future PM RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	160	260	10	350
-----*					
1	*	0.7	0.0	0.0	0.1
2	*	0.0	0.6	0.6	1.3
3	*	0.0	0.0	0.0	0.0
4	*	0.2	0.3	0.9	0.5
5	*	0.7	0.0	0.0	0.0
6	*	0.0	0.1	0.1	0.0
7	*	0.2	0.3	0.2	0.0
8	*	0.0	0.0	0.0	0.1
9	*	0.4	1.2	0.3	0.0
10	*	0.0	0.0	0.0	0.1
11	*	0.1	0.1	0.1	0.0
12	*	0.0	0.0	0.0	0.3

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT16BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Prairie-Corbin Alt B Buildout Future PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1964.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2275.	9.3	0.0	44.0		
3. NBQ	*	518.0	476.0	518.0	429.5	*	46.	180. AG	80.	100.0	0.0	36.0	0.58	2.4
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1407.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1537.	9.3	0.0	44.0		
6. SBQ	*	482.0	524.0	482.0	557.4	*	33.	360. AG	80.	100.0	0.0	36.0	0.42	1.7
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	592.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	270.	9.3	0.0	32.0		
9. EBQ	*	464.0	512.0	278.9	502.4	*	185.	267. AG	181.	100.0	0.0	24.0	1.01	9.4
10. WBA	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	437.	9.3	0.0	44.0		
11. WBD	*	500.0	512.0	0.0	512.0	*	500.	270. AG	318.	9.3	0.0	32.0		
12. WBQ	*	536.0	518.0	596.3	517.2	*	60.	91. AG	181.	100.0	0.0	24.0	0.74	3.1

1

PAGE 2

JOB: Prairie-Corbin Alt B Buildout Future PM RUN: 7

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
3. NBQ	*	60	13	3.0	1964	1600	45.96	3	3
6. SBQ	*	60	13	3.0	1407	1600	45.96	3	3
9. EBQ	*	60	44	3.0	592	1600	45.96	3	3
12. WBQ	*	60	44	3.0	437	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	544.0	5.4	*
2. NE	*	556.0	544.0	5.4	*
3. SW	*	444.0	456.0	5.4	*
4. SE	*	556.0	456.0	5.4	*

1

PAGE 3

JOB: Prairie-Corbin Alt B Buildout Future PM RUN: 7

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
0.	*	7.4	7.5	8.1	8.2
10.	*	8.4	6.9	9.0	7.5
20.	*	8.3	6.9	9.0	7.5
30.	*	8.1	6.9	8.6	7.4
40.	*	8.0	6.9	8.3	7.2
50.	*	7.8	6.9	8.3	7.1
60.	*	7.8	6.9	8.4	7.1
70.	*	7.9	6.9	8.4	7.2
80.	*	7.9	6.9	8.2	7.3
90.	*	8.2	7.0	8.1	7.0
100.	*	8.7	7.3	7.8	6.9
110.	*	8.5	7.3	7.8	6.9
120.	*	8.2	7.5	7.8	6.9
130.	*	8.1	7.7	7.8	6.9
140.	*	8.3	7.7	7.9	6.9
150.	*	8.7	7.7	8.1	6.9
160.	*	9.0	7.6	8.3	6.9
170.	*	9.1	7.6	8.3	6.9
180.	*	8.1	8.3	7.3	7.5

190.	*	7.6	9.4	6.9	8.5
200.	*	7.6	9.2	6.9	8.4
210.	*	7.6	8.8	6.9	8.1
220.	*	7.7	8.4	6.9	8.0
230.	*	7.8	8.4	6.9	7.9
240.	*	7.9	8.3	6.9	8.0
250.	*	8.1	8.7	6.9	7.9
260.	*	7.6	9.0	6.9	7.9
270.	*	7.1	8.3	7.1	8.2
280.	*	6.9	7.9	7.6	8.8
290.	*	6.9	7.8	7.8	8.7
300.	*	6.9	7.9	7.8	8.4
310.	*	6.9	7.9	7.7	8.3
320.	*	6.9	8.1	7.6	8.3
330.	*	6.9	8.2	7.6	8.4
340.	*	6.9	8.5	7.6	9.0
350.	*	6.9	8.6	7.6	9.2
360.	*	7.4	7.5	8.1	8.2
-----*					
MAX	*	9.1	9.4	9.0	9.2
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 9.38 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Prairie-Corbin Alt B Buildout Future PM RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.6	1.2	0.0	0.1
2	*	0.0	0.0	0.7	1.3
3	*	0.0	0.1	0.0	0.0
4	*	0.0	0.0	0.8	0.4
5	*	0.9	0.5	0.0	0.0
6	*	0.0	0.0	0.0	0.0
7	*	0.1	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.1
9	*	0.5	0.0	0.3	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.1	0.0
12	*	0.0	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT16CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Prairie-Corbin Alt C Buildout Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1874.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2142.	9.3	0.0	44.0		
3. NBQ	*	518.0	476.0	518.0	431.7	*	44.	180. AG	80.	100.0	0.0	36.0	0.56 2.3	
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1531.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1621.	9.3	0.0	44.0		
6. SBQ	*	482.0	524.0	482.0	560.3	*	36.	360. AG	80.	100.0	0.0	36.0	0.46 1.8	
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	676.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	394.	9.3	0.0	32.0		
9. EBQ	*	464.0	512.0	-156.0	479.9	*	621.	267. AG	181.	100.0	0.0	24.0	1.15 31.5	
10. WBA	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	304.	9.3	0.0	44.0		
11. WBD	*	500.0	512.0	0.0	512.0	*	500.	270. AG	228.	9.3	0.0	32.0		
12. WBQ	*	536.0	518.0	572.6	517.5	*	37.	91. AG	181.	100.0	0.0	24.0	0.52 1.9	

1

PAGE 2

JOB: Prairie-Corbin Alt C Buildout Future PM RUN: 9

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
3. NBQ	*	60	13	3.0	1874	1600	45.96	3	3
6. SBQ	*	60	13	3.0	1531	1600	45.96	3	3
9. EBQ	*	60	44	3.0	676	1600	45.96	3	3
12. WBQ	*	60	44	3.0	304	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	544.0	5.4	*
2. NE	*	556.0	544.0	5.4	*
3. SW	*	444.0	456.0	5.4	*
4. SE	*	556.0	456.0	5.4	*

1

PAGE 3

JOB: Prairie-Corbin Alt C Buildout Future PM RUN: 9

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 REC1	REC2	REC3	REC4
0.	*	7.4	7.5	8.1	8.2
10.	*	8.3	6.9	9.0	7.4
20.	*	8.4	6.9	9.0	7.2
30.	*	8.1	6.9	8.6	7.1
40.	*	7.9	6.9	8.2	7.1
50.	*	7.9	6.9	8.3	7.1
60.	*	7.9	6.9	8.3	7.2
70.	*	7.9	6.9	8.3	7.2
80.	*	7.9	6.9	8.1	7.2
90.	*	8.1	7.0	8.0	7.0
100.	*	8.5	7.2	7.8	6.9
110.	*	8.4	7.2	7.8	6.9
120.	*	8.2	7.1	7.8	6.9
130.	*	8.2	7.2	7.8	6.9
140.	*	8.3	7.3	8.0	6.9
150.	*	8.8	7.4	8.0	6.9
160.	*	9.1	7.6	8.3	6.9
170.	*	9.1	7.6	8.3	6.9
180.	*	8.2	8.3	7.4	7.5

190.	*	7.6	9.3	6.9	8.4
200.	*	7.7	9.1	6.9	8.4
210.	*	7.7	8.9	6.9	8.2
220.	*	7.8	8.6	6.9	8.0
230.	*	7.8	8.3	6.9	7.9
240.	*	8.0	8.2	6.9	7.8
250.	*	8.3	8.8	6.9	7.9
260.	*	8.3	9.3	6.9	7.9
270.	*	7.4	8.7	7.5	8.5
280.	*	6.9	7.8	8.2	9.2
290.	*	6.9	7.8	8.1	8.9
300.	*	6.9	7.9	7.8	8.5
310.	*	6.9	7.9	7.8	8.2
320.	*	6.9	8.0	7.6	8.3
330.	*	6.9	8.2	7.6	8.5
340.	*	6.9	8.4	7.6	8.9
350.	*	6.9	8.5	7.5	9.3
360.	*	7.4	7.5	8.1	8.2
-----*					
MAX	*	9.1	9.3	9.0	9.3
DEGR.	*	160	190	10	350

THE HIGHEST CONCENTRATION IS 9.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Prairie-Corbin Alt C Buildout Future PM RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		160	190	10	350
-----*					
1	*	0.7	1.1	0.0	0.1
2	*	0.0	0.0	0.6	1.3
3	*	0.0	0.1	0.0	0.0
4	*	0.1	0.0	0.9	0.5
5	*	0.7	0.5	0.0	0.0
6	*	0.0	0.0	0.1	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.1
9	*	0.4	0.0	0.3	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.0	0.0
12	*	0.0	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT16DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:23

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Prairie-Corbin Alt D Buildout Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1881.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2208.	9.3	0.0	44.0		
3. NBQ	*	518.0	476.0	518.0	430.6	*	45.	180. AG	80.	100.0	0.0	36.0	0.57	2.3
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1416.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1542.	9.3	0.0	44.0		
6. SBQ	*	482.0	524.0	482.0	557.6	*	34.	360. AG	80.	100.0	0.0	36.0	0.42	1.7
7. EBA	*	0.0	488.0	500.0	488.0	*	500.	90. AG	597.	9.3	0.0	44.0		
8. EBD	*	500.0	488.0	1000.0	488.0	*	500.	90. AG	279.	9.3	0.0	32.0		
9. EBQ	*	464.0	512.0	258.2	501.4	*	206.	267. AG	181.	100.0	0.0	24.0	1.02	10.5
10. WBA	*	1000.0	512.0	500.0	512.0	*	500.	270. AG	370.	9.3	0.0	44.0		
11. WBD	*	500.0	512.0	0.0	512.0	*	500.	270. AG	273.	9.3	0.0	32.0		
12. WBQ	*	536.0	518.0	581.7	517.4	*	46.	91. AG	181.	100.0	0.0	24.0	0.63	2.3

1

PAGE 2

JOB: Prairie-Corbin Alt D Buildout Future PM RUN: 11

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
3. NBQ	*	60	13	3.0	1919	1600	45.96	3	3
6. SBQ	*	60	13	3.0	1416	1600	45.96	3	3
9. EBQ	*	60	44	3.0	597	1600	45.96	3	3
12. WBQ	*	60	44	3.0	370	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	544.0	5.4	*
2. NE	*	556.0	544.0	5.4	*
3. SW	*	444.0	456.0	5.4	*
4. SE	*	556.0	456.0	5.4	*

1

PAGE 3

JOB: Prairie-Corbin Alt D Buildout Future PM RUN: 11

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
0.	*	7.4	7.5	8.1	8.2
10.	*	8.3	6.9	9.1	7.5
20.	*	8.4	6.9	8.9	7.3
30.	*	8.1	6.9	8.6	7.2
40.	*	8.0	6.9	8.1	7.1
50.	*	7.8	6.9	8.3	7.1
60.	*	7.8	6.9	8.4	7.1
70.	*	7.9	6.9	8.3	7.1
80.	*	7.9	6.9	8.2	7.2
90.	*	8.1	7.0	8.0	7.0
100.	*	8.5	7.2	7.8	6.9
110.	*	8.4	7.2	7.8	6.9
120.	*	8.2	7.3	7.7	6.9
130.	*	8.1	7.4	7.8	6.9
140.	*	8.2	7.5	7.9	6.9
150.	*	8.6	7.6	8.0	6.9
160.	*	9.0	7.6	8.2	6.9
170.	*	9.1	7.6	8.3	6.9
180.	*	8.1	8.3	7.3	7.5

190.	*	7.6	9.3	6.9	8.4
200.	*	7.6	9.1	6.9	8.4
210.	*	7.7	8.8	6.9	8.1
220.	*	7.7	8.4	6.9	8.0
230.	*	7.8	8.3	6.9	7.9
240.	*	8.0	8.3	6.9	7.9
250.	*	8.0	8.7	6.9	7.9
260.	*	7.7	9.0	6.9	7.9
270.	*	7.1	8.3	7.1	8.2
280.	*	6.9	7.9	7.6	8.8
290.	*	6.9	7.8	7.8	8.7
300.	*	6.9	7.8	7.8	8.4
310.	*	6.9	7.9	7.7	8.2
320.	*	6.9	8.1	7.6	8.2
330.	*	6.9	8.2	7.6	8.4
340.	*	6.9	8.5	7.6	9.0
350.	*	6.9	8.5	7.6	9.2
360.	*	7.4	7.5	8.1	8.2
-----*					
MAX	*	9.1	9.3	9.1	9.2
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 9.28 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Prairie-Corbin Alt D Buildout Future PM RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.6	1.1	0.0	0.1
2	*	0.0	0.0	0.7	1.3
3	*	0.0	0.1	0.0	0.0
4	*	0.0	0.0	0.9	0.4
5	*	0.9	0.5	0.0	0.0
6	*	0.0	0.0	0.0	0.0
7	*	0.1	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.1
9	*	0.5	0.0	0.3	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.1	0.0
12	*	0.0	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 18:23

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT17XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff Pl-Corbin Existing Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2373.	12.2	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2463.	12.2	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	431.6	*	32.	180. AG	108.	100.0	0.0	48.0	0.49	1.6
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1449.	12.2	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1711.	12.2	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	555.8	*	20.	360. AG	108.	100.0	0.0	48.0	0.30	1.0
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	352.	12.2	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	282.	12.2	0.0	44.0		
9. EBQ	*	452.0	482.0	421.9	482.0	*	30.	270. AG	382.	100.0	0.0	36.0	0.55	1.5
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	454.	12.2	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	172.	12.2	0.0	32.0		
12. WBQ	*	548.0	518.0	592.7	518.0	*	45.	90. AG	382.	100.0	0.0	36.0	0.71	2.3

1

PAGE 2

JOB: Nordhoff Pl-Corbin Existing Ambient PM RUN: 2
 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
3. NBQ	*	60	10	3.0	2373	1600	60.55	3	3
6. SBQ	*	60	10	3.0	1449	1600	60.55	3	3
9. EBQ	*	60	47	3.0	352	1600	60.55	3	3
12. WBQ	*	60	47	3.0	454	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff Pl-Corbin Existing Ambient PM RUN: 2

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
0.	*	9.1	10.6	10.4	10.5
10.	*	10.3	11.2	11.5	9.6
20.	*	10.6	10.9	11.7	9.2
30.	*	10.3	10.5	10.9	9.0
40.	*	10.0	10.3	10.6	8.9
50.	*	9.9	10.1	10.6	9.0
60.	*	9.8	10.0	10.8	9.0
70.	*	9.8	10.0	10.7	9.1
80.	*	9.8	9.9	10.4	9.0
90.	*	10.2	10.2	10.2	8.8
100.	*	10.8	10.9	10.0	8.7
110.	*	10.8	11.0	9.9	8.7
120.	*	10.3	10.9	10.0	8.7
130.	*	10.3	10.7	10.0	8.7
140.	*	10.4	10.5	10.2	8.7
150.	*	10.6	10.8	10.4	8.7
160.	*	11.2	11.4	10.7	8.7
170.	*	11.5	12.1	10.3	8.8
180.	*	10.1	11.7	9.2	9.4

190.	*	9.2	10.6	8.7	10.8
200.	*	9.0	10.3	8.7	10.9
210.	*	8.9	10.0	8.7	10.5
220.	*	8.9	9.6	8.7	10.2
230.	*	8.9	9.3	8.7	10.0
240.	*	8.9	9.3	8.7	10.0
250.	*	9.0	9.4	8.7	10.0
260.	*	8.9	9.3	8.7	10.1
270.	*	8.7	9.1	8.8	10.4
280.	*	8.7	9.1	9.0	10.9
290.	*	8.7	9.1	9.0	10.7
300.	*	8.7	9.1	9.0	10.5
310.	*	8.7	9.0	9.0	10.2
320.	*	8.7	9.0	8.8	10.4
330.	*	8.7	9.1	8.9	10.7
340.	*	8.7	9.3	9.1	11.4
350.	*	8.7	9.8	9.5	11.8
360.	*	9.1	10.6	10.4	10.5
-----*					
MAX	*	11.5	12.1	11.7	11.8
DEGR.	*	170	170	20	350

THE HIGHEST CONCENTRATION IS 12.10 PPM AT 170 DEGREES FROM REC2 .

1

PAGE 4

JOB: Nordhoff Pl-Corbin Existing Ambient PM

RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	170	20	350
-----*					
1	*	0.7	1.4	0.0	0.2
2	*	0.0	0.0	1.0	1.7
3	*	0.0	0.0	0.0	0.0
4	*	0.1	0.5	0.7	0.4
5	*	1.2	1.1	0.2	0.0
6	*	0.0	0.2	0.1	0.0
7	*	0.1	0.1	0.1	0.0
8	*	0.0	0.0	0.0	0.1
9	*	0.6	0.0	0.9	0.0
10	*	0.0	0.0	0.0	0.1
11	*	0.1	0.1	0.0	0.0
12	*	0.0	0.0	0.0	0.6

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT17FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff Pl-Corbin Future Pre-Project PM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2460.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2556.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	423.7	*	40.	180. AG	99.	100.0	0.0	48.0	0.54	2.0
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1553.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1809.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	561.5	*	25.	360. AG	99.	100.0	0.0	48.0	0.34	1.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	529.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	459.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	406.0	482.0	*	46.	270. AG	277.	100.0	0.0	36.0	0.66	2.3
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	473.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	191.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	586.9	518.0	*	39.	90. AG	277.	100.0	0.0	36.0	0.59	2.0

1

PAGE 2

JOB: Nordhoff Pl-Corbin Future Pre-Project PM RUN: 3

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
3. NBQ	*	60	12	3.0	2460	1600	45.96	3	3
6. SBQ	*	60	12	3.0	1553	1600	45.96	3	3
9. EBQ	*	60	45	3.0	529	1600	45.96	3	3
12. WBQ	*	60	45	3.0	473	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff Pl-Corbin Future Pre-Project PM RUN: 3

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
0.	*	7.2	8.4	8.3	8.2
10.	*	8.2	8.9	9.0	7.5
20.	*	8.4	8.7	9.2	7.2
30.	*	8.1	8.4	8.8	7.1
40.	*	8.0	8.2	8.5	7.1
50.	*	7.9	8.1	8.5	7.2
60.	*	7.8	8.1	8.5	7.2
70.	*	7.8	8.0	8.5	7.3
80.	*	7.9	8.1	8.4	7.2
90.	*	8.2	8.2	8.2	7.0
100.	*	8.7	8.7	7.9	6.9
110.	*	8.7	8.9	7.9	6.9
120.	*	8.2	8.8	7.9	6.9
130.	*	8.2	8.6	7.9	6.9
140.	*	8.2	8.5	8.1	6.9
150.	*	8.6	8.7	8.3	6.9
160.	*	8.9	9.1	8.5	6.9
170.	*	9.1	9.6	8.2	6.9
180.	*	8.1	9.3	7.2	7.5

190.	*	7.5	8.3	6.9	8.6
200.	*	7.3	8.2	6.9	8.6
210.	*	7.2	8.0	6.9	8.4
220.	*	7.1	7.8	6.9	8.1
230.	*	7.1	7.5	6.9	8.0
240.	*	7.2	7.5	6.9	8.1
250.	*	7.2	7.5	6.9	8.1
260.	*	7.1	7.4	6.9	8.1
270.	*	6.9	7.2	7.0	8.5
280.	*	6.9	7.2	7.2	8.8
290.	*	6.9	7.2	7.3	8.7
300.	*	6.9	7.2	7.2	8.4
310.	*	6.9	7.2	7.2	8.0
320.	*	6.9	7.2	7.4	8.3
330.	*	6.9	7.2	7.7	8.6
340.	*	6.9	7.4	7.7	9.1
350.	*	6.9	7.8	7.8	9.3
360.	*	7.2	8.4	8.3	8.2
-----*					
MAX	*	9.1	9.6	9.2	9.3
DEGR.	*	170	170	20	350

THE HIGHEST CONCENTRATION IS 9.58 PPM AT 170 DEGREES FROM REC2 .

1

PAGE 4

JOB: Nordhoff Pl-Corbin Future Pre-Project PM

RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	170	20	350
-----*					
1	*	0.6	1.1	0.0	0.1
2	*	0.0	0.0	0.8	1.3
3	*	0.0	0.0	0.0	0.0
4	*	0.1	0.4	0.6	0.4
5	*	1.0	0.9	0.1	0.0
6	*	0.0	0.2	0.1	0.0
7	*	0.1	0.1	0.1	0.0
8	*	0.0	0.0	0.0	0.1
9	*	0.4	0.0	0.6	0.0
10	*	0.0	0.0	0.0	0.1
11	*	0.0	0.0	0.0	0.0
12	*	0.0	0.0	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT17AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff Pl-Corbin ALTA Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2636.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2621.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	420.8	*	43.	180. AG	99.	100.0	0.0	48.0	0.58	2.2
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1598.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1930.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	562.2	*	26.	360. AG	99.	100.0	0.0	48.0	0.35	1.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	536.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	577.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	405.1	482.0	*	47.	270. AG	277.	100.0	0.0	36.0	0.67	2.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	553.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	195.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	597.6	518.0	*	50.	90. AG	277.	100.0	0.0	36.0	0.69	2.5

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PAGE 2

JOB: Nordhoff Pl-Corbin ALTA Krausz Future PM RUN: 4

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
3. NBQ	*	60	12	3.0	2636	1600	45.96	3	3
6. SBQ	*	60	12	3.0	1598	1600	45.96	3	3
9. EBQ	*	60	45	3.0	536	1600	45.96	3	3
12. WBQ	*	60	45	3.0	553	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff Pl-Corbin ALTA Krausz Future PM RUN: 4

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
0.	*	7.3	8.4	8.3	8.4
10.	*	8.2	9.0	9.2	7.6
20.	*	8.4	8.8	9.3	7.6
30.	*	8.2	8.4	9.0	7.3
40.	*	8.0	8.2	8.5	7.2
50.	*	7.9	8.2	8.5	7.2
60.	*	7.8	8.2	8.6	7.3
70.	*	7.8	8.1	8.6	7.4
80.	*	7.9	8.2	8.5	7.3
90.	*	8.3	8.3	8.3	7.0
100.	*	8.8	8.9	8.0	6.9
110.	*	8.8	9.1	7.9	6.9
120.	*	8.3	9.0	8.0	6.9
130.	*	8.2	8.7	8.0	6.9
140.	*	8.3	8.6	8.2	6.9
150.	*	8.7	8.7	8.4	6.9
160.	*	9.0	9.2	8.6	6.9
170.	*	9.1	9.8	8.3	6.9
180.	*	8.2	9.4	7.3	7.5

190.	*	7.5	8.4	6.9	8.7
200.	*	7.4	8.3	6.9	8.8
210.	*	7.2	8.0	6.9	8.5
220.	*	7.1	7.8	6.9	8.3
230.	*	7.1	7.6	6.9	8.2
240.	*	7.2	7.5	6.9	8.1
250.	*	7.2	7.5	6.9	8.2
260.	*	7.1	7.4	6.9	8.3
270.	*	6.9	7.2	7.0	8.6
280.	*	6.9	7.2	7.2	9.0
290.	*	6.9	7.3	7.3	8.8
300.	*	6.9	7.2	7.2	8.4
310.	*	6.9	7.2	7.3	8.1
320.	*	6.9	7.2	7.5	8.4
330.	*	6.9	7.3	7.7	8.7
340.	*	6.9	7.4	7.7	9.3
350.	*	6.9	7.8	7.8	9.4
360.	*	7.3	8.4	8.3	8.4

MAX	*	9.1	9.8	9.3	9.4
DEGR.	*	170	170	20	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 170 DEGREES FROM REC2 .

1

PAGE 4

JOB: Nordhoff Pl-Corbin ALTA Krausz Future PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	170	20	350

1	*	0.6	1.2	0.0	0.1
2	*	0.0	0.0	0.8	1.4
3	*	0.0	0.0	0.0	0.0
4	*	0.1	0.4	0.6	0.4
5	*	1.0	1.0	0.2	0.0
6	*	0.0	0.2	0.1	0.0
7	*	0.1	0.1	0.1	0.0
8	*	0.0	0.0	0.0	0.1
9	*	0.4	0.0	0.6	0.0
10	*	0.0	0.0	0.0	0.1
11	*	0.0	0.0	0.0	0.0
12	*	0.0	0.0	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT17BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff Pl-Corbin ALTB Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2506.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2573.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	422.9	*	41.	180. AG	99.	100.0	0.0	48.0	0.55	2.1
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1618.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1984.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	562.5	*	27.	360. AG	99.	100.0	0.0	48.0	0.35	1.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	531.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	490.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	405.6	482.0	*	46.	270. AG	277.	100.0	0.0	36.0	0.67	2.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	589.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	197.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	603.7	518.0	*	56.	90. AG	277.	100.0	0.0	36.0	0.74	2.8

1

PAGE 2

JOB: Nordhoff Pl-Corbin ALTB Krausz Future PM RUN: 6

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
3. NBQ	*	60	12	3.0	2506	1600	45.96	3	3
6. SBQ	*	60	12	3.0	1618	1600	45.96	3	3
9. EBQ	*	60	45	3.0	531	1600	45.96	3	3
12. WBQ	*	60	45	3.0	589	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff Pl-Corbin ALTB Krausz Future PM RUN: 6

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
0.	*	7.3	8.5	8.3	8.3
10.	*	8.2	9.0	9.2	7.7
20.	*	8.4	8.8	9.3	7.6
30.	*	8.1	8.4	8.8	7.3
40.	*	8.0	8.3	8.5	7.2
50.	*	7.9	8.1	8.5	7.3
60.	*	7.8	8.1	8.7	7.3
70.	*	7.8	8.1	8.7	7.3
80.	*	7.9	8.2	8.5	7.3
90.	*	8.3	8.4	8.2	7.0
100.	*	8.9	9.0	8.0	6.9
110.	*	8.8	9.3	7.9	6.9
120.	*	8.2	8.9	7.9	6.9
130.	*	8.2	8.6	8.0	6.9
140.	*	8.3	8.5	8.2	6.9
150.	*	8.7	8.7	8.4	6.9
160.	*	9.1	9.2	8.5	6.9
170.	*	9.2	9.7	8.3	6.9
180.	*	8.2	9.4	7.3	7.5

190.	*	7.5	8.4	6.9	8.6
200.	*	7.4	8.3	6.9	8.8
210.	*	7.2	8.0	6.9	8.4
220.	*	7.1	7.8	6.9	8.2
230.	*	7.1	7.6	6.9	8.2
240.	*	7.2	7.5	6.9	8.1
250.	*	7.2	7.5	6.9	8.1
260.	*	7.1	7.4	6.9	8.2
270.	*	6.9	7.2	7.0	8.6
280.	*	6.9	7.2	7.2	8.9
290.	*	6.9	7.3	7.3	8.8
300.	*	6.9	7.2	7.2	8.4
310.	*	6.9	7.2	7.3	8.1
320.	*	6.9	7.2	7.4	8.5
330.	*	6.9	7.3	7.7	8.6
340.	*	6.9	7.4	7.7	9.2
350.	*	6.9	7.8	7.8	9.3
360.	*	7.3	8.5	8.3	8.3

MAX	*	9.2	9.7	9.3	9.3
DEGR.	*	170	170	20	350

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 170 DEGREES FROM REC2 .

1

PAGE 4

JOB: Nordhoff Pl-Corbin ALTB Krausz Future PM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	170	20	350

1	*	0.6	1.1	0.0	0.1
2	*	0.0	0.0	0.8	1.3
3	*	0.0	0.0	0.0	0.0
4	*	0.1	0.4	0.6	0.4
5	*	1.1	1.0	0.2	0.0
6	*	0.0	0.2	0.1	0.0
7	*	0.1	0.1	0.1	0.0
8	*	0.0	0.0	0.0	0.1
9	*	0.4	0.0	0.6	0.0
10	*	0.0	0.0	0.0	0.1
11	*	0.0	0.0	0.0	0.0
12	*	0.0	0.0	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT17CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff Pl-Corbin ALTC Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2628.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2618.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	420.9	*	43.	180. AG	99.	100.0	0.0	48.0	0.57	2.2
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1589.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1906.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	562.1	*	26.	360. AG	99.	100.0	0.0	48.0	0.35	1.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	535.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	571.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	405.1	482.0	*	47.	270. AG	277.	100.0	0.0	36.0	0.67	2.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	538.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	195.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	595.3	518.0	*	47.	90. AG	277.	100.0	0.0	36.0	0.67	2.4

1

PAGE 2

JOB: Nordhoff Pl-Corbin ALTC Krausz Future PM RUN: 8

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
3. NBQ	*	60	12	3.0	2628	1600	45.96	3	3
6. SBQ	*	60	12	3.0	1589	1600	45.96	3	3
9. EBQ	*	60	45	3.0	535	1600	45.96	3	3
12. WBQ	*	60	45	3.0	538	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

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PAGE 3

JOB: Nordhoff Pl-Corbin ALTC Krausz Future PM RUN: 8

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
0.	*	7.3	8.4	8.3	8.4
10.	*	8.2	9.0	9.2	7.6
20.	*	8.4	8.8	9.3	7.4
30.	*	8.2	8.4	9.0	7.3
40.	*	8.0	8.2	8.5	7.2
50.	*	7.9	8.2	8.5	7.2
60.	*	7.8	8.2	8.5	7.3
70.	*	7.8	8.1	8.6	7.4
80.	*	7.9	8.2	8.5	7.3
90.	*	8.3	8.3	8.3	7.0
100.	*	8.8	8.9	8.0	6.9
110.	*	8.8	9.1	7.9	6.9
120.	*	8.3	9.0	8.0	6.9
130.	*	8.2	8.6	8.0	6.9
140.	*	8.3	8.6	8.1	6.9
150.	*	8.7	8.7	8.3	6.9
160.	*	9.0	9.1	8.6	6.9
170.	*	9.1	9.7	8.3	6.9
180.	*	8.1	9.3	7.3	7.5

190.	*	7.5	8.4	6.9	8.7
200.	*	7.4	8.3	6.9	8.7
210.	*	7.2	8.0	6.9	8.4
220.	*	7.1	7.8	6.9	8.2
230.	*	7.1	7.5	6.9	8.2
240.	*	7.2	7.5	6.9	8.1
250.	*	7.2	7.5	6.9	8.2
260.	*	7.1	7.4	6.9	8.2
270.	*	6.9	7.2	7.0	8.6
280.	*	6.9	7.2	7.2	8.9
290.	*	6.9	7.2	7.3	8.8
300.	*	6.9	7.2	7.2	8.4
310.	*	6.9	7.2	7.3	8.1
320.	*	6.9	7.2	7.5	8.4
330.	*	6.9	7.3	7.7	8.7
340.	*	6.9	7.4	7.7	9.2
350.	*	6.9	7.8	7.8	9.4
360.	*	7.3	8.4	8.3	8.4
-----*					
MAX	*	9.1	9.7	9.3	9.4
DEGR.	*	170	170	20	350

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 170 DEGREES FROM REC2 .

1

PAGE 4

JOB: Nordhoff Pl-Corbin ALTC Krausz Future PM

RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	170	20	350
-----*					
1	*	0.6	1.2	0.0	0.1
2	*	0.0	0.0	0.8	1.4
3	*	0.0	0.0	0.0	0.0
4	*	0.1	0.4	0.6	0.4
5	*	1.0	0.9	0.2	0.0
6	*	0.0	0.2	0.1	0.0
7	*	0.1	0.1	0.1	0.0
8	*	0.0	0.0	0.0	0.1
9	*	0.4	0.0	0.6	0.0
10	*	0.0	0.0	0.0	0.1
11	*	0.0	0.0	0.0	0.0
12	*	0.0	0.0	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT17DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff Pl-Corbin ALTD Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2519.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2578.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	422.7	*	41.	180. AG	99.	100.0	0.0	48.0	0.55	2.1
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1600.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1936.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	562.3	*	26.	360. AG	99.	100.0	0.0	48.0	0.35	1.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	531.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	498.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	405.6	482.0	*	46.	270. AG	277.	100.0	0.0	36.0	0.67	2.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	558.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	196.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	598.5	518.0	*	51.	90. AG	277.	100.0	0.0	36.0	0.70	2.6

1

PAGE 2

JOB: Nordhoff Pl-Corbin ALTD Krausz Future PM RUN: 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
3. NBQ	*	60	12	3.0	2519	1600	45.96	3	3
6. SBQ	*	60	12	3.0	1600	1600	45.96	3	3
9. EBQ	*	60	45	3.0	531	1600	45.96	3	3
12. WBQ	*	60	45	3.0	558	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff Pl-Corbin ALTD Krausz Future PM RUN: 10

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	REC1	REC2	REC3	REC4
0.	*	7.3	8.4	8.3	8.3	
10.	*	8.2	9.0	9.2	7.6	
20.	*	8.4	8.8	9.3	7.5	
30.	*	8.2	8.4	8.9	7.2	
40.	*	8.0	8.3	8.5	7.2	
50.	*	7.9	8.1	8.5	7.2	
60.	*	7.8	8.2	8.6	7.3	
70.	*	7.8	8.1	8.6	7.3	
80.	*	7.9	8.2	8.5	7.3	
90.	*	8.3	8.3	8.2	7.0	
100.	*	8.8	8.8	8.0	6.9	
110.	*	8.8	9.1	7.9	6.9	
120.	*	8.2	8.9	7.9	6.9	
130.	*	8.2	8.6	8.0	6.9	
140.	*	8.2	8.5	8.2	6.9	
150.	*	8.7	8.7	8.4	6.9	
160.	*	9.1	9.2	8.5	6.9	
170.	*	9.1	9.7	8.3	6.9	
180.	*	8.2	9.4	7.3	7.5	

190.	*	7.5	8.4	6.9	8.6
200.	*	7.4	8.3	6.9	8.8
210.	*	7.2	8.0	6.9	8.4
220.	*	7.1	7.8	6.9	8.2
230.	*	7.1	7.6	6.9	8.2
240.	*	7.2	7.5	6.9	8.1
250.	*	7.2	7.5	6.9	8.1
260.	*	7.1	7.4	6.9	8.2
270.	*	6.9	7.2	7.0	8.6
280.	*	6.9	7.2	7.2	8.9
290.	*	6.9	7.3	7.3	8.8
300.	*	6.9	7.2	7.2	8.4
310.	*	6.9	7.2	7.3	8.1
320.	*	6.9	7.2	7.4	8.4
330.	*	6.9	7.3	7.7	8.6
340.	*	6.9	7.4	7.7	9.2
350.	*	6.9	7.8	7.8	9.3
360.	*	7.3	8.4	8.3	8.3
-----*					
MAX	*	9.1	9.7	9.3	9.3
DEGR.	*	160	170	20	350

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 170 DEGREES FROM REC2 .

1

PAGE 4

JOB: Nordhoff Pl-Corbin ALTD Krausz Future PM

RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	160	170	20	350
-----*					
1	*	0.8	1.1	0.0	0.1
2	*	0.0	0.0	0.8	1.3
3	*	0.0	0.0	0.0	0.0
4	*	0.2	0.4	0.6	0.4
5	*	0.8	1.0	0.2	0.0
6	*	0.0	0.2	0.1	0.0
7	*	0.1	0.1	0.1	0.0
8	*	0.0	0.0	0.0	0.1
9	*	0.2	0.0	0.6	0.0
10	*	0.0	0.0	0.0	0.1
11	*	0.1	0.0	0.0	0.0
12	*	0.0	0.0	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT17ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff Pl-Corbin ALTA Bldt Future PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2686.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2640.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	420.0	*	44.	180. AG	99.	100.0	0.0	48.0	0.59	2.2
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1608.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1957.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	562.4	*	26.	360. AG	99.	100.0	0.0	48.0	0.35	1.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	537.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	609.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	404.7	482.0	*	47.	270. AG	277.	100.0	0.0	36.0	0.67	2.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	571.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	196.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	600.5	518.0	*	52.	90. AG	277.	100.0	0.0	36.0	0.71	2.7

1

PAGE 2

JOB: Nordhoff Pl-Corbin ALTA Bldt Future PM RUN: 5

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
3. NBQ	*	60	12	3.0	2686	1600	45.96	3	3
6. SBQ	*	60	12	3.0	1608	1600	45.96	3	3
9. EBQ	*	60	45	3.0	537	1600	45.96	3	3
12. WBQ	*	60	45	3.0	571	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff Pl-Corbin ALTA Bldt Future PM RUN: 5

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
0.	*	7.3	8.4	8.3	8.4
10.	*	8.2	9.1	9.2	7.7
20.	*	8.4	8.8	9.3	7.6
30.	*	8.2	8.5	9.0	7.3
40.	*	8.0	8.3	8.5	7.2
50.	*	7.9	8.2	8.5	7.2
60.	*	7.8	8.2	8.6	7.3
70.	*	7.8	8.1	8.6	7.4
80.	*	7.9	8.2	8.5	7.3
90.	*	8.3	8.3	8.3	7.0
100.	*	8.8	9.0	8.0	6.9
110.	*	8.8	9.1	8.0	6.9
120.	*	8.3	9.0	8.0	6.9
130.	*	8.2	8.8	8.1	6.9
140.	*	8.4	8.7	8.2	6.9
150.	*	8.7	8.7	8.4	6.9
160.	*	9.1	9.3	8.6	6.9
170.	*	9.2	9.8	8.3	6.9
180.	*	8.2	9.4	7.3	7.5

190.	*	7.5	8.4	6.9	8.7
200.	*	7.4	8.3	6.9	8.9
210.	*	7.2	8.0	6.9	8.5
220.	*	7.1	7.8	6.9	8.3
230.	*	7.1	7.6	6.9	8.2
240.	*	7.2	7.5	6.9	8.1
250.	*	7.2	7.5	6.9	8.2
260.	*	7.1	7.4	6.9	8.3
270.	*	6.9	7.2	7.0	8.6
280.	*	6.9	7.2	7.2	9.0
290.	*	6.9	7.3	7.3	8.8
300.	*	6.9	7.2	7.2	8.4
310.	*	6.9	7.2	7.3	8.1
320.	*	6.9	7.2	7.5	8.4
330.	*	6.9	7.3	7.7	8.7
340.	*	6.9	7.4	7.7	9.3
350.	*	6.9	7.8	7.8	9.5
360.	*	7.3	8.4	8.3	8.4

MAX	*	9.2	9.8	9.3	9.5
DEGR.	*	170	170	20	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 170 DEGREES FROM REC2 .

1

PAGE 4

JOB: Nordhoff Pl-Corbin ALTA Bldt Future PM

RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	170	20	350

1	*	0.6	1.2	0.0	0.1
2	*	0.0	0.0	0.8	1.4
3	*	0.0	0.0	0.0	0.0
4	*	0.1	0.4	0.6	0.4
5	*	1.1	1.0	0.2	0.0
6	*	0.0	0.2	0.1	0.0
7	*	0.1	0.1	0.1	0.0
8	*	0.0	0.0	0.0	0.2
9	*	0.4	0.0	0.6	0.0
10	*	0.0	0.0	0.0	0.1
11	*	0.0	0.0	0.0	0.0
12	*	0.0	0.0	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT17BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff Pl-Corbin ALTB Bldt Future PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2520.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2578.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	419.2	*	45.	180. AG	107.	100.0	0.0	48.0	0.56	2.3
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1656.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2087.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	565.4	*	29.	360. AG	107.	100.0	0.0	48.0	0.37	1.5
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	531.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	499.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	409.2	482.0	*	43.	270. AG	271.	100.0	0.0	36.0	0.60	2.2
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	658.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	201.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	608.9	518.0	*	61.	90. AG	271.	100.0	0.0	36.0	0.75	3.1

1

PAGE 2

JOB: Nordhoff Pl-Corbin ALTB Bldt Future PM RUN: 7

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
3. NBQ	*	60	13	3.0	2520	1600	45.96	3	3
6. SBQ	*	60	13	3.0	1656	1600	45.96	3	3
9. EBQ	*	60	44	3.0	531	1600	45.96	3	3
12. WBQ	*	60	44	3.0	658	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff Pl-Corbin ALTB Bldt Future PM RUN: 7

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
0.	*	7.3	8.6	8.2	8.2
10.	*	8.2	9.1	9.3	7.7
20.	*	8.4	8.8	9.3	7.6
30.	*	8.3	8.5	8.9	7.5
40.	*	8.1	8.3	8.6	7.3
50.	*	7.9	8.2	8.5	7.3
60.	*	7.9	8.3	8.8	7.3
70.	*	7.9	8.2	8.7	7.3
80.	*	8.0	8.2	8.5	7.4
90.	*	8.4	8.5	8.2	7.0
100.	*	9.1	9.1	8.1	6.9
110.	*	8.9	9.3	8.0	6.9
120.	*	8.2	9.0	8.0	6.9
130.	*	8.3	8.8	8.0	6.9
140.	*	8.3	8.7	8.2	6.9
150.	*	8.7	8.9	8.4	6.9
160.	*	9.1	9.3	8.6	6.9
170.	*	9.2	9.7	8.4	6.9
180.	*	8.2	9.6	7.3	7.5

190.	*	7.5	8.4	6.9	8.6
200.	*	7.3	8.3	6.9	8.8
210.	*	7.1	8.2	6.9	8.4
220.	*	7.1	7.8	6.9	8.2
230.	*	7.1	7.6	6.9	8.2
240.	*	7.2	7.5	6.9	8.2
250.	*	7.2	7.5	6.9	8.1
260.	*	7.1	7.5	6.9	8.2
270.	*	6.9	7.4	7.0	8.6
280.	*	6.9	7.4	7.2	8.9
290.	*	6.9	7.4	7.3	8.9
300.	*	6.9	7.3	7.2	8.5
310.	*	6.9	7.2	7.2	8.4
320.	*	6.9	7.2	7.3	8.5
330.	*	6.9	7.3	7.6	8.6
340.	*	6.9	7.5	7.7	9.2
350.	*	6.9	7.9	7.7	9.3
360.	*	7.3	8.6	8.2	8.2
-----*					
MAX	*	9.2	9.7	9.3	9.3
DEGR.	*	170	170	10	350

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 170 DEGREES FROM REC2 .

1

PAGE 4

JOB: Nordhoff Pl-Corbin ALTB Bldt Future PM

RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	170	10	350
-----*					
1	*	0.6	1.1	0.0	0.1
2	*	0.0	0.0	0.6	1.3
3	*	0.0	0.0	0.0	0.0
4	*	0.1	0.4	0.9	0.4
5	*	1.1	1.0	0.0	0.0
6	*	0.0	0.2	0.1	0.0
7	*	0.1	0.1	0.1	0.0
8	*	0.0	0.0	0.0	0.1
9	*	0.4	0.0	0.7	0.0
10	*	0.0	0.0	0.0	0.1
11	*	0.0	0.0	0.0	0.0
12	*	0.0	0.0	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT17CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff Pl-Corbin ALTC Bldt Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2673.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2635.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	420.2	*	44.	180. AG	99.	100.0	0.0	48.0	0.58 2.2	
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1595.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1923.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	562.1	*	26.	360. AG	99.	100.0	0.0	48.0	0.35 1.3	
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	537.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	601.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	404.7	482.0	*	47.	270. AG	277.	100.0	0.0	36.0	0.67 2.4	
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	549.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	195.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	597.1	518.0	*	49.	90. AG	277.	100.0	0.0	36.0	0.69 2.5	

1

PAGE 2

JOB: Nordhoff Pl-Corbin ALTC Bldt Future PM RUN: 9

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
3. NBQ	*	60	12	3.0	2673	1600	45.96	3	3
6. SBQ	*	60	12	3.0	1595	1600	45.96	3	3
9. EBQ	*	60	45	3.0	537	1600	45.96	3	3
12. WBQ	*	60	45	3.0	549	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff Pl-Corbin ALTC Bldt Future PM RUN: 9

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
0.	*	7.3	8.4	8.3	8.4
10.	*	8.2	9.1	9.2	7.7
20.	*	8.4	8.8	9.3	7.5
30.	*	8.2	8.5	9.0	7.3
40.	*	8.0	8.2	8.5	7.2
50.	*	7.9	8.2	8.5	7.2
60.	*	7.8	8.2	8.5	7.3
70.	*	7.8	8.1	8.6	7.4
80.	*	7.9	8.2	8.5	7.3
90.	*	8.3	8.3	8.3	7.0
100.	*	8.8	8.9	8.0	6.9
110.	*	8.8	9.1	8.0	6.9
120.	*	8.3	9.0	8.0	6.9
130.	*	8.2	8.7	8.1	6.9
140.	*	8.4	8.7	8.1	6.9
150.	*	8.7	8.7	8.4	6.9
160.	*	9.0	9.2	8.6	6.9
170.	*	9.1	9.8	8.3	6.9
180.	*	8.2	9.3	7.3	7.5

190.	*	7.5	8.4	6.9	8.7
200.	*	7.4	8.3	6.9	8.7
210.	*	7.2	8.0	6.9	8.5
220.	*	7.1	7.8	6.9	8.2
230.	*	7.1	7.6	6.9	8.2
240.	*	7.2	7.5	6.9	8.1
250.	*	7.2	7.5	6.9	8.2
260.	*	7.1	7.4	6.9	8.3
270.	*	6.9	7.2	7.0	8.6
280.	*	6.9	7.2	7.2	8.9
290.	*	6.9	7.3	7.3	8.8
300.	*	6.9	7.2	7.2	8.4
310.	*	6.9	7.2	7.3	8.1
320.	*	6.9	7.2	7.5	8.4
330.	*	6.9	7.3	7.7	8.7
340.	*	6.9	7.4	7.7	9.3
350.	*	6.9	7.8	7.8	9.5
360.	*	7.3	8.4	8.3	8.4

MAX	*	9.1	9.8	9.3	9.5
DEGR.	*	170	170	20	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 170 DEGREES FROM REC2 .

1

PAGE 4

JOB: Nordhoff Pl-Corbin ALTC Bldt Future PM

RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	170	170	20	350

1	*	0.6	1.2	0.0	0.1
2	*	0.0	0.0	0.8	1.4
3	*	0.0	0.0	0.0	0.0
4	*	0.1	0.4	0.6	0.4
5	*	1.0	1.0	0.2	0.0
6	*	0.0	0.2	0.1	0.0
7	*	0.1	0.1	0.1	0.0
8	*	0.0	0.0	0.0	0.2
9	*	0.4	0.0	0.6	0.0
10	*	0.0	0.0	0.0	0.1
11	*	0.0	0.0	0.0	0.0
12	*	0.0	0.0	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT17DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff Pl-Corbin ALTD Bldt Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2531.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2582.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	422.5	*	41.	180. AG	99.	100.0	0.0	48.0	0.55	2.1
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1625.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2004.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	562.7	*	27.	360. AG	99.	100.0	0.0	48.0	0.35	1.4
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	532.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	507.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	405.6	482.0	*	46.	270. AG	277.	100.0	0.0	36.0	0.67	2.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	603.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	198.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	606.6	518.0	*	59.	90. AG	277.	100.0	0.0	36.0	0.76	3.0

1

PAGE 2

JOB: Nordhoff Pl-Corbin ALTD Bldt Future PM RUN: 11

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
3. NBQ	*	60	12	3.0	2531	1600	45.96	3	3
6. SBQ	*	60	12	3.0	1625	1600	45.96	3	3
9. EBQ	*	60	45	3.0	532	1600	45.96	3	3
12. WBQ	*	60	45	3.0	603	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff Pl-Corbin ALTD Bldt Future PM RUN: 11

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
0.	*	7.3	8.5	8.3	8.3
10.	*	8.2	9.0	9.2	7.7
20.	*	8.4	8.8	9.3	7.6
30.	*	8.2	8.4	9.0	7.3
40.	*	8.0	8.3	8.6	7.3
50.	*	7.9	8.1	8.5	7.3
60.	*	7.8	8.2	8.7	7.3
70.	*	7.8	8.1	8.7	7.3
80.	*	7.9	8.2	8.5	7.3
90.	*	8.3	8.5	8.2	7.0
100.	*	8.9	9.1	8.0	6.9
110.	*	8.9	9.3	7.9	6.9
120.	*	8.2	8.9	8.0	6.9
130.	*	8.2	8.6	8.0	6.9
140.	*	8.4	8.5	8.2	6.9
150.	*	8.7	8.7	8.4	6.9
160.	*	9.1	9.2	8.7	6.9
170.	*	9.2	9.8	8.3	6.9
180.	*	8.2	9.4	7.3	7.5

190.	*	7.5	8.4	6.9	8.6
200.	*	7.4	8.3	6.9	8.8
210.	*	7.2	8.0	6.9	8.4
220.	*	7.1	7.8	6.9	8.2
230.	*	7.1	7.6	6.9	8.2
240.	*	7.2	7.5	6.9	8.1
250.	*	7.2	7.5	6.9	8.1
260.	*	7.1	7.4	6.9	8.2
270.	*	6.9	7.2	7.0	8.6
280.	*	6.9	7.2	7.2	8.9
290.	*	6.9	7.3	7.3	8.9
300.	*	6.9	7.2	7.2	8.4
310.	*	6.9	7.2	7.3	8.1
320.	*	6.9	7.2	7.4	8.5
330.	*	6.9	7.3	7.7	8.6
340.	*	6.9	7.4	7.7	9.2
350.	*	6.9	7.8	7.8	9.3
360.	*	7.3	8.5	8.3	8.3
-----*					
MAX	*	9.2	9.8	9.3	9.3
DEGR.	*	170	170	20	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 170 DEGREES FROM REC2 .

1

PAGE 4

JOB: Nordhoff Pl-Corbin ALTD Bldt Future PM

RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	170	20	350
-----*					
1	*	0.6	1.2	0.0	0.1
2	*	0.0	0.0	0.8	1.3
3	*	0.0	0.0	0.0	0.0
4	*	0.1	0.4	0.6	0.4
5	*	1.1	1.0	0.2	0.0
6	*	0.0	0.2	0.1	0.0
7	*	0.1	0.1	0.1	0.0
8	*	0.0	0.0	0.0	0.1
9	*	0.4	0.0	0.6	0.0
10	*	0.0	0.0	0.0	0.1
11	*	0.0	0.0	0.0	0.0
12	*	0.0	0.0	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT18XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Corbin Existing Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1615.	12.2	0.0	68.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1837.	12.2	0.0	56.0		
3. NBQ	*	518.0	464.0	518.0	408.9	*	55.	180. AG	271.	100.0	0.0	48.0	0.50	2.8
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1817.	12.2	0.0	68.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1853.	12.2	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	598.1	*	62.	360. AG	271.	100.0	0.0	48.0	0.57	3.2
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1900.	12.2	0.0	68.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1528.	12.2	0.0	56.0		
9. EBQ	*	464.0	482.0	373.7	482.0	*	90.	270. AG	346.	100.0	0.0	48.0	0.77	4.6
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	735.	12.2	0.0	68.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	849.	12.2	0.0	44.0		
12. WBQ	*	536.0	518.0	568.0	518.0	*	32.	90. AG	346.	100.0	0.0	48.0	0.30	1.6

1 PAGE 2

JOB: Nordhoff-Corbin Existing Ambient PM RUN: 2
 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
3. NBQ	*	60	25	3.0	1615	1600	60.55	3	3
6. SBQ	*	60	25	3.0	1817	1600	60.55	3	3
9. EBQ	*	60	32	3.0	1900	1600	60.55	3	3
12. WBQ	*	60	32	3.0	735	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1 PAGE 3

JOB: Nordhoff-Corbin Existing Ambient PM RUN: 2

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
0.	*	9.6	9.4	11.7	11.1
10.	*	10.9	8.7	13.2	9.8
20.	*	11.0	8.7	12.8	9.5
30.	*	10.7	8.7	12.0	9.5
40.	*	10.6	8.7	11.6	9.5
50.	*	10.7	8.7	11.5	9.7
60.	*	10.8	8.7	11.5	9.8
70.	*	10.6	8.7	11.5	10.1
80.	*	10.6	8.7	11.9	10.2
90.	*	11.2	9.1	11.1	9.2
100.	*	12.0	9.8	10.3	8.7
110.	*	12.1	9.9	10.3	8.7
120.	*	11.5	9.7	10.1	8.7
130.	*	11.2	9.5	10.1	8.7
140.	*	11.2	9.6	10.1	8.7
150.	*	11.6	9.7	10.3	8.7
160.	*	12.1	9.8	10.6	8.7
170.	*	12.5	10.3	10.6	8.8
180.	*	11.2	11.3	9.3	9.5

```

190. * 10.2 12.8 8.7 10.7
200. * 10.3 12.7 8.7 10.7
210. * 10.4 11.9 8.7 10.5
220. * 10.3 11.4 8.7 10.4
230. * 10.1 11.6 8.7 10.5
240. * 9.8 11.9 8.7 10.5
250. * 10.1 12.0 8.7 10.6
260. * 10.0 11.8 8.8 10.7
270. * 9.0 11.0 9.6 11.8
280. * 8.7 10.4 10.9 13.1
290. * 8.7 10.3 11.0 12.8
300. * 8.7 10.3 11.0 11.7
310. * 8.7 10.2 11.1 11.3
320. * 8.7 10.2 10.9 11.4
330. * 8.7 10.4 10.7 11.6
340. * 8.7 10.8 10.6 12.0
350. * 8.8 10.7 10.7 12.5
360. * 9.6 9.4 11.7 11.1
-----*-----
MAX * 12.5 12.8 13.2 13.1
DEGR. * 170 190 10 280

```

THE HIGHEST CONCENTRATION IS 13.20 PPM AT 10 DEGREES FROM REC3 .
1

PAGE 4

JOB: Nordhoff-Corbin Existing Ambient PM

RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 170 190 10 280
-----*-----
1 * 0.7 1.2 0.0 0.6
2 * 0.0 0.1 0.8 0.0
3 * 0.0 0.4 0.0 0.8
4 * 0.3 0.0 1.4 0.0
5 * 1.4 0.7 0.0 0.5
6 * 0.0 0.0 0.4 0.0
7 * 0.5 0.0 0.7 1.4
8 * 0.0 0.4 0.0 0.1
9 * 0.6 0.0 1.0 0.7
10 * 0.0 0.3 0.0 0.0
11 * 0.3 0.0 0.2 0.3
12 * 0.0 1.0 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 18:26

1

CAL3QHC (93157)
IBM-PC VERSION (2.02)
(C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT18FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Corbin Future Pre-Project PM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1693.	9.3	0.0	68.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1920.	9.3	0.0	56.0		
3. NBQ	*	518.0	464.0	518.0	408.5	*	56.	180. AG	197.	100.0	0.0	48.0	0.51 2.8	
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1911.	9.3	0.0	68.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1941.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	598.6	*	63.	360. AG	197.	100.0	0.0	48.0	0.58 3.2	
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1909.	9.3	0.0	68.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1538.	9.3	0.0	56.0		
9. EBQ	*	464.0	482.0	363.7	482.0	*	100.	270. AG	271.	100.0	0.0	48.0	0.81 5.1	
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	746.	9.3	0.0	68.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	860.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	569.6	518.0	*	34.	90. AG	271.	100.0	0.0	48.0	0.32 1.7	

1

PAGE 2

JOB: Nordhoff-Corbin Future Pre-Project PM RUN: 3

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
3. NBQ	*	60	24	3.0	1693	1600	45.96	3	3
6. SBQ	*	60	24	3.0	1911	1600	45.96	3	3
9. EBQ	*	60	33	3.0	1909	1600	45.96	3	3
12. WBQ	*	60	33	3.0	746	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Corbin Future Pre-Project PM RUN: 3

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
0.	*	7.7	7.5	9.3	8.8
10.	*	8.7	6.9	10.4	7.8
20.	*	8.7	6.9	10.2	7.6
30.	*	8.6	6.9	9.5	7.5
40.	*	8.5	6.9	9.2	7.6
50.	*	8.4	6.9	9.2	7.6
60.	*	8.4	6.9	9.0	7.7
70.	*	8.4	6.9	9.2	8.0
80.	*	8.4	6.9	9.4	8.0
90.	*	8.9	7.3	8.9	7.3
100.	*	9.5	7.8	8.1	6.9
110.	*	9.4	7.8	8.1	6.9
120.	*	9.1	7.6	8.1	6.9
130.	*	8.9	7.6	7.9	6.9
140.	*	9.0	7.5	8.0	6.9
150.	*	9.2	7.7	8.2	6.9
160.	*	9.5	7.8	8.4	6.9
170.	*	9.9	8.2	8.4	7.0
180.	*	8.8	9.0	7.4	7.6

190.	*	8.1	10.2	6.9	8.5
200.	*	8.1	9.9	6.9	8.5
210.	*	8.1	9.4	6.9	8.3
220.	*	8.2	9.0	6.9	8.3
230.	*	8.0	9.1	6.9	8.2
240.	*	7.9	9.3	6.9	8.3
250.	*	8.0	9.4	6.9	8.4
260.	*	7.9	9.4	7.0	8.4
270.	*	7.2	8.5	7.6	9.3
280.	*	6.9	8.2	8.6	10.5
290.	*	6.9	8.2	8.8	10.0
300.	*	6.9	8.0	8.8	9.3
310.	*	6.9	8.1	8.8	9.1
320.	*	6.9	8.1	8.6	8.9
330.	*	6.9	8.3	8.4	8.9
340.	*	6.9	8.6	8.4	9.6
350.	*	7.0	8.6	8.5	9.8
360.	*	7.7	7.5	9.3	8.8
-----*					
MAX	*	9.9	10.2	10.4	10.5
DEGR.	*	170	190	10	280

THE HIGHEST CONCENTRATION IS 10.48 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Corbin Future Pre-Project PM

RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	190	10	280
-----*					
1	*	0.6	1.0	0.0	0.5
2	*	0.0	0.1	0.6	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.3	0.0	1.1	0.0
5	*	1.1	0.6	0.0	0.4
6	*	0.0	0.0	0.3	0.0
7	*	0.4	0.0	0.5	1.1
8	*	0.0	0.3	0.0	0.1
9	*	0.4	0.0	0.8	0.6
10	*	0.0	0.2	0.0	0.0
11	*	0.2	0.0	0.2	0.3
12	*	0.0	0.8	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT18AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Corbin Alt A Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1807.	9.3	0.0	68.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2060.	9.3	0.0	56.0		
3. NBQ	*	518.0	464.0	518.0	404.8	*	59.	180. AG	197.	100.0	0.0	48.0	0.55	3.0
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1993.	9.3	0.0	68.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2008.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	601.4	*	65.	360. AG	197.	100.0	0.0	48.0	0.60	3.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1935.	9.3	0.0	68.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1538.	9.3	0.0	56.0		
9. EBQ	*	464.0	482.0	360.5	482.0	*	104.	270. AG	271.	100.0	0.0	48.0	0.82	5.3
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	746.	9.3	0.0	68.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	875.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	569.6	518.0	*	34.	90. AG	271.	100.0	0.0	48.0	0.32	1.7

1

PAGE 2

JOB: Nordhoff-Corbin Alt A Krausz Future PM RUN: 4

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
6. SBQ	*	60	24	3.0	1993	1600	45.96	3	3
9. EBQ	*	60	33	3.0	1935	1600	45.96	3	3
12. WBQ	*	60	33	3.0	746	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Corbin Alt A Krausz Future PM RUN: 4

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
0.	7.7	7.5	9.3	8.8
10.	8.7	6.9	10.4	7.8
20.	8.8	6.9	10.2	7.6
30.	8.6	6.9	9.7	7.5
40.	8.5	6.9	9.2	7.6
50.	8.5	6.9	9.3	7.6
60.	8.6	6.9	9.1	7.7
70.	8.4	6.9	9.2	8.0
80.	8.4	6.9	9.5	8.0
90.	9.0	7.3	8.9	7.3
100.	9.5	7.8	8.2	6.9
110.	9.4	7.8	8.2	6.9
120.	9.3	7.6	8.1	6.9
130.	8.9	7.6	8.0	6.9
140.	9.1	7.5	8.1	6.9
150.	9.2	7.7	8.2	6.9
160.	9.7	7.8	8.5	6.9
170.	10.0	8.2	8.5	7.0
180.	8.8	9.0	7.4	7.6

190.	*	8.1	10.2	6.9	8.6
200.	*	8.1	10.0	6.9	8.7
210.	*	8.3	9.5	6.9	8.4
220.	*	8.3	9.1	6.9	8.3
230.	*	8.0	9.3	6.9	8.4
240.	*	7.9	9.5	6.9	8.4
250.	*	8.0	9.5	6.9	8.4
260.	*	7.9	9.4	7.0	8.5
270.	*	7.2	8.6	7.6	9.4
280.	*	6.9	8.2	8.6	10.5
290.	*	6.9	8.2	8.8	10.0
300.	*	6.9	8.3	8.8	9.4
310.	*	6.9	8.1	8.8	9.1
320.	*	6.9	8.1	8.6	8.9
330.	*	6.9	8.4	8.5	9.1
340.	*	6.9	8.7	8.4	9.7
350.	*	7.0	8.6	8.5	10.0
360.	*	7.7	7.5	9.3	8.8

MAX	*	10.0	10.2	10.4	10.5
DEGR.	*	170	190	10	280

THE HIGHEST CONCENTRATION IS 10.48 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Corbin Alt A Krausz Future PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		170	190	10	280

1	*	0.6	1.0	0.0	0.5
2	*	0.0	0.1	0.6	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.3	0.0	1.1	0.0
5	*	1.2	0.6	0.0	0.4
6	*	0.0	0.0	0.3	0.0
7	*	0.4	0.0	0.5	1.1
8	*	0.0	0.3	0.0	0.1
9	*	0.4	0.0	0.8	0.6
10	*	0.0	0.2	0.0	0.0
11	*	0.2	0.0	0.2	0.3
12	*	0.0	0.8	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT18BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Corbin ALTB Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1730.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1965.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	409.7	*	54.	180. AG	189.	100.0	0.0	48.0	0.51	2.8
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2086.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2084.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	601.5	*	66.	360. AG	189.	100.0	0.0	48.0	0.61	3.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1917.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1538.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	-586.4	482.0	*	1038.	270. AG	210.	100.0	0.0	36.0	1.14	52.8
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	746.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	892.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	594.1	518.0	*	46.	90. AG	210.	100.0	0.0	36.0	0.44	2.3

1

PAGE 2

JOB: Nordhoff-Corbin ALTB Krausz Future PM RUN: 6

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
3. NBQ	*	60	23	3.0	1730	1600	45.96	3	3
6. SBQ	*	60	23	3.0	2086	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1917	1600	45.96	3	3
12. WBQ	*	60	34	3.0	746	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Corbin ALTB Krausz Future PM RUN: 6

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
0.	*	7.4	9.4	8.9	8.4
10.	*	8.4	9.7	9.9	7.8
20.	*	8.6	9.4	10.1	7.7
30.	*	8.4	9.1	9.4	7.6
40.	*	8.3	8.9	8.9	7.6
50.	*	8.3	8.6	8.8	7.6
60.	*	8.4	8.5	9.1	7.7
70.	*	8.3	8.4	9.3	7.9
80.	*	8.3	8.3	9.2	7.9
90.	*	8.7	8.6	8.5	7.2
100.	*	9.3	9.4	8.0	6.9
110.	*	9.2	9.5	7.9	6.9
120.	*	8.9	9.2	8.0	6.9
130.	*	8.8	9.2	7.9	6.9
140.	*	9.0	9.1	8.0	6.9
150.	*	9.1	9.7	8.2	6.9
160.	*	9.2	9.9	8.4	6.9
170.	*	9.4	10.2	8.3	6.9
180.	*	8.5	10.1	7.3	7.3

190.	*	7.9	9.1	6.9	8.2
200.	*	8.0	8.8	6.9	8.4
210.	*	8.0	8.7	6.9	8.2
220.	*	8.1	8.8	6.9	8.2
230.	*	8.2	8.8	6.9	8.1
240.	*	8.4	8.9	6.9	8.2
250.	*	8.7	9.3	6.9	8.2
260.	*	8.7	9.4	6.9	8.3
270.	*	7.5	8.1	8.3	9.8
280.	*	6.9	7.5	9.6	10.8
290.	*	6.9	7.5	9.3	9.8
300.	*	6.9	7.4	8.8	9.0
310.	*	6.9	7.5	8.5	8.9
320.	*	6.9	7.4	8.4	9.1
330.	*	6.9	7.8	8.3	9.1
340.	*	6.9	8.1	8.2	9.4
350.	*	6.9	8.7	8.2	9.3
360.	*	7.4	9.4	8.9	8.4
-----*					
MAX	*	9.4	10.2	10.1	10.8
DEGR.	*	170	170	20	280

THE HIGHEST CONCENTRATION IS 10.78 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Corbin ALTB Krausz Future PM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	170	20	280
-----*					
1	*	0.4	0.8	0.0	0.4
2	*	0.0	0.0	0.6	0.0
3	*	0.0	0.1	0.0	0.5
4	*	0.1	0.5	0.8	0.0
5	*	1.1	1.0	0.2	0.4
6	*	0.0	0.3	0.4	0.0
7	*	0.4	0.4	0.5	1.1
8	*	0.0	0.0	0.0	0.0
9	*	0.3	0.0	0.5	1.2
10	*	0.0	0.0	0.0	0.0
11	*	0.2	0.2	0.2	0.3
12	*	0.0	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT18CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Corbin ALTC Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1805.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2058.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	404.8	*	59.	180. AG	197.	100.0	0.0	48.0	0.55	3.0
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1976.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1994.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	600.8	*	65.	360. AG	197.	100.0	0.0	48.0	0.60	3.3
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1935.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1538.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	-375.5	482.0	*	827.	270. AG	203.	100.0	0.0	36.0	1.10	42.0
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	746.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	872.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	592.8	518.0	*	45.	90. AG	203.	100.0	0.0	36.0	0.42	2.3

1

PAGE 2

JOB: Nordhoff-Corbin ALTC Krausz Future PM RUN: 8

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
3. NBQ	*	60	24	3.0	1805	1600	45.96	3	3
6. SBQ	*	60	24	3.0	1976	1600	45.96	3	3
9. EBQ	*	60	33	3.0	1935	1600	45.96	3	3
12. WBQ	*	60	33	3.0	746	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Corbin ALTC Krausz Future PM RUN: 8

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
0.	*	7.3	9.5	8.8	8.4
10.	*	8.3	9.7	9.8	7.8
20.	*	8.5	9.4	10.1	7.7
30.	*	8.4	9.2	9.4	7.5
40.	*	8.4	8.8	8.9	7.6
50.	*	8.4	8.6	8.8	7.6
60.	*	8.3	8.5	9.0	7.7
70.	*	8.3	8.4	9.2	7.9
80.	*	8.3	8.3	9.2	7.9
90.	*	8.6	8.6	8.5	7.2
100.	*	9.4	9.3	8.1	6.9
110.	*	9.3	9.4	8.1	6.9
120.	*	8.8	9.1	8.0	6.9
130.	*	8.8	9.3	7.9	6.9
140.	*	9.0	9.0	8.0	6.9
150.	*	9.0	9.7	8.2	6.9
160.	*	9.2	9.9	8.3	6.9
170.	*	9.4	10.3	8.2	6.9
180.	*	8.5	10.1	7.3	7.3

190.	*	7.9	9.1	6.9	8.2
200.	*	7.9	8.8	6.9	8.4
210.	*	7.9	8.6	6.9	8.2
220.	*	8.0	8.7	6.9	8.2
230.	*	8.2	8.9	6.9	8.2
240.	*	8.4	9.0	6.9	8.3
250.	*	8.7	9.2	6.9	8.3
260.	*	8.6	9.3	6.9	8.3
270.	*	7.4	8.0	8.1	9.7
280.	*	6.9	7.5	9.5	10.8
290.	*	6.9	7.5	9.2	9.8
300.	*	6.9	7.4	8.7	9.0
310.	*	6.9	7.4	8.5	8.9
320.	*	6.9	7.4	8.4	9.0
330.	*	6.9	7.7	8.3	9.0
340.	*	6.9	8.0	8.2	9.3
350.	*	6.9	8.6	8.1	9.4
360.	*	7.3	9.5	8.8	8.4
-----*					
MAX	*	9.4	10.3	10.1	10.8
DEGR.	*	100	170	20	280

THE HIGHEST CONCENTRATION IS 10.78 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Corbin ALTC Krausz Future PM

RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	170	20	280
-----*					
1	*	0.0	0.8	0.0	0.5
2	*	0.4	0.0	0.6	0.0
3	*	0.0	0.1	0.0	0.5
4	*	0.5	0.5	0.8	0.0
5	*	0.0	1.0	0.2	0.4
6	*	0.5	0.4	0.4	0.0
7	*	0.0	0.4	0.5	1.1
8	*	0.5	0.0	0.0	0.0
9	*	0.0	0.0	0.5	1.1
10	*	0.4	0.0	0.0	0.0
11	*	0.0	0.2	0.2	0.3
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT18DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Corbin ALTD Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1740.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1978.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	406.9	*	57.	180. AG	197.	100.0	0.0	48.0	0.53	2.9
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2039.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2045.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	602.8	*	67.	360. AG	197.	100.0	0.0	48.0	0.62	3.4
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1920.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1538.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	-324.3	482.0	*	776.	270. AG	203.	100.0	0.0	36.0	1.09	39.4
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	746.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	884.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	592.8	518.0	*	45.	90. AG	203.	100.0	0.0	36.0	0.42	2.3

1

PAGE 2

JOB: Nordhoff-Corbin ALTD Krausz Future PM RUN: 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
6. SBQ	*	60	24	3.0	2039	1600	45.96	3	3
9. EBQ	*	60	33	3.0	1920	1600	45.96	3	3
12. WBQ	*	60	33	3.0	746	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Corbin ALTD Krausz Future PM RUN: 10

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
0.	7.4	9.5	8.9	8.4
10.	8.3	9.7	9.8	7.8
20.	8.6	9.4	10.1	7.7
30.	8.4	9.1	9.4	7.5
40.	8.3	8.9	8.9	7.6
50.	8.4	8.6	8.8	7.6
60.	8.5	8.5	9.0	7.7
70.	8.3	8.5	9.2	7.9
80.	8.3	8.2	9.2	7.9
90.	8.6	8.5	8.5	7.2
100.	9.4	9.3	8.1	6.9
110.	9.2	9.4	7.9	6.9
120.	8.8	9.2	8.0	6.9
130.	8.8	9.3	7.9	6.9
140.	9.0	9.1	8.0	6.9
150.	9.0	9.7	8.2	6.9
160.	9.1	9.9	8.4	6.9
170.	9.4	10.3	8.2	6.9
180.	8.5	10.1	7.3	7.3

190.	*	7.9	9.1	6.9	8.2
200.	*	7.9	8.8	6.9	8.4
210.	*	7.9	8.6	6.9	8.2
220.	*	8.1	8.8	6.9	8.2
230.	*	8.2	8.8	6.9	8.1
240.	*	8.4	9.0	6.9	8.3
250.	*	8.7	9.2	6.9	8.2
260.	*	8.6	9.3	6.9	8.2
270.	*	7.4	8.0	8.1	9.6
280.	*	6.9	7.5	9.5	10.7
290.	*	6.9	7.5	9.2	9.8
300.	*	6.9	7.4	8.7	9.0
310.	*	6.9	7.5	8.5	8.9
320.	*	6.9	7.4	8.4	9.0
330.	*	6.9	7.7	8.2	9.0
340.	*	6.9	8.1	8.2	9.3
350.	*	6.9	8.7	8.1	9.3
360.	*	7.4	9.5	8.9	8.4
-----*					
MAX	*	9.4	10.3	10.1	10.7
DEGR.	*	100	170	20	280

THE HIGHEST CONCENTRATION IS 10.68 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Corbin ALTD Krausz Future PM

RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	170	20	280
-----*					
1	*	0.0	0.8	0.0	0.4
2	*	0.4	0.0	0.6	0.0
3	*	0.0	0.1	0.0	0.5
4	*	0.5	0.5	0.8	0.0
5	*	0.0	1.0	0.2	0.4
6	*	0.5	0.4	0.4	0.0
7	*	0.0	0.4	0.5	1.1
8	*	0.5	0.0	0.0	0.0
9	*	0.0	0.0	0.5	1.1
10	*	0.4	0.0	0.0	0.0
11	*	0.0	0.2	0.2	0.3
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT18ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Corbin ALTA Buildout Future PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1837.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2097.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	406.3	*	58.	180. AG	189.	100.0	0.0	48.0	0.54	2.9
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2004.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2017.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	599.0	*	63.	360. AG	189.	100.0	0.0	48.0	0.59	3.2
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1942.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1538.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	-668.3	482.0	*	1120.	270. AG	210.	100.0	0.0	36.0	1.16	56.9
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	746.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	877.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	594.1	518.0	*	46.	90. AG	210.	100.0	0.0	36.0	0.44	2.3

1

PAGE 2

JOB: Nordhoff-Corbin ALTA Buildout Future PM RUN: 5

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
3. NBQ	*	60	23	3.0	1837	1600	45.96	3	3
6. SBQ	*	60	23	3.0	2004	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1942	1600	45.96	3	3
12. WBQ	*	60	34	3.0	746	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Corbin ALTA Buildout Future PM RUN: 5

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
0.	*	7.4	9.4	8.8	8.4
10.	*	8.3	9.7	9.9	7.8
20.	*	8.5	9.4	10.1	7.7
30.	*	8.3	9.1	9.4	7.6
40.	*	8.4	8.9	9.0	7.6
50.	*	8.3	8.6	8.8	7.6
60.	*	8.3	8.5	9.0	7.7
70.	*	8.3	8.3	9.3	7.9
80.	*	8.3	8.3	9.2	7.9
90.	*	8.6	8.6	8.5	7.2
100.	*	9.4	9.4	8.1	6.9
110.	*	9.3	9.5	8.0	6.9
120.	*	8.8	9.2	8.0	6.9
130.	*	8.8	9.2	7.9	6.9
140.	*	9.0	9.0	8.0	6.9
150.	*	9.0	9.7	8.2	6.9
160.	*	9.2	9.9	8.4	6.9
170.	*	9.4	10.2	8.2	6.9
180.	*	8.5	10.0	7.3	7.3

190.	*	7.9	9.1	6.9	8.2
200.	*	8.0	8.8	6.9	8.4
210.	*	7.9	8.6	6.9	8.2
220.	*	8.1	8.8	6.9	8.2
230.	*	8.2	8.8	6.9	8.2
240.	*	8.4	9.0	6.9	8.3
250.	*	8.8	9.3	6.9	8.3
260.	*	8.7	9.4	7.0	8.4
270.	*	7.6	8.2	8.3	9.8
280.	*	6.9	7.5	9.7	10.9
290.	*	6.9	7.5	9.3	9.9
300.	*	6.9	7.4	8.8	9.0
310.	*	6.9	7.4	8.5	8.9
320.	*	6.9	7.4	8.4	9.0
330.	*	6.9	7.7	8.4	9.0
340.	*	6.9	8.0	8.2	9.4
350.	*	6.9	8.6	8.2	9.4
360.	*	7.4	9.4	8.8	8.4
-----*					
MAX	*	9.4	10.2	10.1	10.9
DEGR.	*	100	170	20	280

THE HIGHEST CONCENTRATION IS 10.88 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Corbin ALTA Buildout Future PM RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	170	20	280
-----*					
1	*	0.0	0.8	0.0	0.5
2	*	0.4	0.0	0.6	0.0
3	*	0.0	0.1	0.0	0.5
4	*	0.5	0.5	0.8	0.0
5	*	0.0	1.0	0.2	0.4
6	*	0.5	0.3	0.4	0.0
7	*	0.0	0.4	0.5	1.1
8	*	0.5	0.0	0.0	0.0
9	*	0.0	0.0	0.5	1.2
10	*	0.4	0.0	0.0	0.0
11	*	0.0	0.2	0.2	0.3
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT18BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff Pl-Corbin ALTB Krausz Future PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1742.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1980.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	409.3	*	55.	180. AG	189.	100.0	0.0	48.0	0.51	2.8
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2188.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2167.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	604.8	*	69.	360. AG	189.	100.0	0.0	48.0	0.64	3.5
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1920.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1538.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	-596.7	482.0	*	1049.	270. AG	210.	100.0	0.0	36.0	1.14	53.3
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	746.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	911.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	594.1	518.0	*	46.	90. AG	210.	100.0	0.0	36.0	0.44	2.3

1

PAGE 2

JOB: Nordhoff Pl-Corbin ALTB Krausz Future PM RUN: 7

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
3. NBQ	*	60	23	3.0	1742	1600	45.96	3	3
6. SBQ	*	60	23	3.0	2188	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1920	1600	45.96	3	3
12. WBQ	*	60	34	3.0	746	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff Pl-Corbin ALTB Krausz Future PM RUN: 7

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
0.	*	7.4	9.6	8.9	8.4
10.	*	8.4	9.8	10.0	7.8
20.	*	8.7	9.5	10.1	7.7
30.	*	8.5	9.1	9.4	7.6
40.	*	8.3	8.9	9.0	7.6
50.	*	8.5	8.7	8.8	7.6
60.	*	8.4	8.5	9.1	7.7
70.	*	8.4	8.4	9.3	7.9
80.	*	8.3	8.3	9.2	7.9
90.	*	8.7	8.6	8.6	7.2
100.	*	9.5	9.4	8.0	6.9
110.	*	9.3	9.6	7.9	6.9
120.	*	8.9	9.2	8.0	6.9
130.	*	8.9	9.2	8.0	6.9
140.	*	9.0	9.1	8.0	6.9
150.	*	9.2	9.7	8.2	6.9
160.	*	9.3	10.0	8.4	6.9
170.	*	9.5	10.4	8.3	6.9
180.	*	8.5	10.2	7.3	7.3

190.	*	7.9	9.2	6.9	8.2
200.	*	8.0	8.8	6.9	8.4
210.	*	8.0	8.8	6.9	8.3
220.	*	8.1	8.9	6.9	8.2
230.	*	8.2	8.8	6.9	8.1
240.	*	8.4	8.9	6.9	8.2
250.	*	8.8	9.3	6.9	8.2
260.	*	8.8	9.4	6.9	8.3
270.	*	7.5	8.1	8.3	9.8
280.	*	6.9	7.5	9.6	10.8
290.	*	6.9	7.5	9.3	9.8
300.	*	6.9	7.5	8.8	9.1
310.	*	6.9	7.5	8.5	8.9
320.	*	6.9	7.5	8.4	9.1
330.	*	6.9	7.8	8.3	9.1
340.	*	6.9	8.1	8.2	9.4
350.	*	6.9	8.7	8.2	9.3
360.	*	7.4	9.6	8.9	8.4
-----*					
MAX	*	9.5	10.4	10.1	10.8
DEGR.	*	100	170	20	280

THE HIGHEST CONCENTRATION IS 10.78 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff Pl-Corbin ALTB Krausz Future PM

RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	170	20	280
-----*					
1	*	0.0	0.8	0.0	0.4
2	*	0.4	0.0	0.6	0.0
3	*	0.0	0.1	0.0	0.5
4	*	0.6	0.6	0.8	0.0
5	*	0.0	1.1	0.2	0.4
6	*	0.5	0.3	0.4	0.0
7	*	0.0	0.4	0.5	1.1
8	*	0.5	0.0	0.0	0.0
9	*	0.0	0.0	0.5	1.2
10	*	0.4	0.0	0.0	0.0
11	*	0.0	0.2	0.2	0.3
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT18CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Corbin ALTC Buildout Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1833.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2092.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	403.9	*	60.	180. AG	197.	100.0	0.0	48.0	0.55	3.1
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1981.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1998.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	601.0	*	65.	360. AG	197.	100.0	0.0	48.0	0.60	3.3
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1941.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1538.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	-395.9	482.0	*	848.	270. AG	203.	100.0	0.0	36.0	1.10	43.1
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	746.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	873.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	592.8	518.0	*	45.	90. AG	203.	100.0	0.0	36.0	0.42	2.3

1

PAGE 2

JOB: Nordhoff-Corbin ALTC Buildout Future PM RUN: 9

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
3. NBQ	*	60	24	3.0	1833	1600	45.96	3	3
6. SBQ	*	60	24	3.0	1981	1600	45.96	3	3
9. EBQ	*	60	33	3.0	1941	1600	45.96	3	3
12. WBQ	*	60	33	3.0	746	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Corbin ALTC Buildout Future PM RUN: 9

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
0.	*	7.3	9.5	8.8	8.4
10.	*	8.3	9.8	9.8	7.8
20.	*	8.5	9.4	10.1	7.7
30.	*	8.4	9.2	9.4	7.5
40.	*	8.4	8.8	9.0	7.6
50.	*	8.4	8.6	8.8	7.6
60.	*	8.3	8.5	9.0	7.7
70.	*	8.3	8.4	9.2	7.9
80.	*	8.3	8.3	9.2	7.9
90.	*	8.6	8.6	8.5	7.2
100.	*	9.4	9.4	8.1	6.9
110.	*	9.3	9.4	8.1	6.9
120.	*	8.8	9.1	8.0	6.9
130.	*	8.8	9.3	7.9	6.9
140.	*	9.0	9.0	8.0	6.9
150.	*	9.0	9.7	8.2	6.9
160.	*	9.2	9.9	8.3	6.9
170.	*	9.4	10.3	8.2	6.9
180.	*	8.5	10.1	7.3	7.3

190.	*	7.9	9.1	6.9	8.2
200.	*	7.9	8.8	6.9	8.4
210.	*	7.9	8.6	6.9	8.2
220.	*	8.0	8.7	6.9	8.2
230.	*	8.2	8.9	6.9	8.3
240.	*	8.4	9.0	6.9	8.3
250.	*	8.7	9.2	6.9	8.3
260.	*	8.6	9.3	6.9	8.3
270.	*	7.4	8.1	8.1	9.7
280.	*	6.9	7.5	9.6	10.8
290.	*	6.9	7.5	9.2	9.8
300.	*	6.9	7.4	8.7	9.0
310.	*	6.9	7.4	8.5	8.9
320.	*	6.9	7.4	8.4	9.0
330.	*	6.9	7.7	8.3	9.0
340.	*	6.9	8.0	8.2	9.4
350.	*	6.9	8.6	8.1	9.4
360.	*	7.3	9.5	8.8	8.4
-----*					
MAX	*	9.4	10.3	10.1	10.8
DEGR.	*	100	170	20	280

THE HIGHEST CONCENTRATION IS 10.78 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Corbin ALTC Buildout Future PM RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	170	20	280
-----*					
1	*	0.0	0.8	0.0	0.5
2	*	0.4	0.0	0.6	0.0
3	*	0.0	0.1	0.0	0.5
4	*	0.5	0.5	0.8	0.0
5	*	0.0	1.0	0.2	0.4
6	*	0.5	0.4	0.4	0.0
7	*	0.0	0.4	0.5	1.1
8	*	0.5	0.0	0.0	0.0
9	*	0.0	0.0	0.5	1.1
10	*	0.4	0.0	0.0	0.0
11	*	0.0	0.2	0.2	0.3
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT18DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:26

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Corbin ALTD Buildout Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1751.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1991.	9.3	0.0	44.0		
3. NBQ	*	524.0	464.0	524.0	409.1	*	55.	180. AG	189.	100.0	0.0	48.0	0.51	2.8
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2106.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2100.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	602.2	*	66.	360. AG	189.	100.0	0.0	48.0	0.62	3.4
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1922.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1538.	9.3	0.0	44.0		
9. EBQ	*	452.0	482.0	-596.7	482.0	*	1049.	270. AG	210.	100.0	0.0	36.0	1.14	53.3
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	746.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	896.	9.3	0.0	32.0		
12. WBQ	*	548.0	518.0	594.1	518.0	*	46.	90. AG	210.	100.0	0.0	36.0	0.44	2.3

1

PAGE 2

JOB: Nordhoff-Corbin ALTD Buildout Future PM RUN: 11

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
3. NBQ	*	60	23	3.0	1751	1600	45.96	3	3
6. SBQ	*	60	23	3.0	2106	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1922	1600	45.96	3	3
12. WBQ	*	60	34	3.0	746	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	468.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Corbin ALTD Buildout Future PM RUN: 11

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 REC1	REC2	REC3	REC4
0.	*	7.4	9.5	8.9	8.4
10.	*	8.4	9.7	9.9	7.8
20.	*	8.6	9.4	10.1	7.7
30.	*	8.4	9.1	9.4	7.6
40.	*	8.3	8.9	8.9	7.6
50.	*	8.3	8.6	8.8	7.6
60.	*	8.4	8.5	9.1	7.7
70.	*	8.3	8.4	9.3	7.9
80.	*	8.3	8.3	9.2	7.9
90.	*	8.7	8.6	8.5	7.2
100.	*	9.4	9.4	8.0	6.9
110.	*	9.2	9.6	7.9	6.9
120.	*	8.9	9.2	8.0	6.9
130.	*	8.9	9.2	7.9	6.9
140.	*	9.0	9.1	8.0	6.9
150.	*	9.1	9.7	8.2	6.9
160.	*	9.2	9.9	8.4	6.9
170.	*	9.4	10.3	8.3	6.9
180.	*	8.5	10.2	7.3	7.3

190.	*	7.9	9.1	6.9	8.2
200.	*	8.0	8.8	6.9	8.4
210.	*	8.0	8.7	6.9	8.3
220.	*	8.1	8.8	6.9	8.2
230.	*	8.2	8.8	6.9	8.1
240.	*	8.4	8.9	6.9	8.2
250.	*	8.8	9.3	6.9	8.2
260.	*	8.7	9.4	6.9	8.3
270.	*	7.5	8.1	8.3	9.8
280.	*	6.9	7.5	9.6	10.8
290.	*	6.9	7.5	9.3	9.8
300.	*	6.9	7.4	8.8	9.0
310.	*	6.9	7.5	8.5	8.9
320.	*	6.9	7.4	8.4	9.1
330.	*	6.9	7.8	8.3	9.1
340.	*	6.9	8.1	8.2	9.4
350.	*	6.9	8.7	8.2	9.3
360.	*	7.4	9.5	8.9	8.4
-----*					
MAX	*	9.4	10.3	10.1	10.8
DEGR.	*	100	170	20	280

THE HIGHEST CONCENTRATION IS 10.78 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Corbin ALTD Buildout Future PM RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	170	20	280
-----*					
1	*	0.0	0.8	0.0	0.4
2	*	0.4	0.0	0.6	0.0
3	*	0.0	0.1	0.0	0.5
4	*	0.5	0.6	0.8	0.0
5	*	0.0	1.0	0.2	0.4
6	*	0.5	0.3	0.4	0.0
7	*	0.0	0.4	0.5	1.1
8	*	0.5	0.0	0.0	0.0
9	*	0.0	0.0	0.5	1.2
10	*	0.4	0.0	0.0	0.0
11	*	0.0	0.2	0.2	0.3
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:26

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\pacoex.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties RUN: Parthenia Corbin Existing

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.1	0.0	518.0	500.0	*	500.	359. AG	1590.	12.2	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1700.	12.2	0.0	44.0		
3. nbq	*	518.0	464.0	518.0	382.2	*	82.	180. AG	227.	100.0	0.0	36.0	0.74	4.2
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1237.	12.2	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1215.	12.2	0.0	44.0		
6. sbq	*	482.0	536.0	482.0	599.1	*	63.	360. AG	227.	100.0	0.0	36.0	0.57	3.2
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	953.	12.2	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1014.	12.2	0.0	44.0		
9. ebq	*	464.0	482.0	413.7	482.0	*	50.	270. AG	236.	100.0	0.0	36.0	0.46	2.6
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1413.	12.2	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1264.	12.2	0.0	44.0		
12. wbq	*	536.0	518.0	610.7	518.0	*	75.	90. AG	236.	100.0	0.0	36.0	0.68	3.8

1

PAGE 2

JOB: Klausz Properties RUN: Parthenia Corbin Existing

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
3. nbq	*	60	28	3.0	1590	1600	60.55	3	3
6. sbq	*	60	28	3.0	1237	1600	60.55	3	3
9. ebq	*	60	29	3.0	953	1600	60.55	3	3
12. wbq	*	60	29	3.0	1413	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	556.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties RUN: Parthenia Corbin Existing

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
0.	*	9.2	9.3	10.6	10.7
10.	*	10.2	8.7	11.8	9.9
20.	*	10.3	8.7	11.7	9.9
30.	*	10.2	8.7	11.3	9.9
40.	*	10.3	8.7	10.8	9.7
50.	*	10.3	8.7	10.8	9.7
60.	*	10.4	8.7	11.2	9.7
70.	*	10.2	8.7	11.2	9.9
80.	*	10.1	8.7	11.3	9.9
90.	*	10.9	9.2	10.5	9.1
100.	*	12.0	10.1	10.0	8.7
110.	*	11.8	10.2	10.0	8.7
120.	*	11.3	10.3	10.1	8.7
130.	*	10.8	10.3	10.0	8.7
140.	*	11.0	10.3	9.9	8.7
150.	*	11.2	10.2	9.9	8.7
160.	*	11.4	10.2	10.2	8.7
170.	*	11.4	10.2	10.1	8.8
180.	*	10.4	11.0	9.2	9.4

190.	*	9.9	12.2	8.7	10.4
200.	*	9.7	12.0	8.7	10.5
210.	*	9.6	11.2	8.7	10.5
220.	*	9.5	10.9	8.7	10.5
230.	*	9.6	11.1	8.7	10.4
240.	*	9.8	11.2	8.7	10.3
250.	*	9.9	11.2	8.7	10.2
260.	*	9.9	11.4	8.7	10.2
270.	*	9.1	10.6	9.1	10.7
280.	*	8.7	10.1	9.9	11.6
290.	*	8.7	10.0	9.9	11.7
300.	*	8.7	10.0	9.8	11.2
310.	*	8.7	9.9	9.7	10.7
320.	*	8.7	9.9	9.9	10.7
330.	*	8.7	10.1	10.1	11.3
340.	*	8.7	10.4	10.0	11.5
350.	*	8.7	10.3	9.9	11.7
360.	*	9.2	9.3	10.6	10.7
-----*					
MAX	*	12.0	12.2	11.8	11.7
DEGR.	*	100	190	10	290

THE HIGHEST CONCENTRATION IS 12.20 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Klausz Properties

RUN: Parthenia Corbin Existing

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	290
-----*					
1	*	0.0	1.2	0.0	0.6
2	*	0.4	0.0	0.7	0.0
3	*	0.0	0.4	0.0	0.5
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.6	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.5
8	*	0.4	0.3	0.0	0.1
9	*	0.0	0.0	0.6	0.4
10	*	1.1	0.5	0.0	0.0
11	*	0.0	0.0	0.3	0.6
12	*	0.4	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\pacopre.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Parthenia Corbin Pre Project

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.1	0.0	518.0	500.0	*	500.	359. AG	1728.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1847.	9.3	0.0	44.0		
3. nbq	*	518.0	464.0	518.0	385.3	*	79.	180. AG	154.	100.0	0.0	36.0	0.72	4.0
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1442.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1413.	9.3	0.0	44.0		
6. sbq	*	482.0	536.0	482.0	601.6	*	66.	360. AG	154.	100.0	0.0	36.0	0.60	3.3
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1011.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1077.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	405.0	482.0	*	59.	270. AG	197.	100.0	0.0	36.0	0.55	3.0
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1500.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1344.	9.3	0.0	44.0		
12. wbq	*	536.0	518.0	637.7	518.0	*	102.	90. AG	197.	100.0	0.0	36.0	0.82	5.2

1

PAGE 2

JOB: Klausz Properties

RUN: Parthenia Corbin Pre Project

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
6. sbq	*	60	25	3.0	1442	1600	45.96	3	3
9. ebq	*	60	32	3.0	1011	1600	45.96	3	3
12. wbq	*	60	32	3.0	1500	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	556.0	5.4	*
2. ne	*	556.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Parthenia Corbin Pre Project

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
0.	* 7.4	7.4	8.5	8.5
10.	* 8.2	6.9	9.6	7.9
20.	* 8.3	6.9	9.5	7.9
30.	* 8.2	6.9	9.0	7.9
40.	* 8.2	6.9	8.6	7.9
50.	* 8.2	6.9	8.7	7.9
60.	* 8.2	6.9	9.0	7.7
70.	* 8.1	6.9	9.1	7.9
80.	* 8.1	6.9	9.0	7.9
90.	* 8.8	7.3	8.4	7.2
100.	* 9.8	8.2	7.9	6.9
110.	* 9.6	8.4	8.0	6.9
120.	* 8.9	8.4	8.0	6.9
130.	* 8.5	8.4	7.9	6.9
140.	* 8.7	8.2	7.8	6.9
150.	* 8.9	8.1	8.0	6.9
160.	* 9.2	8.0	8.2	6.9
170.	* 9.1	8.0	8.1	6.9
180.	* 8.4	8.8	7.3	7.4

190.	*	7.8	9.7	6.9	8.3
200.	*	7.9	9.6	6.9	8.4
210.	*	7.7	9.1	6.9	8.3
220.	*	7.5	8.7	6.9	8.3
230.	*	7.7	8.7	6.9	8.2
240.	*	7.7	9.0	6.9	8.2
250.	*	7.9	9.0	6.9	8.1
260.	*	7.9	9.1	6.9	8.1
270.	*	7.2	8.5	7.2	8.5
280.	*	6.9	8.0	7.8	9.4
290.	*	6.9	8.0	7.8	9.4
300.	*	6.9	7.9	7.8	8.9
310.	*	6.9	7.9	7.9	8.7
320.	*	6.9	7.9	8.0	8.7
330.	*	6.9	8.0	8.1	9.1
340.	*	6.9	8.3	8.0	9.2
350.	*	6.9	8.3	8.0	9.5
360.	*	7.4	7.4	8.5	8.5
-----*					
MAX	*	9.8	9.7	9.6	9.5
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Parthenia Corbin Pre Project

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	1.0	0.0	0.1
2	*	0.4	0.0	0.6	1.1
3	*	0.0	0.3	0.0	0.0
4	*	0.4	0.0	0.8	0.5
5	*	0.0	0.4	0.0	0.0
6	*	0.4	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.0
8	*	0.3	0.2	0.0	0.3
9	*	0.0	0.0	0.5	0.0
10	*	0.9	0.4	0.0	0.3
11	*	0.0	0.0	0.3	0.0
12	*	0.5	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\pacoafa.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties RUN: Parthenia Corbin Future Alt A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.1	0.0	518.0	500.0	*	500.	359. AG	1688.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1701.	9.3	0.0	44.0		
3. nbq	*	518.0	464.0	518.0	387.2	*	77.	180. AG	154.	100.0	0.0	36.0	0.70	3.9
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1434.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1401.	9.3	0.0	44.0		
6. sbq	*	482.0	536.0	482.0	601.4	*	65.	360. AG	154.	100.0	0.0	36.0	0.60	3.3
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1007.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1079.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	405.4	482.0	*	59.	270. AG	197.	100.0	0.0	36.0	0.55	3.0
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1398.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1346.	9.3	0.0	44.0		
12. wbq	*	536.0	518.0	622.8	518.0	*	87.	90. AG	197.	100.0	0.0	36.0	0.76	4.4

1

PAGE 2

JOB: Klausz Properties RUN: Parthenia Corbin Future Alt A

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
6. sbq	*	60	25	3.0	1434	1600	45.96	3	3
9. ebq	*	60	32	3.0	1007	1600	45.96	3	3
12. wbq	*	60	32	3.0	1398	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	556.0	5.4	*
2. ne	*	556.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties RUN: Parthenia Corbin Future Alt A

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
0.	7.4	7.4	8.5	8.5
10.	8.2	6.9	9.5	7.9
20.	8.3	6.9	9.5	7.9
30.	8.2	6.9	9.0	7.9
40.	8.1	6.9	8.6	7.8
50.	8.2	6.9	8.7	7.8
60.	8.2	6.9	9.0	7.7
70.	8.1	6.9	9.0	7.9
80.	8.0	6.9	8.9	7.9
90.	8.6	7.3	8.3	7.2
100.	9.5	8.0	7.9	6.9
110.	9.3	8.2	8.0	6.9
120.	8.9	8.2	8.0	6.9
130.	8.4	8.3	7.8	6.9
140.	8.7	8.1	7.8	6.9
150.	8.9	8.1	8.0	6.9
160.	9.2	8.0	8.2	6.9
170.	9.1	8.0	8.1	6.9
180.	8.4	8.8	7.3	7.4

190.	*	7.8	9.7	6.9	8.2
200.	*	7.9	9.4	6.9	8.4
210.	*	7.7	9.0	6.9	8.3
220.	*	7.5	8.6	6.9	8.3
230.	*	7.7	8.6	6.9	8.2
240.	*	7.7	9.0	6.9	8.2
250.	*	7.9	8.9	6.9	8.0
260.	*	7.9	9.0	6.9	8.0
270.	*	7.2	8.5	7.2	8.5
280.	*	6.9	7.9	7.8	9.3
290.	*	6.9	7.9	7.8	9.4
300.	*	6.9	7.9	7.8	8.8
310.	*	6.9	7.8	7.9	8.6
320.	*	6.9	7.9	8.0	8.6
330.	*	6.9	8.0	8.1	9.0
340.	*	6.9	8.2	8.0	9.2
350.	*	6.9	8.2	8.0	9.4
360.	*	7.4	7.4	8.5	8.5
-----*					
MAX	*	9.5	9.7	9.5	9.4
DEGR.	*	100	190	10	290

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt A

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	290
-----*					
1	*	0.0	1.0	0.0	0.5
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.3
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.4	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.4
8	*	0.3	0.2	0.0	0.1
9	*	0.0	0.0	0.5	0.4
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.5
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\pacoFb.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.1	0.0	518.0	500.0	*	500.	359. AG	1835.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1994.	9.3	0.0	44.0		
3. nbq	*	518.0	464.0	518.0	377.8	*	86.	180. AG	154.	100.0	0.0	36.0	0.76	4.4
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1439.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1406.	9.3	0.0	44.0		
6. sbq	*	482.0	536.0	482.0	601.5	*	65.	360. AG	154.	100.0	0.0	36.0	0.60	3.3
7. eba	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1031.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1079.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	404.0	482.0	*	60.	270. AG	197.	100.0	0.0	36.0	0.56	3.0
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1520.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1346.	9.3	0.0	44.0		
12. wbq	*	536.0	518.0	640.9	518.0	*	105.	90. AG	197.	100.0	0.0	36.0	0.83	5.3

1

PAGE 2

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt B

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
6. sbq	*	60	25	3.0	1439	1600	45.96	3	3
9. ebq	*	60	32	3.0	1031	1600	45.96	3	3
12. wbq	*	60	32	3.0	1520	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	556.0	5.4	*
2. ne	*	556.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt B

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
0.	7.4	7.4	8.5	8.5
10.	8.3	6.9	9.6	7.9
20.	8.4	6.9	9.6	7.9
30.	8.3	6.9	9.1	7.9
40.	8.2	6.9	8.6	7.9
50.	8.2	6.9	8.8	7.9
60.	8.2	6.9	9.0	7.8
70.	8.1	6.9	9.2	7.9
80.	8.1	6.9	9.2	7.9
90.	8.8	7.3	8.4	7.2
100.	9.8	8.2	8.0	6.9
110.	9.6	8.5	8.0	6.9
120.	9.0	8.4	8.0	6.9
130.	8.5	8.4	7.9	6.9
140.	8.7	8.2	8.0	6.9
150.	8.9	8.1	8.0	6.9
160.	9.3	8.0	8.2	6.9
170.	9.2	8.1	8.1	6.9
180.	8.4	8.8	7.3	7.5

190.	*	7.8	9.8	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	7.7	9.2	6.9	8.4
220.	*	7.5	8.7	6.9	8.4
230.	*	7.7	8.8	6.9	8.3
240.	*	7.7	9.1	6.9	8.2
250.	*	8.0	9.0	6.9	8.1
260.	*	7.9	9.1	6.9	8.1
270.	*	7.2	8.5	7.2	8.5
280.	*	6.9	8.0	7.8	9.4
290.	*	6.9	8.0	7.8	9.4
300.	*	6.9	8.0	7.8	8.8
310.	*	6.9	7.9	7.9	8.7
320.	*	6.9	8.0	8.0	8.8
330.	*	6.9	8.1	8.1	9.2
340.	*	6.9	8.4	8.0	9.3
350.	*	6.9	8.4	8.0	9.5
360.	*	7.4	7.4	8.5	8.5
-----*					
MAX	*	9.8	9.8	9.6	9.5
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	1.1	0.0	0.1
2	*	0.4	0.0	0.6	1.1
3	*	0.0	0.3	0.0	0.0
4	*	0.4	0.0	0.8	0.5
5	*	0.0	0.4	0.0	0.0
6	*	0.4	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.0
8	*	0.3	0.2	0.0	0.3
9	*	0.0	0.0	0.5	0.0
10	*	0.9	0.4	0.0	0.3
11	*	0.0	0.0	0.3	0.0
12	*	0.5	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\pacoFc.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.1	0.0	518.0	500.0	*	500.	359. AG	1704.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1815.	9.3	0.0	44.0		
3. nbq	*	518.0	464.0	518.0	386.4	*	78.	180. AG	154.	100.0	0.0	36.0	0.71	3.9
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1450.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1413.	9.3	0.0	44.0		
6. sbq	*	482.0	536.0	482.0	602.0	*	66.	360. AG	154.	100.0	0.0	36.0	0.60	3.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1007.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1081.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	405.4	482.0	*	59.	270. AG	197.	100.0	0.0	36.0	0.55	3.0
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1496.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1348.	9.3	0.0	44.0		
12. wbq	*	536.0	518.0	636.7	518.0	*	101.	90. AG	197.	100.0	0.0	36.0	0.81	5.1

1

PAGE 2

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt C

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
6. sbq	*	60	25	3.0	1450	1600	45.96	3	3
9. ebq	*	60	32	3.0	1007	1600	45.96	3	3
12. wbq	*	60	32	3.0	1496	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	556.0	5.4	*
2. ne	*	556.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt C

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
0.	7.4	7.4	8.5	8.5
10.	8.2	6.9	9.5	7.9
20.	8.3	6.9	9.5	7.9
30.	8.2	6.9	9.0	7.9
40.	8.2	6.9	8.7	7.9
50.	8.2	6.9	8.7	7.9
60.	8.2	6.9	9.0	7.7
70.	8.1	6.9	9.0	7.9
80.	8.1	6.9	9.0	7.9
90.	8.8	7.3	8.3	7.2
100.	9.7	8.2	7.9	6.9
110.	9.6	8.4	8.0	6.9
120.	8.9	8.4	8.0	6.9
130.	8.5	8.4	7.8	6.9
140.	8.7	8.2	7.8	6.9
150.	8.9	8.1	8.0	6.9
160.	9.2	8.0	8.2	6.9
170.	9.1	8.0	8.1	6.9
180.	8.4	8.8	7.3	7.4

190.	*	7.8	9.7	6.9	8.3
200.	*	7.9	9.5	6.9	8.4
210.	*	7.7	9.0	6.9	8.3
220.	*	7.5	8.7	6.9	8.3
230.	*	7.7	8.8	6.9	8.2
240.	*	7.7	9.0	6.9	8.2
250.	*	7.9	9.0	6.9	8.1
260.	*	7.9	9.1	6.9	8.0
270.	*	7.2	8.5	7.2	8.5
280.	*	6.9	8.0	7.8	9.3
290.	*	6.9	8.0	7.8	9.4
300.	*	6.9	7.9	7.8	8.9
310.	*	6.9	7.9	7.9	8.7
320.	*	6.9	7.9	8.0	8.7
330.	*	6.9	8.0	8.1	9.1
340.	*	6.9	8.3	8.0	9.2
350.	*	6.9	8.3	8.0	9.4
360.	*	7.4	7.4	8.5	8.5
-----*					
MAX	*	9.7	9.7	9.5	9.4
DEGR.	*	100	190	10	290

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	290
-----*					
1	*	0.0	1.0	0.0	0.5
2	*	0.4	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.3
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.4	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.4
8	*	0.3	0.2	0.0	0.1
9	*	0.0	0.0	0.5	0.4
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.5
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\pacoofd.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.1	0.0	518.0	500.0	*	500.	359. AG	1805.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1952.	9.3	0.0	44.0		
3. nbq	*	518.0	464.0	518.0	380.8	*	83.	180. AG	154.	100.0	0.0	36.0	0.75	4.2
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1453.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1416.	9.3	0.0	44.0		
6. sbq	*	482.0	536.0	482.0	602.2	*	66.	360. AG	154.	100.0	0.0	36.0	0.61	3.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1025.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1081.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	404.3	482.0	*	60.	270. AG	197.	100.0	0.0	36.0	0.56	3.0
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1514.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1348.	9.3	0.0	44.0		
12. wbq	*	536.0	518.0	639.8	518.0	*	104.	90. AG	197.	100.0	0.0	36.0	0.82	5.3

1

PAGE 2

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt D

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
6. sbq	*	60	25	3.0	1453	1600	45.96	3	3
9. ebq	*	60	32	3.0	1025	1600	45.96	3	3
12. wbq	*	60	32	3.0	1514	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	556.0	5.4	*
2. ne	*	556.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt D

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
0.	*	7.4	7.4	8.5	8.5
10.	*	8.3	6.9	9.6	7.9
20.	*	8.3	6.9	9.6	7.9
30.	*	8.3	6.9	9.0	7.9
40.	*	8.2	6.9	8.7	7.9
50.	*	8.2	6.9	8.7	7.9
60.	*	8.2	6.9	9.0	7.8
70.	*	8.1	6.9	9.2	7.9
80.	*	8.1	6.9	9.2	7.9
90.	*	8.8	7.3	8.4	7.2
100.	*	9.8	8.2	8.0	6.9
110.	*	9.6	8.4	8.0	6.9
120.	*	8.9	8.4	8.0	6.9
130.	*	8.5	8.4	7.9	6.9
140.	*	8.7	8.2	8.0	6.9
150.	*	8.9	8.1	8.0	6.9
160.	*	9.3	8.0	8.2	6.9
170.	*	9.1	8.1	8.1	6.9
180.	*	8.4	8.8	7.3	7.4

190.	*	7.8	9.7	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	7.7	9.1	6.9	8.4
220.	*	7.5	8.7	6.9	8.4
230.	*	7.7	8.9	6.9	8.3
240.	*	7.7	9.1	6.9	8.2
250.	*	7.9	9.0	6.9	8.1
260.	*	7.9	9.1	6.9	8.1
270.	*	7.2	8.5	7.2	8.5
280.	*	6.9	8.0	7.8	9.4
290.	*	6.9	8.0	7.8	9.4
300.	*	6.9	8.0	7.8	8.9
310.	*	6.9	7.9	7.9	8.7
320.	*	6.9	8.0	8.0	8.8
330.	*	6.9	8.1	8.1	9.2
340.	*	6.9	8.3	8.0	9.3
350.	*	6.9	8.4	8.0	9.5
360.	*	7.4	7.4	8.5	8.5
-----*					
MAX	*	9.8	9.7	9.6	9.5
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Parthenia Corbin Future Alt D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	1.0	0.0	0.1
2	*	0.4	0.0	0.6	1.1
3	*	0.0	0.3	0.0	0.0
4	*	0.4	0.0	0.8	0.5
5	*	0.0	0.4	0.0	0.0
6	*	0.4	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.0
8	*	0.3	0.2	0.0	0.3
9	*	0.0	0.0	0.5	0.0
10	*	0.9	0.4	0.0	0.3
11	*	0.0	0.0	0.3	0.0
12	*	0.5	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\pacoba.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.1	0.0	518.0	500.0	*	500.	359. AG	1690.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1795.	9.3	0.0	44.0		
3. nbq	*	518.0	464.0	518.0	387.1	*	77.	180. AG	154.	100.0	0.0	36.0	0.70	3.9
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1434.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1401.	9.3	0.0	44.0		
6. sbq	*	482.0	536.0	482.0	601.4	*	65.	360. AG	154.	100.0	0.0	36.0	0.60	3.3
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1004.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1079.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	405.6	482.0	*	58.	270. AG	197.	100.0	0.0	36.0	0.54	3.0
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1493.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1346.	9.3	0.0	44.0		
12. wbq	*	536.0	518.0	636.2	518.0	*	100.	90. AG	197.	100.0	0.0	36.0	0.81	5.1

1

PAGE 2

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt A

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
3. nbq	*	60	25	3.0	1690	1600	45.96	3	3
6. sbq	*	60	25	3.0	1434	1600	45.96	3	3
9. ebq	*	60	32	3.0	1004	1600	45.96	3	3
12. wbq	*	60	32	3.0	1493	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	556.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt A

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
0.	*	7.4	7.4	8.5	8.5
10.	*	8.2	6.9	9.5	7.9
20.	*	8.3	6.9	9.5	7.9
30.	*	8.2	6.9	9.0	7.9
40.	*	8.2	6.9	8.6	7.9
50.	*	8.2	6.9	8.6	7.9
60.	*	8.2	6.9	9.0	7.7
70.	*	8.1	6.9	9.0	7.9
80.	*	8.1	6.9	9.0	7.9
90.	*	8.8	7.3	8.3	7.2
100.	*	9.6	8.2	7.9	6.9
110.	*	9.6	8.4	8.0	6.9
120.	*	8.9	8.4	8.0	6.9
130.	*	8.5	8.4	7.8	6.9
140.	*	8.7	8.2	7.8	6.9
150.	*	8.9	8.1	8.0	6.9
160.	*	9.2	8.0	8.2	6.9
170.	*	9.1	8.0	8.1	6.9
180.	*	8.4	8.8	7.3	7.4

190.	*	7.8	9.7	6.9	8.2
200.	*	7.9	9.5	6.9	8.4
210.	*	7.7	9.0	6.9	8.3
220.	*	7.5	8.7	6.9	8.3
230.	*	7.7	8.7	6.9	8.2
240.	*	7.7	9.0	6.9	8.2
250.	*	7.9	9.0	6.9	8.1
260.	*	7.9	9.1	6.9	8.0
270.	*	7.2	8.5	7.2	8.5
280.	*	6.9	8.0	7.8	9.3
290.	*	6.9	8.0	7.8	9.4
300.	*	6.9	7.9	7.8	8.8
310.	*	6.9	7.9	7.9	8.6
320.	*	6.9	7.9	8.0	8.7
330.	*	6.9	8.0	8.1	9.0
340.	*	6.9	8.3	8.0	9.2
350.	*	6.9	8.3	8.0	9.4
360.	*	7.4	7.4	8.5	8.5
-----*					
MAX	*	9.6	9.7	9.5	9.4
DEGR.	*	100	190	10	290

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 190 DEGREES FROM REC2 .

1

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt A

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	290
-----*					
1	*	0.0	1.0	0.0	0.5
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.3	0.0	0.3
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.4	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.4
8	*	0.3	0.2	0.0	0.1
9	*	0.0	0.0	0.5	0.4
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.5
12	*	0.4	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\pacobb.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.1	0.0	518.0	500.0	*	500.	359. AG	1885.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2062.	9.3	0.0	44.0		
3. nbq	*	518.0	464.0	518.0	372.2	*	92.	180. AG	154.	100.0	0.0	36.0	0.79	4.7
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1446.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1411.	9.3	0.0	44.0		
6. sbq	*	482.0	536.0	482.0	601.9	*	66.	360. AG	154.	100.0	0.0	36.0	0.60	3.3
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1040.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1080.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	403.5	482.0	*	61.	270. AG	197.	100.0	0.0	36.0	0.56	3.1
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1529.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1347.	9.3	0.0	44.0		
12. wbq	*	536.0	518.0	642.6	518.0	*	107.	90. AG	197.	100.0	0.0	36.0	0.83	5.4

1

PAGE 2

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt B

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
3. nbq	*	60	25	3.0	1885	1600	45.96	3	3
6. sbq	*	60	25	3.0	1446	1600	45.96	3	3
9. ebq	*	60	32	3.0	1040	1600	45.96	3	3
12. wbq	*	60	32	3.0	1529	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	556.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt B

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
0.	*	7.4	7.5	8.5	8.6
10.	*	8.3	6.9	9.6	7.9
20.	*	8.4	6.9	9.6	7.9
30.	*	8.3	6.9	9.1	8.0
40.	*	8.2	6.9	8.8	7.9
50.	*	8.2	6.9	8.8	8.0
60.	*	8.2	6.9	9.0	7.8
70.	*	8.1	6.9	9.2	7.9
80.	*	8.1	6.9	9.2	7.9
90.	*	8.8	7.3	8.4	7.2
100.	*	9.8	8.2	8.0	6.9
110.	*	9.6	8.5	8.0	6.9
120.	*	9.0	8.4	8.0	6.9
130.	*	8.5	8.4	8.0	6.9
140.	*	8.7	8.2	8.0	6.9
150.	*	8.9	8.1	8.1	6.9
160.	*	9.3	8.0	8.3	6.9
170.	*	9.2	8.1	8.1	7.0
180.	*	8.4	8.8	7.3	7.5

190.	*	7.8	9.8	6.9	8.4
200.	*	7.9	9.6	6.9	8.6
210.	*	7.7	9.2	6.9	8.5
220.	*	7.5	8.7	6.9	8.5
230.	*	7.7	8.9	6.9	8.3
240.	*	7.7	9.1	6.9	8.2
250.	*	8.0	9.0	6.9	8.1
260.	*	7.9	9.1	6.9	8.1
270.	*	7.2	8.5	7.2	8.6
280.	*	6.9	8.0	7.8	9.4
290.	*	6.9	8.0	7.9	9.4
300.	*	6.9	8.0	7.8	8.9
310.	*	6.9	7.9	7.9	8.7
320.	*	6.9	8.0	8.0	8.8
330.	*	6.9	8.1	8.1	9.2
340.	*	6.9	8.4	8.0	9.3
350.	*	6.9	8.4	8.0	9.6
360.	*	7.4	7.5	8.5	8.6

MAX	*	9.8	9.8	9.6	9.6
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	10	350

1	*	0.0	1.1	0.0	0.1
2	*	0.4	0.0	0.6	1.2
3	*	0.0	0.3	0.0	0.0
4	*	0.4	0.0	0.8	0.5
5	*	0.0	0.4	0.0	0.0
6	*	0.4	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.0
8	*	0.3	0.2	0.0	0.3
9	*	0.0	0.0	0.5	0.0
10	*	0.9	0.4	0.0	0.3
11	*	0.0	0.0	0.3	0.0
12	*	0.5	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\pacobc.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.1	0.0	518.0	500.0	*	500.	359. AG	1688.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1791.	9.3	0.0	44.0		
3. nbq	*	518.0	464.0	518.0	387.2	*	77.	180. AG	154.	100.0	0.0	36.0	0.70	3.9
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1453.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1416.	9.3	0.0	44.0		
6. sbq	*	482.0	536.0	482.0	602.2	*	66.	360. AG	154.	100.0	0.0	36.0	0.61	3.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1003.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1081.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	405.6	482.0	*	58.	270. AG	197.	100.0	0.0	36.0	0.54	3.0
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1472.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1328.	9.3	0.0	44.0		
12. wbq	*	536.0	518.0	632.9	518.0	*	97.	90. AG	197.	100.0	0.0	36.0	0.80	4.9

1

PAGE 2

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt C

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
3. nbq	*	60	25	3.0	1688	1600	45.96	3	3
6. sbq	*	60	25	3.0	1453	1600	45.96	3	3
9. ebq	*	60	32	3.0	1003	1600	45.96	3	3
12. wbq	*	60	32	3.0	1472	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	556.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt C

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 REC1	REC2	REC3	REC4
0.	*	7.4	7.4	8.5	8.5
10.	*	8.2	6.9	9.5	7.9
20.	*	8.3	6.9	9.5	7.9
30.	*	8.2	6.9	9.0	7.9
40.	*	8.1	6.9	8.7	7.9
50.	*	8.2	6.9	8.6	7.9
60.	*	8.2	6.9	9.0	7.7
70.	*	8.1	6.9	9.0	7.9
80.	*	8.1	6.9	9.0	7.9
90.	*	8.8	7.3	8.3	7.2
100.	*	9.6	8.2	7.9	6.9
110.	*	9.5	8.4	8.0	6.9
120.	*	8.9	8.3	8.0	6.9
130.	*	8.5	8.3	7.8	6.9
140.	*	8.7	8.2	7.8	6.9
150.	*	8.9	8.1	8.0	6.9
160.	*	9.1	8.0	8.2	6.9
170.	*	9.1	8.0	8.1	6.9
180.	*	8.4	8.8	7.3	7.4

190.	*	7.8	9.7	6.9	8.2
200.	*	7.8	9.5	6.9	8.4
210.	*	7.7	9.0	6.9	8.3
220.	*	7.5	8.7	6.9	8.3
230.	*	7.7	8.8	6.9	8.2
240.	*	7.7	9.0	6.9	8.2
250.	*	7.8	9.0	6.9	8.0
260.	*	7.9	9.1	6.9	8.0
270.	*	7.2	8.5	7.2	8.5
280.	*	6.9	8.0	7.8	9.3
290.	*	6.9	8.0	7.8	9.3
300.	*	6.9	7.9	7.8	8.9
310.	*	6.9	7.9	7.9	8.6
320.	*	6.9	7.9	8.0	8.7
330.	*	6.9	8.0	8.1	9.0
340.	*	6.9	8.3	8.0	9.2
350.	*	6.9	8.3	8.0	9.4
360.	*	7.4	7.4	8.5	8.5
-----*					
MAX	*	9.6	9.7	9.5	9.4
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	350
-----*					
1	*	0.0	1.0	0.0	0.1
2	*	0.3	0.0	0.5	1.0
3	*	0.0	0.3	0.0	0.0
4	*	0.4	0.0	0.8	0.5
5	*	0.0	0.4	0.0	0.0
6	*	0.4	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.0
8	*	0.3	0.2	0.0	0.3
9	*	0.0	0.0	0.5	0.0
10	*	0.9	0.4	0.0	0.3
11	*	0.0	0.0	0.3	0.0
12	*	0.4	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\pacobd.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.1	0.0	518.0	500.0	*	500.	359. AG	1837.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	2001.	9.3	0.0	44.0		
3. nbq	*	518.0	464.0	518.0	377.5	*	87.	180. AG	154.	100.0	0.0	36.0	0.77	4.4
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1463.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1422.	9.3	0.0	44.0		
6. sbq	*	482.0	536.0	482.0	602.6	*	67.	360. AG	154.	100.0	0.0	36.0	0.61	3.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1032.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1083.	9.3	0.0	44.0		
9. ebq	*	464.0	482.0	403.8	482.0	*	60.	270. AG	197.	100.0	0.0	36.0	0.56	3.1
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1521.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1347.	9.3	0.0	44.0		
12. wbq	*	536.0	518.0	641.5	518.0	*	105.	90. AG	197.	100.0	0.0	36.0	0.83	5.4

1

PAGE 2

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt D

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
3. nbq	*	60	25	3.0	1837	1600	45.96	3	3
6. sbq	*	60	25	3.0	1463	1600	45.96	3	3
9. ebq	*	60	32	3.0	1032	1600	45.96	3	3
12. wbq	*	60	32	3.0	1521	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	556.0	5.4	*
2. ne	*	556.0	556.0	5.4	*
3. sw	*	444.0	444.0	5.4	*
4. se	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt D

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
0.	*	7.4	7.4	8.6	8.5
10.	*	8.3	6.9	9.7	7.9
20.	*	8.4	6.9	9.6	7.9
30.	*	8.3	6.9	9.1	7.9
40.	*	8.2	6.9	8.7	7.9
50.	*	8.2	6.9	8.8	8.0
60.	*	8.2	6.9	9.0	7.8
70.	*	8.1	6.9	9.2	7.9
80.	*	8.1	6.9	9.2	7.9
90.	*	8.8	7.3	8.4	7.2
100.	*	9.8	8.2	8.0	6.9
110.	*	9.6	8.5	8.0	6.9
120.	*	9.0	8.4	8.0	6.9
130.	*	8.5	8.4	7.9	6.9
140.	*	8.7	8.2	8.0	6.9
150.	*	8.9	8.1	8.0	6.9
160.	*	9.3	8.0	8.2	6.9
170.	*	9.2	8.1	8.1	6.9
180.	*	8.4	8.8	7.3	7.5

190.	*	7.8	9.8	6.9	8.3
200.	*	7.9	9.6	6.9	8.5
210.	*	7.7	9.2	6.9	8.4
220.	*	7.5	8.7	6.9	8.4
230.	*	7.7	8.9	6.9	8.3
240.	*	7.7	9.1	6.9	8.2
250.	*	8.0	9.0	6.9	8.1
260.	*	7.9	9.1	6.9	8.1
270.	*	7.2	8.5	7.2	8.5
280.	*	6.9	8.0	7.8	9.4
290.	*	6.9	8.0	7.8	9.4
300.	*	6.9	8.0	7.8	8.9
310.	*	6.9	7.9	7.9	8.7
320.	*	6.9	8.0	8.0	8.8
330.	*	6.9	8.1	8.1	9.2
340.	*	6.9	8.4	8.0	9.3
350.	*	6.9	8.4	8.0	9.5
360.	*	7.4	7.4	8.6	8.5
-----*					
MAX	*	9.8	9.8	9.7	9.5
DEGR.	*	100	190	10	350

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Parthenia Corbin Build Out Alt D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	100	190	10	350
-----*					
1	*	0.0	1.1	0.0	0.1
2	*	0.4	0.0	0.6	1.1
3	*	0.0	0.3	0.0	0.0
4	*	0.4	0.0	0.9	0.5
5	*	0.0	0.4	0.0	0.0
6	*	0.4	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.0
8	*	0.3	0.2	0.0	0.3
9	*	0.0	0.0	0.5	0.0
10	*	0.9	0.4	0.0	0.3
11	*	0.0	0.0	0.3	0.0
12	*	0.5	0.5	0.0	0.3

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\sataex.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties RUN: Saticoy Tampa Existing

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1019.	12.2	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1089.	12.2	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	423.7	*	40.	180. AG	314.	100.0	0.0	48.0	0.37	2.0
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1469.	12.2	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1410.	12.2	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	613.6	*	78.	360. AG	236.	100.0	0.0	48.0	0.71	3.9
7. eba	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1333.	12.2	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1370.	12.2	0.0	44.0		
9. ebq	*	452.0	482.0	401.0	482.0	*	51.	270. AG	303.	100.0	0.0	36.0	0.46	2.6
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1347.	12.2	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1299.	12.2	0.0	48.0		
12. wbq	*	548.0	518.0	599.5	518.0	*	51.	90. AG	303.	100.0	0.0	36.0	0.47	2.6

1

PAGE 2

JOB: Klausz Properties RUN: Saticoy Tampa Existing

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
3. nbq	*	60	29	3.0	1019	1600	60.55	3	3
6. sbq	*	60	29	3.0	1469	1600	60.55	3	3
9. ebq	*	60	28	3.0	1333	1600	60.55	3	3
12. wbq	*	60	28	3.0	1347	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties RUN: Saticoy Tampa Existing

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 REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	*	9.1	8.9	10.9	10.6
10.	*	10.0	8.7	11.9	10.2
20.	*	10.2	8.7	12.0	10.0
30.	*	10.2	8.7	11.4	9.7
40.	*	10.1	8.7	10.9	9.7
50.	*	10.3	8.7	10.8	9.8
60.	*	10.2	8.7	11.1	9.9
70.	*	10.1	8.7	11.3	10.2
80.	*	10.1	8.7	11.6	10.1
90.	*	10.8	9.3	10.7	9.2
100.	*	12.2	10.2	9.8	8.7
110.	*	11.8	10.2	9.6	8.7
120.	*	11.0	10.0	9.5	8.7
130.	*	10.8	10.1	9.6	8.7
140.	*	11.0	10.2	9.6	8.7
150.	*	11.0	10.4	9.8	8.7
160.	*	11.1	10.4	9.9	8.7
170.	*	11.3	10.4	9.8	8.7
180.	*	10.6	10.8	9.0	9.0

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190. * 10.1 11.7 8.7 9.7
200. * 9.9 11.8 8.7 9.9
210. * 9.7 11.3 8.7 9.7
220. * 9.6 10.8 8.7 9.6
230. * 9.7 10.8 8.7 9.7
240. * 9.9 11.0 8.7 9.7
250. * 10.2 11.3 8.7 10.0
260. * 10.0 11.5 8.7 10.1
270. * 9.2 10.5 9.2 11.0
280. * 8.7 9.9 10.1 12.1
290. * 8.7 10.0 10.2 11.7
300. * 8.7 9.8 10.0 11.1
310. * 8.7 9.6 10.0 10.9
320. * 8.7 9.7 10.2 11.1
330. * 8.7 9.7 10.3 11.0
340. * 8.7 9.9 10.4 11.3
350. * 8.7 9.7 10.3 11.3
360. * 9.1 8.9 10.9 10.6
-----*
MAX * 12.2 11.8 12.0 12.1
DEGR. * 100 200 20 280

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THE HIGHEST CONCENTRATION IS 12.20 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Existing

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 200 20 280
-----*
1 * 0.0 0.5 0.0 0.3
2 * 0.3 0.0 0.4 0.0
3 * 0.0 0.4 0.0 0.8
4 * 0.5 0.0 0.7 0.0
5 * 0.0 0.6 0.1 0.3
6 * 0.6 0.0 0.5 0.0
7 * 0.0 0.0 0.5 1.0
8 * 0.6 0.4 0.0 0.1
9 * 0.0 0.0 0.7 0.4
10 * 1.0 0.5 0.0 0.0
11 * 0.1 0.0 0.4 0.5
12 * 0.4 0.7 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satapre.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Pre Project

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1150.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1224.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	421.2	*	43.	180. AG	238.	100.0	0.0	48.0	0.39 2.2	
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1566.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1503.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	620.8	*	85.	360. AG	179.	100.0	0.0	48.0	0.75 4.3	
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1453.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49 2.7	
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1429.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	602.7	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50 2.8	

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Pre Project

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
6. sbq	*	60	29	3.0	1557	1600	45.96	3	3
9. ebq	*	60	28	3.0	1413	1600	45.96	3	3
12. wbq	*	60	28	3.0	1428	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Pre Project

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
0.	7.3	7.1	8.7	8.5
10.	8.0	6.9	9.6	8.1
20.	8.1	6.9	9.6	8.0
30.	8.1	6.9	9.0	7.8
40.	8.2	6.9	8.5	7.7
50.	8.2	6.9	8.7	7.8
60.	8.0	6.9	8.9	7.9
70.	8.0	6.9	9.1	8.1
80.	8.0	6.9	9.2	8.0
90.	8.6	7.3	8.4	7.3
100.	9.6	8.0	7.8	6.9
110.	9.3	8.2	7.6	6.9
120.	8.8	8.0	7.5	6.9
130.	8.7	8.1	7.6	6.9
140.	8.6	8.1	7.7	6.9
150.	8.8	8.2	7.8	6.9
160.	8.9	8.2	7.9	6.9
170.	9.2	8.2	7.8	6.9
180.	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.7
200.	*	8.0	9.3	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.5	6.9	7.7
230.	*	7.8	8.6	6.9	7.7
240.	*	7.9	8.8	6.9	7.8
250.	*	8.1	9.1	6.9	8.0
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.7	8.2	8.8
340.	*	6.9	7.9	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5

MAX	*	9.6	9.3	9.6	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.58 PPM AT 100 DEGREES FROM REC1 .

1

JOB: Klausz Properties

RUN: Saticoy Tampa Pre Project

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280

1	*	0.0	0.4	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satafa.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1146.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1219.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	418.7	*	45.	180. AG	238.	100.0	0.0	48.0	0.41	2.3
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1569.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1505.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	622.1	*	86.	360. AG	179.	100.0	0.0	48.0	0.75	4.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49	2.7
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1428.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	602.7	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50	2.8

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative A

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
3. nbq	*	60	29	3.0	1146	1600	45.96	3	3
6. sbq	*	60	29	3.0	1569	1600	45.96	3	3
9. ebq	*	60	28	3.0	1414	1600	45.96	3	3
12. wbq	*	60	28	3.0	1428	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative A

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
0.	*	7.3	7.1	8.7	8.5
10.	*	8.0	6.9	9.7	8.1
20.	*	8.1	6.9	9.6	8.0
30.	*	8.1	6.9	9.0	7.8
40.	*	8.2	6.9	8.5	7.7
50.	*	8.2	6.9	8.7	7.8
60.	*	8.0	6.9	8.9	7.9
70.	*	8.0	6.9	9.1	8.1
80.	*	8.0	6.9	9.2	8.0
90.	*	8.6	7.3	8.4	7.3
100.	*	9.6	8.0	7.9	6.9
110.	*	9.3	8.2	7.6	6.9
120.	*	8.8	8.0	7.5	6.9
130.	*	8.7	8.1	7.6	6.9
140.	*	8.6	8.1	7.7	6.9
150.	*	8.8	8.2	7.8	6.9
160.	*	8.9	8.2	7.9	6.9
170.	*	9.2	8.2	7.8	6.9
180.	*	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.7
200.	*	8.0	9.3	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.5	6.9	7.7
230.	*	7.8	8.6	6.9	7.7
240.	*	7.9	8.8	6.9	7.9
250.	*	8.1	9.1	6.9	8.1
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.7	8.2	8.8
340.	*	6.9	7.9	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5
-----*					
MAX	*	9.6	9.3	9.7	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 10 DEGREES FROM REC3 .

1

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative A

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.4	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satafb.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1170.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1251.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	417.7	*	46.	180. AG	238.	100.0	0.0	48.0	0.42	2.4
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1569.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1505.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	622.1	*	86.	360. AG	179.	100.0	0.0	48.0	0.75	4.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49	2.7
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1436.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	603.0	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50	2.8

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative B

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
3. nbq	*	60	29	3.0	1170	1600	45.96	3	3
6. sbq	*	60	29	3.0	1569	1600	45.96	3	3
9. ebq	*	60	28	3.0	1414	1600	45.96	3	3
12. wbq	*	60	28	3.0	1436	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative B

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
0.	*	7.3	7.1	8.7	8.5
10.	*	8.0	6.9	9.7	8.1
20.	*	8.2	6.9	9.6	8.0
30.	*	8.1	6.9	9.0	7.8
40.	*	8.2	6.9	8.5	7.7
50.	*	8.2	6.9	8.7	7.8
60.	*	8.0	6.9	8.9	7.9
70.	*	8.0	6.9	9.1	8.1
80.	*	8.0	6.9	9.2	8.0
90.	*	8.6	7.3	8.4	7.3
100.	*	9.6	8.1	7.9	6.9
110.	*	9.3	8.2	7.7	6.9
120.	*	8.8	8.0	7.5	6.9
130.	*	8.7	8.1	7.6	6.9
140.	*	8.7	8.2	7.7	6.9
150.	*	8.8	8.2	7.8	6.9
160.	*	8.9	8.2	7.9	6.9
170.	*	9.2	8.2	7.8	6.9
180.	*	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.8
200.	*	8.0	9.4	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.6	6.9	7.7
230.	*	7.8	8.6	6.9	7.8
240.	*	7.9	8.8	6.9	7.9
250.	*	8.1	9.1	6.9	8.1
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.8	8.2	8.8
340.	*	6.9	8.0	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5
-----*					
MAX	*	9.6	9.4	9.7	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.5	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satafc.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1146.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1219.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	418.7	*	45.	180. AG	238.	100.0	0.0	48.0	0.41	2.3
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1571.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1507.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	622.1	*	86.	360. AG	179.	100.0	0.0	48.0	0.75	4.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49	2.7
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1428.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	602.7	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50	2.8

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative C

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
6. sbq	*	60	29	3.0	1571	1600	45.96	3	3
9. ebq	*	60	28	3.0	1414	1600	45.96	3	3
12. wbq	*	60	28	3.0	1428	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative C

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
0.	7.3	7.1	8.7	8.5
10.	8.0	6.9	9.7	8.1
20.	8.1	6.9	9.6	8.0
30.	8.1	6.9	9.0	7.8
40.	8.2	6.9	8.5	7.7
50.	8.2	6.9	8.7	7.8
60.	8.0	6.9	8.9	7.9
70.	8.0	6.9	9.1	8.1
80.	8.0	6.9	9.2	8.0
90.	8.6	7.3	8.4	7.3
100.	9.6	8.0	7.9	6.9
110.	9.3	8.2	7.6	6.9
120.	8.8	8.0	7.5	6.9
130.	8.7	8.1	7.6	6.9
140.	8.6	8.1	7.7	6.9
150.	8.8	8.2	7.8	6.9
160.	8.9	8.2	7.9	6.9
170.	9.2	8.2	7.8	6.9
180.	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.7
200.	*	8.0	9.3	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.5	6.9	7.7
230.	*	7.8	8.6	6.9	7.7
240.	*	7.9	8.8	6.9	7.9
250.	*	8.1	9.1	6.9	8.1
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.7	8.2	8.8
340.	*	6.9	7.9	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5
-----*					
MAX	*	9.6	9.3	9.7	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

LINK #	*	CO/LINK (PPM)			
		REC1	REC2	REC3	REC4
	*	100	200	10	280
-----*					
1	*	0.0	0.4	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satafd.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1164.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1243.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	429.0	*	35.	180. AG	181.	100.0	0.0	48.0	0.33	1.8
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1571.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1507.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	598.9	*	63.	360. AG	136.	100.0	0.0	48.0	0.59	3.2
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	384.5	482.0	*	68.	270. AG	288.	100.0	0.0	36.0	0.66	3.4
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	342.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	287.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	564.3	518.0	*	16.	90. AG	288.	100.0	0.0	36.0	0.16	0.8

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative D

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
6. sbq	*	60	22	3.0	1571	1600	45.96	3	3
9. ebq	*	60	35	3.0	1414	1600	45.96	3	3
12. wbq	*	60	35	3.0	342	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative D

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
0.	7.3	7.1	8.6	8.0
10.	8.0	6.9	9.6	7.4
20.	8.0	6.9	9.4	7.4
30.	7.9	6.9	8.9	7.4
40.	7.9	6.9	8.3	7.5
50.	7.9	6.9	8.5	7.5
60.	7.9	6.9	8.4	7.6
70.	7.9	6.9	8.6	7.7
80.	7.9	6.9	8.7	7.8
90.	8.1	7.0	8.2	7.2
100.	8.5	7.4	7.7	6.9
110.	8.5	7.6	7.5	6.9
120.	8.2	7.4	7.5	6.9
130.	8.3	7.4	7.6	6.9
140.	8.3	7.3	7.7	6.9
150.	8.4	7.3	7.8	6.9
160.	8.7	7.3	7.9	6.9
170.	8.9	7.3	7.8	6.9
180.	8.2	7.8	7.2	7.2

190.	*	7.9	8.8	6.9	7.7
200.	*	7.9	9.0	6.9	7.9
210.	*	7.7	8.7	6.9	7.8
220.	*	7.4	8.2	6.9	7.6
230.	*	7.4	8.3	6.9	7.5
240.	*	7.4	8.5	6.9	7.6
250.	*	7.5	8.5	6.9	7.7
260.	*	7.4	8.5	6.9	7.9
270.	*	7.1	8.0	7.3	8.5
280.	*	6.9	7.8	7.8	9.4
290.	*	6.9	7.7	7.8	9.0
300.	*	6.9	7.6	7.9	8.5
310.	*	6.9	7.6	8.1	8.4
320.	*	6.9	7.7	8.2	8.4
330.	*	6.9	7.8	8.3	8.5
340.	*	6.9	7.9	8.2	8.7
350.	*	6.9	7.8	8.2	8.8
360.	*	7.3	7.1	8.6	8.0
-----*					
MAX	*	8.9	9.0	9.6	9.4
DEGR.	*	170	200	10	280

THE HIGHEST CONCENTRATION IS 9.58 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	200	10	280
-----*					
1	*	0.3	0.4	0.0	0.3
2	*	0.0	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.5
4	*	0.1	0.0	0.9	0.0
5	*	0.8	0.5	0.0	0.3
6	*	0.0	0.0	0.2	0.0
7	*	0.3	0.0	0.4	0.8
8	*	0.0	0.3	0.0	0.0
9	*	0.4	0.0	0.8	0.5
10	*	0.0	0.1	0.0	0.0
11	*	0.1	0.0	0.1	0.1
12	*	0.0	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT28XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire-Tampa Existing Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1953.	12.2	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1848.	12.2	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	388.0	*	64.	180. AG	260.	100.0	0.0	48.0	0.59	3.3
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1264.	12.2	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1399.	12.2	0.0	56.0		
6. SBQ	*	470.0	548.0	470.0	581.1	*	33.	360. AG	325.	100.0	0.0	60.0	0.31	1.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1343.	12.2	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1480.	12.2	0.0	44.0		
9. EBQ	*	440.0	476.0	379.6	476.0	*	60.	270. AG	357.	100.0	0.0	48.0	0.57	3.1
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	923.	12.2	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	756.	12.2	0.0	44.0		
12. WBQ	*	548.0	524.0	589.5	524.0	*	42.	90. AG	357.	100.0	0.0	48.0	0.39	2.1

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PAGE 2

JOB: Devonshire-Tampa Existing Ambient PM RUN: 2
 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
3. NBQ	*	60	24	3.0	1953	1600	60.55	3	3
6. SBQ	*	60	24	3.0	1264	1600	60.55	3	3
9. EBQ	*	60	33	3.0	1343	1600	60.55	3	3
12. WBQ	*	60	33	3.0	923	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	420.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Devonshire-Tampa Existing Ambient PM RUN: 2

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
0.	*	9.0	9.1	10.8	10.6
10.	*	9.8	8.7	11.6	9.9
20.	*	10.1	8.7	11.7	9.5
30.	*	9.9	8.7	11.2	9.5
40.	*	9.7	8.7	10.7	9.5
50.	*	9.7	8.7	10.8	9.6
60.	*	9.6	8.7	11.0	9.7
70.	*	9.9	8.7	11.2	10.0
80.	*	10.1	8.7	11.3	9.8
90.	*	10.8	9.0	10.4	9.0
100.	*	11.6	9.7	10.0	8.7
110.	*	11.4	9.8	9.9	8.7
120.	*	10.9	9.7	9.8	8.7
130.	*	10.7	9.6	9.7	8.7
140.	*	10.7	9.7	9.9	8.7
150.	*	10.9	9.8	10.0	8.7
160.	*	11.0	10.1	10.2	8.7
170.	*	11.1	10.3	9.8	8.7
180.	*	10.3	11.1	8.9	9.3

```

190. * 9.9 12.3 8.7 10.3
200. * 9.8 12.2 8.7 10.6
210. * 9.6 11.4 8.7 10.4
220. * 9.4 10.7 8.7 10.4
230. * 9.4 10.9 8.7 10.5
240. * 9.6 11.0 8.7 10.4
250. * 9.6 11.1 8.7 10.5
260. * 9.5 11.0 8.7 10.3
270. * 8.8 10.4 9.1 11.0
280. * 8.7 9.8 9.8 11.8
290. * 8.7 9.6 9.9 11.6
300. * 8.7 9.7 9.9 11.0
310. * 8.7 9.7 9.9 10.9
320. * 8.7 9.9 10.1 10.9
330. * 8.7 10.1 10.3 11.0
340. * 8.7 10.4 10.3 11.3
350. * 8.7 10.1 10.2 11.7
360. * 9.0 9.1 10.8 10.6
-----*
MAX * 11.6 12.3 11.7 11.8
DEGR. * 100 190 20 280

```

THE HIGHEST CONCENTRATION IS 12.30 PPM AT 190 DEGREES FROM REC2 .
1

PAGE 4

JOB: Devonshire-Tampa Existing Ambient PM RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 190 20 280
-----*
1 * 0.0 1.3 0.0 0.6
2 * 0.4 0.1 0.7 0.0
3 * 0.0 0.3 0.0 0.7
4 * 0.4 0.0 0.6 0.0
5 * 0.0 0.4 0.1 0.3
6 * 0.8 0.0 0.3 0.0
7 * 0.0 0.0 0.4 0.9
8 * 0.4 0.3 0.0 0.0
9 * 0.0 0.0 0.7 0.4
10 * 0.6 0.3 0.0 0.0
11 * 0.0 0.0 0.2 0.2
12 * 0.3 0.9 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT28FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire-Tampa Future Pre-Project PM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2054.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1916.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	387.5	*	65.	180. AG	189.	100.0	0.0	48.0	0.60	3.3
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1296.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1436.	9.3	0.0	56.0		
6. SBQ	*	470.0	548.0	470.0	580.6	*	33.	360. AG	236.	100.0	0.0	60.0	0.30	1.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1376.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1539.	9.3	0.0	44.0		
9. EBQ	*	440.0	476.0	376.1	476.0	*	64.	270. AG	279.	100.0	0.0	48.0	0.62	3.2
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	964.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	799.	9.3	0.0	44.0		
12. WBQ	*	548.0	524.0	592.8	524.0	*	45.	90. AG	279.	100.0	0.0	48.0	0.43	2.3

1

PAGE 2

JOB: Devonshire-Tampa Future Pre-Project PM RUN: 3
 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
3. NBQ	*	60	23	3.0	2054	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1296	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1376	1600	45.96	3	3
12. WBQ	*	60	34	3.0	964	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	420.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Devonshire-Tampa Future Pre-Project PM RUN: 3

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
0.	*	7.1	7.2	8.5	8.5
10.	*	7.8	6.9	9.0	7.9
20.	*	8.0	6.9	9.2	7.7
30.	*	7.9	6.9	8.8	7.5
40.	*	7.7	6.9	8.5	7.6
50.	*	7.7	6.9	8.7	7.6
60.	*	7.6	6.9	8.8	7.8
70.	*	7.8	6.9	8.8	7.9
80.	*	7.9	6.9	8.9	7.8
90.	*	8.5	7.1	8.3	7.1
100.	*	9.1	7.6	7.9	6.9
110.	*	9.1	7.8	7.8	6.9
120.	*	8.6	7.7	7.8	6.9
130.	*	8.5	7.6	7.7	6.9
140.	*	8.5	7.7	7.9	6.9
150.	*	8.6	7.9	7.9	6.9
160.	*	8.9	8.0	8.0	6.9
170.	*	8.9	8.1	7.7	6.9
180.	*	8.2	9.0	7.1	7.4

190.	*	7.9	9.7	6.9	8.2
200.	*	7.8	9.5	6.9	8.3
210.	*	7.6	9.1	6.9	8.3
220.	*	7.4	8.6	6.9	8.2
230.	*	7.5	8.6	6.9	8.2
240.	*	7.6	8.9	6.9	8.3
250.	*	7.7	8.8	6.9	8.2
260.	*	7.5	8.7	6.9	8.2
270.	*	7.0	8.2	7.2	8.7
280.	*	6.9	7.8	7.7	9.4
290.	*	6.9	7.7	7.9	9.3
300.	*	6.9	7.7	7.8	8.9
310.	*	6.9	7.8	8.0	8.7
320.	*	6.9	7.8	8.1	8.7
330.	*	6.9	8.0	8.2	8.7
340.	*	6.9	8.2	8.2	9.0
350.	*	6.9	8.1	8.0	9.3
360.	*	7.1	7.2	8.5	8.5

MAX	*	9.1	9.7	9.2	9.4
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Devonshire-Tampa Future Pre-Project PM

RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	20	280

1	*	0.0	1.1	0.0	0.5
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.2	0.0	0.5
4	*	0.3	0.0	0.5	0.0
5	*	0.0	0.3	0.1	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.3
10	*	0.5	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT28AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire-Tampa Alt A Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2084.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1946.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	386.5	*	66.	180. AG	189.	100.0	0.0	48.0	0.61	3.3
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1348.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1488.	9.3	0.0	56.0		
6. SBQ	*	470.0	548.0	470.0	581.8	*	34.	360. AG	236.	100.0	0.0	60.0	0.32	1.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1382.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1545.	9.3	0.0	44.0		
9. EBQ	*	440.0	476.0	375.9	476.0	*	64.	270. AG	279.	100.0	0.0	48.0	0.62	3.3
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	974.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	809.	9.3	0.0	44.0		
12. WBQ	*	548.0	524.0	593.2	524.0	*	45.	90. AG	279.	100.0	0.0	48.0	0.43	2.3

1

PAGE 2

JOB: Devonshire-Tampa Alt A Krausz Future PM RUN: 4

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
3. NBQ	*	60	23	3.0	2084	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1348	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1382	1600	45.96	3	3
12. WBQ	*	60	34	3.0	974	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	420.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

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PAGE 3

JOB: Devonshire-Tampa Alt A Krausz Future PM RUN: 4

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
0.	*	7.2	7.3	8.5	8.5
10.	*	7.8	6.9	9.2	7.9
20.	*	8.0	6.9	9.3	7.7
30.	*	7.9	6.9	8.8	7.5
40.	*	7.7	6.9	8.5	7.6
50.	*	7.7	6.9	8.7	7.6
60.	*	7.8	6.9	8.8	7.8
70.	*	7.8	6.9	8.9	7.9
80.	*	8.0	6.9	8.9	7.8
90.	*	8.5	7.1	8.3	7.1
100.	*	9.1	7.6	7.9	6.9
110.	*	9.1	7.8	8.0	6.9
120.	*	8.6	7.7	7.8	6.9
130.	*	8.5	7.6	7.7	6.9
140.	*	8.5	7.7	7.9	6.9
150.	*	8.6	7.9	7.9	6.9
160.	*	9.0	8.1	8.0	6.9
170.	*	8.9	8.1	7.7	6.9
180.	*	8.2	9.0	7.1	7.4

190.	*	7.9	9.8	6.9	8.2
200.	*	7.8	9.5	6.9	8.3
210.	*	7.6	9.1	6.9	8.3
220.	*	7.4	8.6	6.9	8.2
230.	*	7.5	8.7	6.9	8.2
240.	*	7.6	8.9	6.9	8.3
250.	*	7.7	8.8	6.9	8.2
260.	*	7.5	8.7	6.9	8.2
270.	*	7.0	8.3	7.2	8.8
280.	*	6.9	7.8	7.7	9.5
290.	*	6.9	7.7	7.9	9.3
300.	*	6.9	7.7	7.9	8.9
310.	*	6.9	7.8	8.0	8.7
320.	*	6.9	7.9	8.1	8.7
330.	*	6.9	8.0	8.2	8.7
340.	*	6.9	8.2	8.3	9.0
350.	*	6.9	8.1	8.0	9.3
360.	*	7.2	7.3	8.5	8.5

MAX	*	9.1	9.8	9.3	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Devonshire-Tampa Alt A Krausz Future PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	20	280

1	*	0.0	1.1	0.0	0.5
2	*	0.3	0.1	0.5	0.0
3	*	0.0	0.2	0.0	0.5
4	*	0.3	0.0	0.5	0.0
5	*	0.0	0.3	0.1	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.4	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.5	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT28BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire-Tampa Alt B Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2119.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1981.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	385.5	*	67.	180. AG	189.	100.0	0.0	48.0	0.62 3.4	
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1313.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1453.	9.3	0.0	56.0		
6. SBQ	*	470.0	548.0	470.0	581.0	*	33.	360. AG	236.	100.0	0.0	60.0	0.31 1.7	
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1389.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1552.	9.3	0.0	44.0		
9. EBQ	*	440.0	476.0	375.5	476.0	*	65.	270. AG	279.	100.0	0.0	48.0	0.62 3.3	
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	967.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	802.	9.3	0.0	44.0		
12. WBQ	*	548.0	524.0	592.8	524.0	*	45.	90. AG	279.	100.0	0.0	48.0	0.43 2.3	

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PAGE 2

JOB: Devonshire-Tampa Alt B Krausz Future PM RUN: 6

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
3. NBQ	*	60	23	3.0	2119	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1313	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1389	1600	45.96	3	3
12. WBQ	*	60	34	3.0	967	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	420.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

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PAGE 3

JOB: Devonshire-Tampa Alt B Krausz Future PM RUN: 6

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
0.	*	7.2	7.3	8.5	8.5
10.	*	7.8	6.9	9.1	7.9
20.	*	8.0	6.9	9.4	7.7
30.	*	7.9	6.9	8.8	7.5
40.	*	7.7	6.9	8.5	7.6
50.	*	7.7	6.9	8.7	7.6
60.	*	7.7	6.9	8.8	7.8
70.	*	7.8	6.9	8.8	7.9
80.	*	7.9	6.9	8.9	7.8
90.	*	8.5	7.1	8.3	7.1
100.	*	9.2	7.6	7.9	6.9
110.	*	9.1	7.8	8.0	6.9
120.	*	8.7	7.7	7.8	6.9
130.	*	8.5	7.6	7.7	6.9
140.	*	8.5	7.7	7.9	6.9
150.	*	8.6	7.9	7.9	6.9
160.	*	8.9	8.0	8.1	6.9
170.	*	8.9	8.1	7.7	6.9
180.	*	8.2	9.0	7.1	7.4

190.	*	7.9	9.8	6.9	8.3
200.	*	7.8	9.5	6.9	8.4
210.	*	7.6	9.1	6.9	8.3
220.	*	7.4	8.6	6.9	8.2
230.	*	7.5	8.7	6.9	8.3
240.	*	7.6	8.9	6.9	8.3
250.	*	7.7	8.8	6.9	8.2
260.	*	7.5	8.7	6.9	8.2
270.	*	7.0	8.2	7.2	8.8
280.	*	6.9	7.8	7.8	9.5
290.	*	6.9	7.7	7.9	9.3
300.	*	6.9	7.7	7.9	8.9
310.	*	6.9	7.8	8.0	8.7
320.	*	6.9	7.9	8.1	8.8
330.	*	6.9	8.0	8.2	8.7
340.	*	6.9	8.2	8.3	9.0
350.	*	6.9	8.1	8.0	9.3
360.	*	7.2	7.3	8.5	8.5

MAX	*	9.2	9.8	9.4	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Devonshire-Tampa Alt B Krausz Future PM RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	20	280

1	*	0.0	1.1	0.0	0.5
2	*	0.3	0.1	0.6	0.0
3	*	0.0	0.2	0.0	0.5
4	*	0.3	0.0	0.5	0.0
5	*	0.0	0.3	0.1	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.4	0.7
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.5	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT28CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire-Tampa Alt C Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2078.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1940.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	386.7	*	65.	180. AG	189.	100.0	0.0	48.0	0.61 3.3	
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1347.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1487.	9.3	0.0	56.0		
6. SBQ	*	470.0	548.0	470.0	581.8	*	34.	360. AG	236.	100.0	0.0	60.0	0.32 1.7	
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1381.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1544.	9.3	0.0	44.0		
9. EBQ	*	440.0	476.0	375.9	476.0	*	64.	270. AG	279.	100.0	0.0	48.0	0.62 3.3	
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	974.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	809.	9.3	0.0	44.0		
12. WBQ	*	548.0	524.0	593.2	524.0	*	45.	90. AG	279.	100.0	0.0	48.0	0.43 2.3	

1

PAGE 2

JOB: Devonshire-Tampa Alt C Krausz Future PM RUN: 8
 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
3. NBQ	*	60	23	3.0	2078	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1347	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1381	1600	45.96	3	3
12. WBQ	*	60	34	3.0	974	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	420.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Devonshire-Tampa Alt C Krausz Future PM RUN: 8

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
0.	*	7.2	7.3	8.5	8.5
10.	*	7.8	6.9	9.2	7.9
20.	*	8.0	6.9	9.3	7.7
30.	*	7.9	6.9	8.8	7.5
40.	*	7.7	6.9	8.5	7.6
50.	*	7.7	6.9	8.7	7.6
60.	*	7.7	6.9	8.8	7.8
70.	*	7.8	6.9	8.9	7.9
80.	*	8.0	6.9	8.9	7.8
90.	*	8.5	7.1	8.3	7.1
100.	*	9.1	7.6	7.9	6.9
110.	*	9.1	7.8	7.9	6.9
120.	*	8.6	7.7	7.8	6.9
130.	*	8.5	7.6	7.7	6.9
140.	*	8.5	7.7	7.9	6.9
150.	*	8.6	7.9	7.9	6.9
160.	*	9.0	8.1	8.0	6.9
170.	*	8.9	8.1	7.7	6.9
180.	*	8.2	9.0	7.1	7.4

190.	*	7.9	9.7	6.9	8.2
200.	*	7.8	9.5	6.9	8.3
210.	*	7.6	9.1	6.9	8.3
220.	*	7.4	8.6	6.9	8.2
230.	*	7.5	8.6	6.9	8.2
240.	*	7.6	8.9	6.9	8.3
250.	*	7.7	8.8	6.9	8.2
260.	*	7.5	8.7	6.9	8.2
270.	*	7.0	8.3	7.2	8.8
280.	*	6.9	7.8	7.7	9.5
290.	*	6.9	7.7	7.9	9.3
300.	*	6.9	7.7	7.9	8.9
310.	*	6.9	7.8	8.0	8.7
320.	*	6.9	7.9	8.1	8.7
330.	*	6.9	8.0	8.2	8.7
340.	*	6.9	8.2	8.3	9.0
350.	*	6.9	8.1	8.0	9.3
360.	*	7.2	7.3	8.5	8.5

MAX	*	9.1	9.7	9.3	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Devonshire-Tampa Alt C Krausz Future PM RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	20	280

1	*	0.0	1.1	0.0	0.5
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.2	0.0	0.5
4	*	0.3	0.0	0.5	0.0
5	*	0.0	0.3	0.1	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.4	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.5	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT28DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire-Tampa Alt D Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2101.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1963.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	386.0	*	66.	180. AG	189.	100.0	0.0	48.0	0.62	3.4
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1318.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1458.	9.3	0.0	56.0		
6. SBQ	*	470.0	548.0	470.0	581.1	*	33.	360. AG	236.	100.0	0.0	60.0	0.31	1.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1385.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1548.	9.3	0.0	44.0		
9. EBQ	*	440.0	476.0	375.7	476.0	*	64.	270. AG	279.	100.0	0.0	48.0	0.62	3.3
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	968.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	803.	9.3	0.0	44.0		
12. WBQ	*	548.0	524.0	593.0	524.0	*	45.	90. AG	279.	100.0	0.0	48.0	0.43	2.3

1

PAGE 2

JOB: Devonshire-Tampa Alt D Krausz Future PM RUN: 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
3. NBQ	*	60	23	3.0	2101	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1318	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1385	1600	45.96	3	3
12. WBQ	*	60	34	3.0	968	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	420.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Devonshire-Tampa Alt D Krausz Future PM RUN: 10

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
0.	*	7.2	7.3	8.5	8.5
10.	*	7.8	6.9	9.1	7.9
20.	*	8.0	6.9	9.4	7.7
30.	*	7.9	6.9	8.8	7.5
40.	*	7.7	6.9	8.5	7.6
50.	*	7.7	6.9	8.7	7.6
60.	*	7.7	6.9	8.8	7.8
70.	*	7.8	6.9	8.9	7.9
80.	*	7.9	6.9	8.9	7.8
90.	*	8.5	7.1	8.3	7.1
100.	*	9.1	7.6	7.9	6.9
110.	*	9.1	7.8	8.0	6.9
120.	*	8.7	7.7	7.8	6.9
130.	*	8.5	7.6	7.7	6.9
140.	*	8.5	7.7	7.9	6.9
150.	*	8.6	7.9	7.9	6.9
160.	*	9.0	8.1	8.0	6.9
170.	*	8.9	8.1	7.7	6.9
180.	*	8.2	9.0	7.1	7.4

190.	*	7.9	9.8	6.9	8.3
200.	*	7.8	9.5	6.9	8.4
210.	*	7.6	9.1	6.9	8.3
220.	*	7.4	8.6	6.9	8.2
230.	*	7.5	8.7	6.9	8.2
240.	*	7.6	8.9	6.9	8.3
250.	*	7.7	8.8	6.9	8.2
260.	*	7.5	8.7	6.9	8.2
270.	*	7.0	8.2	7.2	8.8
280.	*	6.9	7.8	7.8	9.5
290.	*	6.9	7.7	7.9	9.3
300.	*	6.9	7.7	7.9	8.9
310.	*	6.9	7.8	8.0	8.7
320.	*	6.9	7.9	8.1	8.7
330.	*	6.9	8.0	8.2	8.7
340.	*	6.9	8.2	8.3	9.0
350.	*	6.9	8.1	8.0	9.3
360.	*	7.2	7.3	8.5	8.5

MAX	*	9.1	9.8	9.4	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Devonshire-Tampa Alt D Krausz Future PM RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	20	280

1	*	0.0	1.1	0.0	0.5
2	*	0.3	0.1	0.6	0.0
3	*	0.0	0.2	0.0	0.5
4	*	0.3	0.0	0.5	0.0
5	*	0.0	0.3	0.1	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.4	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.5	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT28ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire-Tampa Alt A Bldout Future PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2089.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1951.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	386.4	*	66.	180. AG	189.	100.0	0.0	48.0	0.61	3.3
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1361.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1501.	9.3	0.0	56.0		
6. SBQ	*	470.0	548.0	470.0	582.2	*	34.	360. AG	236.	100.0	0.0	60.0	0.32	1.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1383.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1546.	9.3	0.0	44.0		
9. EBQ	*	440.0	476.0	375.9	476.0	*	64.	270. AG	279.	100.0	0.0	48.0	0.62	3.3
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	977.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	812.	9.3	0.0	44.0		
12. WBQ	*	548.0	524.0	593.4	524.0	*	45.	90. AG	279.	100.0	0.0	48.0	0.44	2.3

1

PAGE 2

JOB: Devonshire-Tampa Alt A Bldout Future PM RUN: 5

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
3. NBQ	*	60	23	3.0	2089	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1361	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1383	1600	45.96	3	3
12. WBQ	*	60	34	3.0	977	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	420.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Devonshire-Tampa Alt A Bldout Future PM RUN: 5

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
0.	*	7.2	7.3	8.5	8.5
10.	*	7.8	6.9	9.2	7.9
20.	*	8.0	6.9	9.4	7.7
30.	*	7.9	6.9	8.8	7.5
40.	*	7.7	6.9	8.5	7.6
50.	*	7.7	6.9	8.7	7.6
60.	*	7.8	6.9	8.8	7.8
70.	*	7.8	6.9	8.9	7.9
80.	*	8.0	6.9	9.0	7.8
90.	*	8.5	7.1	8.3	7.1
100.	*	9.2	7.6	8.0	6.9
110.	*	9.1	7.8	8.0	6.9
120.	*	8.7	7.7	7.8	6.9
130.	*	8.6	7.6	7.7	6.9
140.	*	8.5	7.7	7.9	6.9
150.	*	8.6	7.9	7.9	6.9
160.	*	9.0	8.1	8.0	6.9
170.	*	8.9	8.1	7.7	6.9
180.	*	8.2	9.0	7.1	7.4

190.	*	7.9	9.8	6.9	8.2
200.	*	7.8	9.5	6.9	8.4
210.	*	7.6	9.1	6.9	8.3
220.	*	7.4	8.6	6.9	8.2
230.	*	7.5	8.7	6.9	8.2
240.	*	7.6	8.9	6.9	8.3
250.	*	7.7	8.9	6.9	8.2
260.	*	7.5	8.7	6.9	8.2
270.	*	7.0	8.3	7.2	8.8
280.	*	6.9	7.8	7.7	9.5
290.	*	6.9	7.7	7.9	9.3
300.	*	6.9	7.7	7.9	8.9
310.	*	6.9	7.8	8.0	8.7
320.	*	6.9	7.9	8.1	8.7
330.	*	6.9	8.1	8.2	8.7
340.	*	6.9	8.2	8.3	9.0
350.	*	6.9	8.1	8.0	9.3
360.	*	7.2	7.3	8.5	8.5

MAX	*	9.2	9.8	9.4	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Devonshire-Tampa Alt A Bldout Future PM RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	20	280

1	*	0.0	1.1	0.0	0.5
2	*	0.3	0.1	0.6	0.0
3	*	0.0	0.2	0.0	0.5
4	*	0.3	0.0	0.5	0.0
5	*	0.0	0.3	0.1	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.4	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.5	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.3	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT28BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire-Tampa Alt B Buildout Future P RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2157.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2019.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	384.2	*	68.	180. AG	189.	100.0	0.0	48.0	0.63	3.4
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1318.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1458.	9.3	0.0	56.0		
6. SBQ	*	470.0	548.0	470.0	581.1	*	33.	360. AG	236.	100.0	0.0	60.0	0.31	1.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1397.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1560.	9.3	0.0	44.0		
9. EBQ	*	440.0	476.0	375.1	476.0	*	65.	270. AG	279.	100.0	0.0	48.0	0.62	3.3
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	968.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	803.	9.3	0.0	44.0		
12. WBQ	*	548.0	524.0	593.0	524.0	*	45.	90. AG	279.	100.0	0.0	48.0	0.43	2.3

1

PAGE 2

JOB: Devonshire-Tampa Alt B Buildout Future P RUN: 7

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
3. NBQ	*	60	23	3.0	2157	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1318	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1397	1600	45.96	3	3
12. WBQ	*	60	34	3.0	968	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	420.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Devonshire-Tampa Alt B Buildout Future P RUN: 7

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
0.	*	7.2	7.3	8.5	8.5
10.	*	7.8	6.9	9.2	7.9
20.	*	8.0	6.9	9.4	7.7
30.	*	7.9	6.9	8.8	7.5
40.	*	7.7	6.9	8.5	7.6
50.	*	7.7	6.9	8.7	7.6
60.	*	7.7	6.9	8.8	7.8
70.	*	7.8	6.9	8.9	7.9
80.	*	8.0	6.9	8.9	7.8
90.	*	8.6	7.1	8.3	7.1
100.	*	9.2	7.6	7.9	6.9
110.	*	9.2	7.8	8.0	6.9
120.	*	8.7	7.7	7.8	6.9
130.	*	8.5	7.7	7.7	6.9
140.	*	8.6	7.7	7.9	6.9
150.	*	8.6	7.9	7.9	6.9
160.	*	9.0	8.1	8.1	6.9
170.	*	8.9	8.1	7.7	6.9
180.	*	8.2	9.0	7.1	7.4

190.	*	7.9	9.9	6.9	8.3
200.	*	7.8	9.6	6.9	8.5
210.	*	7.6	9.1	6.9	8.4
220.	*	7.4	8.6	6.9	8.2
230.	*	7.5	8.7	6.9	8.3
240.	*	7.6	8.9	6.9	8.3
250.	*	7.7	8.8	6.9	8.2
260.	*	7.5	8.7	6.9	8.2
270.	*	7.0	8.2	7.2	8.8
280.	*	6.9	7.8	7.8	9.5
290.	*	6.9	7.7	7.9	9.3
300.	*	6.9	7.8	7.9	8.9
310.	*	6.9	7.8	8.0	8.7
320.	*	6.9	7.9	8.1	8.8
330.	*	6.9	8.0	8.2	8.7
340.	*	6.9	8.3	8.3	9.0
350.	*	6.9	8.1	8.1	9.4
360.	*	7.2	7.3	8.5	8.5

MAX	*	9.2	9.9	9.4	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Devonshire-Tampa Alt B Buildout Future P RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	20	280

1	*	0.0	1.1	0.0	0.5
2	*	0.3	0.1	0.6	0.0
3	*	0.0	0.3	0.0	0.5
4	*	0.3	0.0	0.5	0.0
5	*	0.0	0.3	0.1	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.4	0.7
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.5	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT28CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire-Tampa Alt C Bldout Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2080.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1942.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	386.6	*	65.	180. AG	189.	100.0	0.0	48.0	0.61	3.3
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1360.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1500.	9.3	0.0	56.0		
6. SBQ	*	470.0	548.0	470.0	582.2	*	34.	360. AG	236.	100.0	0.0	60.0	0.32	1.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1381.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1544.	9.3	0.0	44.0		
9. EBQ	*	440.0	476.0	375.9	476.0	*	64.	270. AG	279.	100.0	0.0	48.0	0.62	3.3
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	977.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	812.	9.3	0.0	44.0		
12. WBQ	*	548.0	524.0	593.4	524.0	*	45.	90. AG	279.	100.0	0.0	48.0	0.44	2.3

1

PAGE 2

JOB: Devonshire-Tampa Alt C Bldout Future PM RUN: 9
 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
3. NBQ	*	60	23	3.0	2080	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1360	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1381	1600	45.96	3	3
12. WBQ	*	60	34	3.0	977	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	420.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

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PAGE 3

JOB: Devonshire-Tampa Alt C Bldout Future PM RUN: 9

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
0.	*	7.2	7.3	8.5	8.5
10.	*	7.8	6.9	9.2	7.9
20.	*	8.0	6.9	9.3	7.7
30.	*	7.9	6.9	8.8	7.5
40.	*	7.7	6.9	8.5	7.6
50.	*	7.7	6.9	8.7	7.6
60.	*	7.8	6.9	8.8	7.8
70.	*	7.8	6.9	8.9	7.9
80.	*	8.0	6.9	9.0	7.8
90.	*	8.5	7.1	8.3	7.1
100.	*	9.2	7.6	8.0	6.9
110.	*	9.1	7.8	8.0	6.9
120.	*	8.7	7.7	7.8	6.9
130.	*	8.6	7.6	7.7	6.9
140.	*	8.5	7.7	7.9	6.9
150.	*	8.6	7.9	7.9	6.9
160.	*	9.0	8.1	8.0	6.9
170.	*	8.9	8.1	7.7	6.9
180.	*	8.2	9.0	7.1	7.4

190.	*	7.9	9.7	6.9	8.2
200.	*	7.8	9.5	6.9	8.3
210.	*	7.6	9.1	6.9	8.3
220.	*	7.4	8.6	6.9	8.2
230.	*	7.5	8.6	6.9	8.2
240.	*	7.6	8.9	6.9	8.3
250.	*	7.7	8.9	6.9	8.2
260.	*	7.5	8.7	6.9	8.2
270.	*	7.0	8.3	7.2	8.8
280.	*	6.9	7.8	7.7	9.5
290.	*	6.9	7.7	7.9	9.3
300.	*	6.9	7.7	7.9	8.9
310.	*	6.9	7.8	8.0	8.7
320.	*	6.9	7.9	8.1	8.7
330.	*	6.9	8.1	8.2	8.7
340.	*	6.9	8.2	8.3	9.0
350.	*	6.9	8.1	8.0	9.3
360.	*	7.2	7.3	8.5	8.5

MAX	*	9.2	9.7	9.3	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Devonshire-Tampa Alt C Bldout Future PM RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	20	280

1	*	0.0	1.1	0.0	0.5
2	*	0.3	0.0	0.5	0.0
3	*	0.0	0.2	0.0	0.5
4	*	0.3	0.0	0.5	0.0
5	*	0.0	0.3	0.1	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.4	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.5	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.3	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT28DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Devonshire-Tampa Alt D Bldout Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	2126.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1988.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	385.2	*	67.	180. AG	189.	100.0	0.0	48.0	0.62	3.4
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1322.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1462.	9.3	0.0	56.0		
6. SBQ	*	470.0	548.0	470.0	581.2	*	33.	360. AG	236.	100.0	0.0	60.0	0.31	1.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1390.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1553.	9.3	0.0	44.0		
9. EBQ	*	440.0	476.0	375.5	476.0	*	65.	270. AG	279.	100.0	0.0	48.0	0.62	3.3
10. WBA	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	969.	9.3	0.0	68.0		
11. WBD	*	500.0	524.0	0.0	524.0	*	500.	270. AG	804.	9.3	0.0	44.0		
12. WBQ	*	548.0	524.0	593.0	524.0	*	45.	90. AG	279.	100.0	0.0	48.0	0.43	2.3

1

PAGE 2

JOB: Devonshire-Tampa Alt D Bldout Future PM RUN: 11

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
3. NBQ	*	60	23	3.0	2126	1600	45.96	3	3
6. SBQ	*	60	23	3.0	1322	1600	45.96	3	3
9. EBQ	*	60	34	3.0	1390	1600	45.96	3	3
12. WBQ	*	60	34	3.0	969	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	568.0	5.4	*
2. NE	*	568.0	568.0	5.4	*
3. SW	*	420.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Devonshire-Tampa Alt D Bldout Future PM RUN: 11

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
0.	*	7.2	7.3	8.5	8.5
10.	*	7.8	6.9	9.1	7.9
20.	*	8.0	6.9	9.4	7.7
30.	*	7.9	6.9	8.8	7.5
40.	*	7.7	6.9	8.5	7.6
50.	*	7.7	6.9	8.7	7.6
60.	*	7.7	6.9	8.8	7.8
70.	*	7.8	6.9	8.9	7.9
80.	*	7.9	6.9	8.9	7.8
90.	*	8.5	7.1	8.3	7.1
100.	*	9.2	7.6	7.9	6.9
110.	*	9.2	7.8	8.0	6.9
120.	*	8.7	7.7	7.8	6.9
130.	*	8.5	7.6	7.7	6.9
140.	*	8.5	7.7	7.9	6.9
150.	*	8.6	7.9	7.9	6.9
160.	*	9.0	8.1	8.1	6.9
170.	*	8.9	8.1	7.7	6.9
180.	*	8.2	9.0	7.1	7.4

190.	*	7.9	9.8	6.9	8.3
200.	*	7.8	9.5	6.9	8.5
210.	*	7.6	9.1	6.9	8.3
220.	*	7.4	8.6	6.9	8.2
230.	*	7.5	8.7	6.9	8.3
240.	*	7.6	8.9	6.9	8.3
250.	*	7.7	8.8	6.9	8.2
260.	*	7.5	8.7	6.9	8.2
270.	*	7.0	8.2	7.2	8.8
280.	*	6.9	7.8	7.8	9.5
290.	*	6.9	7.7	7.9	9.3
300.	*	6.9	7.8	7.9	8.9
310.	*	6.9	7.8	8.0	8.7
320.	*	6.9	7.9	8.1	8.8
330.	*	6.9	8.0	8.2	8.7
340.	*	6.9	8.2	8.3	9.0
350.	*	6.9	8.1	8.0	9.4
360.	*	7.2	7.3	8.5	8.5

MAX	*	9.2	9.8	9.4	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 190 DEGREES FROM REC2 .

1

PAGE 4

JOB: Devonshire-Tampa Alt D Bldout Future PM RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	20	280

1	*	0.0	1.1	0.0	0.5
2	*	0.3	0.1	0.6	0.0
3	*	0.0	0.2	0.0	0.5
4	*	0.3	0.0	0.5	0.0
5	*	0.0	0.3	0.1	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.4	0.7
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.4
10	*	0.5	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lataex.DAT

RUN BEGIN ON 08/22/02 AT 08:37

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Tampa-Lassan Existing AM RUN: 1

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1024.	12.2	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1191.	12.2	0.0	56.0		
3. nbq	*	524.0	464.0	524.0	426.2	*	38.	180. AG	292.	100.0	0.0	48.0	0.34	1.9
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1821.	12.2	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1839.	12.2	0.0	56.0		
6. sbq	*	476.0	536.0	476.0	603.2	*	67.	360. AG	292.	100.0	0.0	48.0	0.61	3.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1068.	12.2	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1067.	12.2	0.0	48.0		
9. ebq	*	452.0	482.0	408.2	482.0	*	44.	270. AG	325.	100.0	0.0	36.0	0.40	2.2
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1494.	12.2	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1310.	12.2	0.0	48.0		
12. wbq	*	548.0	518.0	609.2	518.0	*	61.	90. AG	325.	100.0	0.0	36.0	0.56	3.1

1 PAGE 2

JOB: Tampa-Lassan Existing AM RUN: 1
 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
3. nbq	*	60	27	3.0	1024	1600	60.55	3	3
6. sbq	*	60	27	3.0	1821	1600	60.55	3	3
9. ebq	*	60	30	3.0	1068	1600	60.55	3	3
12. wbq	*	60	30	3.0	1494	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1 PAGE 3

JOB: Tampa-Lassan Existing AM RUN: 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
0.	*	9.2	9.0	11.0	10.7
10.	*	10.2	8.7	12.3	10.2
20.	*	10.4	8.7	12.4	10.1
30.	*	10.4	8.7	11.6	9.8
40.	*	10.4	8.7	11.1	9.6
50.	*	10.4	8.7	11.0	9.7
60.	*	10.5	8.7	11.2	9.9
70.	*	10.4	8.7	11.4	10.1
80.	*	10.4	8.7	11.4	10.0
90.	*	11.2	9.2	10.6	9.1
100.	*	12.5	10.2	9.8	8.7
110.	*	12.0	10.2	9.7	8.7
120.	*	11.1	10.2	9.7	8.7
130.	*	11.0	10.3	9.7	8.7
140.	*	10.9	10.4	9.8	8.7
150.	*	11.1	10.5	10.0	8.7
160.	*	11.4	10.4	10.2	8.7
170.	*	11.6	10.4	10.1	8.7
180.	*	10.7	10.9	9.2	9.0

```

190. * 10.0 11.8 8.7 9.8
200. * 9.8 11.9 8.7 10.1
210. * 9.6 11.4 8.7 9.8
220. * 9.5 10.9 8.7 9.7
230. * 9.7 11.0 8.7 9.7
240. * 9.8 11.2 8.7 9.8
250. * 10.1 11.3 8.7 10.0
260. * 10.0 11.5 8.7 10.1
270. * 9.2 10.7 9.2 10.9
280. * 8.7 10.1 9.9 11.9
290. * 8.7 10.1 10.0 11.7
300. * 8.7 9.8 9.8 11.0
310. * 8.7 9.8 9.7 10.8
320. * 8.7 9.8 9.8 10.9
330. * 8.7 9.9 10.1 11.1
340. * 8.7 10.1 10.3 11.3
350. * 8.7 9.9 10.3 11.5
360. * 9.2 9.0 11.0 10.7
-----*
MAX * 12.5 11.9 12.4 11.9
DEGR. * 100 200 20 280

```

THE HIGHEST CONCENTRATION IS 12.50 PPM AT 100 DEGREES FROM REC1 .
1

PAGE 4

JOB: Tampa-Lassan Existing AM

RUN: 1

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 200 20 280
-----*
1 * 0.0 0.5 0.0 0.3
2 * 0.3 0.1 0.5 0.0
3 * 0.0 0.4 0.0 0.8
4 * 0.6 0.0 0.9 0.0
5 * 0.0 0.7 0.2 0.4
6 * 0.8 0.0 0.6 0.0
7 * 0.0 0.0 0.4 0.8
8 * 0.4 0.3 0.0 0.1
9 * 0.0 0.0 0.7 0.3
10 * 1.1 0.5 0.0 0.0
11 * 0.1 0.0 0.4 0.5
12 * 0.5 0.7 0.0 0.0

```

RUN ENDED ON 08/22/02 AT 08:37

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\latapre.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Tampa-Lassan Future Pre-Project AM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1103.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1282.	9.3	0.0	56.0		
3. nbq	*	524.0	464.0	524.0	423.4	*	41.	180. AG	222.	100.0	0.0	48.0	0.37	2.1
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2024.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2044.	9.3	0.0	56.0		
6. sbq	*	476.0	536.0	476.0	610.7	*	75.	360. AG	222.	100.0	0.0	48.0	0.68	3.8
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1143.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1141.	9.3	0.0	48.0		
9. ebq	*	452.0	482.0	405.3	482.0	*	47.	270. AG	247.	100.0	0.0	36.0	0.43	2.4
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1585.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1388.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	613.0	518.0	*	65.	90. AG	247.	100.0	0.0	36.0	0.59	3.3

1

PAGE 2

JOB: Tampa-Lassan Future Pre-Project AM RUN: 3

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
3. nbq	*	60	27	3.0	1103	1600	45.96	3	3
6. sbq	*	60	27	3.0	2024	1600	45.96	3	3
9. ebq	*	60	30	3.0	1143	1600	45.96	3	3
12. wbq	*	60	30	3.0	1585	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Tampa-Lassan Future Pre-Project AM RUN: 3

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
0.	*	7.4	7.1	8.8	8.4
10.	*	8.2	6.9	9.9	8.0
20.	*	8.4	6.9	10.0	8.0
30.	*	8.3	6.9	9.2	7.9
40.	*	8.4	6.9	8.8	7.8
50.	*	8.4	6.9	8.7	7.7
60.	*	8.4	6.9	8.8	7.9
70.	*	8.3	6.9	9.1	8.0
80.	*	8.2	6.9	9.1	7.9
90.	*	8.9	7.3	8.4	7.3
100.	*	10.0	8.1	7.9	6.9
110.	*	9.5	8.2	7.7	6.9
120.	*	8.9	8.1	7.7	6.9
130.	*	8.8	8.3	7.7	6.9
140.	*	8.8	8.3	7.9	6.9
150.	*	8.7	8.3	8.0	6.9
160.	*	8.9	8.2	8.2	6.9
170.	*	9.4	8.2	8.1	6.9
180.	*	8.5	8.6	7.3	7.1

190.	*	8.0	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	9.0	6.9	7.8
220.	*	7.6	8.9	6.9	7.8
230.	*	7.7	8.7	6.9	7.7
240.	*	7.8	8.9	6.9	7.8
250.	*	8.0	9.1	6.9	8.0
260.	*	8.0	9.2	6.9	8.2
270.	*	7.2	8.5	7.2	8.8
280.	*	6.9	8.0	7.9	9.5
290.	*	6.9	8.0	8.0	9.4
300.	*	6.9	8.0	7.8	8.8
310.	*	6.9	7.8	7.8	8.8
320.	*	6.9	7.8	7.9	8.7
330.	*	6.9	7.9	8.0	8.8
340.	*	6.9	8.1	8.2	8.9
350.	*	6.9	7.8	8.2	9.2
360.	*	7.4	7.1	8.8	8.4
-----*					
MAX	*	10.0	9.5	10.0	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Tampa-Lassan Future Pre-Project AM

RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	20	280
-----*					
1	*	0.0	0.6	0.0	0.3
2	*	0.2	0.0	0.4	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.5	0.0	0.8	0.0
5	*	0.0	0.5	0.2	0.4
6	*	0.6	0.0	0.5	0.0
7	*	0.0	0.0	0.3	0.6
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.4	0.7	0.0	0.0

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\latafa.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Tampa-Lassan Alt A Krausz Future AM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1108.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1287.	9.3	0.0	56.0		
3. nbq	*	524.0	464.0	524.0	423.1	*	41.	180. AG	222.	100.0	0.0	48.0	0.37 2.1	
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2010.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2030.	9.3	0.0	56.0		
6. sbq	*	476.0	536.0	476.0	610.1	*	74.	360. AG	222.	100.0	0.0	48.0	0.67 3.8	
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1144.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1142.	9.3	0.0	48.0		
9. ebq	*	452.0	482.0	405.1	482.0	*	47.	270. AG	247.	100.0	0.0	36.0	0.43 2.4	
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1582.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1385.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	612.8	518.0	*	65.	90. AG	247.	100.0	0.0	36.0	0.59 3.3	

1 PAGE 2

JOB: Tampa-Lassan Alt A Krausz Future AM RUN: 4
 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
3. nbq	*	60	27	3.0	1108	1600	45.96	3	3
6. sbq	*	60	27	3.0	2010	1600	45.96	3	3
9. ebq	*	60	30	3.0	1144	1600	45.96	3	3
12. wbq	*	60	30	3.0	1582	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1 PAGE 3

JOB: Tampa-Lassan Alt A Krausz Future AM RUN: 4

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
0.	*	7.4	7.1	8.8	8.4
10.	*	8.2	6.9	9.9	8.0
20.	*	8.4	6.9	10.0	8.0
30.	*	8.3	6.9	9.2	7.9
40.	*	8.4	6.9	8.8	7.8
50.	*	8.4	6.9	8.7	7.7
60.	*	8.3	6.9	8.8	7.9
70.	*	8.3	6.9	9.1	8.0
80.	*	8.2	6.9	9.1	7.9
90.	*	8.9	7.3	8.4	7.3
100.	*	10.0	8.1	7.9	6.9
110.	*	9.5	8.2	7.7	6.9
120.	*	8.9	8.1	7.7	6.9
130.	*	8.8	8.3	7.7	6.9
140.	*	8.8	8.3	7.9	6.9
150.	*	8.7	8.3	8.0	6.9
160.	*	8.9	8.2	8.2	6.9
170.	*	9.4	8.2	8.1	6.9
180.	*	8.5	8.6	7.3	7.1

190.	*	8.0	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	9.0	6.9	7.8
220.	*	7.6	8.9	6.9	7.8
230.	*	7.7	8.7	6.9	7.7
240.	*	7.8	8.9	6.9	7.8
250.	*	8.0	9.1	6.9	8.0
260.	*	8.0	9.2	6.9	8.2
270.	*	7.2	8.5	7.2	8.8
280.	*	6.9	8.0	7.9	9.5
290.	*	6.9	8.0	8.0	9.4
300.	*	6.9	8.0	7.8	8.8
310.	*	6.9	7.8	7.7	8.8
320.	*	6.9	7.8	7.9	8.7
330.	*	6.9	7.9	8.0	8.8
340.	*	6.9	8.1	8.2	8.9
350.	*	6.9	7.8	8.2	9.2
360.	*	7.4	7.1	8.8	8.4

MAX	*	10.0	9.5	10.0	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Tampa-Lassan Alt A Krausz Future AM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	190	20	280

1	*	0.0	0.6	0.0	0.3
2	*	0.2	0.0	0.4	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.5	0.0	0.8	0.0
5	*	0.0	0.5	0.2	0.4
6	*	0.6	0.0	0.5	0.0
7	*	0.0	0.0	0.3	0.6
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.4	0.7	0.0	0.0

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\latafb.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Tampa-Lassan Alt B Krausz Future AM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1111.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1290.	9.3	0.0	56.0		
3. nbq	*	524.0	464.0	524.0	424.6	*	39.	180. AG	214.	100.0	0.0	48.0	0.36 2.0	
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2091.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2111.	9.3	0.0	56.0		
6. sbq	*	476.0	536.0	476.0	610.2	*	74.	360. AG	214.	100.0	0.0	48.0	0.68 3.8	
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1145.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1143.	9.3	0.0	48.0		
9. ebq	*	452.0	482.0	403.5	482.0	*	48.	270. AG	255.	100.0	0.0	36.0	0.45 2.5	
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1598.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1401.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	615.7	518.0	*	68.	90. AG	255.	100.0	0.0	36.0	0.62 3.4	

1

PAGE 2

JOB: Tampa-Lassan Alt B Krausz Future AM RUN: 6

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
3. nbq	*	60	26	3.0	1111	1600	45.96	3	3
6. sbq	*	60	26	3.0	2091	1600	45.96	3	3
9. ebq	*	60	31	3.0	1145	1600	45.96	3	3
12. wbq	*	60	31	3.0	1598	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Tampa-Lassan Alt B Krausz Future AM RUN: 6

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
0.	*	7.4	7.1	8.9	8.4
10.	*	8.3	6.9	9.9	8.0
20.	*	8.5	6.9	9.9	8.0
30.	*	8.3	6.9	9.2	8.0
40.	*	8.3	6.9	8.8	7.8
50.	*	8.4	6.9	8.8	7.7
60.	*	8.4	6.9	9.0	7.9
70.	*	8.3	6.9	9.2	8.0
80.	*	8.2	6.9	9.1	7.9
90.	*	9.0	7.3	8.4	7.3
100.	*	9.9	8.1	7.9	6.9
110.	*	9.6	8.2	7.7	6.9
120.	*	9.0	8.2	7.7	6.9
130.	*	8.8	8.3	7.7	6.9
140.	*	8.7	8.3	7.9	6.9
150.	*	8.7	8.4	8.0	6.9
160.	*	9.1	8.2	8.2	6.9
170.	*	9.4	8.2	8.2	6.9
180.	*	8.5	8.6	7.3	7.1

190.	*	8.0	9.5	6.9	7.8
200.	*	7.8	9.5	6.9	8.1
210.	*	7.7	9.2	6.9	7.9
220.	*	7.6	8.9	6.9	7.8
230.	*	7.7	8.8	6.9	7.7
240.	*	7.8	9.0	6.9	7.8
250.	*	8.0	9.1	6.9	8.0
260.	*	8.0	9.2	6.9	8.1
270.	*	7.2	8.5	7.2	8.8
280.	*	6.9	8.0	7.9	9.5
290.	*	6.9	8.0	8.0	9.4
300.	*	6.9	7.9	7.9	8.9
310.	*	6.9	7.8	7.9	8.8
320.	*	6.9	7.8	8.0	8.8
330.	*	6.9	8.0	8.1	8.9
340.	*	6.9	8.1	8.2	9.1
350.	*	6.9	7.9	8.2	9.2
360.	*	7.4	7.1	8.9	8.4

MAX	*	9.9	9.5	9.9	9.5
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Tampa-Lassan Alt B Krausz Future AM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	10	280

1	*	0.0	0.6	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.5	0.0	1.1	0.0
5	*	0.0	0.5	0.0	0.4
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.6
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.4	0.7	0.0	0.0

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\latafc.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Tampa-Lassan Alt C Krausz Future AM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1116.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1295.	9.3	0.0	56.0		
3. nbq	*	524.0	464.0	524.0	422.8	*	41.	180. AG	222.	100.0	0.0	48.0	0.37	2.1
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2009.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2029.	9.3	0.0	56.0		
6. sbq	*	476.0	536.0	476.0	610.1	*	74.	360. AG	222.	100.0	0.0	48.0	0.67	3.8
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1146.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1144.	9.3	0.0	48.0		
9. ebq	*	452.0	482.0	405.1	482.0	*	47.	270. AG	247.	100.0	0.0	36.0	0.43	2.4
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1582.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1385.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	612.8	518.0	*	65.	90. AG	247.	100.0	0.0	36.0	0.59	3.3

1 PAGE 2

JOB: Tampa-Lassan Alt C Krausz Future AM RUN: 8

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
3. nbq	*	60	27	3.0	1116	1600	45.96	3	3
6. sbq	*	60	27	3.0	2009	1600	45.96	3	3
9. ebq	*	60	30	3.0	1146	1600	45.96	3	3
12. wbq	*	60	30	3.0	1582	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1 PAGE 3

JOB: Tampa-Lassan Alt C Krausz Future AM RUN: 8

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
0.	*	7.4	7.1	8.8	8.4
10.	*	8.2	6.9	9.9	8.0
20.	*	8.4	6.9	10.0	8.0
30.	*	8.3	6.9	9.2	7.9
40.	*	8.4	6.9	8.8	7.8
50.	*	8.4	6.9	8.7	7.7
60.	*	8.3	6.9	8.8	7.9
70.	*	8.3	6.9	9.1	8.0
80.	*	8.2	6.9	9.1	7.9
90.	*	8.9	7.3	8.4	7.3
100.	*	10.0	8.1	7.9	6.9
110.	*	9.5	8.2	7.7	6.9
120.	*	8.9	8.1	7.7	6.9
130.	*	8.8	8.3	7.7	6.9
140.	*	8.8	8.3	7.9	6.9
150.	*	8.7	8.3	8.0	6.9
160.	*	8.9	8.2	8.2	6.9
170.	*	9.4	8.2	8.1	6.9
180.	*	8.5	8.6	7.3	7.2

190.	*	8.0	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	9.0	6.9	7.8
220.	*	7.6	8.9	6.9	7.8
230.	*	7.7	8.7	6.9	7.7
240.	*	7.8	8.9	6.9	7.9
250.	*	8.0	9.1	6.9	8.0
260.	*	8.0	9.2	6.9	8.2
270.	*	7.2	8.5	7.2	8.8
280.	*	6.9	8.0	7.9	9.5
290.	*	6.9	8.0	8.0	9.4
300.	*	6.9	8.0	7.8	8.8
310.	*	6.9	7.8	7.7	8.8
320.	*	6.9	7.8	7.9	8.7
330.	*	6.9	7.9	8.0	8.8
340.	*	6.9	8.1	8.2	8.9
350.	*	6.9	7.9	8.2	9.2
360.	*	7.4	7.1	8.8	8.4
-----*					
MAX	*	10.0	9.5	10.0	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Tampa-Lassan Alt C Krausz Future AM

RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	190	20	280
-----*					
1	*	0.0	0.6	0.0	0.3
2	*	0.2	0.0	0.4	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.5	0.0	0.8	0.0
5	*	0.0	0.5	0.2	0.4
6	*	0.6	0.0	0.5	0.0
7	*	0.0	0.0	0.3	0.6
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.4	0.7	0.0	0.0

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\latafd.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Tampa-Lassan Alt D Krausz Future AM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1118.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1297.	9.3	0.0	56.0		
3. nbq	*	524.0	464.0	524.0	424.3	*	40.	180. AG	214.	100.0	0.0	48.0	0.36	2.0
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2072.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2092.	9.3	0.0	56.0		
6. sbq	*	476.0	536.0	476.0	609.7	*	74.	360. AG	214.	100.0	0.0	48.0	0.67	3.7
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1146.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1144.	9.3	0.0	48.0		
9. ebq	*	452.0	482.0	403.5	482.0	*	48.	270. AG	255.	100.0	0.0	36.0	0.45	2.5
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1595.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1398.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	615.5	518.0	*	67.	90. AG	255.	100.0	0.0	36.0	0.62	3.4

1

PAGE 2

JOB: Tampa-Lassan Alt D Krausz Future AM RUN: 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
3. nbq	*	60	26	3.0	1118	1600	45.96	3	3
6. sbq	*	60	26	3.0	2072	1600	45.96	3	3
9. ebq	*	60	31	3.0	1146	1600	45.96	3	3
12. wbq	*	60	31	3.0	1595	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Tampa-Lassan Alt D Krausz Future AM RUN: 10

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
0.	*	7.4	7.1	8.9	8.4
10.	*	8.3	6.9	9.9	8.0
20.	*	8.4	6.9	9.9	8.0
30.	*	8.3	6.9	9.2	8.0
40.	*	8.3	6.9	8.8	7.8
50.	*	8.4	6.9	8.8	7.7
60.	*	8.4	6.9	9.0	7.9
70.	*	8.3	6.9	9.2	8.0
80.	*	8.2	6.9	9.1	7.9
90.	*	8.9	7.3	8.4	7.3
100.	*	9.9	8.1	7.9	6.9
110.	*	9.6	8.2	7.7	6.9
120.	*	9.0	8.2	7.7	6.9
130.	*	8.8	8.3	7.7	6.9
140.	*	8.7	8.3	7.9	6.9
150.	*	8.7	8.4	8.0	6.9
160.	*	9.1	8.2	8.2	6.9
170.	*	9.4	8.2	8.2	6.9
180.	*	8.5	8.6	7.3	7.2

190.	*	8.0	9.5	6.9	7.8
200.	*	7.8	9.5	6.9	8.1
210.	*	7.7	9.1	6.9	7.8
220.	*	7.6	8.9	6.9	7.8
230.	*	7.7	8.8	6.9	7.7
240.	*	7.8	8.9	6.9	7.8
250.	*	8.0	9.1	6.9	8.0
260.	*	8.0	9.2	6.9	8.2
270.	*	7.2	8.5	7.2	8.8
280.	*	6.9	8.0	7.9	9.5
290.	*	6.9	8.0	8.0	9.4
300.	*	6.9	7.9	7.9	8.8
310.	*	6.9	7.8	7.9	8.8
320.	*	6.9	7.8	8.0	8.8
330.	*	6.9	8.0	8.1	8.9
340.	*	6.9	8.1	8.2	9.0
350.	*	6.9	7.9	8.2	9.2
360.	*	7.4	7.1	8.9	8.4
-----*					
MAX	*	9.9	9.5	9.9	9.5
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Tampa-Lassan Alt D Krausz Future AM

RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.6	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.5	0.0	1.1	0.0
5	*	0.0	0.5	0.0	0.4
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.6
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.4	0.7	0.0	0.0

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\lataba.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Tampa-Lassan Alt A Buildout Future AM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1108.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1287.	9.3	0.0	56.0		
3. nbq	*	524.0	464.0	524.0	423.1	*	41.	180. AG	222.	100.0	0.0	48.0	0.37	2.1
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2000.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2020.	9.3	0.0	56.0		
6. sbq	*	476.0	536.0	476.0	609.8	*	74.	360. AG	222.	100.0	0.0	48.0	0.67	3.8
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1144.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1142.	9.3	0.0	48.0		
9. ebq	*	452.0	482.0	405.1	482.0	*	47.	270. AG	247.	100.0	0.0	36.0	0.43	2.4
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1580.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1383.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	612.8	518.0	*	65.	90. AG	247.	100.0	0.0	36.0	0.59	3.3

1

PAGE 2

JOB: Tampa-Lassan Alt A Buildout Future AM RUN: 5

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
3. nbq	*	60	27	3.0	1108	1600	45.96	3	3
6. sbq	*	60	27	3.0	2000	1600	45.96	3	3
9. ebq	*	60	30	3.0	1144	1600	45.96	3	3
12. wbq	*	60	30	3.0	1580	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Tampa-Lassan Alt A Buildout Future AM RUN: 5

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
0.	*	7.3	7.1	8.8	8.4
10.	*	8.2	6.9	9.9	8.0
20.	*	8.4	6.9	10.0	8.0
30.	*	8.3	6.9	9.2	7.9
40.	*	8.4	6.9	8.8	7.8
50.	*	8.4	6.9	8.7	7.7
60.	*	8.3	6.9	8.8	7.9
70.	*	8.3	6.9	9.1	8.0
80.	*	8.2	6.9	9.1	7.9
90.	*	8.9	7.3	8.4	7.3
100.	*	10.0	8.1	7.9	6.9
110.	*	9.5	8.2	7.7	6.9
120.	*	8.9	8.1	7.7	6.9
130.	*	8.8	8.3	7.7	6.9
140.	*	8.8	8.3	7.9	6.9
150.	*	8.7	8.3	8.0	6.9
160.	*	8.9	8.2	8.2	6.9
170.	*	9.4	8.2	8.1	6.9
180.	*	8.5	8.6	7.3	7.1

190.	*	8.0	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	9.0	6.9	7.8
220.	*	7.6	8.9	6.9	7.8
230.	*	7.7	8.7	6.9	7.7
240.	*	7.8	8.8	6.9	7.8
250.	*	8.0	9.1	6.9	8.0
260.	*	8.0	9.2	6.9	8.2
270.	*	7.2	8.5	7.2	8.8
280.	*	6.9	8.0	7.9	9.5
290.	*	6.9	8.0	8.0	9.4
300.	*	6.9	8.0	7.8	8.8
310.	*	6.9	7.8	7.7	8.8
320.	*	6.9	7.8	7.9	8.7
330.	*	6.9	7.9	8.0	8.8
340.	*	6.9	8.1	8.2	8.9
350.	*	6.9	7.8	8.2	9.2
360.	*	7.3	7.1	8.8	8.4

MAX	*	10.0	9.5	10.0	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Tampa-Lassan Alt A Buildout Future AM

RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	100	190	20	280

1	*	0.0	0.6	0.0	0.3
2	*	0.2	0.0	0.4	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.5	0.0	0.8	0.0
5	*	0.0	0.5	0.2	0.4
6	*	0.6	0.0	0.5	0.0
7	*	0.0	0.0	0.3	0.6
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.4	0.7	0.0	0.0

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\latabb.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Tampa-Lassan Alt B Buildout Future AM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1114.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1293.	9.3	0.0	56.0		
3. nbq	*	524.0	464.0	524.0	424.5	*	40.	180. AG	214.	100.0	0.0	48.0	0.36	2.0
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2122.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2142.	9.3	0.0	56.0		
6. sbq	*	476.0	536.0	476.0	611.4	*	75.	360. AG	214.	100.0	0.0	48.0	0.69	3.8
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1145.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1143.	9.3	0.0	48.0		
9. ebq	*	452.0	482.0	403.5	482.0	*	48.	270. AG	255.	100.0	0.0	36.0	0.45	2.5
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1605.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1408.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	616.0	518.0	*	68.	90. AG	255.	100.0	0.0	36.0	0.63	3.5

1

PAGE 2

JOB: Tampa-Lassan Alt B Buildout Future AM RUN: 6

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
3. nbq	*	60	26	3.0	1114	1600	45.96	3	3
6. sbq	*	60	26	3.0	2122	1600	45.96	3	3
9. ebq	*	60	31	3.0	1145	1600	45.96	3	3
12. wbq	*	60	31	3.0	1605	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Tampa-Lassan Alt B Buildout Future AM RUN: 6

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
0.	*	7.4	7.1	8.9	8.4
10.	*	8.3	6.9	10.0	8.0
20.	*	8.5	6.9	9.9	8.0
30.	*	8.3	6.9	9.2	8.0
40.	*	8.4	6.9	8.8	7.8
50.	*	8.4	6.9	8.8	7.7
60.	*	8.4	6.9	9.0	7.9
70.	*	8.3	6.9	9.2	8.0
80.	*	8.2	6.9	9.1	7.9
90.	*	9.0	7.3	8.5	7.3
100.	*	9.9	8.2	7.9	6.9
110.	*	9.6	8.2	7.7	6.9
120.	*	9.0	8.2	7.7	6.9
130.	*	8.8	8.4	7.7	6.9
140.	*	8.7	8.4	7.9	6.9
150.	*	8.7	8.4	8.0	6.9
160.	*	9.2	8.2	8.2	6.9
170.	*	9.5	8.2	8.2	6.9
180.	*	8.5	8.6	7.3	7.2

190.	*	8.0	9.5	6.9	7.8
200.	*	7.8	9.6	6.9	8.1
210.	*	7.7	9.2	6.9	7.9
220.	*	7.6	8.9	6.9	7.8
230.	*	7.7	8.8	6.9	7.7
240.	*	7.8	9.0	6.9	7.8
250.	*	8.0	9.1	6.9	8.0
260.	*	8.0	9.2	6.9	8.1
270.	*	7.2	8.5	7.2	8.8
280.	*	6.9	8.0	7.9	9.5
290.	*	6.9	8.0	8.0	9.4
300.	*	6.9	8.0	7.9	8.9
310.	*	6.9	7.8	7.9	8.8
320.	*	6.9	7.8	8.0	8.8
330.	*	6.9	8.0	8.1	8.9
340.	*	6.9	8.1	8.2	9.1
350.	*	6.9	8.0	8.2	9.2
360.	*	7.4	7.1	8.9	8.4

MAX	*	9.9	9.6	10.0	9.5
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Tampa-Lassan Alt B Buildout Future AM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280

1	*	0.0	0.4	0.0	0.3
2	*	0.2	0.1	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.5	0.0	1.2	0.0
5	*	0.0	0.7	0.0	0.4
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.6
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.4	0.6	0.0	0.0

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\latabc.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Tampa-Lassan Alt C Buildout Future AM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1117.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1296.	9.3	0.0	56.0		
3. nbq	*	524.0	464.0	524.0	422.8	*	41.	180. AG	222.	100.0	0.0	48.0	0.37 2.1	
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1999.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2019.	9.3	0.0	56.0		
6. sbq	*	476.0	536.0	476.0	609.7	*	74.	360. AG	222.	100.0	0.0	48.0	0.67 3.7	
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1146.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1144.	9.3	0.0	48.0		
9. ebq	*	452.0	482.0	405.1	482.0	*	47.	270. AG	247.	100.0	0.0	36.0	0.43 2.4	
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1580.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1383.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	612.8	518.0	*	65.	90. AG	247.	100.0	0.0	36.0	0.59 3.3	

1

PAGE 2

JOB: Tampa-Lassan Alt C Buildout Future AM RUN: 9

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
3. nbq	*	60	27	3.0	1117	1600	45.96	3	3
6. sbq	*	60	27	3.0	1999	1600	45.96	3	3
9. ebq	*	60	30	3.0	1146	1600	45.96	3	3
12. wbq	*	60	30	3.0	1580	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Tampa-Lassan Alt C Buildout Future AM RUN: 9

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 REC1	REC2	REC3	REC4
0.	*	7.3	7.1	8.8	8.4
10.	*	8.2	6.9	9.9	8.0
20.	*	8.4	6.9	10.0	8.0
30.	*	8.3	6.9	9.2	7.9
40.	*	8.4	6.9	8.8	7.8
50.	*	8.4	6.9	8.7	7.7
60.	*	8.3	6.9	8.8	7.9
70.	*	8.3	6.9	9.1	8.0
80.	*	8.2	6.9	9.1	7.9
90.	*	8.9	7.3	8.4	7.3
100.	*	10.0	8.1	7.9	6.9
110.	*	9.5	8.2	7.7	6.9
120.	*	8.9	8.1	7.7	6.9
130.	*	8.8	8.3	7.7	6.9
140.	*	8.8	8.3	7.9	6.9
150.	*	8.7	8.3	8.0	6.9
160.	*	8.9	8.2	8.2	6.9
170.	*	9.4	8.2	8.1	6.9
180.	*	8.5	8.6	7.3	7.2

190.	*	8.0	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	9.0	6.9	7.8
220.	*	7.6	8.9	6.9	7.8
230.	*	7.7	8.7	6.9	7.7
240.	*	7.8	8.8	6.9	7.9
250.	*	8.0	9.1	6.9	8.0
260.	*	8.0	9.2	6.9	8.2
270.	*	7.2	8.5	7.2	8.8
280.	*	6.9	8.0	7.9	9.5
290.	*	6.9	8.0	8.0	9.4
300.	*	6.9	8.0	7.8	8.8
310.	*	6.9	7.8	7.7	8.8
320.	*	6.9	7.8	7.9	8.7
330.	*	6.9	7.9	8.0	8.8
340.	*	6.9	8.1	8.2	8.9
350.	*	6.9	7.9	8.2	9.2
360.	*	7.3	7.1	8.8	8.4
-----*					
MAX	*	10.0	9.5	10.0	9.5
DEGR.	*	100	190	20	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 100 DEGREES FROM REC1 .
1

PAGE 4

JOB: Tampa-Lassan Alt C Buildout Future AM RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	100	190	20	280
-----*					
1	*	0.0	0.6	0.0	0.3
2	*	0.2	0.0	0.4	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.5	0.0	0.8	0.0
5	*	0.0	0.5	0.2	0.4
6	*	0.6	0.0	0.5	0.0
7	*	0.0	0.0	0.3	0.6
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.4	0.7	0.0	0.0

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\latabd.DAT

RUN BEGIN ON 08/22/02 AT 08:03

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Tampa-Lassan Alt D Buildout Future AM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1121.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1300.	9.3	0.0	56.0		
3. nbq	*	524.0	464.0	524.0	424.2	*	40.	180. AG	214.	100.0	0.0	48.0	0.36	2.0
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	2094.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	2114.	9.3	0.0	56.0		
6. sbq	*	476.0	536.0	476.0	610.4	*	74.	360. AG	214.	100.0	0.0	48.0	0.68	3.8
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1147.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1145.	9.3	0.0	48.0		
9. ebq	*	452.0	482.0	403.5	482.0	*	48.	270. AG	255.	100.0	0.0	36.0	0.45	2.5
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1599.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1402.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	615.7	518.0	*	68.	90. AG	255.	100.0	0.0	36.0	0.62	3.4

1

PAGE 2

JOB: Tampa-Lassan Alt D Buildout Future AM RUN: 9

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
3. nbq	*	60	26	3.0	1121	1600	45.96	3	3
6. sbq	*	60	26	3.0	2094	1600	45.96	3	3
9. ebq	*	60	31	3.0	1147	1600	45.96	3	3
12. wbq	*	60	31	3.0	1599	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	444.0	5.4	*
4. SE	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Tampa-Lassan Alt D Buildout Future AM RUN: 9

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
0.	*	7.4	7.1	8.9	8.4
10.	*	8.3	6.9	9.9	8.0
20.	*	8.5	6.9	9.9	8.0
30.	*	8.3	6.9	9.2	8.0
40.	*	8.4	6.9	8.8	7.8
50.	*	8.4	6.9	8.8	7.7
60.	*	8.4	6.9	9.0	7.9
70.	*	8.3	6.9	9.2	8.0
80.	*	8.2	6.9	9.1	7.9
90.	*	9.0	7.3	8.4	7.3
100.	*	9.9	8.2	7.9	6.9
110.	*	9.6	8.2	7.7	6.9
120.	*	9.0	8.2	7.7	6.9
130.	*	8.8	8.3	7.7	6.9
140.	*	8.7	8.3	7.9	6.9
150.	*	8.7	8.5	8.0	6.9
160.	*	9.1	8.2	8.2	6.9
170.	*	9.4	8.2	8.2	6.9
180.	*	8.5	8.6	7.3	7.2

190.	*	8.0	9.5	6.9	7.8
200.	*	7.8	9.5	6.9	8.1
210.	*	7.7	9.2	6.9	7.9
220.	*	7.6	8.9	6.9	7.8
230.	*	7.7	8.8	6.9	7.7
240.	*	7.8	9.0	6.9	7.8
250.	*	8.0	9.1	6.9	8.0
260.	*	8.0	9.2	6.9	8.2
270.	*	7.2	8.5	7.2	8.8
280.	*	6.9	8.0	7.9	9.5
290.	*	6.9	8.0	8.0	9.4
300.	*	6.9	7.9	7.9	8.9
310.	*	6.9	7.8	7.9	8.8
320.	*	6.9	7.8	8.0	8.8
330.	*	6.9	8.0	8.1	8.9
340.	*	6.9	8.1	8.2	9.1
350.	*	6.9	7.9	8.2	9.2
360.	*	7.4	7.1	8.9	8.4

MAX	*	9.9	9.5	9.9	9.5
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Tampa-Lassan Alt D Buildout Future AM

RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280

1	*	0.0	0.6	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.5	0.0	1.1	0.0
5	*	0.0	0.5	0.0	0.4
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.6
8	*	0.4	0.2	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.4	0.7	0.0	0.0

RUN ENDED ON 08/22/02 AT 08:03

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT30XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Tampa Existing Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1556.	12.2	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1938.	12.2	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	396.7	*	55.	180. AG	282.	100.0	0.0	48.0	0.50	2.8
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1432.	12.2	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1492.	12.2	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	586.9	*	51.	360. AG	282.	100.0	0.0	48.0	0.46	2.6
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2001.	12.2	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1393.	12.2	0.0	44.0		
9. EBQ	*	452.0	476.0	359.4	476.0	*	93.	270. AG	336.	100.0	0.0	48.0	0.78	4.7
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	591.	12.2	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	757.	12.2	0.0	44.0		
12. WBQ	*	548.0	518.0	572.9	518.0	*	25.	90. AG	336.	100.0	0.0	36.0	0.23	1.3

1

PAGE 2

JOB: Plummer-Tampa Existing Ambient PM RUN: 2

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
3. NBQ	*	60	26	3.0	1556	1600	60.55	3	3
6. SBQ	*	60	26	3.0	1432	1600	60.55	3	3
9. EBQ	*	60	31	3.0	2001	1600	60.55	3	3
12. WBQ	*	60	31	3.0	591	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

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PAGE 3

JOB: Plummer-Tampa Existing Ambient PM RUN: 2

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
0.	*	9.1	9.2	11.2	10.4
10.	*	10.1	8.7	12.5	9.3
20.	*	10.3	8.7	12.3	9.4
30.	*	10.2	8.7	11.6	9.4
40.	*	10.1	8.7	11.1	9.4
50.	*	10.2	8.7	11.2	9.5
60.	*	10.3	8.7	10.9	9.6
70.	*	10.4	8.7	11.0	9.7
80.	*	10.5	8.7	11.2	9.7
90.	*	10.8	8.9	10.5	9.0
100.	*	11.5	9.6	10.1	8.7
110.	*	11.4	9.7	9.9	8.7
120.	*	10.9	9.5	9.7	8.7
130.	*	10.9	9.4	9.7	8.7
140.	*	10.8	9.3	9.9	8.7
150.	*	11.1	9.3	10.0	8.7
160.	*	11.4	9.4	10.2	8.7
170.	*	11.7	9.6	10.0	8.7
180.	*	10.8	10.7	9.1	9.1

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190. * 10.2 11.9 8.7 10.1
200. * 10.2 12.0 8.7 10.3
210. * 10.3 11.3 8.7 10.1
220. * 10.1 10.8 8.7 10.2
230. * 9.9 11.0 8.7 10.2
240. * 9.8 11.5 8.7 10.4
250. * 10.1 11.6 8.7 10.4
260. * 9.8 11.5 8.7 10.5
270. * 9.0 10.8 9.3 11.2
280. * 8.7 10.1 10.4 12.5
290. * 8.7 9.9 10.6 12.0
300. * 8.7 9.9 10.7 11.2
310. * 8.7 9.9 10.8 10.9
320. * 8.7 10.0 10.8 10.9
330. * 8.7 10.2 10.6 11.0
340. * 8.7 10.5 10.5 11.4
350. * 8.7 10.3 10.5 11.5
360. * 9.1 9.2 11.2 10.4
-----*
MAX * 11.7 12.0 12.5 12.5
DEGR. * 170 200 10 280

```

THE HIGHEST CONCENTRATION IS 12.50 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Plummer-Tampa Existing Ambient PM

RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 170 200 10 280
-----*
1 * 0.5 0.8 0.0 0.5
2 * 0.0 0.2 0.6 0.0
3 * 0.0 0.4 0.0 0.7
4 * 0.1 0.0 1.0 0.0
5 * 1.1 0.6 0.1 0.4
6 * 0.0 0.0 0.3 0.0
7 * 0.5 0.0 0.7 1.4
8 * 0.0 0.4 0.0 0.0
9 * 0.5 0.0 0.9 0.6
10 * 0.0 0.2 0.0 0.0
11 * 0.3 0.0 0.2 0.2
12 * 0.0 0.7 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT30FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Tampa Alt A Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1661.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2066.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	393.0	*	59.	180. AG	214.	100.0	0.0	48.0	0.54	3.0
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1523.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1545.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	590.0	*	54.	360. AG	214.	100.0	0.0	48.0	0.49	2.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2050.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1421.	9.3	0.0	44.0		
9. EBQ	*	452.0	476.0	354.2	476.0	*	98.	270. AG	255.	100.0	0.0	48.0	0.80	5.0
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	624.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	826.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	574.5	518.0	*	26.	90. AG	255.	100.0	0.0	36.0	0.24	1.3

1 PAGE 2

JOB: Plummer-Tampa Alt A Krausz Future PM RUN: 4
 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
3. NBQ	*	60	26	3.0	1661	1600	45.96	3	3
6. SBQ	*	60	26	3.0	1523	1600	45.96	3	3
9. EBQ	*	60	31	3.0	2050	1600	45.96	3	3
12. WBQ	*	60	31	3.0	624	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1 PAGE 3

JOB: Plummer-Tampa Alt A Krausz Future PM RUN: 4

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
0.	*	7.2	7.3	8.8	8.3
10.	*	8.0	6.9	9.8	7.4
20.	*	8.3	6.9	9.7	7.4
30.	*	8.1	6.9	9.1	7.4
40.	*	8.1	6.9	8.8	7.4
50.	*	8.1	6.9	8.5	7.5
60.	*	8.2	6.9	8.8	7.6
70.	*	8.3	6.9	8.7	7.7
80.	*	8.3	6.9	9.0	7.7
90.	*	8.6	7.1	8.3	7.1
100.	*	9.2	7.6	8.0	6.9
110.	*	9.1	7.6	7.9	6.9
120.	*	8.7	7.6	7.8	6.9
130.	*	8.7	7.4	7.7	6.9
140.	*	8.8	7.4	7.8	6.9
150.	*	8.9	7.4	7.9	6.9
160.	*	9.0	7.5	8.1	6.9
170.	*	9.2	7.7	8.0	6.9
180.	*	8.5	8.4	7.2	7.3

190.	*	8.0	9.5	6.9	8.0
200.	*	8.1	9.6	6.9	8.1
210.	*	8.2	9.1	6.9	8.1
220.	*	8.1	8.6	6.9	8.1
230.	*	7.9	8.8	6.9	8.1
240.	*	7.8	9.1	6.9	8.2
250.	*	8.0	9.3	6.9	8.2
260.	*	7.7	9.3	6.9	8.2
270.	*	7.2	8.4	7.3	8.9
280.	*	6.9	8.1	8.2	10.0
290.	*	6.9	7.9	8.4	9.6
300.	*	6.9	7.9	8.5	8.9
310.	*	6.9	7.8	8.6	8.6
320.	*	6.9	8.0	8.5	8.7
330.	*	6.9	8.1	8.5	8.7
340.	*	6.9	8.4	8.3	9.2
350.	*	6.9	8.2	8.3	9.2
360.	*	7.2	7.3	8.8	8.3
-----*					
MAX	*	9.2	9.6	9.8	10.0
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Plummer-Tampa Alt A Krausz Future PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.6	0.0	0.4
2	*	0.4	0.2	0.5	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.1
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.5
10	*	0.3	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT30AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Tampa Alt A Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1661.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2066.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	393.0	*	59.	180. AG	214.	100.0	0.0	48.0	0.54	3.0
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1523.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1545.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	590.0	*	54.	360. AG	214.	100.0	0.0	48.0	0.49	2.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2050.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1421.	9.3	0.0	44.0		
9. EBQ	*	452.0	476.0	354.2	476.0	*	98.	270. AG	255.	100.0	0.0	48.0	0.80	5.0
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	624.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	826.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	574.5	518.0	*	26.	90. AG	255.	100.0	0.0	36.0	0.24	1.3

1 PAGE 2

JOB: Plummer-Tampa Alt A Krausz Future PM RUN: 4
 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
3. NBQ	*	60	26	3.0	1661	1600	45.96	3	3
6. SBQ	*	60	26	3.0	1523	1600	45.96	3	3
9. EBQ	*	60	31	3.0	2050	1600	45.96	3	3
12. WBQ	*	60	31	3.0	624	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1 PAGE 3

JOB: Plummer-Tampa Alt A Krausz Future PM RUN: 4

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
0.	*	7.2	7.3	8.8	8.3
10.	*	8.0	6.9	9.8	7.4
20.	*	8.3	6.9	9.7	7.4
30.	*	8.1	6.9	9.1	7.4
40.	*	8.1	6.9	8.8	7.4
50.	*	8.1	6.9	8.5	7.5
60.	*	8.2	6.9	8.8	7.6
70.	*	8.3	6.9	8.7	7.7
80.	*	8.3	6.9	9.0	7.7
90.	*	8.6	7.1	8.3	7.1
100.	*	9.2	7.6	8.0	6.9
110.	*	9.1	7.6	7.9	6.9
120.	*	8.7	7.6	7.8	6.9
130.	*	8.7	7.4	7.7	6.9
140.	*	8.8	7.4	7.8	6.9
150.	*	8.9	7.4	7.9	6.9
160.	*	9.0	7.5	8.1	6.9
170.	*	9.2	7.7	8.0	6.9
180.	*	8.5	8.4	7.2	7.3

190.	*	8.0	9.5	6.9	8.0
200.	*	8.1	9.6	6.9	8.1
210.	*	8.2	9.1	6.9	8.1
220.	*	8.1	8.6	6.9	8.1
230.	*	7.9	8.8	6.9	8.1
240.	*	7.8	9.1	6.9	8.2
250.	*	8.0	9.3	6.9	8.2
260.	*	7.7	9.3	6.9	8.2
270.	*	7.2	8.4	7.3	8.9
280.	*	6.9	8.1	8.2	10.0
290.	*	6.9	7.9	8.4	9.6
300.	*	6.9	7.9	8.5	8.9
310.	*	6.9	7.8	8.6	8.6
320.	*	6.9	8.0	8.5	8.7
330.	*	6.9	8.1	8.5	8.7
340.	*	6.9	8.4	8.3	9.2
350.	*	6.9	8.2	8.3	9.2
360.	*	7.2	7.3	8.8	8.3
-----*					
MAX	*	9.2	9.6	9.8	10.0
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Plummer-Tampa Alt A Krausz Future PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.6	0.0	0.4
2	*	0.4	0.2	0.5	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.1
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.5
10	*	0.3	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT30BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Tampa Alt B Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1678.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2107.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	392.4	*	60.	180. AG	214.	100.0	0.0	48.0	0.54	3.0
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1481.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1527.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	588.6	*	53.	360. AG	214.	100.0	0.0	48.0	0.48	2.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2095.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1442.	9.3	0.0	44.0		
9. EBQ	*	452.0	476.0	348.9	476.0	*	103.	270. AG	255.	100.0	0.0	48.0	0.82	5.2
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	603.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	781.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	573.4	518.0	*	25.	90. AG	255.	100.0	0.0	36.0	0.23	1.3

1

PAGE 2

JOB: Plummer-Tampa Alt B Krausz Future PM RUN: 6
 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
3. NBQ	*	60	26	3.0	1678	1600	45.96	3	3
6. SBQ	*	60	26	3.0	1481	1600	45.96	3	3
9. EBQ	*	60	31	3.0	2095	1600	45.96	3	3
12. WBQ	*	60	31	3.0	603	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Plummer-Tampa Alt B Krausz Future PM RUN: 6

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
0.	*	7.2	7.3	8.8	8.3
10.	*	8.0	6.9	9.7	7.4
20.	*	8.2	6.9	9.7	7.4
30.	*	8.2	6.9	9.2	7.4
40.	*	8.1	6.9	8.8	7.4
50.	*	8.0	6.9	8.6	7.5
60.	*	8.2	6.9	8.8	7.6
70.	*	8.3	6.9	8.7	7.7
80.	*	8.3	6.9	9.0	7.7
90.	*	8.6	7.1	8.3	7.1
100.	*	9.2	7.6	8.0	6.9
110.	*	9.1	7.6	7.9	6.9
120.	*	8.8	7.6	7.8	6.9
130.	*	8.6	7.4	7.7	6.9
140.	*	8.7	7.4	7.8	6.9
150.	*	8.8	7.4	7.9	6.9
160.	*	9.0	7.5	8.1	6.9
170.	*	9.2	7.7	8.0	6.9
180.	*	8.5	8.5	7.2	7.3

190.	*	8.0	9.5	6.9	8.0
200.	*	8.1	9.6	6.9	8.1
210.	*	8.2	9.1	6.9	8.1
220.	*	8.1	8.6	6.9	8.2
230.	*	7.9	8.8	6.9	8.1
240.	*	7.9	9.1	6.9	8.2
250.	*	8.0	9.3	6.9	8.2
260.	*	7.8	9.2	6.9	8.2
270.	*	7.2	8.4	7.4	8.9
280.	*	6.9	8.1	8.2	9.9
290.	*	6.9	7.9	8.5	9.5
300.	*	6.9	7.9	8.6	8.8
310.	*	6.9	7.8	8.6	8.7
320.	*	6.9	7.9	8.5	8.7
330.	*	6.9	8.1	8.4	8.7
340.	*	6.9	8.3	8.3	9.2
350.	*	6.9	8.2	8.2	9.2
360.	*	7.2	7.3	8.8	8.3
-----*					
MAX	*	9.2	9.6	9.7	9.9
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Plummer-Tampa Alt B Krausz Future PM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.6	0.0	0.4
2	*	0.4	0.2	0.5	0.0
3	*	0.0	0.3	0.0	0.5
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.1
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.5
10	*	0.3	0.2	0.0	0.0
11	*	0.0	0.0	0.1	0.2
12	*	0.2	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT30CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Tampa Alt C Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1658.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2059.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	393.2	*	59.	180. AG	214.	100.0	0.0	48.0	0.54 3.0	
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1523.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1545.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	590.0	*	54.	360. AG	214.	100.0	0.0	48.0	0.49 2.7	
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2042.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1417.	9.3	0.0	44.0		
9. EBQ	*	452.0	476.0	355.1	476.0	*	97.	270. AG	255.	100.0	0.0	48.0	0.80 4.9	
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	624.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	826.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	574.5	518.0	*	26.	90. AG	255.	100.0	0.0	36.0	0.24 1.3	

1

PAGE 2

JOB: Plummer-Tampa Alt C Krausz Future PM RUN: 8
 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
3. NBQ	*	60	26	3.0	1658	1600	45.96	3	3
6. SBQ	*	60	26	3.0	1523	1600	45.96	3	3
9. EBQ	*	60	31	3.0	2042	1600	45.96	3	3
12. WBQ	*	60	31	3.0	624	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Plummer-Tampa Alt C Krausz Future PM RUN: 8

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
0.	*	7.2	7.3	8.8	8.3
10.	*	8.0	6.9	9.8	7.4
20.	*	8.3	6.9	9.7	7.4
30.	*	8.1	6.9	9.1	7.4
40.	*	8.1	6.9	8.7	7.4
50.	*	8.1	6.9	8.5	7.4
60.	*	8.2	6.9	8.8	7.6
70.	*	8.3	6.9	8.7	7.7
80.	*	8.3	6.9	9.0	7.7
90.	*	8.6	7.1	8.3	7.1
100.	*	9.2	7.6	8.0	6.9
110.	*	9.1	7.6	7.9	6.9
120.	*	8.7	7.6	7.7	6.9
130.	*	8.7	7.4	7.7	6.9
140.	*	8.8	7.4	7.8	6.9
150.	*	8.9	7.4	7.9	6.9
160.	*	9.0	7.5	8.1	6.9
170.	*	9.2	7.7	8.0	6.9
180.	*	8.5	8.4	7.2	7.3

190.	*	8.0	9.5	6.9	8.0
200.	*	8.1	9.6	6.9	8.1
210.	*	8.2	9.1	6.9	8.1
220.	*	8.1	8.6	6.9	8.1
230.	*	7.9	8.8	6.9	8.1
240.	*	7.8	9.1	6.9	8.2
250.	*	8.0	9.3	6.9	8.2
260.	*	7.7	9.3	6.9	8.2
270.	*	7.2	8.4	7.3	8.9
280.	*	6.9	8.1	8.2	10.0
290.	*	6.9	7.9	8.4	9.6
300.	*	6.9	7.9	8.5	8.9
310.	*	6.9	7.8	8.6	8.6
320.	*	6.9	8.0	8.5	8.7
330.	*	6.9	8.1	8.5	8.7
340.	*	6.9	8.4	8.3	9.2
350.	*	6.9	8.2	8.3	9.2
360.	*	7.2	7.3	8.8	8.3

MAX	*	9.2	9.6	9.8	10.0
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Plummer-Tampa Alt C Krausz Future PM

RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	200	10	280

1	*	0.0	0.6	0.0	0.4
2	*	0.4	0.2	0.5	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.1
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.5
10	*	0.3	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT30DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Tampa Alt C Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1670.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2087.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	392.7	*	59.	180. AG	214.	100.0	0.0	48.0	0.54	3.0
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1487.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1530.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	588.8	*	53.	360. AG	214.	100.0	0.0	48.0	0.48	2.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2072.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1431.	9.3	0.0	44.0		
9. EBQ	*	452.0	476.0	351.3	476.0	*	101.	270. AG	255.	100.0	0.0	48.0	0.81	5.1
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	606.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	787.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	573.6	518.0	*	26.	90. AG	255.	100.0	0.0	36.0	0.24	1.3

1 PAGE 2

JOB: Plummer-Tampa Alt C Krausz Future PM RUN: 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
3. NBQ	*	60	26	3.0	1670	1600	45.96	3	3
6. SBQ	*	60	26	3.0	1487	1600	45.96	3	3
9. EBQ	*	60	31	3.0	2072	1600	45.96	3	3
12. WBQ	*	60	31	3.0	606	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1 PAGE 3

JOB: Plummer-Tampa Alt C Krausz Future PM RUN: 10

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
0.	*	7.2	7.3	8.7	8.3
10.	*	8.0	6.9	9.7	7.4
20.	*	8.2	6.9	9.7	7.4
30.	*	8.1	6.9	9.2	7.4
40.	*	8.1	6.9	8.8	7.4
50.	*	8.0	6.9	8.5	7.5
60.	*	8.2	6.9	8.8	7.6
70.	*	8.3	6.9	8.7	7.7
80.	*	8.3	6.9	9.0	7.7
90.	*	8.6	7.1	8.3	7.1
100.	*	9.2	7.6	8.0	6.9
110.	*	9.1	7.6	7.9	6.9
120.	*	8.7	7.6	7.8	6.9
130.	*	8.6	7.4	7.7	6.9
140.	*	8.7	7.4	7.8	6.9
150.	*	8.8	7.4	7.9	6.9
160.	*	9.0	7.5	8.1	6.9
170.	*	9.2	7.7	8.0	6.9
180.	*	8.5	8.5	7.2	7.3

190.	*	8.0	9.5	6.9	8.0
200.	*	8.1	9.6	6.9	8.1
210.	*	8.2	9.1	6.9	8.1
220.	*	8.1	8.6	6.9	8.2
230.	*	7.9	8.8	6.9	8.1
240.	*	7.8	9.1	6.9	8.2
250.	*	8.0	9.3	6.9	8.2
260.	*	7.8	9.2	6.9	8.2
270.	*	7.2	8.4	7.4	8.9
280.	*	6.9	8.1	8.2	10.0
290.	*	6.9	7.9	8.4	9.5
300.	*	6.9	7.9	8.5	8.8
310.	*	6.9	7.8	8.6	8.6
320.	*	6.9	8.0	8.5	8.7
330.	*	6.9	8.1	8.4	8.7
340.	*	6.9	8.3	8.3	9.2
350.	*	6.9	8.2	8.2	9.2
360.	*	7.2	7.3	8.7	8.3
-----*					
MAX	*	9.2	9.6	9.7	10.0
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Plummer-Tampa Alt C Krausz Future PM

RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.6	0.0	0.4
2	*	0.4	0.2	0.5	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.1
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.5
10	*	0.3	0.2	0.0	0.0
11	*	0.0	0.0	0.1	0.2
12	*	0.2	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT30ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Tampa Alt A Buildout Future PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1663.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2071.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	393.0	*	59.	180. AG	214.	100.0	0.0	48.0	0.54	3.0
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1540.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1552.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	590.8	*	55.	360. AG	214.	100.0	0.0	48.0	0.50	2.8
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2056.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1424.	9.3	0.0	44.0		
9. EBQ	*	452.0	476.0	353.2	476.0	*	99.	270. AG	255.	100.0	0.0	48.0	0.80	5.0
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	632.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	844.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	574.8	518.0	*	27.	90. AG	255.	100.0	0.0	36.0	0.25	1.4

1

PAGE 2

JOB: Plummer-Tampa Alt A Buildout Future PM RUN: 5
 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
3. NBQ	*	60	26	3.0	1663	1600	45.96	3	3
6. SBQ	*	60	26	3.0	1540	1600	45.96	3	3
9. EBQ	*	60	31	3.0	2056	1600	45.96	3	3
12. WBQ	*	60	31	3.0	632	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Plummer-Tampa Alt A Buildout Future PM RUN: 5

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
0.	*	7.2	7.3	8.8	8.3
10.	*	8.1	6.9	9.8	7.4
20.	*	8.3	6.9	9.7	7.4
30.	*	8.1	6.9	9.2	7.4
40.	*	8.1	6.9	8.8	7.4
50.	*	8.1	6.9	8.5	7.6
60.	*	8.2	6.9	8.8	7.6
70.	*	8.3	6.9	8.7	7.7
80.	*	8.3	6.9	9.0	7.7
90.	*	8.6	7.1	8.3	7.1
100.	*	9.3	7.6	8.0	6.9
110.	*	9.1	7.6	7.9	6.9
120.	*	8.7	7.6	7.8	6.9
130.	*	8.7	7.4	7.7	6.9
140.	*	8.8	7.4	7.8	6.9
150.	*	8.9	7.4	7.9	6.9
160.	*	9.0	7.5	8.1	6.9
170.	*	9.2	7.8	8.0	6.9
180.	*	8.5	8.4	7.2	7.3

190.	*	8.0	9.5	6.9	8.0
200.	*	8.1	9.6	6.9	8.1
210.	*	8.2	9.1	6.9	8.1
220.	*	8.1	8.7	6.9	8.1
230.	*	7.9	8.8	6.9	8.1
240.	*	7.8	9.2	6.9	8.2
250.	*	8.0	9.3	6.9	8.2
260.	*	7.8	9.3	6.9	8.2
270.	*	7.2	8.4	7.4	8.9
280.	*	6.9	8.1	8.2	10.0
290.	*	6.9	7.9	8.4	9.6
300.	*	6.9	7.9	8.5	8.9
310.	*	6.9	7.8	8.6	8.6
320.	*	6.9	8.0	8.5	8.7
330.	*	6.9	8.1	8.5	8.7
340.	*	6.9	8.4	8.3	9.2
350.	*	6.9	8.2	8.3	9.2
360.	*	7.2	7.3	8.8	8.3
-----*					
MAX	*	9.3	9.6	9.8	10.0
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Plummer-Tampa Alt A Buildout Future PM RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.6	0.0	0.4
2	*	0.4	0.2	0.5	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.1
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.5
10	*	0.4	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT30BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Tampa Alt B Buildout Future PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1697.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2153.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	391.7	*	60.	180. AG	214.	100.0	0.0	48.0	0.55	3.1
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1488.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1530.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	588.9	*	53.	360. AG	214.	100.0	0.0	48.0	0.48	2.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2145.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1465.	9.3	0.0	44.0		
9. EBQ	*	452.0	476.0	341.8	476.0	*	110.	270. AG	255.	100.0	0.0	48.0	0.84	5.6
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	606.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	788.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	573.6	518.0	*	26.	90. AG	255.	100.0	0.0	36.0	0.24	1.3

1

PAGE 2

JOB: Plummer-Tampa Alt B Buildout Future PM RUN: 7

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
3. NBQ	*	60	26	3.0	1697	1600	45.96	3	3
6. SBQ	*	60	26	3.0	1488	1600	45.96	3	3
9. EBQ	*	60	31	3.0	2145	1600	45.96	3	3
12. WBQ	*	60	31	3.0	606	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Plummer-Tampa Alt B Buildout Future PM RUN: 7

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
0.	*	7.2	7.3	8.8	8.3
10.	*	8.0	6.9	9.7	7.5
20.	*	8.3	6.9	9.8	7.4
30.	*	8.2	6.9	9.3	7.4
40.	*	8.1	6.9	8.8	7.4
50.	*	8.0	6.9	8.6	7.5
60.	*	8.2	6.9	8.8	7.6
70.	*	8.3	6.9	8.8	7.7
80.	*	8.3	6.9	9.1	7.7
90.	*	8.6	7.1	8.3	7.1
100.	*	9.2	7.6	8.0	6.9
110.	*	9.1	7.7	7.9	6.9
120.	*	8.8	7.6	7.8	6.9
130.	*	8.6	7.5	7.7	6.9
140.	*	8.7	7.4	7.8	6.9
150.	*	8.9	7.4	8.0	6.9
160.	*	9.0	7.5	8.1	6.9
170.	*	9.2	7.7	8.0	6.9
180.	*	8.5	8.5	7.2	7.3

190.	*	8.0	9.5	6.9	8.0
200.	*	8.1	9.8	6.9	8.2
210.	*	8.2	9.1	6.9	8.1
220.	*	8.1	8.7	6.9	8.2
230.	*	8.0	8.8	6.9	8.1
240.	*	7.9	9.1	6.9	8.3
250.	*	8.0	9.3	6.9	8.2
260.	*	7.8	9.2	6.9	8.2
270.	*	7.2	8.5	7.4	8.9
280.	*	6.9	8.1	8.3	9.9
290.	*	6.9	7.9	8.6	9.6
300.	*	6.9	7.9	8.7	8.9
310.	*	6.9	7.8	8.7	8.8
320.	*	6.9	8.0	8.5	8.7
330.	*	6.9	8.1	8.4	8.7
340.	*	6.9	8.3	8.3	9.2
350.	*	6.9	8.2	8.2	9.3
360.	*	7.2	7.3	8.8	8.3

MAX	*	9.2	9.8	9.8	9.9
DEGR.	*	100	200	20	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Plummer-Tampa Alt B Buildout Future PM

RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	20	280

1	*	0.0	0.7	0.0	0.4
2	*	0.4	0.2	0.7	0.0
3	*	0.0	0.4	0.0	0.5
4	*	0.4	0.0	0.5	0.0
5	*	0.0	0.5	0.2	0.3
6	*	0.6	0.0	0.3	0.0
7	*	0.0	0.0	0.5	1.1
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.5	0.5
10	*	0.3	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT30CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Tampa Alt C Buildout Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1659.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2061.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	393.2	*	59.	180. AG	214.	100.0	0.0	48.0	0.54	3.0
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1538.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1551.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	590.6	*	55.	360. AG	214.	100.0	0.0	48.0	0.50	2.8
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2045.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1419.	9.3	0.0	44.0		
9. EBQ	*	452.0	476.0	354.6	476.0	*	97.	270. AG	255.	100.0	0.0	48.0	0.80	4.9
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	631.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	842.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	574.6	518.0	*	27.	90. AG	255.	100.0	0.0	36.0	0.25	1.4

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PAGE 2

JOB: Plummer-Tampa Alt C Buildout Future PM RUN: 9

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
3. NBQ	*	60	26	3.0	1659	1600	45.96	3	3
6. SBQ	*	60	26	3.0	1538	1600	45.96	3	3
9. EBQ	*	60	31	3.0	2045	1600	45.96	3	3
12. WBQ	*	60	31	3.0	631	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Plummer-Tampa Alt C Buildout Future PM RUN: 9

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
0.	*	7.2	7.3	8.8	8.3
10.	*	8.1	6.9	9.8	7.4
20.	*	8.3	6.9	9.7	7.4
30.	*	8.1	6.9	9.1	7.4
40.	*	8.1	6.9	8.8	7.4
50.	*	8.1	6.9	8.5	7.5
60.	*	8.2	6.9	8.8	7.6
70.	*	8.3	6.9	8.7	7.7
80.	*	8.3	6.9	9.0	7.7
90.	*	8.6	7.1	8.3	7.1
100.	*	9.3	7.6	8.0	6.9
110.	*	9.1	7.6	7.9	6.9
120.	*	8.7	7.6	7.8	6.9
130.	*	8.7	7.4	7.7	6.9
140.	*	8.8	7.4	7.8	6.9
150.	*	8.9	7.4	7.9	6.9
160.	*	9.0	7.5	8.1	6.9
170.	*	9.2	7.7	8.0	6.9
180.	*	8.5	8.4	7.2	7.3

190.	*	8.0	9.5	6.9	8.0
200.	*	8.1	9.6	6.9	8.1
210.	*	8.2	9.1	6.9	8.1
220.	*	8.1	8.7	6.9	8.1
230.	*	7.9	8.8	6.9	8.1
240.	*	7.8	9.2	6.9	8.2
250.	*	8.0	9.3	6.9	8.2
260.	*	7.8	9.3	6.9	8.2
270.	*	7.2	8.4	7.3	8.9
280.	*	6.9	8.1	8.2	10.0
290.	*	6.9	7.9	8.4	9.6
300.	*	6.9	7.9	8.5	8.9
310.	*	6.9	7.8	8.6	8.6
320.	*	6.9	8.0	8.5	8.7
330.	*	6.9	8.1	8.5	8.7
340.	*	6.9	8.4	8.3	9.2
350.	*	6.9	8.2	8.3	9.2
360.	*	7.2	7.3	8.8	8.3
-----*					
MAX	*	9.3	9.6	9.8	10.0
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Plummer-Tampa Alt C Buildout Future PM RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.6	0.0	0.4
2	*	0.4	0.2	0.5	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.1
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.5
10	*	0.4	0.2	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT30DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Tampa Alt D Buildout Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1682.	9.3	0.0	68.0		
2. NBD	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	2117.	9.3	0.0	56.0		
3. NBQ	*	524.0	452.0	524.0	392.3	*	60.	180. AG	214.	100.0	0.0	48.0	0.54	3.0
4. SBA	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1492.	9.3	0.0	68.0		
5. SBD	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1532.	9.3	0.0	56.0		
6. SBQ	*	476.0	536.0	476.0	589.0	*	53.	360. AG	214.	100.0	0.0	48.0	0.48	2.7
7. EBA	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2105.	9.3	0.0	68.0		
8. EBD	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1446.	9.3	0.0	44.0		
9. EBQ	*	452.0	476.0	347.3	476.0	*	105.	270. AG	255.	100.0	0.0	48.0	0.82	5.3
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	609.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	793.	9.3	0.0	44.0		
12. WBQ	*	548.0	518.0	573.8	518.0	*	26.	90. AG	255.	100.0	0.0	36.0	0.24	1.3

1 PAGE 2

JOB: Plummer-Tampa Alt D Buildout Future PM RUN: 11
 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
3. NBQ	*	60	26	3.0	1682	1600	45.96	3	3
6. SBQ	*	60	26	3.0	1492	1600	45.96	3	3
9. EBQ	*	60	31	3.0	2105	1600	45.96	3	3
12. WBQ	*	60	31	3.0	609	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	432.0	556.0	5.4	*
2. NE	*	568.0	556.0	5.4	*
3. SW	*	432.0	432.0	5.4	*
4. SE	*	568.0	432.0	5.4	*

1 PAGE 3

JOB: Plummer-Tampa Alt D Buildout Future PM RUN: 11

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
0.	*	7.2	7.3	8.8	8.3
10.	*	8.0	6.9	9.7	7.4
20.	*	8.3	6.9	9.7	7.4
30.	*	8.2	6.9	9.2	7.4
40.	*	8.1	6.9	8.8	7.4
50.	*	8.0	6.9	8.6	7.5
60.	*	8.2	6.9	8.8	7.6
70.	*	8.3	6.9	8.7	7.7
80.	*	8.3	6.9	9.0	7.7
90.	*	8.6	7.1	8.3	7.1
100.	*	9.2	7.6	8.0	6.9
110.	*	9.1	7.6	7.9	6.9
120.	*	8.8	7.6	7.8	6.9
130.	*	8.6	7.5	7.7	6.9
140.	*	8.7	7.4	7.8	6.9
150.	*	8.9	7.4	7.9	6.9
160.	*	9.0	7.5	8.1	6.9
170.	*	9.2	7.7	8.0	6.9
180.	*	8.5	8.5	7.2	7.3

190.	*	8.0	9.5	6.9	8.0
200.	*	8.1	9.6	6.9	8.1
210.	*	8.2	9.1	6.9	8.1
220.	*	8.1	8.6	6.9	8.2
230.	*	7.9	8.8	6.9	8.1
240.	*	7.9	9.1	6.9	8.2
250.	*	8.0	9.3	6.9	8.2
260.	*	7.8	9.2	6.9	8.2
270.	*	7.2	8.4	7.4	8.9
280.	*	6.9	8.1	8.3	9.9
290.	*	6.9	7.9	8.6	9.5
300.	*	6.9	7.9	8.6	8.9
310.	*	6.9	7.8	8.6	8.7
320.	*	6.9	8.0	8.5	8.7
330.	*	6.9	8.1	8.5	8.7
340.	*	6.9	8.3	8.3	9.2
350.	*	6.9	8.2	8.2	9.2
360.	*	7.2	7.3	8.8	8.3
-----*					
MAX	*	9.2	9.6	9.7	9.9
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Plummer-Tampa Alt D Buildout Future PM RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.6	0.0	0.4
2	*	0.4	0.2	0.5	0.0
3	*	0.0	0.3	0.0	0.5
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.1
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.5
10	*	0.3	0.2	0.0	0.0
11	*	0.0	0.0	0.1	0.2
12	*	0.2	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT31XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Tampa Existing Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1897.	12.2	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1828.	12.2	0.0	56.0		
3. NBQ	*	530.0	440.0	530.0	382.0	*	58.	180. AG	379.	100.0	0.0	60.0	0.53	2.9
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1477.	12.2	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1521.	12.2	0.0	56.0		
6. SBQ	*	470.0	560.0	470.0	605.2	*	45.	360. AG	379.	100.0	0.0	60.0	0.41	2.3
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1762.	12.2	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1997.	12.2	0.0	44.0		
9. EBQ	*	440.0	470.0	384.2	470.0	*	56.	270. AG	393.	100.0	0.0	60.0	0.51	2.8
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1402.	12.2	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1192.	12.2	0.0	56.0		
12. WBQ	*	560.0	530.0	604.4	530.0	*	44.	90. AG	393.	100.0	0.0	60.0	0.40	2.3

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PAGE 2

JOB: Nordhoff-Tampa Existing Ambient PM RUN: 2

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
3. NBQ	*	60	28	3.0	1897	1600	60.55	3	3
6. SBQ	*	60	28	3.0	1477	1600	60.55	3	3
9. EBQ	*	60	29	3.0	1762	1600	60.55	3	3
12. WBQ	*	60	29	3.0	1402	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Tampa Existing Ambient PM RUN: 2

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
0.	*	9.1	9.0	11.2	10.6
10.	*	9.9	8.7	12.1	10.1
20.	*	10.2	8.7	12.1	9.7
30.	*	10.0	8.7	11.3	9.8
40.	*	9.9	8.7	11.2	9.8
50.	*	10.0	8.7	11.4	9.9
60.	*	10.1	8.7	11.5	10.0
70.	*	10.4	8.7	11.6	10.2
80.	*	10.6	8.7	11.7	9.9
90.	*	11.1	9.0	10.6	9.0
100.	*	12.1	9.8	10.2	8.7
110.	*	12.0	10.2	10.0	8.7
120.	*	11.2	10.0	9.8	8.7
130.	*	11.1	9.9	9.8	8.7
140.	*	11.1	9.9	9.8	8.7
150.	*	11.3	10.1	10.0	8.7
160.	*	11.4	10.3	10.2	8.7
170.	*	11.5	10.5	9.7	8.7
180.	*	10.6	11.3	9.0	9.2

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190. * 10.1 12.3 8.7 10.1
200. * 9.8 12.0 8.7 10.4
210. * 9.7 11.5 8.7 10.3
220. * 9.6 11.3 8.7 10.2
230. * 9.7 11.2 8.7 10.3
240. * 9.9 11.4 8.7 10.4
250. * 10.0 11.3 8.7 10.7
260. * 9.6 11.4 8.7 10.6
270. * 8.9 10.5 9.1 11.2
280. * 8.7 10.1 9.9 12.3
290. * 8.7 9.8 10.2 11.9
300. * 8.7 9.7 10.1 11.4
310. * 8.7 9.8 10.0 11.2
320. * 8.7 9.9 10.2 11.4
330. * 8.7 10.1 10.4 11.6
340. * 8.7 10.2 10.6 11.5
350. * 8.7 9.9 10.6 11.7
360. * 9.1 9.0 11.2 10.6
-----*
MAX * 12.1 12.3 12.1 12.3
DEGR. * 100 190 10 280

```

THE HIGHEST CONCENTRATION IS 12.30 PPM AT 190 DEGREES FROM REC2 .

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PAGE 4

JOB: Nordhoff-Tampa Existing Ambient PM

RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 190 10 280
-----*
1 * 0.0 1.2 0.0 0.6
2 * 0.4 0.0 0.4 0.0
3 * 0.0 0.4 0.0 0.9
4 * 0.5 0.0 0.9 0.0
5 * 0.0 0.3 0.0 0.3
6 * 0.9 0.0 0.3 0.0
7 * 0.0 0.0 0.6 1.1
8 * 0.4 0.4 0.0 0.0
9 * 0.0 0.0 0.9 0.4
10 * 0.9 0.4 0.0 0.0
11 * 0.0 0.0 0.3 0.3
12 * 0.3 0.9 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT31FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Tampa Future Pre-Project PM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1912.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1915.	9.3	0.0	56.0		
3. NBQ	*	530.0	440.0	530.0	381.5	*	58.	180. AG	288.	100.0	0.0	60.0	0.53	3.0
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1501.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1588.	9.3	0.0	56.0		
6. SBQ	*	470.0	560.0	470.0	606.0	*	46.	360. AG	288.	100.0	0.0	60.0	0.42	2.3
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1944.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2052.	9.3	0.0	44.0		
9. EBQ	*	440.0	470.0	378.5	470.0	*	62.	270. AG	298.	100.0	0.0	60.0	0.56	3.1
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1415.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1217.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	604.9	530.0	*	45.	90. AG	298.	100.0	0.0	60.0	0.41	2.3

1

PAGE 2

JOB: Nordhoff-Tampa Future Pre-Project PM RUN: 3

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
3. NBQ	*	60	28	3.0	1912	1600	45.96	3	3
6. SBQ	*	60	28	3.0	1501	1600	45.96	3	3
9. EBQ	*	60	29	3.0	1944	1600	45.96	3	3
12. WBQ	*	60	29	3.0	1415	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Tampa Future Pre-Project PM RUN: 3

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
0.	*	7.2	7.1	8.9	8.5
10.	*	7.8	6.9	9.5	8.0
20.	*	8.0	6.9	9.5	7.8
30.	*	8.0	6.9	9.0	7.7
40.	*	7.9	6.9	8.8	7.8
50.	*	7.9	6.9	8.8	7.8
60.	*	8.0	6.9	9.0	7.9
70.	*	8.2	6.9	9.2	8.0
80.	*	8.3	6.9	9.4	7.8
90.	*	8.8	7.2	8.4	7.1
100.	*	9.5	7.8	8.1	6.9
110.	*	9.5	8.1	8.0	6.9
120.	*	8.9	7.9	7.8	6.9
130.	*	8.6	7.8	7.8	6.9
140.	*	8.8	7.9	7.8	6.9
150.	*	9.0	8.0	8.0	6.9
160.	*	9.0	8.1	8.1	6.9
170.	*	9.0	8.3	7.8	6.9
180.	*	8.3	9.0	7.1	7.3

190.	*	8.0	9.7	6.9	7.9
200.	*	7.9	9.5	6.9	8.2
210.	*	7.7	9.1	6.9	8.1
220.	*	7.7	8.7	6.9	8.1
230.	*	7.7	8.7	6.9	8.1
240.	*	7.8	9.0	6.9	8.3
250.	*	7.9	9.1	6.9	8.5
260.	*	7.6	8.9	6.9	8.5
270.	*	7.1	8.4	7.3	9.1
280.	*	6.9	8.0	8.0	9.8
290.	*	6.9	7.8	8.1	9.6
300.	*	6.9	7.7	8.1	8.9
310.	*	6.9	7.8	8.1	8.7
320.	*	6.9	7.8	8.2	9.0
330.	*	6.9	8.0	8.3	9.1
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	7.8	8.4	9.3
360.	*	7.2	7.1	8.9	8.5
-----*					
MAX	*	9.5	9.7	9.5	9.8
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.78 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Tampa Future Pre-Project PM

RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.5
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.7
4	*	0.4	0.0	0.7	0.0
5	*	0.0	0.3	0.0	0.3
6	*	0.7	0.0	0.2	0.0
7	*	0.0	0.0	0.5	0.9
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.7	0.3	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT31AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Tampa Alt A Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1954.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1930.	9.3	0.0	56.0		
3. NBQ	*	530.0	440.0	530.0	378.2	*	62.	180. AG	298.	100.0	0.0	60.0	0.56	3.1
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1527.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1612.	9.3	0.0	56.0		
6. SBQ	*	470.0	560.0	470.0	608.4	*	48.	360. AG	298.	100.0	0.0	60.0	0.44	2.5
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	2019.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2088.	9.3	0.0	44.0		
9. EBQ	*	440.0	470.0	378.3	470.0	*	62.	270. AG	288.	100.0	0.0	60.0	0.56	3.1
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1477.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1347.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	605.2	530.0	*	45.	90. AG	288.	100.0	0.0	60.0	0.41	2.3

1 PAGE 2

JOB: Nordhoff-Tampa Alt A Krausz Future PM RUN: 4

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
3. NBQ	*	60	29	3.0	1954	1600	45.96	3	3
6. SBQ	*	60	29	3.0	1527	1600	45.96	3	3
9. EBQ	*	60	28	3.0	2019	1600	45.96	3	3
12. WBQ	*	60	28	3.0	1477	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1 PAGE 3

JOB: Nordhoff-Tampa Alt A Krausz Future PM RUN: 4

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
0.	*	7.2	7.1	8.9	8.6
10.	*	7.9	6.9	9.5	8.0
20.	*	8.0	6.9	9.4	7.8
30.	*	8.0	6.9	9.1	7.8
40.	*	7.9	6.9	8.8	7.8
50.	*	8.0	6.9	8.9	7.8
60.	*	8.0	6.9	9.1	8.0
70.	*	8.4	6.9	9.2	8.2
80.	*	8.4	6.9	9.4	7.8
90.	*	8.9	7.2	8.4	7.1
100.	*	9.5	7.8	8.1	6.9
110.	*	9.5	8.1	8.0	6.9
120.	*	9.0	8.0	7.8	6.9
130.	*	8.7	7.9	7.8	6.9
140.	*	8.9	7.9	7.8	6.9
150.	*	9.1	7.9	8.0	6.9
160.	*	9.3	8.2	8.1	6.9
170.	*	9.0	8.3	7.8	6.9
180.	*	8.4	9.0	7.1	7.3

190.	*	8.0	9.8	6.9	8.0
200.	*	7.9	9.8	6.9	8.2
210.	*	7.8	9.1	6.9	8.2
220.	*	7.7	8.7	6.9	8.1
230.	*	7.7	8.8	6.9	8.3
240.	*	7.9	9.1	6.9	8.4
250.	*	8.0	9.2	6.9	8.5
260.	*	7.7	9.1	6.9	8.5
270.	*	7.1	8.5	7.3	9.1
280.	*	6.9	8.1	8.0	9.9
290.	*	6.9	7.8	8.2	9.7
300.	*	6.9	7.7	8.2	9.0
310.	*	6.9	7.8	8.1	8.8
320.	*	6.9	7.8	8.2	9.0
330.	*	6.9	8.0	8.3	9.2
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	7.8	8.3	9.4
360.	*	7.2	7.1	8.9	8.6

MAX	*	9.5	9.8	9.5	9.9
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Tampa Alt A Krausz Future PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	10	280

1	*	0.0	0.9	0.0	0.5
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.7
4	*	0.4	0.0	0.7	0.0
5	*	0.0	0.3	0.0	0.3
6	*	0.7	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.0
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.7	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT31BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Tampa Alt B Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1926.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1947.	9.3	0.0	56.0		
3. NBQ	*	530.0	440.0	530.0	379.0	*	61.	180. AG	298.	100.0	0.0	60.0	0.56	3.1
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1509.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1640.	9.3	0.0	56.0		
6. SBQ	*	470.0	560.0	470.0	607.7	*	48.	360. AG	298.	100.0	0.0	60.0	0.43	2.4
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	2106.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2130.	9.3	0.0	44.0		
9. EBQ	*	440.0	470.0	375.6	470.0	*	64.	270. AG	288.	100.0	0.0	60.0	0.59	3.3
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1435.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1259.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	604.0	530.0	*	44.	90. AG	288.	100.0	0.0	60.0	0.40	2.2

1 PAGE 2

JOB: Nordhoff-Tampa Alt B Krausz Future PM RUN: 6

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
3. NBQ	*	60	29	3.0	1926	1600	45.96	3	3
6. SBQ	*	60	29	3.0	1509	1600	45.96	3	3
9. EBQ	*	60	28	3.0	2106	1600	45.96	3	3
12. WBQ	*	60	28	3.0	1435	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1 PAGE 3

JOB: Nordhoff-Tampa Alt B Krausz Future PM RUN: 6

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
0.	*	7.2	7.1	8.9	8.6
10.	*	7.8	6.9	9.5	7.9
20.	*	8.1	6.9	9.4	7.8
30.	*	8.0	6.9	9.1	7.8
40.	*	7.9	6.9	8.8	7.8
50.	*	7.9	6.9	8.9	7.8
60.	*	8.0	6.9	9.1	8.0
70.	*	8.4	6.9	9.3	8.1
80.	*	8.4	6.9	9.4	7.9
90.	*	8.7	7.2	8.5	7.1
100.	*	9.5	7.8	8.1	6.9
110.	*	9.6	8.1	8.0	6.9
120.	*	9.0	7.9	7.8	6.9
130.	*	8.6	7.9	7.8	6.9
140.	*	8.9	7.9	7.8	6.9
150.	*	9.0	8.0	8.0	6.9
160.	*	9.1	8.2	8.1	6.9
170.	*	9.1	8.3	7.8	6.9
180.	*	8.4	9.0	7.1	7.3

190.	*	8.1	9.8	6.9	8.0
200.	*	7.9	9.7	6.9	8.2
210.	*	7.7	9.1	6.9	8.2
220.	*	7.7	8.7	6.9	8.2
230.	*	7.8	8.8	6.9	8.3
240.	*	7.9	9.0	6.9	8.4
250.	*	7.9	9.1	6.9	8.5
260.	*	7.6	9.1	6.9	8.5
270.	*	7.1	8.4	7.3	9.1
280.	*	6.9	8.1	8.0	9.9
290.	*	6.9	7.8	8.3	9.7
300.	*	6.9	7.7	8.2	9.0
310.	*	6.9	7.8	8.2	8.7
320.	*	6.9	7.8	8.2	9.0
330.	*	6.9	8.0	8.3	9.2
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	7.8	8.3	9.3
360.	*	7.2	7.1	8.9	8.6
-----*					
MAX	*	9.6	9.8	9.5	9.9
DEGR.	*	110	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Tampa Alt B Krausz Future PM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	110	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.5
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.7
4	*	0.4	0.0	0.7	0.0
5	*	0.0	0.3	0.0	0.3
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.0
8	*	0.6	0.4	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.5	0.3	0.0	0.0
11	*	0.1	0.0	0.2	0.2
12	*	0.3	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT31CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Tampa Alt C Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1953.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1927.	9.3	0.0	56.0		
3. NBQ	*	530.0	440.0	530.0	378.2	*	62.	180. AG	298.	100.0	0.0	60.0	0.56	3.1
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1527.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1607.	9.3	0.0	56.0		
6. SBQ	*	470.0	560.0	470.0	608.4	*	48.	360. AG	298.	100.0	0.0	60.0	0.44	2.5
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	2004.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2081.	9.3	0.0	44.0		
9. EBQ	*	440.0	470.0	376.6	470.0	*	63.	270. AG	298.	100.0	0.0	60.0	0.58	3.2
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1476.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1345.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	606.8	530.0	*	47.	90. AG	298.	100.0	0.0	60.0	0.43	2.4

1 PAGE 2

JOB: Nordhoff-Tampa Alt C Krausz Future PM RUN: 8

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
3. NBQ	*	60	29	3.0	1953	1600	45.96	3	3
6. SBQ	*	60	29	3.0	1527	1600	45.96	3	3
9. EBQ	*	60	29	3.0	2004	1600	45.96	3	3
12. WBQ	*	60	29	3.0	1476	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1 PAGE 3

JOB: Nordhoff-Tampa Alt C Krausz Future PM RUN: 8

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
0.	*	7.2	7.1	8.9	8.6
10.	*	7.9	6.9	9.5	8.1
20.	*	8.0	6.9	9.5	7.8
30.	*	8.0	6.9	9.1	7.8
40.	*	7.9	6.9	8.8	7.8
50.	*	8.0	6.9	8.9	7.8
60.	*	8.0	6.9	9.1	8.0
70.	*	8.4	6.9	9.2	8.2
80.	*	8.4	6.9	9.4	7.8
90.	*	8.9	7.2	8.4	7.1
100.	*	9.5	7.8	8.1	6.9
110.	*	9.5	8.1	8.0	6.9
120.	*	9.0	8.0	7.8	6.9
130.	*	8.7	7.9	7.8	6.9
140.	*	8.9	7.9	7.8	6.9
150.	*	9.1	8.0	8.0	6.9
160.	*	9.3	8.2	8.1	6.9
170.	*	9.0	8.4	7.8	6.9
180.	*	8.4	9.0	7.1	7.3

190.	*	8.0	9.8	6.9	8.0
200.	*	7.9	9.8	6.9	8.2
210.	*	7.8	9.1	6.9	8.2
220.	*	7.7	8.7	6.9	8.1
230.	*	7.7	8.8	6.9	8.3
240.	*	7.9	9.1	6.9	8.4
250.	*	8.0	9.2	6.9	8.5
260.	*	7.7	9.1	6.9	8.5
270.	*	7.1	8.5	7.3	9.1
280.	*	6.9	8.1	8.0	9.9
290.	*	6.9	7.8	8.2	9.7
300.	*	6.9	7.7	8.2	9.0
310.	*	6.9	7.8	8.1	8.8
320.	*	6.9	7.8	8.2	9.0
330.	*	6.9	8.0	8.3	9.1
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	7.8	8.4	9.4
360.	*	7.2	7.1	8.9	8.6

MAX	*	9.5	9.8	9.5	9.9
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Tampa Alt C Krausz Future PM

RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	10	280

1	*	0.0	0.9	0.0	0.5
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.7
4	*	0.4	0.0	0.7	0.0
5	*	0.0	0.3	0.0	0.3
6	*	0.7	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.0
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.7	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT31DKP.DAT

RUN BEGIN ON 08/22/02 AT 16:50

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Tampa Alt D Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1929.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1939.	9.3	0.0	56.0		
3. NBQ	*	530.0	440.0	530.0	379.0	*	61.	180. AG	298.	100.0	0.0	60.0	0.56	3.1
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1512.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1626.	9.3	0.0	56.0		
6. SBQ	*	470.0	560.0	470.0	607.9	*	48.	360. AG	298.	100.0	0.0	60.0	0.44	2.4
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	2063.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2109.	9.3	0.0	44.0		
9. EBQ	*	440.0	470.0	376.9	470.0	*	63.	270. AG	288.	100.0	0.0	60.0	0.57	3.2
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1441.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1271.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	604.1	530.0	*	44.	90. AG	288.	100.0	0.0	60.0	0.40	2.2

1

PAGE 2

JOB: Nordhoff-Tampa Alt D Krausz Future PM RUN: 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
6. SBQ	*	60	29	3.0	1512	1600	45.96	3	3
9. EBQ	*	60	28	3.0	2063	1600	45.96	3	3
12. WBQ	*	60	28	3.0	1441	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Tampa Alt D Krausz Future PM RUN: 10

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
0.	* 7.2	7.1	8.9	8.6
10.	* 7.9	6.9	9.5	7.9
20.	* 8.1	6.9	9.4	7.8
30.	* 8.0	6.9	9.1	7.8
40.	* 7.9	6.9	8.8	7.8
50.	* 7.9	6.9	8.9	7.8
60.	* 8.0	6.9	9.1	8.0
70.	* 8.4	6.9	9.2	8.1
80.	* 8.4	6.9	9.4	7.8
90.	* 8.7	7.2	8.5	7.1
100.	* 9.5	7.8	8.1	6.9
110.	* 9.6	8.1	8.0	6.9
120.	* 9.0	7.9	7.8	6.9
130.	* 8.6	7.9	7.8	6.9
140.	* 8.9	7.9	7.8	6.9
150.	* 9.0	8.0	8.0	6.9
160.	* 9.1	8.3	8.1	6.9
170.	* 9.1	8.3	7.8	6.9
180.	* 8.4	9.0	7.1	7.3

190.	*	8.1	9.7	6.9	8.0
200.	*	7.9	9.8	6.9	8.2
210.	*	7.7	9.1	6.9	8.2
220.	*	7.7	8.7	6.9	8.1
230.	*	7.8	8.8	6.9	8.3
240.	*	7.9	9.0	6.9	8.4
250.	*	7.9	9.1	6.9	8.5
260.	*	7.6	9.1	6.9	8.5
270.	*	7.1	8.4	7.3	9.1
280.	*	6.9	8.1	8.0	9.9
290.	*	6.9	7.8	8.2	9.6
300.	*	6.9	7.7	8.2	9.0
310.	*	6.9	7.8	8.2	8.7
320.	*	6.9	7.8	8.2	9.0
330.	*	6.9	8.0	8.3	9.2
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	7.8	8.3	9.3
360.	*	7.2	7.1	8.9	8.6

MAX	*	9.6	9.8	9.5	9.9
DEGR.	*	110	200	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Tampa Alt D Krausz Future PM

RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		110	200	10	280

1	*	0.0	0.6	0.0	0.5
2	*	0.3	0.2	0.3	0.0
3	*	0.0	0.4	0.0	0.7
4	*	0.4	0.0	0.7	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.0
8	*	0.6	0.4	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.5	0.4	0.0	0.0
11	*	0.1	0.0	0.2	0.2
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/22/02 AT 16:50

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT31ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Tampa Alt A Buildout Future PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1964.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1932.	9.3	0.0	56.0		
3. NBQ	*	530.0	440.0	530.0	377.9	*	62.	180. AG	298.	100.0	0.0	60.0	0.57	3.2
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1534.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1616.	9.3	0.0	56.0		
6. SBQ	*	470.0	560.0	470.0	608.5	*	49.	360. AG	298.	100.0	0.0	60.0	0.44	2.5
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	2031.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2094.	9.3	0.0	44.0		
9. EBQ	*	440.0	470.0	377.9	470.0	*	62.	270. AG	288.	100.0	0.0	60.0	0.56	3.2
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1493.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1380.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	605.6	530.0	*	46.	90. AG	288.	100.0	0.0	60.0	0.41	2.3

1

PAGE 2

JOB: Nordhoff-Tampa Alt A Buildout Future PM RUN: 5

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
3. NBQ	*	60	29	3.0	1964	1600	45.96	3	3
6. SBQ	*	60	29	3.0	1534	1600	45.96	3	3
9. EBQ	*	60	28	3.0	2031	1600	45.96	3	3
12. WBQ	*	60	28	3.0	1493	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Tampa Alt A Buildout Future PM RUN: 5

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 REC1	REC2	REC3	REC4
0.	*	7.2	7.1	8.9	8.6
10.	*	7.9	6.9	9.5	8.1
20.	*	8.0	6.9	9.4	7.8
30.	*	8.0	6.9	9.1	7.8
40.	*	7.9	6.9	8.8	7.8
50.	*	8.0	6.9	8.9	7.8
60.	*	8.0	6.9	9.1	8.0
70.	*	8.4	6.9	9.2	8.2
80.	*	8.4	6.9	9.4	7.8
90.	*	8.9	7.2	8.5	7.1
100.	*	9.5	7.8	8.1	6.9
110.	*	9.6	8.1	8.0	6.9
120.	*	9.1	8.0	7.8	6.9
130.	*	8.7	7.9	7.8	6.9
140.	*	8.9	7.9	7.8	6.9
150.	*	9.1	8.0	8.0	6.9
160.	*	9.3	8.2	8.1	6.9
170.	*	9.0	8.3	7.8	6.9
180.	*	8.4	9.0	7.1	7.3

190.	*	8.0	9.8	6.9	8.0
200.	*	7.9	9.8	6.9	8.2
210.	*	7.8	9.1	6.9	8.2
220.	*	7.7	8.7	6.9	8.1
230.	*	7.7	8.9	6.9	8.3
240.	*	7.9	9.1	6.9	8.4
250.	*	8.0	9.2	6.9	8.5
260.	*	7.7	9.2	6.9	8.5
270.	*	7.1	8.5	7.3	9.1
280.	*	6.9	8.1	8.0	9.9
290.	*	6.9	7.8	8.2	9.7
300.	*	6.9	7.7	8.2	9.0
310.	*	6.9	7.8	8.1	8.8
320.	*	6.9	7.8	8.3	9.0
330.	*	6.9	8.0	8.3	9.2
340.	*	6.9	8.1	8.5	9.3
350.	*	6.9	7.8	8.3	9.4
360.	*	7.2	7.1	8.9	8.6
-----*					
MAX	*	9.6	9.8	9.5	9.9
DEGR.	*	110	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Tampa Alt A Buildout Future PM RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	110	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.5
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.7
4	*	0.4	0.0	0.7	0.0
5	*	0.0	0.3	0.0	0.3
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.0
8	*	0.6	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.5	0.4	0.0	0.0
11	*	0.1	0.0	0.2	0.2
12	*	0.3	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT31BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Tampa Alt B Buildout Future PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1930.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1966.	9.3	0.0	56.0		
3. NBQ	*	530.0	440.0	530.0	378.8	*	61.	180. AG	298.	100.0	0.0	60.0	0.56	3.1
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1512.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1670.	9.3	0.0	56.0		
6. SBQ	*	470.0	560.0	470.0	607.9	*	48.	360. AG	298.	100.0	0.0	60.0	0.44	2.4
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	2200.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2175.	9.3	0.0	44.0		
9. EBQ	*	440.0	470.0	372.6	470.0	*	67.	270. AG	288.	100.0	0.0	60.0	0.61	3.4
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1442.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1273.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	604.1	530.0	*	44.	90. AG	288.	100.0	0.0	60.0	0.40	2.2

1

PAGE 2

JOB: Nordhoff-Tampa Alt B Buildout Future PM RUN: 7

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
3. NBQ	*	60	29	3.0	1930	1600	45.96	3	3
6. SBQ	*	60	29	3.0	1512	1600	45.96	3	3
9. EBQ	*	60	28	3.0	2200	1600	45.96	3	3
12. WBQ	*	60	28	3.0	1442	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Tampa Alt B Buildout Future PM RUN: 7

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
0.	*	7.2	7.1	9.0	8.6
10.	*	7.9	6.9	9.5	7.9
20.	*	8.1	6.9	9.4	7.8
30.	*	8.0	6.9	9.2	7.8
40.	*	7.9	6.9	8.9	7.8
50.	*	7.9	6.9	8.9	7.8
60.	*	8.0	6.9	9.1	8.0
70.	*	8.4	6.9	9.4	8.1
80.	*	8.4	6.9	9.4	7.9
90.	*	8.7	7.2	8.5	7.1
100.	*	9.5	7.8	8.1	6.9
110.	*	9.6	8.1	8.0	6.9
120.	*	9.0	7.9	7.8	6.9
130.	*	8.6	7.9	7.8	6.9
140.	*	8.9	7.9	7.8	6.9
150.	*	9.0	8.0	8.0	6.9
160.	*	9.1	8.3	8.1	6.9
170.	*	9.1	8.3	7.8	6.9
180.	*	8.4	9.1	7.1	7.3

190.	*	8.1	9.8	6.9	8.0
200.	*	8.0	9.9	6.9	8.2
210.	*	7.7	9.1	6.9	8.2
220.	*	7.7	8.7	6.9	8.2
230.	*	7.8	8.9	6.9	8.3
240.	*	7.9	9.0	6.9	8.4
250.	*	7.9	9.1	6.9	8.5
260.	*	7.6	9.1	6.9	8.5
270.	*	7.1	8.4	7.3	9.1
280.	*	6.9	8.1	8.1	9.9
290.	*	6.9	7.8	8.3	9.7
300.	*	6.9	7.7	8.2	9.0
310.	*	6.9	7.8	8.3	8.7
320.	*	6.9	7.8	8.3	9.0
330.	*	6.9	8.0	8.4	9.2
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	7.8	8.3	9.3
360.	*	7.2	7.1	9.0	8.6
-----*					
MAX	*	9.6	9.9	9.5	9.9
DEGR.	*	110	200	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 200 DEGREES FROM REC2 .

1

PAGE 4

JOB: Nordhoff-Tampa Alt B Buildout Future PM RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	110	200	10	280
-----*					
1	*	0.0	0.6	0.0	0.5
2	*	0.3	0.2	0.3	0.0
3	*	0.0	0.4	0.0	0.7
4	*	0.4	0.0	0.7	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.0
8	*	0.6	0.4	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.5	0.4	0.0	0.0
11	*	0.1	0.0	0.2	0.2
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT31CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:28

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Tampa Alt C Buildout Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1963.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1928.	9.3	0.0	56.0		
3. NBQ	*	530.0	440.0	530.0	377.9	*	62.	180. AG	298.	100.0	0.0	60.0	0.57	3.2
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1533.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1609.	9.3	0.0	56.0		
6. SBQ	*	470.0	560.0	470.0	608.5	*	49.	360. AG	298.	100.0	0.0	60.0	0.44	2.5
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	2009.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2083.	9.3	0.0	44.0		
9. EBQ	*	440.0	470.0	378.6	470.0	*	61.	270. AG	288.	100.0	0.0	60.0	0.56	3.1
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1492.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1377.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	605.6	530.0	*	46.	90. AG	288.	100.0	0.0	60.0	0.41	2.3

1

PAGE 2

JOB: Nordhoff-Tampa Alt C Buildout Future PM RUN: 9

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
3. NBQ	*	60	29	3.0	1963	1600	45.96	3	3
6. SBQ	*	60	29	3.0	1533	1600	45.96	3	3
9. EBQ	*	60	28	3.0	2009	1600	45.96	3	3
12. WBQ	*	60	28	3.0	1492	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Tampa Alt C Buildout Future PM RUN: 9

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	REC1	REC2	REC3	REC4
0.	*	7.2	7.1	8.9	8.6	
10.	*	7.9	6.9	9.5	8.1	
20.	*	8.0	6.9	9.5	7.8	
30.	*	8.0	6.9	9.1	7.8	
40.	*	7.9	6.9	8.8	7.8	
50.	*	8.0	6.9	8.9	7.8	
60.	*	8.0	6.9	9.1	8.0	
70.	*	8.4	6.9	9.2	8.2	
80.	*	8.4	6.9	9.4	7.8	
90.	*	8.9	7.2	8.4	7.1	
100.	*	9.5	7.8	8.1	6.9	
110.	*	9.5	8.1	8.0	6.9	
120.	*	9.1	8.0	7.8	6.9	
130.	*	8.7	7.9	7.8	6.9	
140.	*	8.9	7.9	7.8	6.9	
150.	*	9.1	8.0	8.0	6.9	
160.	*	9.3	8.2	8.1	6.9	
170.	*	9.0	8.3	7.8	6.9	
180.	*	8.4	9.0	7.1	7.3	

190.	*	8.0	9.8	6.9	8.0
200.	*	7.9	9.8	6.9	8.2
210.	*	7.8	9.1	6.9	8.2
220.	*	7.7	8.7	6.9	8.1
230.	*	7.7	8.9	6.9	8.3
240.	*	7.9	9.1	6.9	8.4
250.	*	8.0	9.2	6.9	8.5
260.	*	7.7	9.2	6.9	8.5
270.	*	7.1	8.5	7.3	9.1
280.	*	6.9	8.1	8.0	9.9
290.	*	6.9	7.8	8.2	9.6
300.	*	6.9	7.7	8.2	9.0
310.	*	6.9	7.8	8.1	8.8
320.	*	6.9	7.8	8.3	9.0
330.	*	6.9	8.0	8.3	9.1
340.	*	6.9	8.1	8.5	9.3
350.	*	6.9	7.8	8.3	9.4
360.	*	7.2	7.1	8.9	8.6

MAX	*	9.5	9.8	9.5	9.9
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Tampa Alt C Buildout Future PM RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	10	280

1	*	0.0	0.9	0.0	0.5
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.7
4	*	0.4	0.0	0.7	0.0
5	*	0.0	0.3	0.0	0.3
6	*	0.7	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.0
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.7	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.2
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:28

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT31DBP.DAT

RUN BEGIN ON 08/22/02 AT 16:50

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Tampa Alt D Buildout Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1933.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1951.	9.3	0.0	56.0		
3. NBQ	*	530.0	440.0	530.0	378.8	*	61.	180. AG	298.	100.0	0.0	60.0	0.56	3.1
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1514.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1646.	9.3	0.0	56.0		
6. SBQ	*	470.0	560.0	470.0	607.9	*	48.	360. AG	298.	100.0	0.0	60.0	0.44	2.4
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	2125.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2139.	9.3	0.0	44.0		
9. EBQ	*	440.0	470.0	374.9	470.0	*	65.	270. AG	288.	100.0	0.0	60.0	0.59	3.3
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1447.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1283.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	604.3	530.0	*	44.	90. AG	288.	100.0	0.0	60.0	0.40	2.2

1

PAGE 2

JOB: Nordhoff-Tampa Alt D Buildout Future PM RUN: 11

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
6. SBQ	*	60	29	3.0	1514	1600	45.96	3	3
9. EBQ	*	60	28	3.0	2125	1600	45.96	3	3
12. WBQ	*	60	28	3.0	1447	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Tampa Alt D Buildout Future PM RUN: 11

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
0.	7.2	7.1	8.9	8.6
10.	7.9	6.9	9.5	7.9
20.	8.1	6.9	9.4	7.8
30.	8.0	6.9	9.1	7.8
40.	7.9	6.9	8.9	7.8
50.	7.9	6.9	8.9	7.8
60.	8.0	6.9	9.1	8.0
70.	8.4	6.9	9.3	8.1
80.	8.4	6.9	9.4	7.9
90.	8.7	7.2	8.5	7.1
100.	9.5	7.8	8.1	6.9
110.	9.6	8.1	8.0	6.9
120.	9.0	7.9	7.8	6.9
130.	8.6	7.9	7.8	6.9
140.	8.9	7.9	7.8	6.9
150.	9.0	8.0	8.0	6.9
160.	9.1	8.3	8.1	6.9
170.	9.1	8.3	7.8	6.9
180.	8.4	9.1	7.1	7.3

190.	*	8.1	9.8	6.9	8.0
200.	*	7.9	9.8	6.9	8.2
210.	*	7.7	9.1	6.9	8.2
220.	*	7.7	8.7	6.9	8.2
230.	*	7.8	8.9	6.9	8.3
240.	*	7.9	9.0	6.9	8.4
250.	*	8.0	9.1	6.9	8.5
260.	*	7.6	9.1	6.9	8.5
270.	*	7.1	8.4	7.3	9.1
280.	*	6.9	8.1	8.1	9.9
290.	*	6.9	7.8	8.3	9.8
300.	*	6.9	7.7	8.2	9.0
310.	*	6.9	7.8	8.3	8.7
320.	*	6.9	7.8	8.2	9.0
330.	*	6.9	8.0	8.4	9.2
340.	*	6.9	8.1	8.4	9.3
350.	*	6.9	7.8	8.3	9.3
360.	*	7.2	7.1	8.9	8.6
-----*					
MAX	*	9.6	9.8	9.5	9.9
DEGR.	*	110	190	10	280

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Nordhoff-Tampa Alt D Buildout Future PM

RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	110	190	10	280
-----*					
1	*	0.0	0.9	0.0	0.5
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.7
4	*	0.4	0.0	0.7	0.0
5	*	0.0	0.3	0.0	0.3
6	*	0.5	0.0	0.2	0.0
7	*	0.0	0.0	0.5	1.0
8	*	0.6	0.4	0.0	0.0
9	*	0.0	0.0	0.7	0.3
10	*	0.5	0.3	0.0	0.0
11	*	0.1	0.0	0.2	0.2
12	*	0.3	0.7	0.0	0.0

RUN ENDED ON 08/22/02 AT 16:50

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rotaex.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Tampa Existing

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1182.	12.2	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1235.	12.2	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	406.8	*	45.	180. AG	303.	100.0	0.0	48.0	0.41	2.3
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1544.	12.2	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1584.	12.2	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	607.1	*	59.	360. AG	303.	100.0	0.0	48.0	0.54	3.0
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1292.	12.2	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1294.	12.2	0.0	56.0		
9. ebq	*	452.0	476.0	400.8	476.0	*	51.	270. AG	314.	100.0	0.0	48.0	0.47	2.6
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1354.	12.2	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1259.	12.2	0.0	44.0		
12. wbq	*	548.0	524.0	601.6	524.0	*	54.	90. AG	314.	100.0	0.0	48.0	0.49	2.7

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Tampa Existing

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
3. nbq	*	60	28	3.0	1182	1600	60.55	3	3
6. sbq	*	60	28	3.0	1544	1600	60.55	3	3
9. ebq	*	60	29	3.0	1292	1600	60.55	3	3
12. wbq	*	60	29	3.0	1354	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Tampa Existing

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
0.	*	9.1	8.9	10.9	10.4
10.	*	10.0	8.7	12.1	10.0
20.	*	10.1	8.7	11.7	9.8
30.	*	10.1	8.7	11.2	9.7
40.	*	10.2	8.7	10.9	9.6
50.	*	10.2	8.7	11.0	9.7
60.	*	10.4	8.7	11.3	9.9
70.	*	10.3	8.7	11.2	10.0
80.	*	10.3	8.7	11.3	9.8
90.	*	11.0	9.1	10.6	9.0
100.	*	11.9	10.0	10.0	8.7
110.	*	11.7	10.1	9.7	8.7
120.	*	11.0	9.9	9.6	8.7
130.	*	10.7	10.0	9.6	8.7
140.	*	11.0	10.0	9.8	8.7
150.	*	11.1	10.2	9.9	8.7
160.	*	11.2	10.3	10.1	8.7
170.	*	11.5	10.2	9.9	8.7
180.	*	10.5	11.0	9.0	9.0

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190. * 9.9 11.8 8.7 9.9
200. * 9.7 11.7 8.7 10.1
210. * 9.7 11.2 8.7 9.8
220. * 9.5 10.8 8.7 9.8
230. * 9.6 10.9 8.7 9.9
240. * 9.8 11.0 8.7 10.0
250. * 9.9 11.1 8.7 10.2
260. * 9.8 11.3 8.7 10.3
270. * 9.0 10.5 9.1 10.9
280. * 8.7 10.1 9.8 11.9
290. * 8.7 9.9 10.1 11.8
300. * 8.7 9.7 9.9 11.0
310. * 8.7 9.6 9.9 10.5
320. * 8.7 9.7 9.9 11.0
330. * 8.7 9.8 10.1 11.1
340. * 8.7 10.0 10.2 11.0
350. * 8.7 9.8 10.2 11.2
360. * 9.1 8.9 10.9 10.4
-----*
MAX * 11.9 11.8 12.1 11.9
DEGR. * 100 190 10 280

```

THE HIGHEST CONCENTRATION IS 12.10 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Tampa Existing

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 190 10 280
-----*
1 * 0.0 0.8 0.0 0.4
2 * 0.3 0.0 0.4 0.0
3 * 0.0 0.3 0.0 0.8
4 * 0.5 0.0 1.1 0.0
5 * 0.0 0.5 0.0 0.4
6 * 0.8 0.0 0.4 0.0
7 * 0.0 0.0 0.4 0.9
8 * 0.4 0.3 0.0 0.0
9 * 0.0 0.0 0.8 0.3
10 * 0.9 0.4 0.0 0.0
11 * 0.0 0.0 0.3 0.4
12 * 0.3 0.8 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rotapre.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Tampa Pre Project

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1323.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1378.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	401.5	*	51.	180. AG	230.	100.0	0.0	48.0	0.46	2.6
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1645.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1687.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	610.9	*	63.	360. AG	230.	100.0	0.0	48.0	0.57	3.2
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1373.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1376.	9.3	0.0	56.0		
9. ebq	*	452.0	476.0	397.6	476.0	*	54.	270. AG	238.	100.0	0.0	48.0	0.49	2.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1440.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1340.	9.3	0.0	44.0		
12. wbq	*	548.0	524.0	605.1	524.0	*	57.	90. AG	238.	100.0	0.0	48.0	0.52	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Tampa Pre Project

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
6. sbq	*	60	28	3.0	1645	1600	45.96	3	3
9. ebq	*	60	29	3.0	1373	1600	45.96	3	3
12. wbq	*	60	29	3.0	1440	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Tampa Pre Project

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
0.	7.3	7.1	8.6	8.4
10.	8.0	6.9	9.5	7.9
20.	8.1	6.9	9.2	7.8
30.	8.1	6.9	8.8	7.7
40.	8.0	6.9	8.5	7.6
50.	8.2	6.9	8.7	7.7
60.	8.1	6.9	9.0	7.8
70.	8.2	6.9	9.0	8.0
80.	8.1	6.9	8.9	7.8
90.	8.6	7.2	8.3	7.1
100.	9.5	7.9	7.9	6.9
110.	9.3	8.0	7.8	6.9
120.	8.8	8.0	7.7	6.9
130.	8.4	8.0	7.7	6.9
140.	8.6	8.0	7.7	6.9
150.	9.0	8.2	7.9	6.9
160.	9.0	8.2	8.0	6.9
170.	9.1	8.2	7.9	6.9
180.	8.3	8.6	7.2	7.2

190.	*	7.9	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	8.8	6.9	7.9
220.	*	7.6	8.6	6.9	7.9
230.	*	7.6	8.6	6.9	7.9
240.	*	7.8	9.0	6.9	8.1
250.	*	7.9	8.8	6.9	8.1
260.	*	7.7	8.9	6.9	8.1
270.	*	7.1	8.2	7.2	8.7
280.	*	6.9	7.9	7.9	9.4
290.	*	6.9	7.9	8.0	9.3
300.	*	6.9	7.7	7.8	8.9
310.	*	6.9	7.6	7.9	8.5
320.	*	6.9	7.7	8.0	8.5
330.	*	6.9	7.8	8.0	8.9
340.	*	6.9	8.0	8.1	8.9
350.	*	6.9	7.8	8.0	9.0
360.	*	7.3	7.1	8.6	8.4

MAX	*	9.5	9.5	9.5	9.4
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.48 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Tampa Pre Project

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280

1	*	0.0	0.7	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.6	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.3
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rotafa.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1316.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1371.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	401.6	*	50.	180. AG	230.	100.0	0.0	48.0	0.46	2.6
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1648.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1690.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	611.1	*	63.	360. AG	230.	100.0	0.0	48.0	0.57	3.2
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1375.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1378.	9.3	0.0	56.0		
9. ebq	*	452.0	476.0	397.6	476.0	*	54.	270. AG	238.	100.0	0.0	48.0	0.49	2.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1434.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1334.	9.3	0.0	44.0		
12. wbq	*	548.0	524.0	604.8	524.0	*	57.	90. AG	238.	100.0	0.0	48.0	0.52	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative A

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
3. nbq	*	60	28	3.0	1316	1600	45.96	3	3
6. sbq	*	60	28	3.0	1648	1600	45.96	3	3
9. ebq	*	60	29	3.0	1375	1600	45.96	3	3
12. wbq	*	60	29	3.0	1434	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative A

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 REC1	REC2	REC3	REC4
0.	*	7.3	7.1	8.6	8.4
10.	*	8.0	6.9	9.5	7.9
20.	*	8.1	6.9	9.2	7.8
30.	*	8.1	6.9	8.8	7.7
40.	*	8.0	6.9	8.5	7.6
50.	*	8.2	6.9	8.7	7.7
60.	*	8.1	6.9	9.0	7.8
70.	*	8.2	6.9	8.9	8.0
80.	*	8.1	6.9	8.9	7.8
90.	*	8.6	7.2	8.2	7.2
100.	*	9.5	7.9	7.9	6.9
110.	*	9.3	8.0	7.8	6.9
120.	*	8.8	8.0	7.7	6.9
130.	*	8.4	7.9	7.7	6.9
140.	*	8.6	8.0	7.7	6.9
150.	*	8.9	8.2	7.9	6.9
160.	*	9.0	8.2	8.0	6.9
170.	*	9.1	8.2	7.9	6.9
180.	*	8.3	8.6	7.2	7.2

190.	*	7.9	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	8.8	6.9	7.9
220.	*	7.6	8.6	6.9	7.8
230.	*	7.6	8.5	6.9	7.9
240.	*	7.8	9.0	6.9	8.1
250.	*	7.9	8.8	6.9	8.1
260.	*	7.7	8.9	6.9	8.1
270.	*	7.1	8.2	7.2	8.6
280.	*	6.9	7.9	7.9	9.4
290.	*	6.9	7.9	8.0	9.3
300.	*	6.9	7.7	7.8	8.9
310.	*	6.9	7.6	7.9	8.5
320.	*	6.9	7.7	8.0	8.5
330.	*	6.9	7.8	8.0	8.9
340.	*	6.9	8.0	8.1	8.9
350.	*	6.9	7.8	8.0	9.0
360.	*	7.3	7.1	8.6	8.4
-----*					
MAX	*	9.5	9.5	9.5	9.4
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.48 PPM AT 100 DEGREES FROM REC1 .

1

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative A

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.7	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.6	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.3
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rotafb.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1356.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1411.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	400.1	*	52.	180. AG	230.	100.0	0.0	48.0	0.47	2.6
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1649.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1691.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	611.1	*	63.	360. AG	230.	100.0	0.0	48.0	0.57	3.2
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1376.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1379.	9.3	0.0	56.0		
9. ebq	*	452.0	476.0	397.5	476.0	*	55.	270. AG	238.	100.0	0.0	48.0	0.50	2.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1467.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1367.	9.3	0.0	44.0		
12. wbq	*	548.0	524.0	606.1	524.0	*	58.	90. AG	238.	100.0	0.0	48.0	0.53	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative B

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
3. nbq	*	60	28	3.0	1356	1600	45.96	3	3
6. sbq	*	60	28	3.0	1649	1600	45.96	3	3
9. ebq	*	60	29	3.0	1376	1600	45.96	3	3
12. wbq	*	60	29	3.0	1467	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative B

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
0.	*	7.3	7.1	8.6	8.4
10.	*	8.0	6.9	9.5	7.9
20.	*	8.1	6.9	9.3	7.8
30.	*	8.2	6.9	8.9	7.7
40.	*	8.1	6.9	8.5	7.6
50.	*	8.2	6.9	8.7	7.7
60.	*	8.2	6.9	9.0	7.8
70.	*	8.2	6.9	9.0	8.0
80.	*	8.2	6.9	9.0	7.8
90.	*	8.7	7.2	8.4	7.2
100.	*	9.6	7.9	8.0	6.9
110.	*	9.3	8.0	7.8	6.9
120.	*	8.8	8.0	7.8	6.9
130.	*	8.4	8.0	7.7	6.9
140.	*	8.6	8.0	7.7	6.9
150.	*	9.0	8.2	7.9	6.9
160.	*	9.0	8.3	8.0	6.9
170.	*	9.1	8.2	7.9	6.9
180.	*	8.3	8.6	7.2	7.2

190.	*	7.9	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	8.8	6.9	7.9
220.	*	7.6	8.6	6.9	8.0
230.	*	7.6	8.6	6.9	7.9
240.	*	7.8	9.0	6.9	8.1
250.	*	7.9	8.9	6.9	8.1
260.	*	7.7	8.9	6.9	8.1
270.	*	7.1	8.3	7.2	8.7
280.	*	6.9	7.9	7.9	9.4
290.	*	6.9	8.0	8.0	9.3
300.	*	6.9	7.7	7.8	8.9
310.	*	6.9	7.6	7.9	8.5
320.	*	6.9	7.7	8.0	8.5
330.	*	6.9	7.8	8.0	8.9
340.	*	6.9	8.0	8.1	8.9
350.	*	6.9	7.9	8.0	9.0
360.	*	7.3	7.1	8.6	8.4

MAX	*	9.6	9.5	9.5	9.4
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.58 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	190	10	280

1	*	0.0	0.7	0.0	0.3
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.6	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.3
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rotafc.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1316.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1371.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	401.6	*	50.	180. AG	230.	100.0	0.0	48.0	0.46 2.6	
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1451.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1493.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	603.4	*	55.	360. AG	230.	100.0	0.0	48.0	0.50 2.8	
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1378.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1381.	9.3	0.0	56.0		
9. ebq	*	452.0	476.0	397.5	476.0	*	55.	270. AG	238.	100.0	0.0	48.0	0.50 2.8	
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1434.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1334.	9.3	0.0	44.0		
12. wbq	*	548.0	524.0	604.8	524.0	*	57.	90. AG	238.	100.0	0.0	48.0	0.52 2.9	

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative C

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
3. nbq	*	60	28	3.0	1316	1600	45.96	3	3
6. sbq	*	60	28	3.0	1451	1600	45.96	3	3
9. ebq	*	60	29	3.0	1378	1600	45.96	3	3
12. wbq	*	60	29	3.0	1434	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative C

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 REC1	REC2	REC3	REC4
0.	*	7.2	7.1	8.6	8.3
10.	*	7.9	6.9	9.3	7.9
20.	*	8.0	6.9	9.1	7.8
30.	*	7.9	6.9	8.7	7.7
40.	*	7.9	6.9	8.5	7.6
50.	*	8.0	6.9	8.5	7.7
60.	*	8.0	6.9	8.9	7.8
70.	*	8.2	6.9	8.9	8.0
80.	*	8.1	6.9	8.9	7.8
90.	*	8.6	7.2	8.2	7.2
100.	*	9.5	7.9	7.9	6.9
110.	*	9.3	8.0	7.8	6.9
120.	*	8.8	8.0	7.6	6.9
130.	*	8.4	7.9	7.6	6.9
140.	*	8.6	8.0	7.7	6.9
150.	*	8.8	8.2	7.8	6.9
160.	*	8.9	8.2	8.0	6.9
170.	*	9.0	8.2	7.8	6.9
180.	*	8.2	8.6	7.1	7.2

190.	*	7.9	9.4	6.9	7.8
200.	*	7.8	9.3	6.9	8.0
210.	*	7.7	8.8	6.9	7.9
220.	*	7.6	8.5	6.9	7.7
230.	*	7.6	8.5	6.9	7.9
240.	*	7.8	8.9	6.9	8.1
250.	*	7.9	8.8	6.9	8.1
260.	*	7.7	8.9	6.9	8.1
270.	*	7.1	8.2	7.2	8.6
280.	*	6.9	7.9	7.9	9.4
290.	*	6.9	7.8	8.0	9.3
300.	*	6.9	7.7	7.8	8.8
310.	*	6.9	7.6	7.9	8.5
320.	*	6.9	7.6	8.0	8.5
330.	*	6.9	7.8	8.0	8.9
340.	*	6.9	7.9	8.2	8.9
350.	*	6.9	7.7	8.0	8.9
360.	*	7.2	7.1	8.6	8.3

MAX	*	9.5	9.4	9.3	9.4
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.48 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280

1	*	0.0	0.7	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.3	0.0	0.3
6	*	0.6	0.0	0.2	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.3
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rotafd.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1347.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1402.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	400.6	*	51.	180. AG	230.	100.0	0.0	48.0	0.47	2.6
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1652.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1694.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	611.3	*	63.	360. AG	230.	100.0	0.0	48.0	0.57	3.2
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1379.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1382.	9.3	0.0	56.0		
9. ebq	*	452.0	476.0	397.5	476.0	*	55.	270. AG	238.	100.0	0.0	48.0	0.50	2.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1459.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1359.	9.3	0.0	44.0		
12. wbq	*	548.0	524.0	605.7	524.0	*	58.	90. AG	238.	100.0	0.0	48.0	0.53	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative D

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
6. sbq	*	60	28	3.0	1652	1600	45.96	3	3
9. ebq	*	60	29	3.0	1379	1600	45.96	3	3
12. wbq	*	60	29	3.0	1459	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative D

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
0.	7.3	7.1	8.6	8.4
10.	8.0	6.9	9.5	7.9
20.	8.1	6.9	9.4	7.8
30.	8.2	6.9	8.9	7.7
40.	8.1	6.9	8.5	7.6
50.	8.2	6.9	8.7	7.7
60.	8.2	6.9	9.0	7.8
70.	8.2	6.9	9.0	8.0
80.	8.2	6.9	8.9	7.8
90.	8.7	7.2	8.4	7.2
100.	9.5	7.9	7.9	6.9
110.	9.3	8.0	7.8	6.9
120.	8.8	8.0	7.8	6.9
130.	8.4	8.0	7.7	6.9
140.	8.6	8.0	7.7	6.9
150.	9.0	8.2	7.9	6.9
160.	9.0	8.3	8.0	6.9
170.	9.1	8.2	7.9	6.9
180.	8.3	8.6	7.2	7.2

190.	*	7.9	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	8.8	6.9	7.9
220.	*	7.6	8.6	6.9	7.9
230.	*	7.6	8.6	6.9	7.9
240.	*	7.8	9.0	6.9	8.1
250.	*	7.9	8.8	6.9	8.1
260.	*	7.7	8.9	6.9	8.1
270.	*	7.1	8.2	7.2	8.7
280.	*	6.9	7.9	7.9	9.4
290.	*	6.9	8.0	8.0	9.3
300.	*	6.9	7.7	7.8	8.9
310.	*	6.9	7.6	7.9	8.5
320.	*	6.9	7.7	8.0	8.5
330.	*	6.9	7.8	8.0	8.9
340.	*	6.9	8.0	8.2	8.9
350.	*	6.9	7.9	8.0	9.0
360.	*	7.3	7.1	8.6	8.4
-----*					
MAX	*	9.5	9.5	9.5	9.4
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.48 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Tampa Future Alternative D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.7	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.6	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.3
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rotaba.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1311.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1366.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	401.9	*	50.	180. AG	230.	100.0	0.0	48.0	0.45	2.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1648.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1690.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	611.1	*	63.	360. AG	230.	100.0	0.0	48.0	0.57	3.2
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1375.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1378.	9.3	0.0	56.0		
9. ebq	*	452.0	476.0	397.6	476.0	*	54.	270. AG	238.	100.0	0.0	48.0	0.49	2.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1430.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1330.	9.3	0.0	44.0		
12. wbq	*	548.0	524.0	604.6	524.0	*	57.	90. AG	238.	100.0	0.0	48.0	0.52	2.9

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PAGE 2

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative A

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
6. sbq	*	60	28	3.0	1648	1600	45.96	3	3
9. ebq	*	60	29	3.0	1375	1600	45.96	3	3
12. wbq	*	60	29	3.0	1430	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative A

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
0.	7.3	7.1	8.6	8.4
10.	8.0	6.9	9.5	7.9
20.	8.1	6.9	9.2	7.8
30.	8.1	6.9	8.8	7.7
40.	8.0	6.9	8.5	7.6
50.	8.2	6.9	8.7	7.7
60.	8.1	6.9	9.0	7.8
70.	8.2	6.9	8.8	8.0
80.	8.1	6.9	8.9	7.8
90.	8.6	7.2	8.2	7.2
100.	9.5	7.9	7.9	6.9
110.	9.3	8.0	7.8	6.9
120.	8.8	8.0	7.7	6.9
130.	8.4	7.9	7.7	6.9
140.	8.6	8.0	7.7	6.9
150.	8.8	8.2	7.8	6.9
160.	9.0	8.2	8.0	6.9
170.	9.1	8.2	7.9	6.9
180.	8.3	8.6	7.2	7.2

190.	*	7.9	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	8.8	6.9	7.8
220.	*	7.6	8.5	6.9	7.8
230.	*	7.6	8.5	6.9	7.9
240.	*	7.8	9.0	6.9	8.0
250.	*	7.9	8.8	6.9	8.1
260.	*	7.7	8.9	6.9	8.1
270.	*	7.1	8.2	7.2	8.6
280.	*	6.9	7.9	7.9	9.4
290.	*	6.9	7.9	8.0	9.3
300.	*	6.9	7.7	7.8	8.9
310.	*	6.9	7.6	7.9	8.5
320.	*	6.9	7.7	8.0	8.5
330.	*	6.9	7.8	8.0	8.9
340.	*	6.9	8.0	8.1	8.9
350.	*	6.9	7.8	8.0	9.0
360.	*	7.3	7.1	8.6	8.4
-----*					
MAX	*	9.5	9.5	9.5	9.4
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.48 PPM AT 100 DEGREES FROM REC1 .

1

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative A

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.7	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.6	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.3
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
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 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rotabb.DAT

RUN BEGIN ON 08/22/02 AT 12:59

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1282.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1427.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	403.0	*	49.	180. AG	230.	100.0	0.0	48.0	0.45	2.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1651.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1693.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	611.1	*	63.	360. AG	230.	100.0	0.0	48.0	0.57	3.2
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1377.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1290.	9.3	0.0	56.0		
9. ebq	*	452.0	476.0	397.5	476.0	*	55.	270. AG	238.	100.0	0.0	48.0	0.50	2.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1479.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1377.	9.3	0.0	44.0		
12. wbq	*	548.0	524.0	606.5	524.0	*	59.	90. AG	238.	100.0	0.0	48.0	0.53	3.0

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative B

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
6. sbq	*	60	28	3.0	1651	1600	45.96	3	3
9. ebq	*	60	29	3.0	1377	1600	45.96	3	3
12. wbq	*	60	29	3.0	1479	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative B

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
0.	7.3	7.1	8.6	8.3
10.	8.0	6.9	9.5	7.9
20.	8.1	6.9	9.3	7.8
30.	8.2	6.9	8.9	7.7
40.	8.1	6.9	8.5	7.6
50.	8.2	6.9	8.7	7.6
60.	8.2	6.9	9.0	7.8
70.	8.2	6.9	8.9	7.9
80.	8.2	6.9	9.0	7.7
90.	8.7	7.2	8.3	7.1
100.	9.6	7.9	7.9	6.9
110.	9.3	8.0	7.8	6.9
120.	8.7	7.9	7.7	6.9
130.	8.4	8.0	7.7	6.9
140.	8.6	8.0	7.7	6.9
150.	8.8	8.2	7.8	6.9
160.	9.0	8.3	8.0	6.9
170.	9.1	8.1	7.9	6.9
180.	8.3	8.4	7.2	7.2

190.	*	7.9	9.4	6.9	7.8
200.	*	7.8	9.3	6.9	8.0
210.	*	7.7	8.7	6.9	7.8
220.	*	7.6	8.6	6.9	7.8
230.	*	7.6	8.6	6.9	7.9
240.	*	7.8	9.0	6.9	7.9
250.	*	7.9	8.9	6.9	8.1
260.	*	7.7	8.9	6.9	8.1
270.	*	7.1	8.3	7.2	8.6
280.	*	6.9	7.9	7.9	9.4
290.	*	6.9	8.0	8.0	9.2
300.	*	6.9	7.7	7.8	8.8
310.	*	6.9	7.6	7.9	8.3
320.	*	6.9	7.8	8.0	8.5
330.	*	6.9	7.8	8.0	8.8
340.	*	6.9	8.0	8.2	8.9
350.	*	6.9	7.9	8.0	9.0
360.	*	7.3	7.1	8.6	8.3
-----*					
MAX	*	9.6	9.4	9.5	9.4
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.58 PPM AT 100 DEGREES FROM REC1 .

1

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative B

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.7	0.0	0.3
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.6	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.3	0.2	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.3
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/22/02 AT 12:59

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rotabc.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1310.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1365.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	401.9	*	50.	180. AG	230.	100.0	0.0	48.0	0.45	2.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1652.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1694.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	611.3	*	63.	360. AG	230.	100.0	0.0	48.0	0.57	3.2
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1379.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1382.	9.3	0.0	56.0		
9. ebq	*	452.0	476.0	397.5	476.0	*	55.	270. AG	238.	100.0	0.0	48.0	0.50	2.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1430.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1330.	9.3	0.0	44.0		
12. wbq	*	548.0	524.0	604.6	524.0	*	57.	90. AG	238.	100.0	0.0	48.0	0.52	2.9

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative C

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
3. nbq	*	60	28	3.0	1310	1600	45.96	3	3
6. sbq	*	60	28	3.0	1652	1600	45.96	3	3
9. ebq	*	60	29	3.0	1379	1600	45.96	3	3
12. wbq	*	60	29	3.0	1430	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative C

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
0.	*	7.3	7.1	8.6	8.4
10.	*	8.0	6.9	9.5	7.9
20.	*	8.1	6.9	9.3	7.8
30.	*	8.1	6.9	8.8	7.7
40.	*	8.1	6.9	8.5	7.6
50.	*	8.2	6.9	8.7	7.7
60.	*	8.1	6.9	9.0	7.8
70.	*	8.2	6.9	8.8	8.0
80.	*	8.1	6.9	8.9	7.8
90.	*	8.6	7.2	8.2	7.2
100.	*	9.5	7.9	7.9	6.9
110.	*	9.3	8.0	7.8	6.9
120.	*	8.8	8.0	7.7	6.9
130.	*	8.4	7.9	7.7	6.9
140.	*	8.6	8.0	7.7	6.9
150.	*	8.8	8.2	7.8	6.9
160.	*	9.0	8.2	8.0	6.9
170.	*	9.1	8.2	7.9	6.9
180.	*	8.3	8.6	7.2	7.2

190.	*	7.9	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	8.8	6.9	7.8
220.	*	7.6	8.5	6.9	7.8
230.	*	7.6	8.5	6.9	7.9
240.	*	7.8	9.0	6.9	8.0
250.	*	7.9	8.8	6.9	8.1
260.	*	7.7	8.9	6.9	8.1
270.	*	7.1	8.2	7.2	8.6
280.	*	6.9	7.9	7.9	9.4
290.	*	6.9	7.9	8.0	9.3
300.	*	6.9	7.7	7.8	8.9
310.	*	6.9	7.6	7.9	8.5
320.	*	6.9	7.7	8.0	8.5
330.	*	6.9	7.8	8.0	8.9
340.	*	6.9	8.0	8.2	8.9
350.	*	6.9	7.8	8.0	9.0
360.	*	7.3	7.1	8.6	8.4
-----*					
MAX	*	9.5	9.5	9.5	9.4
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.48 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.7	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.6	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.3
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\rotabd.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1364.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1413.	9.3	0.0	44.0		
3. nbq	*	524.0	452.0	524.0	399.8	*	52.	180. AG	230.	100.0	0.0	48.0	0.47	2.7
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1654.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1696.	9.3	0.0	44.0		
6. sbq	*	476.0	548.0	476.0	611.3	*	63.	360. AG	230.	100.0	0.0	48.0	0.57	3.2
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	1380.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1383.	9.3	0.0	56.0		
9. ebq	*	452.0	476.0	397.3	476.0	*	55.	270. AG	238.	100.0	0.0	48.0	0.50	2.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1468.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1374.	9.3	0.0	44.0		
12. wbq	*	548.0	524.0	606.2	524.0	*	58.	90. AG	238.	100.0	0.0	48.0	0.53	3.0

1

PAGE 2

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative D

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
3. nbq	*	60	28	3.0	1364	1600	45.96	3	3
6. sbq	*	60	28	3.0	1654	1600	45.96	3	3
9. ebq	*	60	29	3.0	1380	1600	45.96	3	3
12. wbq	*	60	29	3.0	1468	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	568.0	5.4	*
2. ne	*	568.0	568.0	5.4	*
3. sw	*	432.0	432.0	5.4	*
4. se	*	568.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative D

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
0.	*	7.3	7.1	8.6	8.4
10.	*	8.0	6.9	9.5	7.9
20.	*	8.1	6.9	9.4	7.8
30.	*	8.2	6.9	8.9	7.7
40.	*	8.1	6.9	8.5	7.6
50.	*	8.2	6.9	8.7	7.7
60.	*	8.2	6.9	9.0	7.8
70.	*	8.2	6.9	9.0	8.0
80.	*	8.2	6.9	9.0	7.8
90.	*	8.7	7.2	8.4	7.2
100.	*	9.6	7.9	8.0	6.9
110.	*	9.3	8.0	7.8	6.9
120.	*	8.8	8.0	7.8	6.9
130.	*	8.5	8.0	7.7	6.9
140.	*	8.6	8.0	7.7	6.9
150.	*	9.0	8.2	7.9	6.9
160.	*	9.0	8.3	8.0	6.9
170.	*	9.1	8.2	7.9	6.9
180.	*	8.3	8.6	7.2	7.2

190.	*	7.9	9.5	6.9	7.8
200.	*	7.8	9.4	6.9	8.1
210.	*	7.7	8.8	6.9	7.9
220.	*	7.6	8.6	6.9	8.0
230.	*	7.6	8.6	6.9	7.9
240.	*	7.8	9.0	6.9	8.1
250.	*	7.9	8.9	6.9	8.1
260.	*	7.7	8.9	6.9	8.1
270.	*	7.1	8.3	7.2	8.7
280.	*	6.9	7.9	7.9	9.4
290.	*	6.9	8.0	8.0	9.3
300.	*	6.9	7.7	7.9	8.9
310.	*	6.9	7.6	7.9	8.5
320.	*	6.9	7.7	8.0	8.5
330.	*	6.9	7.8	8.0	8.9
340.	*	6.9	8.0	8.2	8.9
350.	*	6.9	7.9	8.0	9.0
360.	*	7.3	7.1	8.6	8.4

MAX	*	9.6	9.5	9.5	9.4
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.58 PPM AT 100 DEGREES FROM REC1 .

1

JOB: Klausz Properties

RUN: Roscoe Tampa Build Out Alternative D

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	100	190	10	280

1	*	0.0	0.7	0.0	0.3
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.4	0.0	0.3
6	*	0.6	0.0	0.3	0.0
7	*	0.0	0.0	0.3	0.7
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.2	0.3
12	*	0.3	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\sataex.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties RUN: Saticoy Tampa Existing

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1019.	12.2	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1089.	12.2	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	423.7	*	40.	180. AG	314.	100.0	0.0	48.0	0.37	2.0
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1469.	12.2	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1410.	12.2	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	613.6	*	78.	360. AG	236.	100.0	0.0	48.0	0.71	3.9
7. eba	*	0.0	482.0	500.0	500.0	*	500.	90. AG	1333.	12.2	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1370.	12.2	0.0	44.0		
9. ebq	*	452.0	482.0	401.0	482.0	*	51.	270. AG	303.	100.0	0.0	36.0	0.46	2.6
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1347.	12.2	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1299.	12.2	0.0	48.0		
12. wbq	*	548.0	518.0	599.5	518.0	*	51.	90. AG	303.	100.0	0.0	36.0	0.47	2.6

1

PAGE 2

JOB: Klausz Properties RUN: Saticoy Tampa Existing

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
3. nbq	*	60	29	3.0	1019	1600	60.55	3	3
6. sbq	*	60	29	3.0	1469	1600	60.55	3	3
9. ebq	*	60	28	3.0	1333	1600	60.55	3	3
12. wbq	*	60	28	3.0	1347	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties RUN: Saticoy Tampa Existing

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
0.	*	9.1	8.9	10.9	10.6
10.	*	10.0	8.7	11.9	10.2
20.	*	10.2	8.7	12.0	10.0
30.	*	10.2	8.7	11.4	9.7
40.	*	10.1	8.7	10.9	9.7
50.	*	10.3	8.7	10.8	9.8
60.	*	10.2	8.7	11.1	9.9
70.	*	10.1	8.7	11.3	10.2
80.	*	10.1	8.7	11.6	10.1
90.	*	10.8	9.3	10.7	9.2
100.	*	12.2	10.2	9.8	8.7
110.	*	11.8	10.2	9.6	8.7
120.	*	11.0	10.0	9.5	8.7
130.	*	10.8	10.1	9.6	8.7
140.	*	11.0	10.2	9.6	8.7
150.	*	11.0	10.4	9.8	8.7
160.	*	11.1	10.4	9.9	8.7
170.	*	11.3	10.4	9.8	8.7
180.	*	10.6	10.8	9.0	9.0

```

190. * 10.1 11.7 8.7 9.7
200. * 9.9 11.8 8.7 9.9
210. * 9.7 11.3 8.7 9.7
220. * 9.6 10.8 8.7 9.6
230. * 9.7 10.8 8.7 9.7
240. * 9.9 11.0 8.7 9.7
250. * 10.2 11.3 8.7 10.0
260. * 10.0 11.5 8.7 10.1
270. * 9.2 10.5 9.2 11.0
280. * 8.7 9.9 10.1 12.1
290. * 8.7 10.0 10.2 11.7
300. * 8.7 9.8 10.0 11.1
310. * 8.7 9.6 10.0 10.9
320. * 8.7 9.7 10.2 11.1
330. * 8.7 9.7 10.3 11.0
340. * 8.7 9.9 10.4 11.3
350. * 8.7 9.7 10.3 11.3
360. * 9.1 8.9 10.9 10.6
-----*
MAX * 12.2 11.8 12.0 12.1
DEGR. * 100 200 20 280

```

THE HIGHEST CONCENTRATION IS 12.20 PPM AT 100 DEGREES FROM REC1 .

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PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Existing

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 200 20 280
-----*
1 * 0.0 0.5 0.0 0.3
2 * 0.3 0.0 0.4 0.0
3 * 0.0 0.4 0.0 0.8
4 * 0.5 0.0 0.7 0.0
5 * 0.0 0.6 0.1 0.3
6 * 0.6 0.0 0.5 0.0
7 * 0.0 0.0 0.5 1.0
8 * 0.6 0.4 0.0 0.1
9 * 0.0 0.0 0.7 0.4
10 * 1.0 0.5 0.0 0.0
11 * 0.1 0.0 0.4 0.5
12 * 0.4 0.7 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satapre.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Pre Project

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1150.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1224.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	421.2	*	43.	180. AG	238.	100.0	0.0	48.0	0.39	2.2
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1566.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1503.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	620.8	*	85.	360. AG	179.	100.0	0.0	48.0	0.75	4.3
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1453.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49	2.7
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1429.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	602.7	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50	2.8

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Pre Project

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
6. sbq	*	60	29	3.0	1557	1600	45.96	3	3
9. ebq	*	60	28	3.0	1413	1600	45.96	3	3
12. wbq	*	60	28	3.0	1428	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Pre Project

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
0.	7.3	7.1	8.7	8.5
10.	8.0	6.9	9.6	8.1
20.	8.1	6.9	9.6	8.0
30.	8.1	6.9	9.0	7.8
40.	8.2	6.9	8.5	7.7
50.	8.2	6.9	8.7	7.8
60.	8.0	6.9	8.9	7.9
70.	8.0	6.9	9.1	8.1
80.	8.0	6.9	9.2	8.0
90.	8.6	7.3	8.4	7.3
100.	9.6	8.0	7.8	6.9
110.	9.3	8.2	7.6	6.9
120.	8.8	8.0	7.5	6.9
130.	8.7	8.1	7.6	6.9
140.	8.6	8.1	7.7	6.9
150.	8.8	8.2	7.8	6.9
160.	8.9	8.2	7.9	6.9
170.	9.2	8.2	7.8	6.9
180.	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.7
200.	*	8.0	9.3	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.5	6.9	7.7
230.	*	7.8	8.6	6.9	7.7
240.	*	7.9	8.8	6.9	7.8
250.	*	8.1	9.1	6.9	8.0
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.7	8.2	8.8
340.	*	6.9	7.9	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5

MAX	*	9.6	9.3	9.6	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.58 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Pre Project

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280

1	*	0.0	0.4	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satafa.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1146.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1219.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	418.7	*	45.	180. AG	238.	100.0	0.0	48.0	0.41	2.3
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1569.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1505.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	622.1	*	86.	360. AG	179.	100.0	0.0	48.0	0.75	4.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49	2.7
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1428.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	602.7	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50	2.8

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative A

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
3. nbq	*	60	29	3.0	1146	1600	45.96	3	3
6. sbq	*	60	29	3.0	1569	1600	45.96	3	3
9. ebq	*	60	28	3.0	1414	1600	45.96	3	3
12. wbq	*	60	28	3.0	1428	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative A

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
0.	*	7.3	7.1	8.7	8.5
10.	*	8.0	6.9	9.7	8.1
20.	*	8.1	6.9	9.6	8.0
30.	*	8.1	6.9	9.0	7.8
40.	*	8.2	6.9	8.5	7.7
50.	*	8.2	6.9	8.7	7.8
60.	*	8.0	6.9	8.9	7.9
70.	*	8.0	6.9	9.1	8.1
80.	*	8.0	6.9	9.2	8.0
90.	*	8.6	7.3	8.4	7.3
100.	*	9.6	8.0	7.9	6.9
110.	*	9.3	8.2	7.6	6.9
120.	*	8.8	8.0	7.5	6.9
130.	*	8.7	8.1	7.6	6.9
140.	*	8.6	8.1	7.7	6.9
150.	*	8.8	8.2	7.8	6.9
160.	*	8.9	8.2	7.9	6.9
170.	*	9.2	8.2	7.8	6.9
180.	*	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.7
200.	*	8.0	9.3	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.5	6.9	7.7
230.	*	7.8	8.6	6.9	7.7
240.	*	7.9	8.8	6.9	7.9
250.	*	8.1	9.1	6.9	8.1
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.7	8.2	8.8
340.	*	6.9	7.9	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5

MAX	*	9.6	9.3	9.7	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative A

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	200	10	280

1	*	0.0	0.4	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satafb.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1170.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1251.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	417.7	*	46.	180. AG	238.	100.0	0.0	48.0	0.42 2.4	
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1569.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1505.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	622.1	*	86.	360. AG	179.	100.0	0.0	48.0	0.75 4.4	
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49 2.7	
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1436.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	603.0	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50 2.8	

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative B

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
3. nbq	*	60	29	3.0	1170	1600	45.96	3	3
6. sbq	*	60	29	3.0	1569	1600	45.96	3	3
9. ebq	*	60	28	3.0	1414	1600	45.96	3	3
12. wbq	*	60	28	3.0	1436	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative B

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
0.	*	7.3	7.1	8.7	8.5
10.	*	8.0	6.9	9.7	8.1
20.	*	8.2	6.9	9.6	8.0
30.	*	8.1	6.9	9.0	7.8
40.	*	8.2	6.9	8.5	7.7
50.	*	8.2	6.9	8.7	7.8
60.	*	8.0	6.9	8.9	7.9
70.	*	8.0	6.9	9.1	8.1
80.	*	8.0	6.9	9.2	8.0
90.	*	8.6	7.3	8.4	7.3
100.	*	9.6	8.1	7.9	6.9
110.	*	9.3	8.2	7.7	6.9
120.	*	8.8	8.0	7.5	6.9
130.	*	8.7	8.1	7.6	6.9
140.	*	8.7	8.2	7.7	6.9
150.	*	8.8	8.2	7.8	6.9
160.	*	8.9	8.2	7.9	6.9
170.	*	9.2	8.2	7.8	6.9
180.	*	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.8
200.	*	8.0	9.4	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.6	6.9	7.7
230.	*	7.8	8.6	6.9	7.8
240.	*	7.9	8.8	6.9	7.9
250.	*	8.1	9.1	6.9	8.1
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.8	8.2	8.8
340.	*	6.9	8.0	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5
-----*					
MAX	*	9.6	9.4	9.7	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	200	10	280
-----*					
1	*	0.0	0.5	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satafc.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1146.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1219.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	418.7	*	45.	180. AG	238.	100.0	0.0	48.0	0.41	2.3
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1571.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1507.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	622.1	*	86.	360. AG	179.	100.0	0.0	48.0	0.75	4.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49	2.7
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1428.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	602.7	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50	2.8

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative C

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
6. sbq	*	60	29	3.0	1571	1600	45.96	3	3
9. ebq	*	60	28	3.0	1414	1600	45.96	3	3
12. wbq	*	60	28	3.0	1428	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative C

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
0.	7.3	7.1	8.7	8.5
10.	8.0	6.9	9.7	8.1
20.	8.1	6.9	9.6	8.0
30.	8.1	6.9	9.0	7.8
40.	8.2	6.9	8.5	7.7
50.	8.2	6.9	8.7	7.8
60.	8.0	6.9	8.9	7.9
70.	8.0	6.9	9.1	8.1
80.	8.0	6.9	9.2	8.0
90.	8.6	7.3	8.4	7.3
100.	9.6	8.0	7.9	6.9
110.	9.3	8.2	7.6	6.9
120.	8.8	8.0	7.5	6.9
130.	8.7	8.1	7.6	6.9
140.	8.6	8.1	7.7	6.9
150.	8.8	8.2	7.8	6.9
160.	8.9	8.2	7.9	6.9
170.	9.2	8.2	7.8	6.9
180.	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.7
200.	*	8.0	9.3	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.5	6.9	7.7
230.	*	7.8	8.6	6.9	7.7
240.	*	7.9	8.8	6.9	7.9
250.	*	8.1	9.1	6.9	8.1
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.7	8.2	8.8
340.	*	6.9	7.9	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5
-----*					
MAX	*	9.6	9.3	9.7	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.4	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satafd.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1164.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1243.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	429.0	*	35.	180. AG	181.	100.0	0.0	48.0	0.33	1.8
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1571.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1507.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	598.9	*	63.	360. AG	136.	100.0	0.0	48.0	0.59	3.2
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	384.5	482.0	*	68.	270. AG	288.	100.0	0.0	36.0	0.66	3.4
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	342.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	287.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	564.3	518.0	*	16.	90. AG	288.	100.0	0.0	36.0	0.16	0.8

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative D

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
6. sbq	*	60	22	3.0	1571	1600	45.96	3	3
9. ebq	*	60	35	3.0	1414	1600	45.96	3	3
12. wbq	*	60	35	3.0	342	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative D

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
0.	7.3	7.1	8.6	8.0
10.	8.0	6.9	9.6	7.4
20.	8.0	6.9	9.4	7.4
30.	7.9	6.9	8.9	7.4
40.	7.9	6.9	8.3	7.5
50.	7.9	6.9	8.5	7.5
60.	7.9	6.9	8.4	7.6
70.	7.9	6.9	8.6	7.7
80.	7.9	6.9	8.7	7.8
90.	8.1	7.0	8.2	7.2
100.	8.5	7.4	7.7	6.9
110.	8.5	7.6	7.5	6.9
120.	8.2	7.4	7.5	6.9
130.	8.3	7.4	7.6	6.9
140.	8.3	7.3	7.7	6.9
150.	8.4	7.3	7.8	6.9
160.	8.7	7.3	7.9	6.9
170.	8.9	7.3	7.8	6.9
180.	8.2	7.8	7.2	7.2

190.	*	7.9	8.8	6.9	7.7
200.	*	7.9	9.0	6.9	7.9
210.	*	7.7	8.7	6.9	7.8
220.	*	7.4	8.2	6.9	7.6
230.	*	7.4	8.3	6.9	7.5
240.	*	7.4	8.5	6.9	7.6
250.	*	7.5	8.5	6.9	7.7
260.	*	7.4	8.5	6.9	7.9
270.	*	7.1	8.0	7.3	8.5
280.	*	6.9	7.8	7.8	9.4
290.	*	6.9	7.7	7.8	9.0
300.	*	6.9	7.6	7.9	8.5
310.	*	6.9	7.6	8.1	8.4
320.	*	6.9	7.7	8.2	8.4
330.	*	6.9	7.8	8.3	8.5
340.	*	6.9	7.9	8.2	8.7
350.	*	6.9	7.8	8.2	8.8
360.	*	7.3	7.1	8.6	8.0
-----*					
MAX	*	8.9	9.0	9.6	9.4
DEGR.	*	170	200	10	280

THE HIGHEST CONCENTRATION IS 9.58 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Future Alternative D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	200	10	280
-----*					
1	*	0.3	0.4	0.0	0.3
2	*	0.0	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.5
4	*	0.1	0.0	0.9	0.0
5	*	0.8	0.5	0.0	0.3
6	*	0.0	0.0	0.2	0.0
7	*	0.3	0.0	0.4	0.8
8	*	0.0	0.3	0.0	0.0
9	*	0.4	0.0	0.8	0.5
10	*	0.0	0.1	0.0	0.0
11	*	0.1	0.0	0.1	0.1
12	*	0.0	0.6	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\sataba.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1143.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1215.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	418.8	*	45.	180. AG	238.	100.0	0.0	48.0	0.41	2.3
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1569.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1505.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	622.1	*	86.	360. AG	179.	100.0	0.0	48.0	0.75	4.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49	2.7
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1427.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	602.5	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50	2.8

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt A

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
3. nbq	*	60	29	3.0	1143	1600	45.96	3	3
6. sbq	*	60	29	3.0	1569	1600	45.96	3	3
9. ebq	*	60	28	3.0	1414	1600	45.96	3	3
12. wbq	*	60	28	3.0	1427	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt A

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
0.	*	7.3	7.1	8.7	8.5
10.	*	8.0	6.9	9.7	8.1
20.	*	8.1	6.9	9.6	8.0
30.	*	8.1	6.9	9.0	7.7
40.	*	8.2	6.9	8.5	7.7
50.	*	8.2	6.9	8.7	7.8
60.	*	8.0	6.9	8.9	7.9
70.	*	8.0	6.9	9.1	8.1
80.	*	8.0	6.9	9.2	8.0
90.	*	8.6	7.3	8.4	7.3
100.	*	9.6	8.0	7.9	6.9
110.	*	9.3	8.2	7.6	6.9
120.	*	8.8	8.0	7.5	6.9
130.	*	8.7	8.1	7.6	6.9
140.	*	8.6	8.1	7.7	6.9
150.	*	8.8	8.2	7.8	6.9
160.	*	8.9	8.2	7.9	6.9
170.	*	9.2	8.2	7.8	6.9
180.	*	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.7
200.	*	8.0	9.3	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.5	6.9	7.7
230.	*	7.8	8.6	6.9	7.7
240.	*	7.9	8.8	6.9	7.9
250.	*	8.1	9.1	6.9	8.1
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.7	8.2	8.8
340.	*	6.9	7.9	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5
-----*					
MAX	*	9.6	9.3	9.7	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt A

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

LINK #	*	CO/LINK (PPM)			
		REC1	REC2	REC3	REC4
	*	100	200	10	280
-----*					
1	*	0.0	0.4	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satabb.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1143.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1215.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	417.4	*	47.	180. AG	238.	100.0	0.0	48.0	0.42	2.4
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1569.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1505.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	622.1	*	86.	360. AG	179.	100.0	0.0	48.0	0.75	4.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49	2.7
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1427.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	603.0	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50	2.8

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt B

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
3. nbq	*	60	29	3.0	1179	1600	45.96	3	3
6. sbq	*	60	29	3.0	1570	1600	45.96	3	3
9. ebq	*	60	28	3.0	1414	1600	45.96	3	3
12. wbq	*	60	28	3.0	1439	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt B

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
0.	*	7.3	7.1	8.7	8.5
10.	*	8.0	6.9	9.7	8.1
20.	*	8.1	6.9	9.6	8.0
30.	*	8.1	6.9	9.0	7.8
40.	*	8.2	6.9	8.5	7.7
50.	*	8.2	6.9	8.7	7.8
60.	*	8.0	6.9	8.9	7.9
70.	*	8.0	6.9	9.1	8.1
80.	*	8.0	6.9	9.2	8.0
90.	*	8.6	7.3	8.4	7.3
100.	*	9.6	8.0	7.9	6.9
110.	*	9.3	8.2	7.7	6.9
120.	*	8.8	8.0	7.5	6.9
130.	*	8.7	8.1	7.6	6.9
140.	*	8.6	8.1	7.7	6.9
150.	*	8.8	8.2	7.8	6.9
160.	*	8.9	8.2	7.9	6.9
170.	*	9.2	8.2	7.8	6.9
180.	*	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.7
200.	*	8.0	9.3	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.5	6.9	7.7
230.	*	7.8	8.6	6.9	7.7
240.	*	7.9	8.8	6.9	7.9
250.	*	8.1	9.1	6.9	8.1
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.7	8.2	8.8
340.	*	6.9	7.9	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5

MAX	*	9.6	9.3	9.7	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	200	10	280

1	*	0.0	0.4	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satabc.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1142.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1213.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	418.8	*	45.	180. AG	238.	100.0	0.0	48.0	0.41	2.3
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1571.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1507.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	622.1	*	86.	360. AG	179.	100.0	0.0	48.0	0.75	4.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1414.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1454.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49	2.7
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1426.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	602.5	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50	2.8

1

PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt C

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
6. sbq	*	60	29	3.0	1571	1600	45.96	3	3
9. ebq	*	60	28	3.0	1414	1600	45.96	3	3
12. wbq	*	60	28	3.0	1426	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt C

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
0.	7.3	7.1	8.7	8.5
10.	8.0	6.9	9.7	8.1
20.	8.1	6.9	9.6	8.0
30.	8.1	6.9	9.0	7.7
40.	8.2	6.9	8.5	7.7
50.	8.2	6.9	8.7	7.8
60.	8.0	6.9	8.9	7.9
70.	8.0	6.9	9.1	8.1
80.	8.0	6.9	9.2	8.0
90.	8.6	7.3	8.4	7.3
100.	9.6	8.0	7.9	6.9
110.	9.3	8.2	7.6	6.9
120.	8.8	8.0	7.5	6.9
130.	8.7	8.1	7.6	6.9
140.	8.6	8.1	7.7	6.9
150.	8.8	8.2	7.8	6.9
160.	8.9	8.2	7.9	6.9
170.	9.2	8.2	7.8	6.9
180.	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.7
200.	*	8.0	9.3	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.5	6.9	7.7
230.	*	7.8	8.6	6.9	7.7
240.	*	7.9	8.8	6.9	7.9
250.	*	8.1	9.1	6.9	8.1
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.7	8.2	8.8
340.	*	6.9	7.9	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5

MAX	*	9.6	9.3	9.7	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

LINK #	*	CO/LINK (PPM)			
		REC1	REC2	REC3	REC4
	*	100	200	10	280

1	*	0.0	0.4	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\satabd.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	524.0	0.0	524.0	500.0	*	500.	360. AG	1171.	9.3	0.0	68.0		
2. nbd	*	524.0	500.0	524.0	1000.0	*	500.	360. AG	1252.	9.3	0.0	44.0		
3. nbq	*	524.0	464.0	524.0	417.7	*	46.	180. AG	238.	100.0	0.0	48.0	0.42	2.4
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1574.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1510.	9.3	0.0	48.0		
6. sbq	*	476.0	536.0	476.0	622.5	*	86.	360. AG	179.	100.0	0.0	48.0	0.76	4.4
7. eba	*	0.0	482.0	500.0	482.0	*	500.	90. AG	1415.	9.3	0.0	56.0		
8. ebd	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	1455.	9.3	0.0	44.0		
9. ebq	*	452.0	482.0	398.0	482.0	*	54.	270. AG	230.	100.0	0.0	36.0	0.49	2.7
10. wba	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	1436.	9.3	0.0	56.0		
11. wbd	*	500.0	518.0	0.0	518.0	*	500.	270. AG	1379.	9.3	0.0	48.0		
12. wbq	*	548.0	518.0	603.0	518.0	*	55.	90. AG	230.	100.0	0.0	36.0	0.50	2.8

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PAGE 2

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt D

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
6. sbq	*	60	29	3.0	1574	1600	45.96	3	3
9. ebq	*	60	28	3.0	1415	1600	45.96	3	3
12. wbq	*	60	28	3.0	1436	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	556.0	5.4	*
2. ne	*	568.0	556.0	5.4	*
3. sw	*	432.0	444.0	5.4	*
4. se	*	568.0	444.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt D

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
0.	7.3	7.1	8.7	8.5
10.	8.0	6.9	9.7	8.1
20.	8.2	6.9	9.6	8.0
30.	8.1	6.9	9.0	7.8
40.	8.2	6.9	8.5	7.7
50.	8.2	6.9	8.7	7.8
60.	8.0	6.9	8.9	7.9
70.	8.0	6.9	9.1	8.1
80.	8.0	6.9	9.2	8.0
90.	8.6	7.3	8.4	7.3
100.	9.6	8.1	7.9	6.9
110.	9.3	8.2	7.7	6.9
120.	8.8	8.0	7.5	6.9
130.	8.7	8.1	7.6	6.9
140.	8.7	8.2	7.7	6.9
150.	8.8	8.2	7.8	6.9
160.	8.9	8.2	7.9	6.9
170.	9.2	8.2	7.8	6.9
180.	8.4	8.5	7.2	7.2

190.	*	8.1	9.3	6.9	7.8
200.	*	8.0	9.4	6.9	7.9
210.	*	7.7	8.9	6.9	7.8
220.	*	7.6	8.6	6.9	7.7
230.	*	7.8	8.6	6.9	7.8
240.	*	7.9	8.8	6.9	7.9
250.	*	8.1	9.1	6.9	8.1
260.	*	8.0	9.1	6.9	8.1
270.	*	7.3	8.3	7.3	8.7
280.	*	6.9	7.8	8.0	9.6
290.	*	6.9	7.9	8.1	9.4
300.	*	6.9	7.8	8.0	8.8
310.	*	6.9	7.7	8.0	8.7
320.	*	6.9	7.7	8.1	8.7
330.	*	6.9	7.8	8.2	8.8
340.	*	6.9	8.0	8.2	8.9
350.	*	6.9	7.8	8.2	9.1
360.	*	7.3	7.1	8.7	8.5
-----*					
MAX	*	9.6	9.4	9.7	9.6
DEGR.	*	100	200	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Saticoy Tampa Build Out Alt D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	200	10	280
-----*					
1	*	0.0	0.5	0.0	0.3
2	*	0.2	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.6
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.5	0.0	0.3
6	*	0.5	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.4	0.3	0.0	0.0
9	*	0.0	0.0	0.6	0.3
10	*	0.8	0.4	0.0	0.0
11	*	0.1	0.0	0.3	0.4
12	*	0.3	0.5	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT36XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Reseda Existing Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1603.	12.2	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1839.	12.2	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	426.1	*	38.	180. AG	106.	100.0	0.0	36.0	0.48	1.9
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2825.	12.2	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2826.	12.2	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	618.4	*	82.	360. AG	106.	100.0	0.0	36.0	0.84	4.2
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	775.	12.2	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	608.	12.2	0.0	44.0		
9. EBQ	*	464.0	482.0	371.5	482.0	*	92.	270. AG	357.	100.0	0.0	36.0	0.88	4.7
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	516.	12.2	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	446.	12.2	0.0	44.0		
12. WBQ	*	536.0	518.0	577.4	518.0	*	41.	90. AG	357.	100.0	0.0	36.0	0.59	2.1

1

PAGE 2

JOB: Plummer-Reseda Existing Ambient PM RUN: 2

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
3. NBQ	*	60	13	3.0	1603	1600	60.55	3	3
6. SBQ	*	60	13	3.0	2825	1600	60.55	3	3
9. EBQ	*	60	44	3.0	775	1600	60.55	3	3
12. WBQ	*	60	44	3.0	516	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Reseda Existing Ambient PM RUN: 2

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
0.	* 9.8	9.3	11.3	10.6	
10.	* 11.5	8.7	13.3	9.6	
20.	* 11.6	8.7	12.6	9.2	
30.	* 11.2	8.7	11.9	9.1	
40.	* 10.9	8.7	11.5	9.2	
50.	* 10.7	8.7	11.3	9.2	
60.	* 10.6	8.7	11.2	9.2	
70.	* 10.5	8.7	10.9	9.3	
80.	* 10.5	8.7	11.0	9.3	
90.	* 10.8	8.9	10.5	8.9	
100.	* 11.4	9.3	10.1	8.7	
110.	* 11.5	9.4	10.2	8.7	
120.	* 10.9	9.2	10.3	8.7	
130.	* 10.9	9.2	10.4	8.7	
140.	* 11.1	9.4	10.5	8.7	
150.	* 11.4	9.6	10.8	8.7	
160.	* 12.0	9.9	11.2	8.7	
170.	* 12.5	10.1	11.2	8.7	
180.	* 10.9	11.0	9.6	9.3	

```

190. * 9.8 12.5 8.7 10.9
200. * 9.9 12.3 8.7 11.0
210. * 9.9 11.6 8.7 10.7
220. * 9.7 11.2 8.7 10.3
230. * 9.5 11.4 8.7 10.2
240. * 9.2 11.5 8.7 10.2
250. * 9.3 11.4 8.7 10.3
260. * 9.3 10.9 8.7 10.2
270. * 8.8 10.6 9.0 10.8
280. * 8.7 10.2 9.5 11.8
290. * 8.7 10.3 9.8 11.8
300. * 8.7 10.5 10.2 11.1
310. * 8.7 10.4 10.4 10.7
320. * 8.7 10.4 10.3 10.8
330. * 8.7 10.8 10.2 11.3
340. * 8.7 11.2 10.1 11.9
350. * 8.8 10.9 10.2 12.3
360. * 9.8 9.3 11.3 10.6
-----*
MAX * 12.5 12.5 13.3 12.3
DEGR. * 170 190 10 350

```

THE HIGHEST CONCENTRATION IS 13.30 PPM AT 10 DEGREES FROM REC3 .
1

PAGE 4

JOB: Plummer-Reseda Existing Ambient PM

RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 170 190 10 350
-----*
1 * 0.7 1.2 0.0 0.1
2 * 0.0 0.0 0.7 1.4
3 * 0.0 0.1 0.0 0.0
4 * 0.2 0.0 2.2 1.2
5 * 2.1 1.1 0.1 0.0
6 * 0.0 0.0 0.2 0.0
7 * 0.2 0.0 0.3 0.0
8 * 0.0 0.2 0.0 0.2
9 * 0.5 0.0 1.0 0.0
10 * 0.0 0.2 0.0 0.1
11 * 0.1 0.0 0.1 0.0
12 * 0.0 1.0 0.0 0.6

```

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT36AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Reseda Alt A Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1621.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1872.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	425.6	*	38.	180. AG	80.	100.0	0.0	36.0	0.48	2.0
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2891.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2877.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	626.7	*	91.	360. AG	80.	100.0	0.0	36.0	0.86	4.6
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	796.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	616.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	362.7	482.0	*	101.	270. AG	271.	100.0	0.0	36.0	0.90	5.1
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	526.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	469.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	578.2	518.0	*	42.	90. AG	271.	100.0	0.0	36.0	0.60	2.1

1 PAGE 2

JOB: Plummer-Reseda Alt A Krausz Future PM RUN: 4

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
3. NBQ	*	60	13	3.0	1621	1600	45.96	3	3
6. SBQ	*	60	13	3.0	2891	1600	45.96	3	3
9. EBQ	*	60	44	3.0	796	1600	45.96	3	3
12. WBQ	*	60	44	3.0	526	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1 PAGE 3

JOB: Plummer-Reseda Alt A Krausz Future PM RUN: 4

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
0.	*	7.8	7.4	8.9	8.4
10.	*	9.0	6.9	10.4	7.7
20.	*	9.1	6.9	9.9	7.4
30.	*	8.8	6.9	9.3	7.2
40.	*	8.7	6.9	9.0	7.2
50.	*	8.5	6.9	9.0	7.2
60.	*	8.3	6.9	8.9	7.3
70.	*	8.3	6.9	8.5	7.4
80.	*	8.3	6.9	8.6	7.3
90.	*	8.5	7.0	8.4	7.0
100.	*	9.1	7.3	8.0	6.9
110.	*	9.1	7.4	8.0	6.9
120.	*	8.8	7.3	8.1	6.9
130.	*	8.5	7.4	8.2	6.9
140.	*	8.6	7.4	8.3	6.9
150.	*	9.0	7.6	8.6	6.9
160.	*	9.6	7.8	8.9	6.9
170.	*	9.9	7.8	8.9	6.9
180.	*	8.6	8.5	7.6	7.4

190.	*	7.8	9.7	6.9	8.6
200.	*	7.8	9.6	6.9	8.7
210.	*	7.8	9.1	6.9	8.4
220.	*	7.7	8.9	6.9	8.2
230.	*	7.6	9.0	6.9	8.0
240.	*	7.4	9.0	6.9	8.1
250.	*	7.4	9.0	6.9	8.1
260.	*	7.4	8.8	6.9	8.1
270.	*	7.0	8.4	7.1	8.4
280.	*	6.9	8.2	7.6	9.3
290.	*	6.9	8.2	7.9	9.3
300.	*	6.9	8.3	8.1	8.7
310.	*	6.9	8.3	8.2	8.6
320.	*	6.9	8.3	8.2	8.7
330.	*	6.9	8.4	8.0	8.9
340.	*	6.9	8.8	8.0	9.5
350.	*	7.0	8.6	8.0	9.7
360.	*	7.8	7.4	8.9	8.4
-----*					
MAX	*	9.9	9.7	10.4	9.7
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.38 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Plummer-Reseda Alt A Krausz Future PM

RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	0.9	0.0	0.1
2	*	0.0	0.0	0.6	1.1
3	*	0.0	0.1	0.0	0.0
4	*	0.2	0.0	1.7	0.9
5	*	1.6	0.9	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.4	0.0	0.7	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.1	0.0
12	*	0.0	0.7	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT36BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Reseda Alt B Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1621.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1879.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	425.6	*	38.	180. AG	80.	100.0	0.0	36.0	0.48	2.0
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2884.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2877.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	625.9	*	90.	360. AG	80.	100.0	0.0	36.0	0.86	4.6
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	810.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	623.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	355.5	482.0	*	109.	270. AG	271.	100.0	0.0	36.0	0.92	5.5
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	519.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	455.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	577.6	518.0	*	42.	90. AG	271.	100.0	0.0	36.0	0.59	2.1

1

PAGE 2

JOB: Plummer-Reseda Alt B Krausz Future PM RUN: 6

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
3. NBQ	*	60	13	3.0	1621	1600	45.96	3	3
6. SBQ	*	60	13	3.0	2884	1600	45.96	3	3
9. EBQ	*	60	44	3.0	810	1600	45.96	3	3
12. WBQ	*	60	44	3.0	519	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Reseda Alt B Krausz Future PM RUN: 6

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
0.	*	7.8	7.4	8.9	8.4
10.	*	9.0	6.9	10.4	7.6
20.	*	9.1	6.9	9.9	7.4
30.	*	8.8	6.9	9.3	7.2
40.	*	8.7	6.9	9.0	7.2
50.	*	8.5	6.9	9.0	7.2
60.	*	8.3	6.9	8.8	7.3
70.	*	8.3	6.9	8.6	7.4
80.	*	8.3	6.9	8.7	7.3
90.	*	8.5	7.0	8.4	7.0
100.	*	9.1	7.3	8.0	6.9
110.	*	9.1	7.4	8.0	6.9
120.	*	8.8	7.3	8.1	6.9
130.	*	8.5	7.4	8.2	6.9
140.	*	8.6	7.4	8.3	6.9
150.	*	9.0	7.5	8.6	6.9
160.	*	9.6	7.8	8.9	6.9
170.	*	9.9	7.8	8.9	6.9
180.	*	8.6	8.5	7.6	7.4

190.	*	7.8	9.7	6.9	8.6
200.	*	7.8	9.6	6.9	8.7
210.	*	7.8	9.1	6.9	8.4
220.	*	7.8	8.9	6.9	8.2
230.	*	7.7	9.0	6.9	8.0
240.	*	7.4	9.0	6.9	8.1
250.	*	7.4	9.1	6.9	8.1
260.	*	7.3	8.8	6.9	8.1
270.	*	7.0	8.4	7.1	8.5
280.	*	6.9	8.2	7.6	9.4
290.	*	6.9	8.2	7.9	9.3
300.	*	6.9	8.3	8.1	8.7
310.	*	6.9	8.2	8.2	8.6
320.	*	6.9	8.2	8.2	8.7
330.	*	6.9	8.5	8.0	8.9
340.	*	6.9	8.8	8.0	9.5
350.	*	7.0	8.6	8.0	9.7
360.	*	7.8	7.4	8.9	8.4
-----*					
MAX	*	9.9	9.7	10.4	9.7
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.38 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Plummer-Reseda Alt B Krausz Future PM

RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	0.9	0.0	0.1
2	*	0.0	0.0	0.6	1.1
3	*	0.0	0.1	0.0	0.0
4	*	0.2	0.0	1.7	0.9
5	*	1.6	0.9	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.4	0.0	0.7	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.1	0.0
12	*	0.0	0.7	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT36CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Reseda Alt C Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1621.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1871.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	425.6	*	38.	180. AG	80.	100.0	0.0	36.0	0.48	2.0
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2891.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2877.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	626.7	*	91.	360. AG	80.	100.0	0.0	36.0	0.86	4.6
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	794.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	615.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	364.0	482.0	*	100.	270. AG	271.	100.0	0.0	36.0	0.90	5.1
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	526.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	469.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	578.2	518.0	*	42.	90. AG	271.	100.0	0.0	36.0	0.60	2.1

1

PAGE 2

JOB: Plummer-Reseda Alt C Krausz Future PM RUN: 8

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
3. NBQ	*	60	13	3.0	1621	1600	45.96	3	3
6. SBQ	*	60	13	3.0	2891	1600	45.96	3	3
9. EBQ	*	60	44	3.0	794	1600	45.96	3	3
12. WBQ	*	60	44	3.0	526	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Reseda Alt C Krausz Future PM RUN: 8

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
0.	*	7.8	7.4	8.9	8.4
10.	*	9.0	6.9	10.4	7.7
20.	*	9.1	6.9	9.9	7.4
30.	*	8.8	6.9	9.3	7.2
40.	*	8.7	6.9	9.0	7.2
50.	*	8.5	6.9	9.0	7.2
60.	*	8.3	6.9	8.9	7.3
70.	*	8.3	6.9	8.5	7.4
80.	*	8.3	6.9	8.6	7.3
90.	*	8.5	7.0	8.4	7.0
100.	*	9.1	7.3	8.0	6.9
110.	*	9.1	7.4	8.0	6.9
120.	*	8.8	7.3	8.1	6.9
130.	*	8.5	7.4	8.2	6.9
140.	*	8.6	7.4	8.3	6.9
150.	*	9.0	7.6	8.6	6.9
160.	*	9.6	7.8	8.9	6.9
170.	*	9.9	7.8	8.9	6.9
180.	*	8.6	8.5	7.6	7.4

190.	*	7.8	9.7	6.9	8.6
200.	*	7.8	9.6	6.9	8.7
210.	*	7.8	9.1	6.9	8.4
220.	*	7.7	8.9	6.9	8.2
230.	*	7.6	9.0	6.9	8.0
240.	*	7.4	9.0	6.9	8.1
250.	*	7.4	9.0	6.9	8.1
260.	*	7.4	8.7	6.9	8.1
270.	*	7.0	8.4	7.1	8.4
280.	*	6.9	8.2	7.6	9.3
290.	*	6.9	8.2	7.9	9.3
300.	*	6.9	8.3	8.1	8.7
310.	*	6.9	8.3	8.2	8.6
320.	*	6.9	8.3	8.1	8.7
330.	*	6.9	8.4	8.0	8.9
340.	*	6.9	8.8	8.0	9.5
350.	*	7.0	8.6	8.0	9.7
360.	*	7.8	7.4	8.9	8.4
-----*					
MAX	*	9.9	9.7	10.4	9.7
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.38 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Plummer-Reseda Alt C Krausz Future PM

RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	0.9	0.0	0.1
2	*	0.0	0.0	0.6	1.1
3	*	0.0	0.1	0.0	0.0
4	*	0.2	0.0	1.7	0.9
5	*	1.6	0.9	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.4	0.0	0.7	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.1	0.0
12	*	0.0	0.7	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT36DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Reseda Alt D Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1621.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1875.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	425.6	*	38.	180. AG	80.	100.0	0.0	36.0	0.48	2.0
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2885.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2877.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	625.9	*	90.	360. AG	80.	100.0	0.0	36.0	0.86	4.6
7. EBA	*	0.0	482.0	500.0	500.0	*	500.	90. AG	802.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	619.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	359.9	482.0	*	104.	270. AG	271.	100.0	0.0	36.0	0.91	5.3
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	520.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	457.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	577.6	518.0	*	42.	90. AG	271.	100.0	0.0	36.0	0.59	2.1

1 PAGE 2

JOB: Plummer-Reseda Alt D Krausz Future PM RUN: 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
3. NBQ	*	60	13	3.0	1621	1600	45.96	3	3
6. SBQ	*	60	13	3.0	2885	1600	45.96	3	3
9. EBQ	*	60	44	3.0	802	1600	45.96	3	3
12. WBQ	*	60	44	3.0	520	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1 PAGE 3

JOB: Plummer-Reseda Alt D Krausz Future PM RUN: 10

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	REC1	REC2	REC3	REC4
0.	*	7.8	7.4	8.9	8.4	
10.	*	9.0	6.9	10.4	7.6	
20.	*	9.1	6.9	9.9	7.4	
30.	*	8.8	6.9	9.3	7.2	
40.	*	8.7	6.9	9.0	7.2	
50.	*	8.5	6.9	9.0	7.2	
60.	*	8.3	6.9	8.8	7.3	
70.	*	8.3	6.9	8.5	7.4	
80.	*	8.3	6.9	8.6	7.3	
90.	*	8.5	7.0	8.4	7.0	
100.	*	9.1	7.3	8.0	6.9	
110.	*	9.1	7.4	8.0	6.9	
120.	*	8.8	7.3	8.1	6.9	
130.	*	8.5	7.4	8.2	6.9	
140.	*	8.6	7.4	8.3	6.9	
150.	*	9.0	7.5	8.6	6.9	
160.	*	9.6	7.8	8.9	6.9	
170.	*	9.9	7.8	8.9	6.9	
180.	*	8.6	8.5	7.6	7.4	

190.	*	7.8	9.7	6.9	8.6
200.	*	7.8	9.6	6.9	8.7
210.	*	7.8	9.1	6.9	8.4
220.	*	7.7	8.9	6.9	8.2
230.	*	7.6	9.0	6.9	8.0
240.	*	7.4	9.0	6.9	8.1
250.	*	7.4	9.0	6.9	8.1
260.	*	7.4	8.8	6.9	8.1
270.	*	7.0	8.4	7.1	8.4
280.	*	6.9	8.2	7.6	9.3
290.	*	6.9	8.2	7.9	9.3
300.	*	6.9	8.3	8.1	8.7
310.	*	6.9	8.2	8.2	8.6
320.	*	6.9	8.2	8.2	8.7
330.	*	6.9	8.4	8.0	8.9
340.	*	6.9	8.8	8.0	9.5
350.	*	7.0	8.6	8.0	9.7
360.	*	7.8	7.4	8.9	8.4
-----*					
MAX	*	9.9	9.7	10.4	9.7
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.38 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Plummer-Reseda Alt D Krausz Future PM

RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	0.9	0.0	0.1
2	*	0.0	0.0	0.6	1.1
3	*	0.0	0.1	0.0	0.0
4	*	0.2	0.0	1.7	0.9
5	*	1.6	0.9	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.4	0.0	0.7	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.1	0.0
12	*	0.0	0.7	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:30

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CAL3QHC (93157)
IBM-PC VERSION (2.02)
(C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT36ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Reseda Alt A Buildout Future PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1621.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1873.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	425.6	*	38.	180. AG	80.	100.0	0.0	36.0	0.48	2.0
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2894.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2877.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	627.1	*	91.	360. AG	80.	100.0	0.0	36.0	0.86	4.6
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	798.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	617.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	361.3	482.0	*	103.	270. AG	271.	100.0	0.0	36.0	0.91	5.2
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	529.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	475.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	578.5	518.0	*	42.	90. AG	271.	100.0	0.0	36.0	0.60	2.2

1

PAGE 2

JOB: Plummer-Reseda Alt A Buildout Future PM RUN: 5

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
3. NBQ	*	60	13	3.0	1621	1600	45.96	3	3
6. SBQ	*	60	13	3.0	2894	1600	45.96	3	3
9. EBQ	*	60	44	3.0	798	1600	45.96	3	3
12. WBQ	*	60	44	3.0	529	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

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PAGE 3

JOB: Plummer-Reseda Alt A Buildout Future PM RUN: 5

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
0.	*	7.8	7.4	8.9	8.4
10.	*	9.0	6.9	10.4	7.7
20.	*	9.1	6.9	9.9	7.4
30.	*	8.8	6.9	9.3	7.2
40.	*	8.7	6.9	9.0	7.2
50.	*	8.5	6.9	9.0	7.2
60.	*	8.3	6.9	8.9	7.3
70.	*	8.3	6.9	8.5	7.4
80.	*	8.3	6.9	8.6	7.3
90.	*	8.5	7.0	8.4	7.0
100.	*	9.1	7.3	8.0	6.9
110.	*	9.1	7.4	8.0	6.9
120.	*	8.8	7.3	8.1	6.9
130.	*	8.5	7.4	8.2	6.9
140.	*	8.6	7.4	8.3	6.9
150.	*	9.0	7.6	8.6	6.9
160.	*	9.6	7.8	8.9	6.9
170.	*	9.9	7.8	8.9	6.9
180.	*	8.6	8.5	7.6	7.4

190.	*	7.8	9.7	6.9	8.6
200.	*	7.8	9.6	6.9	8.7
210.	*	7.8	9.1	6.9	8.4
220.	*	7.7	8.9	6.9	8.2
230.	*	7.6	9.0	6.9	8.0
240.	*	7.4	9.0	6.9	8.1
250.	*	7.4	9.0	6.9	8.1
260.	*	7.4	8.8	6.9	8.1
270.	*	7.0	8.4	7.1	8.4
280.	*	6.9	8.2	7.6	9.3
290.	*	6.9	8.2	8.0	9.3
300.	*	6.9	8.3	8.1	8.7
310.	*	6.9	8.3	8.2	8.6
320.	*	6.9	8.3	8.2	8.7
330.	*	6.9	8.4	8.0	8.9
340.	*	6.9	8.8	8.0	9.5
350.	*	7.0	8.6	8.0	9.7
360.	*	7.8	7.4	8.9	8.4
-----*					
MAX	*	9.9	9.7	10.4	9.7
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.38 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Plummer-Reseda Alt A Buildout Future PM RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	0.9	0.0	0.1
2	*	0.0	0.0	0.6	1.1
3	*	0.0	0.1	0.0	0.0
4	*	0.2	0.0	1.7	0.9
5	*	1.6	0.9	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.4	0.0	0.7	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.1	0.0
12	*	0.0	0.7	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT36BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Reseda Alt B Buildout Future PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1621.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1887.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	425.6	*	38.	180. AG	80.	100.0	0.0	36.0	0.48	2.0
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2885.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2877.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	625.9	*	90.	360. AG	80.	100.0	0.0	36.0	0.86	4.6
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	826.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	631.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	347.4	482.0	*	117.	270. AG	271.	100.0	0.0	36.0	0.94	5.9
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	520.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	457.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	577.6	518.0	*	42.	90. AG	271.	100.0	0.0	36.0	0.59	2.1

1 PAGE 2

JOB: Plummer-Reseda Alt B Buildout Future PM RUN: 7
 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
3. NBQ	*	60	13	3.0	1621	1600	45.96	3	3
6. SBQ	*	60	13	3.0	2885	1600	45.96	3	3
9. EBQ	*	60	44	3.0	826	1600	45.96	3	3
12. WBQ	*	60	44	3.0	520	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1 PAGE 3

JOB: Plummer-Reseda Alt B Buildout Future PM RUN: 7

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
0.	*	7.8	7.4	8.9	8.4
10.	*	9.0	6.9	10.4	7.6
20.	*	9.1	6.9	9.9	7.4
30.	*	8.8	6.9	9.3	7.2
40.	*	8.7	6.9	9.0	7.2
50.	*	8.5	6.9	9.0	7.2
60.	*	8.3	6.9	8.8	7.4
70.	*	8.3	6.9	8.6	7.4
80.	*	8.3	6.9	8.7	7.3
90.	*	8.5	7.0	8.4	7.0
100.	*	9.1	7.4	8.0	6.9
110.	*	9.1	7.4	8.0	6.9
120.	*	8.8	7.3	8.1	6.9
130.	*	8.5	7.4	8.2	6.9
140.	*	8.6	7.4	8.3	6.9
150.	*	9.0	7.5	8.6	6.9
160.	*	9.6	7.8	8.9	6.9
170.	*	9.9	7.8	8.9	6.9
180.	*	8.6	8.5	7.6	7.4

190.	*	7.8	9.7	6.9	8.6
200.	*	7.8	9.6	6.9	8.7
210.	*	7.8	9.1	6.9	8.4
220.	*	7.8	8.9	6.9	8.2
230.	*	7.8	9.0	6.9	8.0
240.	*	7.5	9.0	6.9	8.1
250.	*	7.4	9.1	6.9	8.1
260.	*	7.4	8.8	6.9	8.1
270.	*	7.0	8.4	7.1	8.6
280.	*	6.9	8.2	7.7	9.4
290.	*	6.9	8.2	8.0	9.4
300.	*	6.9	8.3	8.2	8.7
310.	*	6.9	8.2	8.2	8.6
320.	*	6.9	8.3	8.2	8.7
330.	*	6.9	8.5	8.0	8.9
340.	*	6.9	8.8	8.0	9.5
350.	*	7.0	8.6	8.0	9.7
360.	*	7.8	7.4	8.9	8.4
-----*					
MAX	*	9.9	9.7	10.4	9.7
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.38 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Plummer-Reseda Alt B Buildout Future PM RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	0.9	0.0	0.1
2	*	0.0	0.0	0.6	1.1
3	*	0.0	0.1	0.0	0.0
4	*	0.2	0.0	1.7	0.9
5	*	1.6	0.9	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.4	0.0	0.7	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.1	0.0
12	*	0.0	0.7	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT36CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Reseda Alt C Buildout Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1621.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1871.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	425.6	*	38.	180. AG	80.	100.0	0.0	36.0	0.48	2.0
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2894.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2877.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	627.1	*	91.	360. AG	80.	100.0	0.0	36.0	0.86	4.6
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	794.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	615.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	364.0	482.0	*	100.	270. AG	271.	100.0	0.0	36.0	0.90	5.1
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	529.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	475.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	578.5	518.0	*	42.	90. AG	271.	100.0	0.0	36.0	0.60	2.2

1

PAGE 2

JOB: Plummer-Reseda Alt C Buildout Future PM RUN: 9

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
3. NBQ	*	60	13	3.0	1621	1600	45.96	3	3
6. SBQ	*	60	13	3.0	2894	1600	45.96	3	3
9. EBQ	*	60	44	3.0	794	1600	45.96	3	3
12. WBQ	*	60	44	3.0	529	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

1

PAGE 3

JOB: Plummer-Reseda Alt C Buildout Future PM RUN: 9

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
0.	*	7.8	7.4	8.9	8.4
10.	*	9.0	6.9	10.4	7.7
20.	*	9.1	6.9	9.9	7.4
30.	*	8.8	6.9	9.3	7.2
40.	*	8.7	6.9	9.0	7.2
50.	*	8.5	6.9	9.0	7.2
60.	*	8.3	6.9	8.9	7.3
70.	*	8.3	6.9	8.5	7.4
80.	*	8.3	6.9	8.6	7.3
90.	*	8.5	7.0	8.4	7.0
100.	*	9.1	7.3	8.0	6.9
110.	*	9.1	7.4	8.0	6.9
120.	*	8.8	7.3	8.1	6.9
130.	*	8.5	7.4	8.2	6.9
140.	*	8.6	7.4	8.3	6.9
150.	*	9.0	7.6	8.6	6.9
160.	*	9.6	7.8	8.9	6.9
170.	*	9.9	7.8	8.9	6.9
180.	*	8.6	8.5	7.6	7.4

190.	*	7.8	9.7	6.9	8.6
200.	*	7.8	9.6	6.9	8.7
210.	*	7.8	9.1	6.9	8.4
220.	*	7.7	8.9	6.9	8.2
230.	*	7.6	9.0	6.9	8.0
240.	*	7.4	9.0	6.9	8.1
250.	*	7.4	9.0	6.9	8.1
260.	*	7.4	8.7	6.9	8.1
270.	*	7.0	8.4	7.1	8.4
280.	*	6.9	8.2	7.6	9.3
290.	*	6.9	8.2	7.9	9.3
300.	*	6.9	8.3	8.1	8.7
310.	*	6.9	8.3	8.2	8.6
320.	*	6.9	8.3	8.1	8.7
330.	*	6.9	8.4	8.0	8.9
340.	*	6.9	8.8	8.0	9.5
350.	*	7.0	8.6	8.0	9.7
360.	*	7.8	7.4	8.9	8.4
-----*					
MAX	*	9.9	9.7	10.4	9.7
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.38 PPM AT 10 DEGREES FROM REC3 .

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PAGE 4

JOB: Plummer-Reseda Alt C Buildout Future PM RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	0.9	0.0	0.1
2	*	0.0	0.0	0.6	1.1
3	*	0.0	0.1	0.0	0.0
4	*	0.2	0.0	1.7	0.9
5	*	1.6	0.9	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.4	0.0	0.7	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.1	0.0
12	*	0.0	0.7	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:30

CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT36DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Plummer-Reseda Alt D Buildout Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. NBA	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1621.	9.3	0.0	56.0		
2. NBD	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1880.	9.3	0.0	44.0		
3. NBQ	*	518.0	464.0	518.0	425.6	*	38.	180. AG	80.	100.0	0.0	36.0	0.48	2.0
4. SBA	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	2886.	9.3	0.0	56.0		
5. SBD	*	482.0	500.0	482.0	0.0	*	500.	180. AG	2877.	9.3	0.0	44.0		
6. SBQ	*	482.0	536.0	482.0	626.3	*	90.	360. AG	80.	100.0	0.0	36.0	0.86	4.6
7. EBA	*	0.0	482.0	500.0	482.0	*	500.	90. AG	812.	9.3	0.0	56.0		
8. EBD	*	500.0	482.0	1000.0	482.0	*	500.	90. AG	624.	9.3	0.0	44.0		
9. EBQ	*	464.0	482.0	355.5	482.0	*	109.	270. AG	271.	100.0	0.0	36.0	0.92	5.5
10. WBA	*	1000.0	518.0	500.0	518.0	*	500.	270. AG	521.	9.3	0.0	56.0		
11. WBD	*	500.0	518.0	0.0	518.0	*	500.	270. AG	459.	9.3	0.0	44.0		
12. WBQ	*	536.0	518.0	649.3	518.0	*	113.	90. AG	271.	100.0	0.0	36.0	0.93	5.8

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PAGE 2

JOB: Plummer-Reseda Alt D Buildout Future PM RUN: 11

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
3. NBQ	*	60	13	3.0	1621	1600	45.96	3	3
6. SBQ	*	60	13	3.0	2886	1600	45.96	3	3
9. EBQ	*	60	44	3.0	812	1600	45.96	3	3
12. WBQ	*	60	44	3.0	821	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	444.0	556.0	5.4	*
2. NE	*	556.0	556.0	5.4	*
3. SW	*	444.0	444.0	5.4	*
4. SE	*	556.0	444.0	5.4	*

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PAGE 3

JOB: Plummer-Reseda Alt D Buildout Future PM RUN: 11

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
0.	*	7.8	7.4	8.9	8.4
10.	*	9.0	6.9	10.4	7.8
20.	*	9.1	6.9	9.9	7.8
30.	*	8.8	6.9	9.3	7.8
40.	*	8.7	6.9	9.0	7.8
50.	*	8.5	6.9	9.0	7.6
60.	*	8.3	6.9	9.1	7.4
70.	*	8.3	6.9	9.0	7.4
80.	*	8.3	6.9	8.8	7.3
90.	*	8.7	7.0	8.4	7.0
100.	*	9.5	7.5	8.0	6.9
110.	*	9.4	8.0	8.0	6.9
120.	*	8.8	8.2	8.1	6.9
130.	*	8.5	8.2	8.2	6.9
140.	*	8.6	8.1	8.3	6.9
150.	*	9.0	7.9	8.6	6.9
160.	*	9.6	7.9	8.9	6.9
170.	*	9.9	7.8	8.9	6.9
180.	*	8.6	8.5	7.6	7.4

190.	*	7.8	9.7	6.9	8.6
200.	*	7.8	9.6	6.9	8.7
210.	*	7.8	9.1	6.9	8.4
220.	*	7.8	8.9	6.9	8.2
230.	*	7.7	9.0	6.9	8.0
240.	*	7.4	9.0	6.9	8.1
250.	*	7.4	9.1	6.9	8.1
260.	*	7.4	8.8	6.9	8.1
270.	*	7.0	8.4	7.1	8.5
280.	*	6.9	8.2	7.6	9.4
290.	*	6.9	8.2	7.9	9.3
300.	*	6.9	8.3	8.1	8.7
310.	*	6.9	8.3	8.2	8.6
320.	*	6.9	8.3	8.2	8.7
330.	*	6.9	8.5	8.0	8.9
340.	*	6.9	8.8	8.0	9.5
350.	*	7.0	8.6	8.0	9.7
360.	*	7.8	7.4	8.9	8.4
-----*					
MAX	*	9.9	9.7	10.4	9.7
DEGR.	*	170	190	10	350

THE HIGHEST CONCENTRATION IS 10.38 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Plummer-Reseda Alt D Buildout Future PM RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	170	190	10	350
-----*					
1	*	0.5	0.9	0.0	0.1
2	*	0.0	0.0	0.6	1.1
3	*	0.0	0.1	0.0	0.0
4	*	0.2	0.0	1.7	0.9
5	*	1.6	0.9	0.0	0.0
6	*	0.0	0.0	0.2	0.0
7	*	0.2	0.0	0.2	0.0
8	*	0.0	0.1	0.0	0.2
9	*	0.4	0.0	0.7	0.0
10	*	0.0	0.1	0.0	0.1
11	*	0.1	0.0	0.1	0.0
12	*	0.0	0.7	0.0	0.4

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT37XAP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Reseda Existing Ambient PM RUN: 2

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1467.	12.2	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1662.	12.2	0.0	44.0		
3. NBQ	*	530.0	440.0	530.0	392.0	*	48.	180. AG	406.	100.0	0.0	60.0	0.44	2.4
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1632.	12.2	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1464.	12.2	0.0	44.0		
6. SBQ	*	470.0	560.0	470.0	613.5	*	53.	360. AG	406.	100.0	0.0	60.0	0.49	2.7
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1650.	12.2	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1833.	12.2	0.0	56.0		
9. EBQ	*	440.0	470.0	391.3	470.0	*	49.	270. AG	365.	100.0	0.0	60.0	0.44	2.5
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1763.	12.2	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1553.	12.2	0.0	56.0		
12. WBQ	*	560.0	530.0	612.0	530.0	*	52.	90. AG	365.	100.0	0.0	60.0	0.47	2.6

1

PAGE 2

JOB: Nordhoff-Reseda Existing Ambient PM RUN: 2

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
3. NBQ	*	60	30	3.0	1467	1600	60.55	3	3
6. SBQ	*	60	30	3.0	1632	1600	60.55	3	3
9. EBQ	*	60	27	3.0	1650	1600	60.55	3	3
12. WBQ	*	60	27	3.0	1763	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Reseda Existing Ambient PM RUN: 2

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
0.	*	9.1	8.9	11.2	10.7
10.	*	10.0	8.7	12.1	10.2
20.	*	10.2	8.7	12.0	9.9
30.	*	10.1	8.7	11.4	9.8
40.	*	10.1	8.7	11.1	9.8
50.	*	10.2	8.7	11.3	10.0
60.	*	10.4	8.7	11.4	10.2
70.	*	10.6	8.7	11.6	10.3
80.	*	10.7	8.7	11.6	9.9
90.	*	11.3	9.1	10.7	9.0
100.	*	12.4	10.1	9.9	8.7
110.	*	12.2	10.4	9.8	8.7
120.	*	11.4	10.3	9.6	8.7
130.	*	11.2	10.1	9.6	8.7
140.	*	11.3	10.2	9.7	8.7
150.	*	11.2	10.3	9.9	8.7
160.	*	11.4	10.6	10.0	8.7
170.	*	11.4	10.7	9.7	8.7
180.	*	10.5	11.3	8.9	9.1

```

190. * 10.1 12.1 8.7 9.8
200. * 9.8 11.9 8.7 10.0
210. * 9.6 11.3 8.7 9.9
220. * 9.7 11.0 8.7 9.9
230. * 9.8 11.2 8.7 10.0
240. * 9.9 11.4 8.7 10.1
250. * 10.1 11.5 8.7 10.4
260. * 9.8 11.6 8.7 10.6
270. * 9.0 10.7 9.1 11.2
280. * 8.7 10.2 10.0 12.1
290. * 8.7 9.9 10.2 12.0
300. * 8.7 9.8 10.1 11.3
310. * 8.7 9.7 10.0 11.1
320. * 8.7 9.8 10.0 11.4
330. * 8.7 9.9 10.2 11.4
340. * 8.7 10.1 10.4 11.6
350. * 8.7 9.8 10.5 11.7
360. * 9.1 8.9 11.2 10.7
-----*
MAX * 12.4 12.1 12.1 12.1
DEGR. * 100 190 10 280

```

THE HIGHEST CONCENTRATION IS 12.40 PPM AT 100 DEGREES FROM REC1 .
1

PAGE 4

JOB: Nordhoff-Reseda Existing Ambient PM

RUN: 2

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

```

* CO/LINK (PPM)
* ANGLE (DEGREES)
* REC1 REC2 REC3 REC4
LINK # * 100 190 10 280
-----*
1 * 0.0 0.9 0.0 0.5
2 * 0.4 0.0 0.3 0.0
3 * 0.0 0.3 0.0 1.0
4 * 0.5 0.0 1.0 0.0
5 * 0.0 0.3 0.0 0.3
6 * 1.0 0.0 0.4 0.0
7 * 0.0 0.0 0.5 1.0
8 * 0.4 0.4 0.0 0.0
9 * 0.0 0.0 0.9 0.3
10 * 1.1 0.6 0.0 0.0
11 * 0.0 0.0 0.3 0.3
12 * 0.3 0.9 0.0 0.0

```

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT37FPP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Reseda Future Pre-Project PM RUN: 3

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1484.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1680.	9.3	0.0	44.0		
3. NBQ	*	530.0	440.0	530.0	391.5	*	49.	180. AG	308.	100.0	0.0	60.0	0.44	2.5
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1678.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1506.	9.3	0.0	44.0		
6. SBQ	*	470.0	560.0	470.0	615.0	*	55.	360. AG	308.	100.0	0.0	60.0	0.50	2.8
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1704.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1895.	9.3	0.0	56.0		
9. EBQ	*	440.0	470.0	389.8	470.0	*	50.	270. AG	277.	100.0	0.0	60.0	0.46	2.5
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1783.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1568.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	612.6	530.0	*	53.	90. AG	277.	100.0	0.0	60.0	0.48	2.7

1 PAGE 2

JOB: Nordhoff-Reseda Future Pre-Project PM RUN: 3
 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
3. NBQ	*	60	30	3.0	1484	1600	45.96	3	3
6. SBQ	*	60	30	3.0	1678	1600	45.96	3	3
9. EBQ	*	60	27	3.0	1704	1600	45.96	3	3
12. WBQ	*	60	27	3.0	1783	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1 PAGE 3

JOB: Nordhoff-Reseda Future Pre-Project PM RUN: 3

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
0.	*	7.2	7.1	8.8	8.5
10.	*	7.8	6.9	9.7	8.0
20.	*	8.1	6.9	9.3	7.9
30.	*	8.0	6.9	8.8	7.7
40.	*	7.9	6.9	8.5	7.7
50.	*	8.1	6.9	8.6	7.9
60.	*	8.2	6.9	9.0	8.0
70.	*	8.4	6.9	9.3	8.1
80.	*	8.4	6.9	9.2	7.9
90.	*	8.9	7.2	8.5	7.1
100.	*	9.6	8.0	7.9	6.9
110.	*	9.6	8.1	7.7	6.9
120.	*	9.0	8.1	7.6	6.9
130.	*	8.6	8.1	7.6	6.9
140.	*	8.6	8.1	7.6	6.9
150.	*	9.0	8.2	7.8	6.9
160.	*	9.0	8.3	7.9	6.9
170.	*	9.1	8.3	7.6	6.9
180.	*	8.4	8.9	7.1	7.2

190.	*	8.0	9.4	6.9	7.7
200.	*	7.8	9.3	6.9	7.9
210.	*	7.6	9.1	6.9	7.8
220.	*	7.7	8.6	6.9	7.8
230.	*	7.8	8.7	6.9	7.9
240.	*	7.9	9.0	6.9	8.0
250.	*	8.0	9.1	6.9	8.3
260.	*	7.8	9.2	6.9	8.4
270.	*	7.1	8.4	7.2	8.8
280.	*	6.9	8.1	7.8	9.5
290.	*	6.9	7.8	8.1	9.5
300.	*	6.9	7.6	8.0	9.0
310.	*	6.9	7.7	7.8	8.6
320.	*	6.9	7.8	8.0	8.7
330.	*	6.9	7.9	8.0	9.1
340.	*	6.9	8.0	8.3	9.2
350.	*	6.9	7.8	8.3	9.1
360.	*	7.2	7.1	8.8	8.5
-----*					
MAX	*	9.6	9.4	9.7	9.5
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Nordhoff-Reseda Future Pre-Project PM

RUN: 3

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.7	0.0	0.4
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.7
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.2	0.0	0.2
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.2
10	*	0.8	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.3
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT37AKP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Reseda Alt A Krausz Future PM RUN: 4

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1500.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1680.	9.3	0.0	44.0		
3. NBQ	*	530.0	440.0	530.0	390.8	*	49.	180. AG	308.	100.0	0.0	60.0	0.45	2.5
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1678.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1515.	9.3	0.0	44.0		
6. SBQ	*	470.0	560.0	470.0	615.0	*	55.	360. AG	308.	100.0	0.0	60.0	0.50	2.8
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1728.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1910.	9.3	0.0	56.0		
9. EBQ	*	440.0	470.0	389.1	470.0	*	51.	270. AG	277.	100.0	0.0	60.0	0.46	2.6
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1809.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1610.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	613.3	530.0	*	53.	90. AG	277.	100.0	0.0	60.0	0.48	2.7

1

PAGE 2

JOB: Nordhoff-Reseda Alt A Krausz Future PM RUN: 4

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
3. NBQ	*	60	30	3.0	1500	1600	45.96	3	3
6. SBQ	*	60	30	3.0	1678	1600	45.96	3	3
9. EBQ	*	60	27	3.0	1728	1600	45.96	3	3
12. WBQ	*	60	27	3.0	1809	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Reseda Alt A Krausz Future PM RUN: 4

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 REC1	REC2	REC3	REC4
0.	*	7.2	7.1	8.8	8.5
10.	*	7.8	6.9	9.7	8.0
20.	*	8.1	6.9	9.3	7.9
30.	*	8.0	6.9	8.8	7.8
40.	*	7.9	6.9	8.5	7.8
50.	*	8.1	6.9	8.6	7.9
60.	*	8.2	6.9	9.0	8.0
70.	*	8.4	6.9	9.3	8.1
80.	*	8.4	6.9	9.2	7.9
90.	*	8.9	7.2	8.5	7.1
100.	*	9.7	8.0	7.9	6.9
110.	*	9.6	8.2	7.8	6.9
120.	*	9.0	8.2	7.6	6.9
130.	*	8.6	8.1	7.6	6.9
140.	*	8.7	8.1	7.6	6.9
150.	*	9.0	8.2	7.8	6.9
160.	*	9.0	8.3	7.9	6.9
170.	*	9.1	8.3	7.6	6.9
180.	*	8.4	8.9	7.1	7.2

190.	*	8.0	9.5	6.9	7.7
200.	*	7.8	9.3	6.9	7.9
210.	*	7.6	9.1	6.9	8.0
220.	*	7.7	8.6	6.9	7.8
230.	*	7.8	8.7	6.9	7.9
240.	*	7.9	9.0	6.9	8.1
250.	*	8.0	9.2	6.9	8.3
260.	*	7.8	9.2	6.9	8.4
270.	*	7.1	8.4	7.2	8.8
280.	*	6.9	8.1	7.9	9.5
290.	*	6.9	7.8	8.1	9.6
300.	*	6.9	7.6	8.1	9.0
310.	*	6.9	7.7	7.9	8.7
320.	*	6.9	7.8	8.0	8.7
330.	*	6.9	7.9	8.1	9.1
340.	*	6.9	8.0	8.3	9.2
350.	*	6.9	7.8	8.3	9.1
360.	*	7.2	7.1	8.8	8.5
-----*					
MAX	*	9.7	9.5	9.7	9.6
DEGR.	*	100	190	10	290

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Nordhoff-Reseda Alt A Krausz Future PM RUN: 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	290
-----*					
1	*	0.0	0.7	0.0	0.4
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.5
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.2	0.0	0.3
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.6
8	*	0.3	0.3	0.0	0.2
9	*	0.0	0.0	0.7	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT37BKP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Reseda Alt B Krausz Future PM RUN: 6

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1489.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1680.	9.3	0.0	44.0		
3. NBQ	*	530.0	440.0	530.0	391.3	*	49.	180. AG	308.	100.0	0.0	60.0	0.45	2.5
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1678.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1525.	9.3	0.0	44.0		
6. SBQ	*	470.0	560.0	470.0	615.0	*	55.	360. AG	308.	100.0	0.0	60.0	0.50	2.8
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1755.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1927.	9.3	0.0	56.0		
9. EBQ	*	440.0	470.0	388.2	470.0	*	52.	270. AG	277.	100.0	0.0	60.0	0.47	2.6
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1791.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1581.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	612.9	530.0	*	53.	90. AG	277.	100.0	0.0	60.0	0.48	2.7

1

PAGE 2

JOB: Nordhoff-Reseda Alt B Krausz Future PM RUN: 6

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
3. NBQ	*	60	30	3.0	1489	1600	45.96	3	3
6. SBQ	*	60	30	3.0	1678	1600	45.96	3	3
9. EBQ	*	60	27	3.0	1755	1600	45.96	3	3
12. WBQ	*	60	27	3.0	1791	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Reseda Alt B Krausz Future PM RUN: 6

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
0.	*	7.2	7.1	8.8	8.5
10.	*	7.8	6.9	9.7	8.1
20.	*	8.1	6.9	9.3	7.9
30.	*	8.0	6.9	8.8	7.8
40.	*	7.9	6.9	8.6	7.8
50.	*	8.1	6.9	8.6	7.9
60.	*	8.2	6.9	9.1	8.0
70.	*	8.4	6.9	9.3	8.1
80.	*	8.4	6.9	9.2	7.9
90.	*	8.9	7.2	8.5	7.1
100.	*	9.7	8.0	7.9	6.9
110.	*	9.6	8.2	7.7	6.9
120.	*	9.1	8.2	7.6	6.9
130.	*	8.6	8.1	7.6	6.9
140.	*	8.6	8.1	7.7	6.9
150.	*	9.0	8.2	7.8	6.9
160.	*	9.0	8.4	7.9	6.9
170.	*	9.1	8.3	7.6	6.9
180.	*	8.4	8.9	7.1	7.2

190.	*	8.0	9.4	6.9	7.7
200.	*	7.8	9.3	6.9	7.9
210.	*	7.6	9.1	6.9	7.9
220.	*	7.7	8.6	6.9	7.8
230.	*	7.8	8.7	6.9	7.9
240.	*	7.9	9.0	6.9	8.1
250.	*	8.0	9.2	6.9	8.3
260.	*	7.8	9.2	6.9	8.4
270.	*	7.1	8.4	7.2	8.9
280.	*	6.9	8.1	7.9	9.6
290.	*	6.9	7.8	8.1	9.6
300.	*	6.9	7.6	8.1	9.1
310.	*	6.9	7.7	8.0	8.6
320.	*	6.9	7.8	8.0	8.7
330.	*	6.9	7.9	8.2	9.1
340.	*	6.9	8.0	8.3	9.2
350.	*	6.9	7.8	8.3	9.2
360.	*	7.2	7.1	8.8	8.5
-----*					
MAX	*	9.7	9.4	9.7	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Nordhoff-Reseda Alt B Krausz Future PM RUN: 6

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.7	0.0	0.4
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.2	0.0	0.7
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.2	0.0	0.3
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.2
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.3
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT37CKP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Reseda Alt C Krausz Future PM RUN: 8

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1499.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1680.	9.3	0.0	44.0		
3. NBQ	*	530.0	440.0	530.0	391.0	*	49.	180. AG	308.	100.0	0.0	60.0	0.45	2.5
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1678.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1513.	9.3	0.0	44.0		
6. SBQ	*	470.0	560.0	470.0	615.0	*	55.	360. AG	308.	100.0	0.0	60.0	0.50	2.8
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1723.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1907.	9.3	0.0	56.0		
9. EBQ	*	440.0	470.0	389.2	470.0	*	51.	270. AG	277.	100.0	0.0	60.0	0.46	2.6
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1809.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1609.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	613.3	530.0	*	53.	90. AG	277.	100.0	0.0	60.0	0.48	2.7

1

PAGE 2

JOB: Nordhoff-Reseda Alt C Krausz Future PM RUN: 8

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
3. NBQ	*	60	30	3.0	1499	1600	45.96	3	3
6. SBQ	*	60	30	3.0	1678	1600	45.96	3	3
9. EBQ	*	60	27	3.0	1723	1600	45.96	3	3
12. WBQ	*	60	27	3.0	1809	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Reseda Alt C Krausz Future PM RUN: 8

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
0.	*	7.2	7.1	8.8	8.5
10.	*	7.8	6.9	9.7	8.0
20.	*	8.1	6.9	9.3	7.9
30.	*	8.0	6.9	8.8	7.8
40.	*	7.9	6.9	8.5	7.8
50.	*	8.1	6.9	8.6	7.9
60.	*	8.2	6.9	9.0	8.0
70.	*	8.4	6.9	9.3	8.1
80.	*	8.4	6.9	9.2	7.9
90.	*	8.9	7.2	8.5	7.1
100.	*	9.7	8.0	7.9	6.9
110.	*	9.6	8.2	7.8	6.9
120.	*	9.0	8.2	7.6	6.9
130.	*	8.6	8.1	7.6	6.9
140.	*	8.7	8.1	7.6	6.9
150.	*	9.0	8.2	7.8	6.9
160.	*	9.0	8.3	7.9	6.9
170.	*	9.1	8.3	7.6	6.9
180.	*	8.4	8.9	7.1	7.2

190.	*	8.0	9.5	6.9	7.7
200.	*	7.8	9.3	6.9	7.9
210.	*	7.6	9.1	6.9	7.8
220.	*	7.7	8.6	6.9	7.8
230.	*	7.8	8.7	6.9	7.9
240.	*	7.9	9.0	6.9	8.1
250.	*	8.0	9.2	6.9	8.3
260.	*	7.8	9.2	6.9	8.4
270.	*	7.1	8.4	7.2	8.8
280.	*	6.9	8.1	7.9	9.5
290.	*	6.9	7.8	8.1	9.6
300.	*	6.9	7.6	8.1	9.0
310.	*	6.9	7.7	7.9	8.7
320.	*	6.9	7.8	8.0	8.7
330.	*	6.9	7.9	8.1	9.1
340.	*	6.9	8.0	8.3	9.2
350.	*	6.9	7.8	8.3	9.1
360.	*	7.2	7.1	8.8	8.5

MAX	*	9.7	9.5	9.7	9.6
DEGR.	*	100	190	10	290

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Nordhoff-Reseda Alt C Krausz Future PM RUN: 8

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	290

1	*	0.0	0.7	0.0	0.4
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.5
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.2	0.0	0.3
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.6
8	*	0.3	0.3	0.0	0.2
9	*	0.0	0.0	0.7	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT37DKP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Reseda Alt D Krausz Future PM RUN: 10

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1490.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1680.	9.3	0.0	44.0		
3. NBQ	*	530.0	440.0	530.0	391.1	*	49.	180. AG	308.	100.0	0.0	60.0	0.45	2.5
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1678.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1520.	9.3	0.0	44.0		
6. SBQ	*	470.0	560.0	470.0	615.0	*	55.	360. AG	308.	100.0	0.0	60.0	0.50	2.8
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1742.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1919.	9.3	0.0	56.0		
9. EBQ	*	440.0	470.0	388.6	470.0	*	51.	270. AG	277.	100.0	0.0	60.0	0.47	2.6
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1794.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1585.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	612.9	530.0	*	53.	90. AG	277.	100.0	0.0	60.0	0.48	2.7

1 PAGE 2

JOB: Nordhoff-Reseda Alt D Krausz Future PM RUN: 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
3. NBQ	*	60	30	3.0	1490	1600	45.96	3	3
6. SBQ	*	60	30	3.0	1678	1600	45.96	3	3
9. EBQ	*	60	27	3.0	1742	1600	45.96	3	3
12. WBQ	*	60	27	3.0	1794	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1 PAGE 3

JOB: Nordhoff-Reseda Alt D Krausz Future PM RUN: 10

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
0.	*	7.2	7.1	8.8	8.5
10.	*	7.8	6.9	9.7	8.1
20.	*	8.1	6.9	9.3	7.9
30.	*	8.0	6.9	8.8	7.8
40.	*	7.9	6.9	8.6	7.8
50.	*	8.1	6.9	8.6	7.9
60.	*	8.2	6.9	9.1	8.0
70.	*	8.4	6.9	9.3	8.1
80.	*	8.4	6.9	9.2	7.9
90.	*	8.9	7.2	8.5	7.1
100.	*	9.7	8.0	7.9	6.9
110.	*	9.6	8.2	7.8	6.9
120.	*	9.1	8.2	7.6	6.9
130.	*	8.6	8.1	7.6	6.9
140.	*	8.6	8.1	7.7	6.9
150.	*	9.0	8.2	7.8	6.9
160.	*	9.0	8.3	7.9	6.9
170.	*	9.1	8.3	7.6	6.9
180.	*	8.4	8.9	7.1	7.2

190.	*	8.0	9.5	6.9	7.7
200.	*	7.8	9.3	6.9	7.9
210.	*	7.6	9.1	6.9	7.9
220.	*	7.7	8.6	6.9	7.8
230.	*	7.8	8.7	6.9	7.9
240.	*	7.9	9.0	6.9	8.1
250.	*	8.0	9.2	6.9	8.3
260.	*	7.8	9.2	6.9	8.4
270.	*	7.1	8.4	7.2	8.8
280.	*	6.9	8.1	7.9	9.6
290.	*	6.9	7.8	8.1	9.6
300.	*	6.9	7.6	8.1	9.1
310.	*	6.9	7.7	8.0	8.6
320.	*	6.9	7.8	8.0	8.7
330.	*	6.9	7.9	8.2	9.1
340.	*	6.9	8.0	8.3	9.2
350.	*	6.9	7.8	8.3	9.2
360.	*	7.2	7.1	8.8	8.5

MAX	*	9.7	9.5	9.7	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Nordhoff-Reseda Alt D Krausz Future PM RUN: 10

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280

1	*	0.0	0.7	0.0	0.4
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.7
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.2	0.0	0.3
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.2
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.3
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT37ABP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Reseda Alt A Buildout Future PM RUN: 5

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1504.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1680.	9.3	0.0	44.0		
3. NBQ	*	530.0	440.0	530.0	390.8	*	49.	180. AG	308.	100.0	0.0	60.0	0.45	2.5
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1678.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1516.	9.3	0.0	44.0		
6. SBQ	*	470.0	560.0	470.0	615.0	*	55.	360. AG	308.	100.0	0.0	60.0	0.50	2.8
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1731.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1912.	9.3	0.0	56.0		
9. EBQ	*	440.0	470.0	388.9	470.0	*	51.	270. AG	277.	100.0	0.0	60.0	0.46	2.6
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1816.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1621.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	613.6	530.0	*	54.	90. AG	277.	100.0	0.0	60.0	0.49	2.7

1

PAGE 2

JOB: Nordhoff-Reseda Alt A Buildout Future PM RUN: 5

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
3. NBQ	*	60	30	3.0	1504	1600	45.96	3	3
6. SBQ	*	60	30	3.0	1678	1600	45.96	3	3
9. EBQ	*	60	27	3.0	1731	1600	45.96	3	3
12. WBQ	*	60	27	3.0	1816	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Reseda Alt A Buildout Future PM RUN: 5

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
0.	*	7.2	7.1	8.8	8.5
10.	*	7.8	6.9	9.7	8.0
20.	*	8.1	6.9	9.3	7.9
30.	*	8.0	6.9	8.8	7.8
40.	*	7.9	6.9	8.5	7.8
50.	*	8.1	6.9	8.6	7.9
60.	*	8.2	6.9	9.0	8.0
70.	*	8.4	6.9	9.3	8.1
80.	*	8.4	6.9	9.2	7.9
90.	*	8.9	7.2	8.5	7.1
100.	*	9.7	8.0	7.9	6.9
110.	*	9.6	8.2	7.8	6.9
120.	*	9.0	8.2	7.6	6.9
130.	*	8.6	8.1	7.6	6.9
140.	*	8.7	8.1	7.6	6.9
150.	*	9.0	8.2	7.8	6.9
160.	*	9.0	8.3	7.9	6.9
170.	*	9.1	8.3	7.6	6.9
180.	*	8.4	8.9	7.1	7.2

190.	*	8.0	9.5	6.9	7.7
200.	*	7.8	9.3	6.9	7.9
210.	*	7.6	9.1	6.9	8.0
220.	*	7.7	8.6	6.9	7.8
230.	*	7.8	8.7	6.9	7.9
240.	*	7.9	9.0	6.9	8.1
250.	*	8.0	9.2	6.9	8.3
260.	*	7.8	9.2	6.9	8.4
270.	*	7.1	8.4	7.2	8.8
280.	*	6.9	8.1	7.9	9.5
290.	*	6.9	7.8	8.1	9.6
300.	*	6.9	7.6	8.1	9.1
310.	*	6.9	7.7	7.9	8.7
320.	*	6.9	7.8	8.0	8.7
330.	*	6.9	7.9	8.1	9.1
340.	*	6.9	8.0	8.3	9.2
350.	*	6.9	7.8	8.3	9.1
360.	*	7.2	7.1	8.8	8.5

MAX	*	9.7	9.5	9.7	9.6
DEGR.	*	100	190	10	290

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Nordhoff-Reseda Alt A Buildout Future PM

RUN: 5

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	ANGLE	100	190	10	290

1	*	0.0	0.7	0.0	0.4
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.5
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.2	0.0	0.3
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.6
8	*	0.3	0.3	0.0	0.2
9	*	0.0	0.0	0.7	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT37BBP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Reseda Alt B Buildout Future PM RUN: 7

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1491.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1680.	9.3	0.0	44.0		
3. NBQ	*	530.0	440.0	530.0	391.1	*	49.	180. AG	308.	100.0	0.0	60.0	0.45	2.5
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1678.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1537.	9.3	0.0	44.0		
6. SBQ	*	470.0	560.0	470.0	615.0	*	55.	360. AG	308.	100.0	0.0	60.0	0.50	2.8
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1786.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1946.	9.3	0.0	56.0		
9. EBQ	*	440.0	470.0	387.3	470.0	*	53.	270. AG	277.	100.0	0.0	60.0	0.48	2.7
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1794.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1586.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	612.9	530.0	*	53.	90. AG	277.	100.0	0.0	60.0	0.48	2.7

1

PAGE 2

JOB: Nordhoff-Reseda Alt B Buildout Future PM RUN: 7

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
3. NBQ	*	60	30	3.0	1491	1600	45.96	3	3
6. SBQ	*	60	30	3.0	1678	1600	45.96	3	3
9. EBQ	*	60	27	3.0	1786	1600	45.96	3	3
12. WBQ	*	60	27	3.0	1794	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Reseda Alt B Buildout Future PM RUN: 7

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
0.	*	7.2	7.1	8.9	8.5
10.	*	7.8	6.9	9.7	8.1
20.	*	8.1	6.9	9.3	7.9
30.	*	8.0	6.9	8.9	7.8
40.	*	7.9	6.9	8.6	7.8
50.	*	8.1	6.9	8.6	7.9
60.	*	8.2	6.9	9.1	8.0
70.	*	8.4	6.9	9.3	8.1
80.	*	8.4	6.9	9.3	7.9
90.	*	8.9	7.2	8.5	7.1
100.	*	9.7	8.0	8.0	6.9
110.	*	9.6	8.3	7.8	6.9
120.	*	9.1	8.2	7.6	6.9
130.	*	8.6	8.1	7.6	6.9
140.	*	8.6	8.1	7.7	6.9
150.	*	9.0	8.2	7.8	6.9
160.	*	9.0	8.4	7.9	6.9
170.	*	9.1	8.3	7.6	6.9
180.	*	8.4	8.9	7.1	7.2

190.	*	8.0	9.5	6.9	7.7
200.	*	7.8	9.3	6.9	7.9
210.	*	7.6	9.1	6.9	7.9
220.	*	7.7	8.6	6.9	7.8
230.	*	7.8	8.7	6.9	7.9
240.	*	7.9	9.1	6.9	8.1
250.	*	8.0	9.2	6.9	8.3
260.	*	7.8	9.2	6.9	8.4
270.	*	7.1	8.4	7.2	8.9
280.	*	6.9	8.1	7.9	9.6
290.	*	6.9	7.8	8.2	9.6
300.	*	6.9	7.6	8.1	9.1
310.	*	6.9	7.7	8.0	8.6
320.	*	6.9	7.8	8.0	8.7
330.	*	6.9	7.9	8.2	9.1
340.	*	6.9	8.0	8.3	9.2
350.	*	6.9	7.8	8.3	9.2
360.	*	7.2	7.1	8.9	8.5
-----*					
MAX	*	9.7	9.5	9.7	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Nordhoff-Reseda Alt B Buildout Future PM RUN: 7

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.7	0.0	0.4
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.7
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.2	0.0	0.3
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.2
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.3
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT37CBP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Reseda Alt C Buildout Future PM RUN: 9

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1503.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1680.	9.3	0.0	44.0		
3. NBQ	*	530.0	440.0	530.0	390.8	*	49.	180. AG	308.	100.0	0.0	60.0	0.45	2.5
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1678.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1514.	9.3	0.0	44.0		
6. SBQ	*	470.0	560.0	470.0	615.0	*	55.	360. AG	308.	100.0	0.0	60.0	0.50	2.8
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1725.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1908.	9.3	0.0	56.0		
9. EBQ	*	440.0	470.0	389.1	470.0	*	51.	270. AG	277.	100.0	0.0	60.0	0.46	2.6
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1815.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1619.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	613.6	530.0	*	54.	90. AG	277.	100.0	0.0	60.0	0.49	2.7

1

PAGE 2

JOB: Nordhoff-Reseda Alt C Buildout Future PM RUN: 9

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
3. NBQ	*	60	30	3.0	1503	1600	45.96	3	3
6. SBQ	*	60	30	3.0	1678	1600	45.96	3	3
9. EBQ	*	60	27	3.0	1725	1600	45.96	3	3
12. WBQ	*	60	27	3.0	1815	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

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PAGE 3

JOB: Nordhoff-Reseda Alt C Buildout Future PM RUN: 9

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
0.	*	7.2	7.1	8.8	8.5
10.	*	7.8	6.9	9.7	8.0
20.	*	8.1	6.9	9.3	7.9
30.	*	8.0	6.9	8.8	7.8
40.	*	7.9	6.9	8.5	7.8
50.	*	8.1	6.9	8.6	7.9
60.	*	8.2	6.9	9.0	8.0
70.	*	8.4	6.9	9.3	8.1
80.	*	8.4	6.9	9.2	7.9
90.	*	8.9	7.2	8.5	7.1
100.	*	9.7	8.0	7.9	6.9
110.	*	9.6	8.2	7.8	6.9
120.	*	9.0	8.2	7.6	6.9
130.	*	8.6	8.1	7.6	6.9
140.	*	8.7	8.1	7.6	6.9
150.	*	9.0	8.2	7.8	6.9
160.	*	9.0	8.3	7.9	6.9
170.	*	9.1	8.3	7.6	6.9
180.	*	8.4	8.9	7.1	7.2

190.	*	8.0	9.5	6.9	7.7
200.	*	7.8	9.3	6.9	7.9
210.	*	7.6	9.1	6.9	8.0
220.	*	7.7	8.6	6.9	7.8
230.	*	7.8	8.7	6.9	7.9
240.	*	7.9	9.0	6.9	8.1
250.	*	8.0	9.2	6.9	8.3
260.	*	7.8	9.2	6.9	8.4
270.	*	7.1	8.4	7.2	8.8
280.	*	6.9	8.1	7.9	9.5
290.	*	6.9	7.8	8.1	9.6
300.	*	6.9	7.6	8.1	9.0
310.	*	6.9	7.7	7.9	8.7
320.	*	6.9	7.8	8.0	8.7
330.	*	6.9	7.9	8.1	9.1
340.	*	6.9	8.0	8.3	9.2
350.	*	6.9	7.8	8.3	9.1
360.	*	7.2	7.1	8.8	8.5

MAX	*	9.7	9.5	9.7	9.6
DEGR.	*	100	190	10	290

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Nordhoff-Reseda Alt C Buildout Future PM

RUN: 9

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	290

1	*	0.0	0.7	0.0	0.4
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.5
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.2	0.0	0.3
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.6
8	*	0.3	0.3	0.0	0.2
9	*	0.0	0.0	0.7	0.3
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.4
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\INT37DBP.DAT

RUN BEGIN ON 08/21/02 AT 18:30

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Nordhoff-Reseda Alt D Buildout Future PM RUN: 11

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. NBA	*	530.0	0.0	530.0	500.0	*	500.	360. AG	1492.	9.3	0.0	80.0		
2. NBD	*	530.0	500.0	530.0	1000.0	*	500.	360. AG	1680.	9.3	0.0	44.0		
3. NBQ	*	530.0	440.0	530.0	391.1	*	49.	180. AG	308.	100.0	0.0	60.0	0.45	2.5
4. SBA	*	470.0	1000.0	470.0	500.0	*	500.	180. AG	1678.	9.3	0.0	80.0		
5. SBD	*	470.0	500.0	470.0	0.0	*	500.	180. AG	1528.	9.3	0.0	44.0		
6. SBQ	*	470.0	560.0	470.0	615.0	*	55.	360. AG	308.	100.0	0.0	60.0	0.50	2.8
7. EBA	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1762.	9.3	0.0	80.0		
8. EBD	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1931.	9.3	0.0	56.0		
9. EBQ	*	440.0	470.0	388.0	470.0	*	52.	270. AG	277.	100.0	0.0	60.0	0.47	2.6
10. WBA	*	1000.0	530.0	500.0	530.0	*	500.	270. AG	1796.	9.3	0.0	80.0		
11. WBD	*	500.0	530.0	0.0	530.0	*	500.	270. AG	1589.	9.3	0.0	56.0		
12. WBQ	*	560.0	530.0	613.0	530.0	*	53.	90. AG	277.	100.0	0.0	60.0	0.48	2.7

1

PAGE 2

JOB: Nordhoff-Reseda Alt D Buildout Future PM RUN: 11

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
3. NBQ	*	60	30	3.0	1492	1600	45.96	3	3
6. SBQ	*	60	30	3.0	1678	1600	45.96	3	3
9. EBQ	*	60	27	3.0	1762	1600	45.96	3	3
12. WBQ	*	60	27	3.0	1796	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. NW	*	420.0	580.0	5.4	*
2. NE	*	580.0	580.0	5.4	*
3. SW	*	420.0	420.0	5.4	*
4. SE	*	580.0	420.0	5.4	*

1

PAGE 3

JOB: Nordhoff-Reseda Alt D Buildout Future PM RUN: 11

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
0.	*	7.2	7.1	8.8	8.5
10.	*	7.8	6.9	9.7	8.1
20.	*	8.1	6.9	9.3	7.9
30.	*	8.0	6.9	8.9	7.8
40.	*	7.9	6.9	8.6	7.8
50.	*	8.1	6.9	8.6	7.9
60.	*	8.2	6.9	9.1	8.0
70.	*	8.4	6.9	9.3	8.1
80.	*	8.4	6.9	9.2	7.9
90.	*	8.9	7.2	8.5	7.1
100.	*	9.7	8.0	7.9	6.9
110.	*	9.6	8.2	7.8	6.9
120.	*	9.1	8.2	7.6	6.9
130.	*	8.6	8.1	7.6	6.9
140.	*	8.6	8.1	7.7	6.9
150.	*	9.0	8.2	7.8	6.9
160.	*	9.0	8.4	7.9	6.9
170.	*	9.1	8.3	7.6	6.9
180.	*	8.4	8.9	7.1	7.2

190.	*	8.0	9.5	6.9	7.7
200.	*	7.8	9.3	6.9	7.9
210.	*	7.6	9.1	6.9	7.9
220.	*	7.7	8.6	6.9	7.8
230.	*	7.8	8.7	6.9	7.9
240.	*	7.9	9.0	6.9	8.1
250.	*	8.0	9.2	6.9	8.3
260.	*	7.8	9.2	6.9	8.4
270.	*	7.1	8.4	7.2	8.9
280.	*	6.9	8.1	7.9	9.6
290.	*	6.9	7.8	8.1	9.6
300.	*	6.9	7.6	8.1	9.1
310.	*	6.9	7.7	8.0	8.6
320.	*	6.9	7.8	8.0	8.7
330.	*	6.9	7.9	8.2	9.1
340.	*	6.9	8.0	8.3	9.2
350.	*	6.9	7.8	8.3	9.2
360.	*	7.2	7.1	8.8	8.5

MAX	*	9.7	9.5	9.7	9.6
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 9.68 PPM AT 100 DEGREES FROM REC1 .
1

PAGE 4

JOB: Nordhoff-Reseda Alt D Buildout Future PM RUN: 11

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	280

1	*	0.0	0.7	0.0	0.4
2	*	0.3	0.0	0.3	0.0
3	*	0.0	0.3	0.0	0.7
4	*	0.4	0.0	0.8	0.0
5	*	0.0	0.2	0.0	0.3
6	*	0.7	0.0	0.3	0.0
7	*	0.0	0.0	0.4	0.8
8	*	0.3	0.3	0.0	0.0
9	*	0.0	0.0	0.7	0.2
10	*	0.9	0.4	0.0	0.0
11	*	0.0	0.0	0.3	0.3
12	*	0.2	0.7	0.0	0.0

RUN ENDED ON 08/21/02 AT 18:30

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\vireex.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Victory Reseda Existing

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	968.	12.2	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	917.	12.2	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	401.7	*	50.	180. AG	411.	100.0	0.0	36.0	0.53	2.6
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1289.	12.2	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1895.	12.2	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	617.9	*	70.	360. AG	411.	100.0	0.0	36.0	0.71	3.5
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2589.	12.2	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	1992.	12.2	0.0	56.0		
9. ebq	*	464.0	476.0	332.8	476.0	*	131.	270. AG	154.	100.0	0.0	48.0	0.90	6.7
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	1903.	12.2	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	1945.	12.2	0.0	44.0		
12. wbq	*	536.0	524.0	601.9	524.0	*	66.	90. AG	154.	100.0	0.0	48.0	0.66	3.3

1

PAGE 2

JOB: Klausz Properties

RUN: Victory Reseda Existing

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
3. nbq	*	60	38	3.0	968	1600	60.55	3	3
6. sbq	*	60	38	3.0	1289	1600	60.55	3	3
9. ebq	*	60	19	3.0	2589	1600	60.55	3	3
12. wbq	*	60	19	3.0	1903	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Victory Reseda Existing

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
0.	*	9.1	9.1	11.3	10.6
10.	*	10.0	8.7	12.6	10.1
20.	*	10.1	8.7	12.3	10.2
30.	*	10.2	8.7	11.6	10.0
40.	*	10.5	8.7	11.5	10.0
50.	*	10.7	8.7	11.5	10.2
60.	*	10.7	8.7	11.8	10.4
70.	*	10.5	8.7	12.0	10.6
80.	*	10.4	8.7	12.4	10.4
90.	*	11.3	9.3	11.2	9.2
100.	*	12.6	10.5	10.4	8.7
110.	*	12.4	10.7	10.2	8.7
120.	*	11.7	10.5	9.9	8.7
130.	*	11.2	10.3	9.8	8.7
140.	*	11.4	10.4	9.9	8.7
150.	*	11.7	10.3	10.1	8.7
160.	*	12.0	10.2	10.3	8.7
170.	*	12.0	10.2	10.3	8.7
180.	*	11.0	10.9	9.2	9.1

190.	*	10.2	12.2	8.7	10.1
200.	*	10.3	12.1	8.7	10.2
210.	*	10.4	11.5	8.7	10.0
220.	*	10.5	11.3	8.7	10.0
230.	*	10.5	11.4	8.7	10.3
240.	*	10.6	11.7	8.7	10.6
250.	*	10.8	12.2	8.7	10.6
260.	*	10.5	12.1	8.8	10.7
270.	*	9.2	10.7	9.5	11.7
280.	*	8.7	10.1	11.1	13.3
290.	*	8.7	10.3	11.5	13.1
300.	*	8.7	10.0	11.2	12.1
310.	*	8.7	9.7	10.9	11.5
320.	*	8.7	9.5	10.7	11.3
330.	*	8.7	9.7	10.6	11.5
340.	*	8.7	9.9	10.5	11.7
350.	*	8.7	9.8	10.5	11.4
360.	*	9.1	9.1	11.3	10.6
-----*					
MAX	*	12.6	12.2	12.6	13.3
DEGR.	*	100	190	10	280

THE HIGHEST CONCENTRATION IS 13.30 PPM AT 280 DEGREES FROM REC4 .

1

PAGE 4

JOB: Klausz Properties

RUN: Victory Reseda Existing

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	190	10	280
-----*					
1	*	0.0	0.7	0.0	0.3
2	*	0.2	0.0	0.4	0.0
3	*	0.0	0.5	0.0	1.1
4	*	0.4	0.0	0.9	0.0
5	*	0.0	0.8	0.1	0.5
6	*	1.1	0.0	0.7	0.0
7	*	0.0	0.0	0.9	1.8
8	*	0.6	0.5	0.0	0.0
9	*	0.0	0.0	0.4	0.4
10	*	1.4	0.6	0.0	0.0
11	*	0.0	0.0	0.5	0.5
12	*	0.2	0.4	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\virepre.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Victory Reseda Pre Project

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1039.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	985.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	401.0	*	51.	180. AG	296.	100.0	0.0	36.0	0.51	2.6
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1370.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1271.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	615.3	*	67.	360. AG	296.	100.0	0.0	36.0	0.68	3.4
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2003.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2112.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	387.4	476.0	*	77.	270. AG	129.	100.0	0.0	48.0	0.74	3.9
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2017.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2061.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	613.2	524.0	*	77.	90. AG	129.	100.0	0.0	48.0	0.74	3.9

1

PAGE 2

JOB: Klausz Properties

RUN: Victory Reseda Pre Project

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
3. nbq	*	60	36	3.0	1039	1600	45.96	3	3
6. sbq	*	60	36	3.0	1370	1600	45.96	3	3
9. ebq	*	60	21	3.0	2003	1600	45.96	3	3
12. wbq	*	60	21	3.0	2017	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Victory Reseda Pre Project

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
0.	*	7.2	7.1	8.8	8.4
10.	*	7.9	6.9	9.7	8.1
20.	*	8.0	6.9	9.4	8.0
30.	*	8.1	6.9	8.8	8.1
40.	*	8.2	6.9	8.9	8.0
50.	*	8.4	6.9	8.9	8.1
60.	*	8.4	6.9	9.0	8.2
70.	*	8.3	6.9	9.3	8.5
80.	*	8.3	6.9	9.6	8.3
90.	*	8.9	7.4	8.6	7.3
100.	*	10.1	8.3	8.0	6.9
110.	*	10.0	8.6	7.8	6.9
120.	*	9.4	8.5	7.6	6.9
130.	*	8.9	8.4	7.5	6.9
140.	*	8.9	8.3	7.6	6.9
150.	*	9.1	8.3	7.7	6.9
160.	*	9.2	8.2	7.9	6.9
170.	*	9.1	8.1	7.9	6.9
180.	*	8.4	8.7	7.2	7.2

190.	*	8.1	9.5	6.9	7.8
200.	*	8.0	9.3	6.9	7.8
210.	*	8.1	8.8	6.9	7.8
220.	*	8.0	8.8	6.9	7.9
230.	*	8.1	8.8	6.9	8.0
240.	*	8.2	9.0	6.9	8.2
250.	*	8.4	9.4	6.9	8.3
260.	*	8.2	9.7	6.9	8.2
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.1	8.3	9.9
290.	*	6.9	8.1	8.6	10.1
300.	*	6.9	7.9	8.4	9.4
310.	*	6.9	7.6	8.4	8.8
320.	*	6.9	7.6	8.3	8.9
330.	*	6.9	7.7	8.2	9.2
340.	*	6.9	7.9	8.2	9.2
350.	*	6.9	7.7	8.1	9.2
360.	*	7.2	7.1	8.8	8.4
-----*					
MAX	*	10.1	9.7	9.7	10.1
DEGR.	*	100	260	10	290

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Victory Reseda Pre Project

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	260	10	290
-----*					
1	*	0.0	0.0	0.0	0.3
2	*	0.2	0.3	0.3	0.0
3	*	0.0	0.0	0.0	0.7
4	*	0.4	0.3	0.8	0.0
5	*	0.0	0.0	0.0	0.3
6	*	0.8	0.5	0.5	0.0
7	*	0.0	0.5	0.5	0.8
8	*	0.5	0.0	0.0	0.2
9	*	0.0	0.0	0.3	0.3
10	*	1.1	0.1	0.0	0.0
11	*	0.0	1.1	0.4	0.6
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\virefa.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1034.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	980.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	401.2	*	51.	180. AG	296.	100.0	0.0	36.0	0.51	2.6
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1371.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1272.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	615.3	*	67.	360. AG	296.	100.0	0.0	36.0	0.68	3.4
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2003.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2112.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	387.4	476.0	*	77.	270. AG	129.	100.0	0.0	48.0	0.74	3.9
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2017.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2061.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	613.2	524.0	*	77.	90. AG	129.	100.0	0.0	48.0	0.74	3.9

1

PAGE 2

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative A

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
3. nbq	*	60	36	3.0	1034	1600	45.96	3	3
6. sbq	*	60	36	3.0	1371	1600	45.96	3	3
9. ebq	*	60	21	3.0	2003	1600	45.96	3	3
12. wbq	*	60	21	3.0	2017	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative A

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
0.	*	7.2	7.1	8.8	8.4
10.	*	7.9	6.9	9.7	8.1
20.	*	8.0	6.9	9.4	8.0
30.	*	8.1	6.9	8.8	8.1
40.	*	8.2	6.9	8.9	8.0
50.	*	8.4	6.9	8.9	8.1
60.	*	8.4	6.9	9.0	8.2
70.	*	8.3	6.9	9.3	8.5
80.	*	8.3	6.9	9.6	8.3
90.	*	8.9	7.4	8.6	7.3
100.	*	10.1	8.3	8.0	6.9
110.	*	10.0	8.6	7.8	6.9
120.	*	9.4	8.5	7.6	6.9
130.	*	8.9	8.4	7.5	6.9
140.	*	8.9	8.3	7.6	6.9
150.	*	9.1	8.3	7.7	6.9
160.	*	9.2	8.2	7.9	6.9
170.	*	9.1	8.1	7.9	6.9
180.	*	8.4	8.7	7.2	7.2

190.	*	8.1	9.5	6.9	7.8
200.	*	8.0	9.3	6.9	7.8
210.	*	8.1	8.8	6.9	7.8
220.	*	8.0	8.8	6.9	7.9
230.	*	8.1	8.8	6.9	8.0
240.	*	8.2	9.0	6.9	8.2
250.	*	8.4	9.4	6.9	8.3
260.	*	8.2	9.6	6.9	8.2
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.0	8.3	9.9
290.	*	6.9	8.1	8.6	10.1
300.	*	6.9	7.9	8.4	9.4
310.	*	6.9	7.6	8.4	8.8
320.	*	6.9	7.6	8.3	8.9
330.	*	6.9	7.7	8.2	9.2
340.	*	6.9	7.9	8.2	9.2
350.	*	6.9	7.7	8.1	9.1
360.	*	7.2	7.1	8.8	8.4
-----*					
MAX	*	10.1	9.6	9.7	10.1
DEGR.	*	100	260	10	290

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative A

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	260	10	290
-----*					
1	*	0.0	0.0	0.0	0.3
2	*	0.2	0.2	0.3	0.0
3	*	0.0	0.0	0.0	0.7
4	*	0.4	0.3	0.8	0.0
5	*	0.0	0.0	0.0	0.3
6	*	0.8	0.5	0.5	0.0
7	*	0.0	0.5	0.5	0.8
8	*	0.5	0.0	0.0	0.2
9	*	0.0	0.0	0.3	0.3
10	*	1.1	0.1	0.0	0.0
11	*	0.0	1.1	0.4	0.6
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\virefb.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1052.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	998.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	400.2	*	52.	180. AG	296.	100.0	0.0	36.0	0.52	2.6
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1372.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1273.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	615.5	*	68.	360. AG	296.	100.0	0.0	36.0	0.68	3.4
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2003.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2112.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	387.4	476.0	*	77.	270. AG	129.	100.0	0.0	48.0	0.74	3.9
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2017.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2061.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	613.2	524.0	*	77.	90. AG	129.	100.0	0.0	48.0	0.74	3.9

1

PAGE 2

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative B

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
3. nbq	*	60	36	3.0	1052	1600	45.96	3	3
6. sbq	*	60	36	3.0	1372	1600	45.96	3	3
9. ebq	*	60	21	3.0	2003	1600	45.96	3	3
12. wbq	*	60	21	3.0	2017	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative B

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
0.	*	7.2	7.1	8.8	8.4
10.	*	7.9	6.9	9.7	8.1
20.	*	8.0	6.9	9.4	8.0
30.	*	8.1	6.9	8.8	8.1
40.	*	8.3	6.9	8.9	8.0
50.	*	8.4	6.9	8.9	8.1
60.	*	8.4	6.9	9.0	8.2
70.	*	8.3	6.9	9.3	8.5
80.	*	8.3	6.9	9.6	8.3
90.	*	8.9	7.4	8.6	7.3
100.	*	10.1	8.3	8.0	6.9
110.	*	10.0	8.6	7.8	6.9
120.	*	9.4	8.5	7.6	6.9
130.	*	8.9	8.4	7.5	6.9
140.	*	8.9	8.3	7.6	6.9
150.	*	9.1	8.3	7.7	6.9
160.	*	9.3	8.2	7.9	6.9
170.	*	9.1	8.1	7.9	6.9
180.	*	8.4	8.7	7.2	7.2

190.	*	8.1	9.5	6.9	7.8
200.	*	8.0	9.3	6.9	7.9
210.	*	8.1	8.8	6.9	7.8
220.	*	8.0	8.8	6.9	7.9
230.	*	8.1	8.8	6.9	8.0
240.	*	8.2	9.0	6.9	8.2
250.	*	8.4	9.4	6.9	8.3
260.	*	8.2	9.7	6.9	8.2
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.1	8.3	9.9
290.	*	6.9	8.1	8.6	10.1
300.	*	6.9	7.9	8.4	9.4
310.	*	6.9	7.6	8.4	8.8
320.	*	6.9	7.6	8.3	8.9
330.	*	6.9	7.7	8.2	9.2
340.	*	6.9	7.9	8.2	9.2
350.	*	6.9	7.7	8.1	9.2
360.	*	7.2	7.1	8.8	8.4
-----*					
MAX	*	10.1	9.7	9.7	10.1
DEGR.	*	100	260	10	290

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	260	10	290
-----*					
1	*	0.0	0.0	0.0	0.3
2	*	0.2	0.3	0.3	0.0
3	*	0.0	0.0	0.0	0.7
4	*	0.4	0.3	0.8	0.0
5	*	0.0	0.0	0.0	0.3
6	*	0.8	0.5	0.5	0.0
7	*	0.0	0.5	0.5	0.8
8	*	0.5	0.0	0.0	0.2
9	*	0.0	0.0	0.3	0.3
10	*	1.1	0.1	0.0	0.0
11	*	0.0	1.1	0.4	0.6
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\virefc.DAT

RUN BEGIN ON 08/21/02 AT 15:49

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1042.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	988.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	400.8	*	51.	180. AG	296.	100.0	0.0	36.0	0.51 2.6	
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1370.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1271.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	615.3	*	67.	360. AG	296.	100.0	0.0	36.0	0.68 3.4	
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2003.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2112.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	387.4	476.0	*	77.	270. AG	129.	100.0	0.0	48.0	0.74 3.9	
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2017.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2061.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	613.2	524.0	*	77.	90. AG	129.	100.0	0.0	48.0	0.74 3.9	

1

PAGE 2

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative C

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
3. nbq	*	60	36	3.0	1042	1600	45.96	3	3
6. sbq	*	60	36	3.0	1370	1600	45.96	3	3
9. ebq	*	60	21	3.0	2003	1600	45.96	3	3
12. wbq	*	60	21	3.0	2017	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative C

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
0.	*	7.2	7.1	8.8	8.4
10.	*	7.9	6.9	9.7	8.1
20.	*	8.0	6.9	9.4	8.0
30.	*	8.1	6.9	8.8	8.1
40.	*	8.2	6.9	8.9	8.0
50.	*	8.4	6.9	8.9	8.1
60.	*	8.4	6.9	9.0	8.2
70.	*	8.3	6.9	9.3	8.5
80.	*	8.3	6.9	9.6	8.3
90.	*	8.9	7.4	8.6	7.3
100.	*	10.1	8.3	8.0	6.9
110.	*	10.0	8.6	7.8	6.9
120.	*	9.4	8.5	7.6	6.9
130.	*	8.9	8.4	7.5	6.9
140.	*	8.9	8.3	7.6	6.9
150.	*	9.1	8.3	7.7	6.9
160.	*	9.2	8.2	7.9	6.9
170.	*	9.1	8.1	7.9	6.9
180.	*	8.4	8.7	7.2	7.2

190.	*	8.1	9.5	6.9	7.8
200.	*	8.0	9.3	6.9	7.9
210.	*	8.1	8.8	6.9	7.8
220.	*	8.0	8.8	6.9	7.9
230.	*	8.1	8.8	6.9	8.0
240.	*	8.2	9.0	6.9	8.2
250.	*	8.4	9.4	6.9	8.3
260.	*	8.2	9.7	6.9	8.2
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.1	8.3	9.9
290.	*	6.9	8.1	8.6	10.1
300.	*	6.9	7.9	8.4	9.4
310.	*	6.9	7.6	8.4	8.8
320.	*	6.9	7.6	8.3	8.9
330.	*	6.9	7.7	8.2	9.2
340.	*	6.9	7.9	8.2	9.2
350.	*	6.9	7.7	8.1	9.2
360.	*	7.2	7.1	8.8	8.4
-----*					
MAX	*	10.1	9.7	9.7	10.1
DEGR.	*	100	260	10	290

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	260	10	290
-----*					
1	*	0.0	0.0	0.0	0.3
2	*	0.2	0.3	0.3	0.0
3	*	0.0	0.0	0.0	0.7
4	*	0.4	0.3	0.8	0.0
5	*	0.0	0.0	0.0	0.3
6	*	0.8	0.5	0.5	0.0
7	*	0.0	0.5	0.5	0.8
8	*	0.5	0.0	0.0	0.2
9	*	0.0	0.0	0.3	0.3
10	*	1.1	0.1	0.0	0.0
11	*	0.0	1.1	0.4	0.6
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 15:49

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\virefd.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1049.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	995.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	400.4	*	52.	180. AG	296.	100.0	0.0	36.0	0.52	2.6
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1373.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1274.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	615.5	*	68.	360. AG	296.	100.0	0.0	36.0	0.68	3.4
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2003.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2112.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	387.4	476.0	*	77.	270. AG	129.	100.0	0.0	48.0	0.74	3.9
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2017.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2061.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	613.2	524.0	*	77.	90. AG	129.	100.0	0.0	48.0	0.74	3.9

1

PAGE 2

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative D

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
3. nbq	*	60	36	3.0	1049	1600	45.96	3	3
6. sbq	*	60	36	3.0	1373	1600	45.96	3	3
9. ebq	*	60	21	3.0	2003	1600	45.96	3	3
12. wbq	*	60	21	3.0	2017	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative D

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
0.	*	7.2	7.1	8.8	8.4
10.	*	7.9	6.9	9.7	8.1
20.	*	8.0	6.9	9.4	8.0
30.	*	8.1	6.9	8.8	8.1
40.	*	8.2	6.9	8.9	8.0
50.	*	8.4	6.9	8.9	8.1
60.	*	8.4	6.9	9.0	8.2
70.	*	8.3	6.9	9.3	8.5
80.	*	8.3	6.9	9.6	8.3
90.	*	8.9	7.4	8.6	7.3
100.	*	10.1	8.3	8.0	6.9
110.	*	10.0	8.6	7.8	6.9
120.	*	9.4	8.5	7.6	6.9
130.	*	8.9	8.4	7.5	6.9
140.	*	8.9	8.3	7.6	6.9
150.	*	9.1	8.3	7.7	6.9
160.	*	9.3	8.2	7.9	6.9
170.	*	9.1	8.1	7.9	6.9
180.	*	8.4	8.7	7.2	7.2

190.	*	8.1	9.5	6.9	7.8
200.	*	8.0	9.3	6.9	7.9
210.	*	8.1	8.8	6.9	7.8
220.	*	8.0	8.8	6.9	7.9
230.	*	8.1	8.8	6.9	8.0
240.	*	8.2	9.0	6.9	8.2
250.	*	8.4	9.4	6.9	8.3
260.	*	8.2	9.7	6.9	8.2
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.1	8.3	9.9
290.	*	6.9	8.1	8.6	10.1
300.	*	6.9	7.9	8.4	9.4
310.	*	6.9	7.6	8.4	8.8
320.	*	6.9	7.6	8.3	8.9
330.	*	6.9	7.7	8.2	9.2
340.	*	6.9	7.9	8.2	9.2
350.	*	6.9	7.7	8.1	9.2
360.	*	7.2	7.1	8.8	8.4
-----*					
MAX	*	10.1	9.7	9.7	10.1
DEGR.	*	100	260	10	290

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Victory Reseda Future Alternative D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	260	10	290
-----*					
1	*	0.0	0.0	0.0	0.3
2	*	0.2	0.3	0.3	0.0
3	*	0.0	0.0	0.0	0.7
4	*	0.4	0.3	0.8	0.0
5	*	0.0	0.0	0.0	0.3
6	*	0.8	0.5	0.5	0.0
7	*	0.0	0.5	0.5	0.8
8	*	0.5	0.0	0.0	0.2
9	*	0.0	0.0	0.3	0.3
10	*	1.1	0.1	0.0	0.0
11	*	0.0	1.1	0.4	0.6
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\vireba.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1034.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	980.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	401.2	*	51.	180. AG	296.	100.0	0.0	36.0	0.51	2.6
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1371.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1325.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	615.3	*	67.	360. AG	296.	100.0	0.0	36.0	0.68	3.4
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2056.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2112.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	385.4	476.0	*	79.	270. AG	129.	100.0	0.0	48.0	0.76	4.0
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2017.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2061.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	613.2	524.0	*	77.	90. AG	129.	100.0	0.0	48.0	0.74	3.9

1

PAGE 2

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt A

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
6. sbq	*	60	36	3.0	1371	1600	45.96	3	3
9. ebq	*	60	21	3.0	2056	1600	45.96	3	3
12. wbq	*	60	21	3.0	2017	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt A

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
0.	* 7.2	7.1	8.8	8.4
10.	* 7.9	6.9	9.7	8.1
20.	* 8.0	6.9	9.4	8.0
30.	* 8.1	6.9	8.9	8.1
40.	* 8.2	6.9	8.9	8.0
50.	* 8.4	6.9	8.9	8.1
60.	* 8.4	6.9	9.0	8.2
70.	* 8.3	6.9	9.3	8.5
80.	* 8.3	6.9	9.6	8.3
90.	* 8.9	7.4	8.7	7.3
100.	* 10.1	8.3	8.0	6.9
110.	* 10.0	8.6	7.8	6.9
120.	* 9.4	8.5	7.6	6.9
130.	* 8.9	8.4	7.5	6.9
140.	* 8.9	8.3	7.7	6.9
150.	* 9.1	8.3	7.7	6.9
160.	* 9.2	8.2	7.9	6.9
170.	* 9.1	8.1	7.9	6.9
180.	* 8.5	8.7	7.2	7.2

190.	*	8.1	9.5	6.9	7.8
200.	*	8.1	9.3	6.9	7.8
210.	*	8.1	8.9	6.9	7.8
220.	*	8.0	8.9	6.9	7.9
230.	*	8.1	8.8	6.9	8.0
240.	*	8.2	9.1	6.9	8.2
250.	*	8.4	9.4	6.9	8.3
260.	*	8.2	9.6	6.9	8.3
270.	*	7.2	8.6	7.4	9.0
280.	*	6.9	8.0	8.3	10.0
290.	*	6.9	8.1	8.6	10.1
300.	*	6.9	7.9	8.4	9.4
310.	*	6.9	7.6	8.4	8.8
320.	*	6.9	7.6	8.3	8.9
330.	*	6.9	7.7	8.3	9.2
340.	*	6.9	7.9	8.2	9.2
350.	*	6.9	7.7	8.1	9.1
360.	*	7.2	7.1	8.8	8.4
-----*					
MAX	*	10.1	9.6	9.7	10.1
DEGR.	*	100	260	10	290

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt A

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	260	10	290
-----*					
1	*	0.0	0.0	0.0	0.3
2	*	0.2	0.2	0.3	0.0
3	*	0.0	0.0	0.0	0.7
4	*	0.4	0.3	0.8	0.0
5	*	0.0	0.0	0.0	0.3
6	*	0.8	0.5	0.5	0.0
7	*	0.0	0.5	0.5	0.8
8	*	0.5	0.0	0.0	0.2
9	*	0.0	0.0	0.3	0.3
10	*	1.1	0.1	0.0	0.0
11	*	0.0	1.1	0.4	0.6
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\virebb.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1059.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	1005.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	400.0	*	52.	180. AG	296.	100.0	0.0	36.0	0.52	2.6
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1372.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1273.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	615.5	*	68.	360. AG	296.	100.0	0.0	36.0	0.68	3.4
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2003.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2112.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	387.4	476.0	*	77.	270. AG	129.	100.0	0.0	48.0	0.74	3.9
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2017.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2061.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	613.2	524.0	*	77.	90. AG	129.	100.0	0.0	48.0	0.74	3.9

1

PAGE 2

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt B

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
3. nbq	*	60	36	3.0	1059	1600	45.96	3	3
6. sbq	*	60	36	3.0	1372	1600	45.96	3	3
9. ebq	*	60	21	3.0	2003	1600	45.96	3	3
12. wbq	*	60	21	3.0	2017	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt B

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
0.	*	7.2	7.1	8.8	8.4
10.	*	7.9	6.9	9.7	8.1
20.	*	8.0	6.9	9.4	8.0
30.	*	8.1	6.9	8.8	8.1
40.	*	8.3	6.9	8.9	8.0
50.	*	8.4	6.9	8.9	8.1
60.	*	8.4	6.9	9.0	8.2
70.	*	8.3	6.9	9.3	8.5
80.	*	8.3	6.9	9.6	8.3
90.	*	8.9	7.4	8.6	7.3
100.	*	10.1	8.3	8.0	6.9
110.	*	10.0	8.6	7.8	6.9
120.	*	9.4	8.5	7.7	6.9
130.	*	8.9	8.4	7.5	6.9
140.	*	8.9	8.3	7.6	6.9
150.	*	9.1	8.3	7.7	6.9
160.	*	9.3	8.2	7.9	6.9
170.	*	9.1	8.1	7.9	6.9
180.	*	8.4	8.7	7.2	7.2

190.	*	8.1	9.5	6.9	7.8
200.	*	8.0	9.3	6.9	7.9
210.	*	8.1	8.8	6.9	7.8
220.	*	8.0	8.8	6.9	7.9
230.	*	8.1	8.8	6.9	8.0
240.	*	8.2	9.0	6.9	8.3
250.	*	8.4	9.4	6.9	8.3
260.	*	8.2	9.7	6.9	8.2
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.1	8.3	9.9
290.	*	6.9	8.1	8.6	10.1
300.	*	6.9	7.9	8.4	9.4
310.	*	6.9	7.6	8.4	8.8
320.	*	6.9	7.6	8.3	8.9
330.	*	6.9	7.7	8.2	9.2
340.	*	6.9	7.9	8.2	9.2
350.	*	6.9	7.7	8.1	9.2
360.	*	7.2	7.1	8.8	8.4
-----*					
MAX	*	10.1	9.7	9.7	10.1
DEGR.	*	100	260	10	290

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	260	10	290
-----*					
1	*	0.0	0.0	0.0	0.3
2	*	0.2	0.3	0.3	0.0
3	*	0.0	0.0	0.0	0.7
4	*	0.4	0.3	0.8	0.0
5	*	0.0	0.0	0.0	0.3
6	*	0.8	0.5	0.5	0.0
7	*	0.0	0.5	0.5	0.8
8	*	0.5	0.0	0.0	0.2
9	*	0.0	0.0	0.3	0.3
10	*	1.1	0.1	0.0	0.0
11	*	0.0	1.1	0.4	0.6
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\virebc.DAT

RUN BEGIN ON 08/21/02 AT 15:49

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	981.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	980.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	403.8	*	48.	180. AG	296.	100.0	0.0	36.0	0.48	2.5
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1373.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1274.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	615.5	*	68.	360. AG	296.	100.0	0.0	36.0	0.68	3.4
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2003.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2059.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	387.4	476.0	*	77.	270. AG	129.	100.0	0.0	48.0	0.74	3.9
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2017.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2061.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	613.2	524.0	*	77.	90. AG	129.	100.0	0.0	48.0	0.74	3.9

1

PAGE 2

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt C

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
6. sbq	*	60	36	3.0	1373	1600	45.96	3	3
9. ebq	*	60	21	3.0	2003	1600	45.96	3	3
12. wbq	*	60	21	3.0	2017	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	444.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt C

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
0.	* 7.2	7.1	8.8	8.4
10.	* 7.9	6.9	9.7	8.1
20.	* 8.0	6.9	9.4	8.0
30.	* 8.1	6.9	8.8	8.1
40.	* 8.2	6.9	8.9	8.0
50.	* 8.4	6.9	8.9	8.1
60.	* 8.4	6.9	9.0	8.2
70.	* 8.3	6.9	9.3	8.5
80.	* 8.3	6.9	9.6	8.2
90.	* 8.9	7.4	8.6	7.3
100.	* 10.1	8.3	8.0	6.9
110.	* 10.0	8.6	7.7	6.9
120.	* 9.3	8.4	7.6	6.9
130.	* 8.9	8.4	7.5	6.9
140.	* 8.9	8.3	7.6	6.9
150.	* 9.0	8.3	7.7	6.9
160.	* 9.1	8.2	7.8	6.9
170.	* 9.1	8.1	7.8	6.9
180.	* 8.4	8.7	7.2	7.1

190.	*	8.1	9.3	6.9	7.8
200.	*	8.0	9.1	6.9	7.8
210.	*	8.1	8.7	6.9	7.8
220.	*	8.0	8.8	6.9	7.7
230.	*	8.1	8.8	6.9	7.9
240.	*	8.2	9.0	6.9	8.2
250.	*	8.4	9.4	6.9	8.3
260.	*	8.2	9.6	6.9	8.2
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.0	8.3	9.9
290.	*	6.9	8.1	8.6	10.1
300.	*	6.9	7.9	8.4	9.4
310.	*	6.9	7.6	8.4	8.8
320.	*	6.9	7.6	8.3	8.9
330.	*	6.9	7.7	8.2	9.1
340.	*	6.9	7.9	8.2	9.2
350.	*	6.9	7.7	8.1	9.1
360.	*	7.2	7.1	8.8	8.4
-----*					
MAX	*	10.1	9.6	9.7	10.1
DEGR.	*	100	260	10	290

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	260	10	290
-----*					
1	*	0.0	0.0	0.0	0.3
2	*	0.2	0.2	0.3	0.0
3	*	0.0	0.0	0.0	0.7
4	*	0.4	0.3	0.8	0.0
5	*	0.0	0.0	0.0	0.3
6	*	0.8	0.5	0.5	0.0
7	*	0.0	0.5	0.5	0.8
8	*	0.5	0.0	0.0	0.2
9	*	0.0	0.0	0.3	0.3
10	*	1.1	0.1	0.0	0.0
11	*	0.0	1.1	0.4	0.6
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 15:49

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\virebd.DAT

RUN BEGIN ON 08/21/02 AT 09:21

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	518.0	0.0	518.0	500.0	*	500.	360. AG	1053.	9.3	0.0	56.0		
2. nbd	*	518.0	500.0	518.0	1000.0	*	500.	360. AG	999.	9.3	0.0	44.0		
3. nbq	*	518.0	452.0	518.0	400.2	*	52.	180. AG	296.	100.0	0.0	36.0	0.52	2.6
4. sba	*	482.0	1000.0	482.0	500.0	*	500.	180. AG	1374.	9.3	0.0	56.0		
5. sbd	*	482.0	500.0	482.0	0.0	*	500.	180. AG	1275.	9.3	0.0	44.0		
6. sbq	*	482.0	548.0	482.0	615.5	*	68.	360. AG	296.	100.0	0.0	36.0	0.68	3.4
7. eba	*	0.0	476.0	500.0	476.0	*	500.	90. AG	2003.	9.3	0.0	68.0		
8. ebd	*	500.0	476.0	1000.0	476.0	*	500.	90. AG	2112.	9.3	0.0	56.0		
9. ebq	*	464.0	476.0	387.4	476.0	*	77.	270. AG	129.	100.0	0.0	48.0	0.74	3.9
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2017.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2061.	9.3	0.0	44.0		
12. wbq	*	536.0	524.0	613.2	524.0	*	77.	90. AG	129.	100.0	0.0	48.0	0.74	3.9

1

PAGE 2

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt D

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
3. nbq	*	60	36	3.0	1053	1600	45.96	3	3
6. sbq	*	60	36	3.0	1374	1600	45.96	3	3
9. ebq	*	60	21	3.0	2003	1600	45.96	3	3
12. wbq	*	60	21	3.0	2017	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	444.0	568.0	5.4	*
2. ne	*	556.0	568.0	5.4	*
3. sw	*	444.0	432.0	5.4	*
4. se	*	556.0	432.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt D

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
0.	*	7.2	7.1	8.8	8.4
10.	*	7.9	6.9	9.7	8.1
20.	*	8.0	6.9	9.4	8.0
30.	*	8.1	6.9	8.8	8.1
40.	*	8.3	6.9	8.9	8.0
50.	*	8.4	6.9	8.9	8.1
60.	*	8.4	6.9	9.0	8.2
70.	*	8.3	6.9	9.3	8.5
80.	*	8.3	6.9	9.6	8.3
90.	*	8.9	7.4	8.6	7.3
100.	*	10.1	8.3	8.0	6.9
110.	*	10.0	8.6	7.8	6.9
120.	*	9.4	8.5	7.6	6.9
130.	*	8.9	8.4	7.5	6.9
140.	*	8.9	8.3	7.6	6.9
150.	*	9.1	8.3	7.7	6.9
160.	*	9.3	8.2	7.9	6.9
170.	*	9.1	8.1	7.9	6.9
180.	*	8.4	8.7	7.2	7.2

190.	*	8.1	9.5	6.9	7.8
200.	*	8.0	9.3	6.9	7.9
210.	*	8.1	8.8	6.9	7.8
220.	*	8.0	8.8	6.9	7.9
230.	*	8.1	8.8	6.9	8.0
240.	*	8.2	9.0	6.9	8.2
250.	*	8.4	9.4	6.9	8.3
260.	*	8.2	9.7	6.9	8.2
270.	*	7.2	8.6	7.4	8.9
280.	*	6.9	8.1	8.3	9.9
290.	*	6.9	8.1	8.6	10.1
300.	*	6.9	7.9	8.4	9.4
310.	*	6.9	7.6	8.4	8.8
320.	*	6.9	7.6	8.3	8.9
330.	*	6.9	7.7	8.2	9.2
340.	*	6.9	7.9	8.2	9.2
350.	*	6.9	7.7	8.1	9.2
360.	*	7.2	7.1	8.8	8.4
-----*					
MAX	*	10.1	9.7	9.7	10.1
DEGR.	*	100	260	10	290

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Victory Reseda Build Out Alt D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	260	10	290
-----*					
1	*	0.0	0.0	0.0	0.3
2	*	0.2	0.3	0.3	0.0
3	*	0.0	0.0	0.0	0.7
4	*	0.4	0.3	0.8	0.0
5	*	0.0	0.0	0.0	0.3
6	*	0.8	0.5	0.5	0.0
7	*	0.0	0.5	0.5	0.8
8	*	0.5	0.0	0.0	0.2
9	*	0.0	0.0	0.3	0.3
10	*	1.1	0.1	0.0	0.0
11	*	0.0	1.1	0.4	0.6
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:21

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nozeex.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Zelzah Existing

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 8.7 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	512.0	0.0	512.0	500.0	*	500.	360. AG	245.	12.2	0.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	899.	12.2	0.0	32.0		
3. nbq	*	512.0	440.0	512.0	412.7	*	27.	180. AG	222.	100.0	0.0	24.0	0.33	1.4
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1091.	12.2	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	215.	12.2	0.0	32.0		
6. sbq	*	476.0	548.0	476.0	614.6	*	67.	360. AG	444.	100.0	0.0	48.0	0.73	3.4
7. eba	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1291.	12.2	0.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	981.	12.2	0.0	56.0		
9. ebq	*	452.0	470.0	429.4	470.0	*	23.	270. AG	217.	100.0	0.0	60.0	0.25	1.1
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2203.	12.2	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2735.	12.2	0.0	56.0		
12. wbq	*	524.0	524.0	572.1	524.0	*	48.	90. AG	173.	100.0	0.0	48.0	0.53	2.4

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Zelzah Existing

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
3. nbq	*	60	41	3.0	245	1600	60.55	3	3
6. sbq	*	60	41	3.0	1091	1600	60.55	3	3
9. ebq	*	60	16	3.0	1291	1600	60.55	3	3
12. wbq	*	60	16	3.0	2203	1600	60.55	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	568.0	5.4	*
2. ne	*	544.0	568.0	5.4	*
3. sw	*	432.0	420.0	5.4	*
4. se	*	432.0	420.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Zelzah Existing

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 REC1	CONCENTRATION REC2	CONCENTRATION REC3	CONCENTRATION REC4
0.	*	9.0	9.1	10.7	10.7
10.	*	9.7	8.7	11.8	11.8
20.	*	9.8	8.7	11.5	11.5
30.	*	10.0	8.7	10.8	10.8
40.	*	10.2	8.7	10.3	10.3
50.	*	10.5	8.7	10.2	10.2
60.	*	10.5	8.7	10.3	10.3
70.	*	10.5	8.7	10.5	10.5
80.	*	10.6	8.8	10.4	10.4
90.	*	11.3	9.4	9.5	9.5
100.	*	12.5	10.5	9.0	9.0
110.	*	12.2	10.6	8.9	8.9
120.	*	11.6	10.2	8.9	8.9
130.	*	10.9	10.1	8.9	8.9
140.	*	10.7	10.0	8.9	8.9
150.	*	10.7	10.0	8.9	8.9
160.	*	10.5	10.0	8.9	8.9
170.	*	10.4	10.1	8.9	8.9
180.	*	10.2	10.3	8.7	8.7

190.	*	10.0	10.6	8.7	8.7
200.	*	9.9	10.6	8.7	8.7
210.	*	10.1	10.5	8.7	8.7
220.	*	10.2	10.8	8.7	8.7
230.	*	10.3	11.1	8.7	8.7
240.	*	10.5	11.3	8.7	8.7
250.	*	10.9	11.9	8.7	8.7
260.	*	10.7	12.6	8.7	8.7
270.	*	9.4	11.1	9.0	9.0
280.	*	8.7	10.3	10.0	10.0
290.	*	8.7	10.3	10.4	10.4
300.	*	8.7	10.2	10.2	10.2
310.	*	8.7	9.9	10.0	10.0
320.	*	8.7	9.6	9.9	9.9
330.	*	8.7	9.7	9.8	9.8
340.	*	8.7	9.8	9.8	9.8
350.	*	8.7	9.8	9.8	9.8
360.	*	9.0	9.1	10.7	10.7
-----*					
MAX	*	12.5	12.6	11.8	11.8
DEGR.	*	100	260	10	10

THE HIGHEST CONCENTRATION IS 12.60 PPM AT 260 DEGREES FROM REC2 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Zelzah Existing

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #	*	100	260	10	10
-----*					
1	*	0.0	0.0	0.0	0.0
2	*	0.2	0.3	0.3	0.3
3	*	0.0	0.0	0.0	0.0
4	*	0.4	0.3	0.7	0.7
5	*	0.0	0.0	0.0	0.0
6	*	1.1	0.8	0.6	0.6
7	*	0.0	0.4	0.4	0.4
8	*	0.3	0.0	0.0	0.0
9	*	0.0	0.0	0.5	0.5
10	*	1.5	0.1	0.0	0.0
11	*	0.1	2.0	0.6	0.6
12	*	0.2	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nozepr.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Zelzah Pre Project

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	512.0	0.0	512.0	500.0	*	500.	360. AG	259.	9.3	0.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	952.	9.3	0.0	32.0		
3. nbq	*	512.0	440.0	512.0	411.1	*	29.	180. AG	168.	100.0	0.0	24.0	0.35	1.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1157.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	228.	9.3	0.0	32.0		
6. sbq	*	476.0	548.0	476.0	623.2	*	75.	360. AG	337.	100.0	0.0	48.0	0.77	3.8
7. eba	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1368.	9.3	0.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1040.	9.3	0.0	56.0		
9. ebq	*	452.0	470.0	428.1	470.0	*	24.	270. AG	164.	100.0	0.0	60.0	0.26	1.2
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2335.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2899.	9.3	0.0	56.0		
12. wbq	*	524.0	524.0	575.0	524.0	*	51.	90. AG	132.	100.0	0.0	48.0	0.56	2.6

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Zelzah Pre Project

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
3. nbq	*	60	41	3.0	259	1600	45.96	3	3
6. sbq	*	60	41	3.0	1157	1600	45.96	3	3
9. ebq	*	60	16	3.0	1368	1600	45.96	3	3
12. wbq	*	60	16	3.0	2335	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	568.0	5.4	*
2. ne	*	544.0	568.0	5.4	*
3. sw	*	432.0	420.0	5.4	*
4. se	*	432.0	420.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Zelzah Pre Project

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
0.	*	7.2	7.2	8.4	8.4
10.	*	7.7	6.9	9.5	9.5
20.	*	8.0	6.9	9.1	9.1
30.	*	8.0	6.9	8.4	8.4
40.	*	8.2	6.9	8.1	8.1
50.	*	8.3	6.9	8.2	8.2
60.	*	8.4	6.9	8.2	8.2
70.	*	8.3	6.9	8.5	8.5
80.	*	8.3	6.9	8.2	8.2
90.	*	8.9	7.4	7.4	7.4
100.	*	9.9	8.3	7.1	7.1
110.	*	9.6	8.4	7.1	7.1
120.	*	9.2	8.1	7.1	7.1
130.	*	8.7	8.0	7.1	7.1
140.	*	8.5	8.0	7.1	7.1
150.	*	8.4	8.0	7.1	7.1
160.	*	8.5	8.0	7.1	7.1
170.	*	8.3	8.1	7.0	7.0
180.	*	8.1	8.2	6.9	6.9

190.	*	7.8	8.4	6.9	6.9
200.	*	7.9	8.4	6.9	6.9
210.	*	8.0	8.5	6.9	6.9
220.	*	8.1	8.5	6.9	6.9
230.	*	8.2	8.7	6.9	6.9
240.	*	8.4	9.1	6.9	6.9
250.	*	8.7	9.6	6.9	6.9
260.	*	8.5	9.9	6.9	6.9
270.	*	7.4	8.9	7.2	7.2
280.	*	6.9	8.0	7.9	7.9
290.	*	6.9	8.3	8.3	8.3
300.	*	6.9	8.2	8.1	8.1
310.	*	6.9	7.9	7.9	7.9
320.	*	6.9	7.7	7.8	7.8
330.	*	6.9	7.7	7.8	7.8
340.	*	6.9	7.8	7.7	7.7
350.	*	6.9	7.8	7.8	7.8
360.	*	7.2	7.2	8.4	8.4

MAX	*	9.9	9.9	9.5	9.5
DEGR.	*	100	260	10	10

THE HIGHEST CONCENTRATION IS 9.88 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Zelzah Pre Project

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	260	10	10

1	*	0.0	0.0	0.0	0.0
2	*	0.2	0.2	0.3	0.3
3	*	0.0	0.0	0.0	0.0
4	*	0.3	0.2	0.6	0.6
5	*	0.0	0.0	0.0	0.0
6	*	0.9	0.6	0.5	0.5
7	*	0.0	0.3	0.3	0.3
8	*	0.2	0.0	0.0	0.0
9	*	0.0	0.0	0.4	0.4
10	*	1.2	0.1	0.0	0.0
11	*	0.1	1.6	0.5	0.5
12	*	0.1	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nozeifa.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	512.0	0.0	512.0	500.0	*	500.	360. AG	259.	9.3	0.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	1034.	9.3	0.0	32.0		
3. nbq	*	512.0	440.0	512.0	411.1	*	29.	180. AG	168.	100.0	0.0	24.0	0.35	1.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1218.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	228.	9.3	0.0	32.0		
6. sbq	*	476.0	548.0	476.0	632.5	*	84.	360. AG	337.	100.0	0.0	48.0	0.82	4.3
7. eba	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1437.	9.3	0.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1088.	9.3	0.0	56.0		
9. ebq	*	452.0	470.0	426.9	470.0	*	25.	270. AG	164.	100.0	0.0	60.0	0.28	1.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2421.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2985.	9.3	0.0	56.0		
12. wbq	*	524.0	524.0	576.9	524.0	*	53.	90. AG	132.	100.0	0.0	48.0	0.58	2.7

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PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative A

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
3. nbq	*	60	41	3.0	259	1600	45.96	3	3
6. sbq	*	60	41	3.0	1218	1600	45.96	3	3
9. ebq	*	60	16	3.0	1437	1600	45.96	3	3
12. wbq	*	60	16	3.0	2421	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
	*	X	Y	Z	*
1. nw	*	432.0	568.0	5.4	*
2. ne	*	544.0	568.0	5.4	*
3. sw	*	432.0	420.0	5.4	*
4. se	*	432.0	420.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative A

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
0.	*	7.2	7.3	8.5	8.5
10.	*	7.8	6.9	9.5	9.5
20.	*	8.0	6.9	9.3	9.3
30.	*	8.3	6.9	8.6	8.6
40.	*	8.4	6.9	8.2	8.2
50.	*	8.5	6.9	8.2	8.2
60.	*	8.4	6.9	8.3	8.3
70.	*	8.3	6.9	8.5	8.5
80.	*	8.3	6.9	8.3	8.3
90.	*	9.0	7.5	7.4	7.4
100.	*	10.0	8.5	7.1	7.1
110.	*	9.7	8.4	7.1	7.1
120.	*	9.2	8.2	7.1	7.1
130.	*	8.7	8.0	7.1	7.1
140.	*	8.5	8.0	7.1	7.1
150.	*	8.4	8.1	7.1	7.1
160.	*	8.6	8.1	7.1	7.1
170.	*	8.4	8.1	7.0	7.0
180.	*	8.2	8.2	6.9	6.9

190.	*	8.0	8.4	6.9	6.9
200.	*	8.0	8.4	6.9	6.9
210.	*	8.0	8.5	6.9	6.9
220.	*	8.1	8.6	6.9	6.9
230.	*	8.2	8.8	6.9	6.9
240.	*	8.5	9.2	6.9	6.9
250.	*	8.7	9.7	6.9	6.9
260.	*	8.6	10.1	6.9	6.9
270.	*	7.4	8.9	7.2	7.2
280.	*	6.9	8.2	7.9	7.9
290.	*	6.9	8.3	8.4	8.4
300.	*	6.9	8.3	8.1	8.1
310.	*	6.9	8.1	8.1	8.1
320.	*	6.9	7.9	7.9	7.9
330.	*	6.9	7.8	7.8	7.8
340.	*	6.9	7.8	7.9	7.9
350.	*	6.9	7.9	7.8	7.8
360.	*	7.2	7.3	8.5	8.5
-----*					
MAX	*	10.0	10.1	9.5	9.5
DEGR.	*	100	260	10	10

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 260 DEGREES FROM REC2 .

1

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative A

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	260	10	10
-----*					
1	*	0.0	0.0	0.0	0.0
2	*	0.2	0.3	0.3	0.3
3	*	0.0	0.0	0.0	0.0
4	*	0.3	0.3	0.6	0.6
5	*	0.0	0.0	0.0	0.0
6	*	0.9	0.6	0.5	0.5
7	*	0.0	0.3	0.3	0.3
8	*	0.2	0.0	0.0	0.0
9	*	0.0	0.0	0.4	0.4
10	*	1.3	0.1	0.0	0.0
11	*	0.1	1.6	0.5	0.5
12	*	0.1	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\noze\fb.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	512.0	0.0	512.0	500.0	*	500.	360. AG	259.	9.3	0.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	1034.	9.3	0.0	32.0		
3. nbq	*	512.0	440.0	512.0	411.1	*	29.	180. AG	168.	100.0	0.0	24.0	0.35	1.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1218.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	228.	9.3	0.0	32.0		
6. sbq	*	476.0	548.0	476.0	632.5	*	84.	360. AG	337.	100.0	0.0	48.0	0.82	4.3
7. eba	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1438.	9.3	0.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1089.	9.3	0.0	56.0		
9. ebq	*	452.0	470.0	426.9	470.0	*	25.	270. AG	164.	100.0	0.0	60.0	0.28	1.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2466.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	3030.	9.3	0.0	56.0		
12. wbq	*	524.0	524.0	577.9	524.0	*	54.	90. AG	132.	100.0	0.0	48.0	0.59	2.7

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative B

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
6. sbq	*	60	41	3.0	1218	1600	45.96	3	3
9. ebq	*	60	16	3.0	1438	1600	45.96	3	3
12. wbq	*	60	16	3.0	2466	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	544.0	568.0	5.4	*
3. sw	*	432.0	420.0	5.4	*
4. se	*	432.0	420.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative B

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
0.	7.2	7.3	8.5	8.5
10.	7.8	6.9	9.5	9.5
20.	8.0	6.9	9.3	9.3
30.	8.3	6.9	8.6	8.6
40.	8.4	6.9	8.2	8.2
50.	8.5	6.9	8.2	8.2
60.	8.4	6.9	8.3	8.3
70.	8.3	6.9	8.5	8.5
80.	8.3	6.9	8.3	8.3
90.	9.0	7.5	7.4	7.4
100.	10.0	8.5	7.1	7.1
110.	9.7	8.4	7.1	7.1
120.	9.2	8.2	7.1	7.1
130.	8.7	8.0	7.1	7.1
140.	8.6	8.0	7.1	7.1
150.	8.4	8.1	7.1	7.1
160.	8.6	8.1	7.1	7.1
170.	8.4	8.1	7.0	7.0
180.	8.2	8.3	6.9	6.9

190.	*	8.0	8.4	6.9	6.9
200.	*	8.0	8.4	6.9	6.9
210.	*	8.0	8.5	6.9	6.9
220.	*	8.1	8.6	6.9	6.9
230.	*	8.2	8.8	6.9	6.9
240.	*	8.5	9.2	6.9	6.9
250.	*	8.7	9.7	6.9	6.9
260.	*	8.6	10.2	6.9	6.9
270.	*	7.5	8.9	7.2	7.2
280.	*	6.9	8.2	7.9	7.9
290.	*	6.9	8.3	8.4	8.4
300.	*	6.9	8.3	8.1	8.1
310.	*	6.9	8.1	8.1	8.1
320.	*	6.9	7.9	7.9	7.9
330.	*	6.9	7.8	7.8	7.8
340.	*	6.9	7.8	7.9	7.9
350.	*	6.9	7.9	7.8	7.8
360.	*	7.2	7.3	8.5	8.5

MAX	*	10.0	10.2	9.5	9.5
DEGR.	*	100	260	10	10

THE HIGHEST CONCENTRATION IS 10.18 PPM AT 260 DEGREES FROM REC2 .

1

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative B

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	260	10	10

1	*	0.0	0.0	0.0	0.0
2	*	0.2	0.3	0.3	0.3
3	*	0.0	0.0	0.0	0.0
4	*	0.3	0.3	0.6	0.6
5	*	0.0	0.0	0.0	0.0
6	*	0.9	0.6	0.5	0.5
7	*	0.0	0.3	0.3	0.3
8	*	0.2	0.0	0.0	0.0
9	*	0.0	0.0	0.4	0.4
10	*	1.3	0.1	0.0	0.0
11	*	0.1	1.7	0.5	0.5
12	*	0.1	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nozeffc.DAT

RUN BEGIN ON 08/21/02 AT 15:53

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	512.0	0.0	512.0	500.0	*	500.	360. AG	1034.	9.3	0.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	980.	9.3	0.0	32.0		
3. nbq	*	512.0	440.0	512.0	-1224.2	*	1664.	180. AG	168.	100.0	0.0	24.0	1.39	84.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1373.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1274.	9.3	0.0	32.0		
6. sbq	*	476.0	548.0	476.0	670.8	*	123.	360. AG	337.	100.0	0.0	48.0	0.92	6.2
7. eba	*	0.0	470.0	500.0	470.0	*	500.	90. AG	2003.	9.3	0.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2112.	9.3	0.0	56.0		
9. ebq	*	452.0	470.0	417.0	470.0	*	35.	270. AG	164.	100.0	0.0	60.0	0.38	1.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2017.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2061.	9.3	0.0	56.0		
12. wbq	*	524.0	524.0	568.1	524.0	*	44.	90. AG	132.	100.0	0.0	48.0	0.49	2.2

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative C

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
6. sbq	*	60	41	3.0	1373	1600	45.96	3	3
9. ebq	*	60	16	3.0	2003	1600	45.96	3	3
12. wbq	*	60	16	3.0	2017	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	544.0	568.0	5.4	*
3. sw	*	432.0	420.0	5.4	*
4. se	*	432.0	420.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative C

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
0.	* 7.2	7.2	8.8	8.8
10.	* 8.1	6.9	10.0	10.0
20.	* 8.6	6.9	9.5	9.5
30.	* 8.8	6.9	8.8	8.8
40.	* 8.8	6.9	8.8	8.8
50.	* 8.6	6.9	8.6	8.6
60.	* 8.5	6.9	8.8	8.8
70.	* 8.3	6.9	9.2	9.2
80.	* 8.3	6.9	9.1	9.1
90.	* 8.9	7.4	8.1	8.1
100.	* 10.0	8.3	7.7	7.7
110.	* 9.7	8.5	7.7	7.7
120.	* 9.2	8.2	7.7	7.7
130.	* 8.9	8.1	7.8	7.8
140.	* 8.9	8.0	8.0	8.0
150.	* 9.1	8.1	8.0	8.0
160.	* 9.4	8.1	8.2	8.2
170.	* 9.7	8.3	8.3	8.3
180.	* 8.7	9.6	7.4	7.4

190.	*	7.9	10.0	6.9	6.9
200.	*	7.8	9.1	6.9	6.9
210.	*	7.9	8.8	6.9	6.9
220.	*	7.9	8.8	6.9	6.9
230.	*	8.1	8.8	6.9	6.9
240.	*	8.2	9.0	6.9	6.9
250.	*	8.5	9.5	6.9	6.9
260.	*	8.2	9.7	6.9	6.9
270.	*	7.3	8.8	7.3	7.3
280.	*	6.9	8.2	8.1	8.1
290.	*	6.9	8.3	8.4	8.4
300.	*	6.9	8.3	8.2	8.2
310.	*	6.9	8.4	8.0	8.0
320.	*	6.9	8.3	7.9	7.9
330.	*	6.9	8.1	7.9	7.9
340.	*	6.9	8.0	8.0	8.0
350.	*	6.9	7.9	8.1	8.1
360.	*	7.2	7.2	8.8	8.8
-----*					
MAX	*	10.0	10.0	10.0	10.0
DEGR.	*	100	190	10	10

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 10 DEGREES FROM REC3 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	10
-----*					
1	*	0.0	0.6	0.0	0.0
2	*	0.2	0.0	0.3	0.3
3	*	0.0	0.9	0.0	0.0
4	*	0.3	0.0	0.7	0.7
5	*	0.0	0.4	0.0	0.0
6	*	0.9	0.0	0.8	0.8
7	*	0.0	0.0	0.5	0.5
8	*	0.4	0.4	0.0	0.0
9	*	0.0	0.0	0.4	0.4
10	*	1.1	0.5	0.0	0.0
11	*	0.1	0.0	0.4	0.4
12	*	0.1	0.3	0.0	0.0

RUN ENDED ON 08/21/02 AT 15:53

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nozeefd.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	512.0	0.0	512.0	500.0	*	500.	360. AG	259.	9.3	0.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	1034.	9.3	0.0	32.0		
3. nbq	*	512.0	440.0	512.0	411.1	*	29.	180. AG	168.	100.0	0.0	24.0	0.35	1.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1218.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	228.	9.3	0.0	32.0		
6. sbq	*	476.0	548.0	476.0	632.5	*	84.	360. AG	337.	100.0	0.0	48.0	0.82	4.3
7. eba	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1441.	9.3	0.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1092.	9.3	0.0	56.0		
9. ebq	*	452.0	470.0	426.8	470.0	*	25.	270. AG	164.	100.0	0.0	60.0	0.28	1.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2547.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	3021.	9.3	0.0	56.0		
12. wbq	*	524.0	524.0	577.7	524.0	*	54.	90. AG	132.	100.0	0.0	48.0	0.59	2.7

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative D

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
6. sbq	*	60	41	3.0	1218	1600	45.96	3	3
9. ebq	*	60	16	3.0	1441	1600	45.96	3	3
12. wbq	*	60	16	3.0	2457	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	544.0	568.0	5.4	*
3. sw	*	432.0	420.0	5.4	*
4. se	*	432.0	420.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative D

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
0.	*	7.2	7.3	8.5	8.5
10.	*	7.8	6.9	9.5	9.5
20.	*	8.0	6.9	9.3	9.3
30.	*	8.3	6.9	8.6	8.6
40.	*	8.4	6.9	8.2	8.2
50.	*	8.5	6.9	8.2	8.2
60.	*	8.4	6.9	8.3	8.3
70.	*	8.3	6.9	8.5	8.5
80.	*	8.4	6.9	8.3	8.3
90.	*	9.0	7.5	7.5	7.5
100.	*	10.0	8.5	7.1	7.1
110.	*	9.7	8.5	7.1	7.1
120.	*	9.2	8.2	7.1	7.1
130.	*	8.7	8.0	7.1	7.1
140.	*	8.6	8.1	7.1	7.1
150.	*	8.4	8.1	7.1	7.1
160.	*	8.6	8.2	7.1	7.1
170.	*	8.4	8.1	7.0	7.0
180.	*	8.2	8.3	6.9	6.9

190.	*	8.0	8.5	6.9	6.9
200.	*	8.0	8.5	6.9	6.9
210.	*	8.0	8.5	6.9	6.9
220.	*	8.1	8.6	6.9	6.9
230.	*	8.2	8.8	6.9	6.9
240.	*	8.5	9.2	6.9	6.9
250.	*	8.7	9.7	6.9	6.9
260.	*	8.6	10.1	6.9	6.9
270.	*	7.4	8.9	7.2	7.2
280.	*	6.9	8.2	7.9	7.9
290.	*	6.9	8.3	8.4	8.4
300.	*	6.9	8.3	8.1	8.1
310.	*	6.9	8.1	8.1	8.1
320.	*	6.9	7.9	7.9	7.9
330.	*	6.9	7.8	7.8	7.8
340.	*	6.9	7.8	7.9	7.9
350.	*	6.9	7.9	7.8	7.8
360.	*	7.2	7.3	8.5	8.5

MAX	*	10.0	10.1	9.5	9.5
DEGR.	*	100	260	10	10

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 260 DEGREES FROM REC2 .

1

JOB: Klausz Properties

RUN: Nordhoff Zelzah Future Alternative D

PAGE 4

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		CO/LINK (PPM)			
		ANGLE (DEGREES)			
		REC1	REC2	REC3	REC4
LINK #		100	260	10	10

1	*	0.0	0.0	0.0	0.0
2	*	0.2	0.3	0.3	0.3
3	*	0.0	0.0	0.0	0.0
4	*	0.3	0.3	0.6	0.6
5	*	0.0	0.0	0.0	0.0
6	*	0.9	0.6	0.5	0.5
7	*	0.0	0.3	0.3	0.3
8	*	0.2	0.0	0.0	0.0
9	*	0.0	0.0	0.4	0.4
10	*	1.3	0.1	0.0	0.0
11	*	0.1	1.6	0.5	0.5
12	*	0.1	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nozeba.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt A

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	512.0	0.0	512.0	500.0	*	500.	360. AG	259.	9.3	0.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	1034.	9.3	0.0	32.0		
3. nbq	*	512.0	440.0	512.0	411.1	*	29.	180. AG	168.	100.0	0.0	24.0	0.35	1.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1218.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	228.	9.3	0.0	32.0		
6. sbq	*	476.0	548.0	476.0	632.5	*	84.	360. AG	337.	100.0	0.0	48.0	0.82	4.3
7. eba	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1437.	9.3	0.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1088.	9.3	0.0	56.0		
9. ebq	*	452.0	470.0	426.9	470.0	*	25.	270. AG	164.	100.0	0.0	60.0	0.28	1.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2421.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2985.	9.3	0.0	56.0		
12. wbq	*	524.0	524.0	576.9	524.0	*	53.	90. AG	132.	100.0	0.0	48.0	0.58	2.7

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PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt A

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
6. sbq	*	60	41	3.0	1218	1600	45.96	3	3
9. ebq	*	60	16	3.0	1437	1600	45.96	3	3
12. wbq	*	60	16	3.0	2421	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	544.0	568.0	5.4	*
3. sw	*	432.0	420.0	5.4	*
4. se	*	432.0	420.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt A

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
0.	7.2	7.3	8.5	8.5
10.	7.8	6.9	9.5	9.5
20.	8.0	6.9	9.3	9.3
30.	8.3	6.9	8.6	8.6
40.	8.4	6.9	8.2	8.2
50.	8.5	6.9	8.2	8.2
60.	8.4	6.9	8.3	8.3
70.	8.3	6.9	8.5	8.5
80.	8.3	6.9	8.3	8.3
90.	9.0	7.5	7.4	7.4
100.	10.0	8.5	7.1	7.1
110.	9.7	8.4	7.1	7.1
120.	9.2	8.2	7.1	7.1
130.	8.7	8.0	7.1	7.1
140.	8.5	8.0	7.1	7.1
150.	8.4	8.1	7.1	7.1
160.	8.6	8.1	7.1	7.1
170.	8.4	8.1	7.0	7.0
180.	8.2	8.2	6.9	6.9

190.	*	8.0	8.4	6.9	6.9
200.	*	8.0	8.4	6.9	6.9
210.	*	8.0	8.5	6.9	6.9
220.	*	8.1	8.6	6.9	6.9
230.	*	8.2	8.8	6.9	6.9
240.	*	8.5	9.2	6.9	6.9
250.	*	8.7	9.7	6.9	6.9
260.	*	8.6	10.1	6.9	6.9
270.	*	7.4	8.9	7.2	7.2
280.	*	6.9	8.2	7.9	7.9
290.	*	6.9	8.3	8.4	8.4
300.	*	6.9	8.3	8.1	8.1
310.	*	6.9	8.1	8.1	8.1
320.	*	6.9	7.9	7.9	7.9
330.	*	6.9	7.8	7.8	7.8
340.	*	6.9	7.8	7.9	7.9
350.	*	6.9	7.9	7.8	7.8
360.	*	7.2	7.3	8.5	8.5

MAX	*	10.0	10.1	9.5	9.5
DEGR.	*	100	260	10	10

THE HIGHEST CONCENTRATION IS 10.08 PPM AT 260 DEGREES FROM REC2 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt A

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	260	10	10

1	*	0.0	0.0	0.0	0.0
2	*	0.2	0.3	0.3	0.3
3	*	0.0	0.0	0.0	0.0
4	*	0.3	0.3	0.6	0.6
5	*	0.0	0.0	0.0	0.0
6	*	0.9	0.6	0.5	0.5
7	*	0.0	0.3	0.3	0.3
8	*	0.2	0.0	0.0	0.0
9	*	0.0	0.0	0.4	0.4
10	*	1.3	0.1	0.0	0.0
11	*	0.1	1.6	0.5	0.5
12	*	0.1	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nozebb.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt B

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	512.0	0.0	512.0	500.0	*	500.	360. AG	259.	9.3	0.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	1034.	9.3	0.0	32.0		
3. nbq	*	512.0	440.0	512.0	411.1	*	29.	180. AG	168.	100.0	0.0	24.0	0.35	1.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1218.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	228.	9.3	0.0	32.0		
6. sbq	*	476.0	548.0	476.0	632.5	*	84.	360. AG	337.	100.0	0.0	48.0	0.82	4.3
7. eba	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1440.	9.3	0.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1091.	9.3	0.0	56.0		
9. ebq	*	452.0	470.0	426.8	470.0	*	25.	270. AG	164.	100.0	0.0	60.0	0.28	1.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2482.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	3046.	9.3	0.0	56.0		
12. wbq	*	524.0	524.0	578.3	524.0	*	54.	90. AG	132.	100.0	0.0	48.0	0.60	2.8

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt B

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
6. sbq	*	60	41	3.0	1218	1600	45.96	3	3
9. ebq	*	60	16	3.0	1440	1600	45.96	3	3
12. wbq	*	60	16	3.0	2482	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	544.0	568.0	5.4	*
3. sw	*	432.0	420.0	5.4	*
4. se	*	432.0	420.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt B

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
0.	7.2	7.3	8.5	8.5
10.	7.8	6.9	9.5	9.5
20.	8.0	6.9	9.3	9.3
30.	8.3	6.9	8.6	8.6
40.	8.4	6.9	8.2	8.2
50.	8.5	6.9	8.2	8.2
60.	8.4	6.9	8.3	8.3
70.	8.3	6.9	8.5	8.5
80.	8.3	6.9	8.3	8.3
90.	9.0	7.5	7.4	7.4
100.	10.0	8.5	7.1	7.1
110.	9.7	8.5	7.1	7.1
120.	9.2	8.2	7.1	7.1
130.	8.7	8.0	7.1	7.1
140.	8.6	8.0	7.1	7.1
150.	8.4	8.1	7.1	7.1
160.	8.6	8.1	7.1	7.1
170.	8.5	8.1	7.0	7.0
180.	8.2	8.3	6.9	6.9

190.	*	8.1	8.4	6.9	6.9
200.	*	8.0	8.5	6.9	6.9
210.	*	8.0	8.5	6.9	6.9
220.	*	8.1	8.6	6.9	6.9
230.	*	8.2	8.8	6.9	6.9
240.	*	8.5	9.2	6.9	6.9
250.	*	8.7	9.7	6.9	6.9
260.	*	8.6	10.2	6.9	6.9
270.	*	7.5	8.9	7.2	7.2
280.	*	6.9	8.2	7.9	7.9
290.	*	6.9	8.3	8.4	8.4
300.	*	6.9	8.3	8.1	8.1
310.	*	6.9	8.1	8.1	8.1
320.	*	6.9	7.9	7.9	7.9
330.	*	6.9	7.8	7.9	7.9
340.	*	6.9	7.8	7.9	7.9
350.	*	6.9	7.9	7.8	7.8
360.	*	7.2	7.3	8.5	8.5

MAX	*	10.0	10.2	9.5	9.5
DEGR.	*	100	260	10	10

THE HIGHEST CONCENTRATION IS 10.18 PPM AT 260 DEGREES FROM REC2 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt B

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	260	10	10

1	*	0.0	0.0	0.0	0.0
2	*	0.2	0.3	0.3	0.3
3	*	0.0	0.0	0.0	0.0
4	*	0.3	0.3	0.6	0.6
5	*	0.0	0.0	0.0	0.0
6	*	0.9	0.6	0.5	0.5
7	*	0.0	0.3	0.3	0.3
8	*	0.2	0.0	0.0	0.0
9	*	0.0	0.0	0.4	0.4
10	*	1.3	0.1	0.0	0.0
11	*	0.1	1.7	0.5	0.5
12	*	0.1	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nozebc.DAT

RUN BEGIN ON 08/21/02 AT 15:49

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt C

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE
		X1	Y1	X2	Y2									
1. nba	*	512.0	0.0	512.0	500.0	*	500.	360. AG	1042.	9.3	0.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	988.	9.3	0.0	32.0		
3. nbq	*	512.0	440.0	512.0	-1265.5	*	1705.	180. AG	168.	100.0	0.0	24.0	1.40	86.6
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1370.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	1271.	9.3	0.0	32.0		
6. sbq	*	476.0	548.0	476.0	669.5	*	121.	360. AG	337.	100.0	0.0	48.0	0.92	6.2
7. eba	*	0.0	470.0	500.0	470.0	*	500.	90. AG	2003.	9.3	0.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	2112.	9.3	0.0	56.0		
9. ebq	*	452.0	470.0	417.0	470.0	*	35.	270. AG	164.	100.0	0.0	60.0	0.38	1.8
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2017.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	2061.	9.3	0.0	56.0		
12. wbq	*	524.0	524.0	568.1	524.0	*	44.	90. AG	132.	100.0	0.0	48.0	0.49	2.2

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt C

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
6. sbq	*	60	41	3.0	1370	1600	45.96	3	3
9. ebq	*	60	16	3.0	2003	1600	45.96	3	3
12. wbq	*	60	16	3.0	2017	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	544.0	568.0	5.4	*
3. sw	*	432.0	420.0	5.4	*
4. se	*	432.0	420.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt C

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
0.	* 7.2	7.2	8.8	8.8
10.	* 8.1	6.9	9.9	9.9
20.	* 8.6	6.9	9.5	9.5
30.	* 8.8	6.9	8.8	8.8
40.	* 8.8	6.9	8.8	8.8
50.	* 8.6	6.9	8.6	8.6
60.	* 8.5	6.9	8.8	8.8
70.	* 8.3	6.9	9.2	9.2
80.	* 8.3	6.9	9.1	9.1
90.	* 8.9	7.4	8.1	8.1
100.	* 10.0	8.3	7.7	7.7
110.	* 9.7	8.5	7.7	7.7
120.	* 9.2	8.2	7.7	7.7
130.	* 8.9	8.1	7.8	7.8
140.	* 8.9	8.0	8.0	8.0
150.	* 9.1	8.1	8.0	8.0
160.	* 9.4	8.1	8.2	8.2
170.	* 9.7	8.3	8.3	8.3
180.	* 8.7	9.6	7.5	7.5

190.	*	7.9	10.0	6.9	6.9
200.	*	7.8	9.1	6.9	6.9
210.	*	7.9	8.8	6.9	6.9
220.	*	7.9	8.8	6.9	6.9
230.	*	8.1	8.8	6.9	6.9
240.	*	8.2	9.0	6.9	6.9
250.	*	8.5	9.5	6.9	6.9
260.	*	8.2	9.7	6.9	6.9
270.	*	7.3	8.8	7.3	7.3
280.	*	6.9	8.2	8.1	8.1
290.	*	6.9	8.3	8.4	8.4
300.	*	6.9	8.3	8.2	8.2
310.	*	6.9	8.4	8.0	8.0
320.	*	6.9	8.3	7.9	7.9
330.	*	6.9	8.1	7.9	7.9
340.	*	6.9	8.0	8.0	8.0
350.	*	6.9	7.9	8.1	8.1
360.	*	7.2	7.2	8.8	8.8
-----*					
MAX	*	10.0	10.0	9.9	9.9
DEGR.	*	100	190	10	10

THE HIGHEST CONCENTRATION IS 9.98 PPM AT 100 DEGREES FROM REC1 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt C

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	190	10	10
-----*					
1	*	0.0	0.6	0.0	0.0
2	*	0.2	0.0	0.3	0.3
3	*	0.0	0.9	0.0	0.0
4	*	0.3	0.0	0.7	0.7
5	*	0.0	0.4	0.0	0.0
6	*	0.9	0.0	0.7	0.7
7	*	0.0	0.0	0.5	0.5
8	*	0.4	0.4	0.0	0.0
9	*	0.0	0.0	0.4	0.4
10	*	1.1	0.5	0.0	0.0
11	*	0.1	0.0	0.4	0.4
12	*	0.1	0.3	0.0	0.0

RUN ENDED ON 08/21/02 AT 15:49

1 CAL3QHC (93157)
 IBM-PC VERSION (2.02)
 (C) COPYRIGHT 1993, TRINITY CONSULTANTS, INC.
 SERIAL NUMBER 9920 SOLD TO TERRY A. HAYES ASSOCIATES

RUN NAME: C:\CAL3QHC\nozebd.DAT

RUN BEGIN ON 08/21/02 AT 09:17

CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.0, JANUARY 1992

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt D

SITE & METEOROLOGICAL VARIABLES

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 114. CM
 U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = 6.9 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
		X1	Y1	X2	Y2									
1. nba	*	512.0	0.0	512.0	500.0	*	500.	360. AG	259.	9.3	0.0	44.0		
2. nbd	*	512.0	500.0	512.0	1000.0	*	500.	360. AG	1034.	9.3	0.0	32.0		
3. nbq	*	512.0	440.0	512.0	411.1	*	29.	180. AG	168.	100.0	0.0	24.0	0.35	1.5
4. sba	*	476.0	1000.0	476.0	500.0	*	500.	180. AG	1218.	9.3	0.0	68.0		
5. sbd	*	476.0	500.0	476.0	0.0	*	500.	180. AG	228.	9.3	0.0	32.0		
6. sbq	*	476.0	548.0	476.0	632.5	*	84.	360. AG	337.	100.0	0.0	48.0	0.82	4.3
7. eba	*	0.0	470.0	500.0	470.0	*	500.	90. AG	1452.	9.3	0.0	80.0		
8. ebd	*	500.0	470.0	1000.0	470.0	*	500.	90. AG	1103.	9.3	0.0	56.0		
9. ebq	*	452.0	470.0	426.6	470.0	*	25.	270. AG	164.	100.0	0.0	60.0	0.28	1.3
10. wba	*	1000.0	524.0	500.0	524.0	*	500.	270. AG	2468.	9.3	0.0	68.0		
11. wbd	*	500.0	524.0	0.0	524.0	*	500.	270. AG	3032.	9.3	0.0	56.0		
12. wbq	*	524.0	524.0	578.0	524.0	*	54.	90. AG	132.	100.0	0.0	48.0	0.59	2.7

1

PAGE 2

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt D

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
6. sbq	*	60	41	3.0	1218	1600	45.96	3	3
9. ebq	*	60	16	3.0	1452	1600	45.96	3	3
12. wbq	*	60	16	3.0	2468	1600	45.96	3	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT)			*
		X	Y	Z	
1. nw	*	432.0	568.0	5.4	*
2. ne	*	544.0	568.0	5.4	*
3. sw	*	432.0	420.0	5.4	*
4. se	*	432.0	420.0	5.4	*

1

PAGE 3

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt D

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
0.	7.2	7.3	8.5	8.5
10.	7.8	6.9	9.6	9.6
20.	8.0	6.9	9.3	9.3
30.	8.3	6.9	8.6	8.6
40.	8.4	6.9	8.2	8.2
50.	8.5	6.9	8.2	8.2
60.	8.4	6.9	8.3	8.3
70.	8.3	6.9	8.5	8.5
80.	8.3	6.9	8.3	8.3
90.	9.0	7.5	7.4	7.4
100.	10.0	8.5	7.1	7.1
110.	9.7	8.4	7.1	7.1
120.	9.2	8.2	7.1	7.1
130.	8.7	8.1	7.1	7.1
140.	8.6	8.0	7.1	7.1
150.	8.4	8.1	7.1	7.1
160.	8.6	8.1	7.1	7.1
170.	8.4	8.1	7.0	7.0
180.	8.2	8.3	6.9	6.9

190.	*	8.0	8.4	6.9	6.9
200.	*	8.0	8.4	6.9	6.9
210.	*	8.0	8.5	6.9	6.9
220.	*	8.1	8.6	6.9	6.9
230.	*	8.2	8.8	6.9	6.9
240.	*	8.5	9.2	6.9	6.9
250.	*	8.7	9.7	6.9	6.9
260.	*	8.6	10.2	6.9	6.9
270.	*	7.5	8.9	7.2	7.2
280.	*	6.9	8.2	7.9	7.9
290.	*	6.9	8.3	8.4	8.4
300.	*	6.9	8.3	8.1	8.1
310.	*	6.9	8.1	8.1	8.1
320.	*	6.9	7.9	7.9	7.9
330.	*	6.9	7.8	7.8	7.8
340.	*	6.9	7.8	7.9	7.9
350.	*	6.9	7.9	7.8	7.8
360.	*	7.2	7.3	8.5	8.5

MAX	*	10.0	10.2	9.6	9.6
DEGR.	*	100	260	10	10

THE HIGHEST CONCENTRATION IS 10.18 PPM AT 260 DEGREES FROM REC2 .

1

PAGE 4

JOB: Klausz Properties

RUN: Nordhoff Zelzah Build Out Alt D

RECEPTOR - LINK MATRIX FOR THE ANGLE PRODUCING
THE MAXIMUM CONCENTRATION FOR EACH RECEPTOR

		* CO/LINK (PPM)			
		* ANGLE (DEGREES)			
		* REC1	* REC2	* REC3	* REC4
LINK #	*	100	260	10	10

1	*	0.0	0.0	0.0	0.0
2	*	0.2	0.3	0.3	0.3
3	*	0.0	0.0	0.0	0.0
4	*	0.3	0.3	0.6	0.6
5	*	0.0	0.0	0.0	0.0
6	*	0.9	0.6	0.5	0.5
7	*	0.0	0.3	0.4	0.4
8	*	0.2	0.0	0.0	0.0
9	*	0.0	0.0	0.4	0.4
10	*	1.3	0.1	0.0	0.0
11	*	0.1	1.7	0.5	0.5
12	*	0.1	0.0	0.0	0.0

RUN ENDED ON 08/21/02 AT 09:17

APPENDIX D

Construction Emissions Calculations

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

EMFAC2001 v.2.08 (grams per mile)					
Vehicle Type	CO	ROG	NO ₂	SO ₂	PM ₁₀
Haul Truck	5.963	0.704	12.793	0.14	0.341
Worker Vehicle	6.661	0.303	0.717	0.005	0.01
Assumptions:					
Construction Year	2002				
Season	Winter				
Temperature	65°F				
Speed	35 mph				

EQUIPMENT EMISSION FACTORS (pounds per hour)					
Equipment Type	CO	ROG	NO ₂	SO ₂	PM ¹⁰
Crane/Dozer	0.675	0.15	1.7	0.143	0.14
Source: Table A9-8-A, SCAQMD CEQA Handbook					

OTHER EMISSION FACTORS		
ROG from Architectural Coating (with 25% transfer efficiency)	18.5	lb/1,000 ft ²
ROG from Architectural Coating (with 65% transfer efficiency)	4.62	lb/1,000 ft ²
Dry Film Thickness	17.5	Mils
Source: Table A9-10 and A9-13, SCAQMD CEQA Handbook		

PAVED ROAD PM10 EMISSIONS (per VMT)		
Road Type	PM ¹⁰ / VMT	
	Worker Vehicle	Haul Truck
Local Street	0.018000	0.2139583
Major Street/Highway	0.006400	0.1490958
Freeway	0.000650	0.0621706
Composite Factor**	0.004110	0.0947344
Source: Tables A9-9-B-1 and A9-9-C, SCAQMD CEQA Handbook **Note: Weighted average based on travel characteristics		

HAUL TRUCK ON UNPAVED SURFACE EMISSIONS	
FORMULA:	
E = V x F	
WHERE:	
E = Emissions	
V = Vehicle Miles of Travel	
F = Emissions Factor $(2.1)(G/12)(H/30)((J/3)^{0.7})((I/4)^{0.5})((365-K)/365)$	
VARIABLES	
G = Surface silt loading in percent	
H = Mean vehicle speed in miles per hour	
I = Mean number of wheels on vehicles	
J = Mean vehicle weight in tons	
K = Mean number of days per year with at least 0.01 inches of precipitation	
EMISSIONS FACTOR =	5.55 pounds per vehicle miles traveled
Source: Table A9-9-D, SCAQMD CEQA Handbook	

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DATE	August 20, 2002
PROJECT NAME	Krausz Only Alternative A
DEMOLITION PHASE	
DURATION OF DEMOLITION PHASE (Work Days)	220
SF OF BUILDINGS TO BE DEMOLISHED	340,000
AVERAGE FLOOR HEIGHT OF BUILDINGS TO BE DEMOLISHED	15.0
SF OF PAVEMENT AREA TO BE REMOVED	1,546,380
THICKNESS OF PAVEMENT TO BE REMOVED	0.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
GRADING AND/OR EXCAVATION PHASE	
DURATION OF EXCAVATION PHASE (Work Days)	170
SITE AREA (ACRES)	35.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
DEPTH OF GRADING (Feet)	0.5
DEPTH OF EXCAVATION (Feet)	1.0
SURFACE AREA OF EXCAVATION IN SF	1,546,380
FOUNDATION PHASE	
DURATION OF FOUNDATION PHASE (Work Days)	250
SIZE OF FOUNDATION SLAB IN SF	1,448,800
SLAB THICKNESS IN SF	1
HOURS IN WORK DAY FOR THIS PHASE	8
CEMENT MIXER ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
FINISHING PHASE	
DURATION OF FINISHING PHASE (Work Days)	25
SF NON-RESIDENTIAL USE	340,000
NUMBER OF SINGLE FAMILY UNITS	-
NUMBER OF MULTI-FAMILY UNITS	486
WORKER ROUND TRIP LENGTH	16
TRUCK CHARACTERISTICS	
HAUL TRUCK CAPACITY IN CUBIC YARDS	14.00
TRUCK TRAVEL PERCENTAGE ON LOCAL STREET	10%
TRUCK TRAVEL PERCENTAGE ON MAJOR STREET	20%
TRUCK TRAVEL PERCENTAGE ON FREEWAY	70%
WORKER AUTO CHARACTERISTICS	
PERCENT WORKER AUTO TRAVEL ON LOCAL STREET	10%
PERCENT WORKER AUTO TRAVEL ON MAJOR STREET	30%
PERCENT WORKER AUTO TRAVEL ON FREEWAY	60%
SITE CONDITIONS	
PREDOMINANT WIND SPEED in MPH	4.0
NATIVE SOIL MOISTURE CONTENT	3%
SOIL MOISTURE CONTENT (MITIGATED)	10%

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)						
Krausz Only Alternative A						
CONSTRUCTION PHASE	CO	ROG (w/o Mitigation)	ROG (w/Mitigation)	NO₂	SO₂	PM¹⁰ (with Rule 403)
DEMOLITION	22	3	3	41	2	74
GRADING/EXCAVATION	20	3	3	41	2	102
FOUNDATION	34	5	5	55	4	52
FINISHING	2	81	20	0.163	0.001	0.002
MAXIMUM	34	81	20	55	4	102
SCAQMD THRESHOLD	550	75	75	100	150	150
EXCEED THRESHOLD?	NO	YES	NO	NO	NO	NO
SOURCE: TERRY A. HAYES ASSOCIATES, LLC.						

TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

DEMOLITION PHASE EMISSIONS (in pounds per day)

Activity Emissions	Daily Unit Volume	PM ¹⁰ Factor **	PM ¹⁰	(Rule 403) PM ¹⁰
Building Wrecking	23,182 ft ³	0.00042 per ft ³	9.74	4.87
Pavement Breaking	3,515 ft ³	0.00042 per ft ³	1.48	0.74
Truck Loading	377 tons	0.02205 per ton	8.32	4.16
Trucks on Unpaved Surface	5.64 miles	5.55141 per vmt	31.33	15.66

** Source: Table A9-9, SCAQMD CEQA Handbook

Equipment Emissions	Source Population	Activity Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Crane	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	479	6.29	0.74	13.50	0.15	45.75
Worker Vehicles	315	4.62	0.21	0.50	0.00	1.30

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	53.10
Daily Mobile Emissions	10.91	0.95	14.00	0.15	47.05
TOTAL	21.71	3.35	41.20	2.44	100.15

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	26.55
Daily Mobile Emissions	10.91	0.95	14.00	0.15	47.05
TOTAL	21.71	3.35	41.20	2.44	73.60

UNDERLING DEMOLITION PHASE CALCULATIONS

Bldg Vol CF	5,100,000
Bldg Vol CY	188,889
Pavement CF	773,190
Pavement CY	28,637
Total Debris CF	1,793,190
Total Debris CY	66,414
Numer of Haul Load @ 14.00 CY/load	5,271
Loads Per Hour	3.0
Number of Haul Loads per Day	24
CF Building Disturbed/Day	23,182
CF/Day Demolished	26,696
CY/Day Demolished	989
Tons of Debris Loaded per Day	377
Number of Dozers to Load @ 6 loads/hr/dozer	1
Numer of Diesel Equipment @ 900 CY/Piece	2
Total Man Hours Required	38,067
Total Work Crew Size	22
HDV Off Site VMT	479
HDV VMT on Unpaved Site (miles)	5.64
Number of Work Crew Vehicles @ 1.1 AVR	20
Work Crew Vehicle VMT - Local (miles)	315

0.235518

TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

GRADING/EXCAVATION PHASE EMISSIONS (in pounds per day)

Activity Emissions (without Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	3%	8	n/a	n/a	99.04
Earth Excavation	n/a	3%	n/a	4	673,804	100.97

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions (with Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	10%	8.0	n/a	n/a	18.36
Earth Excavation	n/a	10%	n/a	4	673,804	18.71

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions	Daily VMT	Emissions Factor	PM ¹⁰	PM ¹⁰ (with Rule 403)
Haul Truck on Unpaved Surface	5.67	5.55	31.46	15.73

Equipment Emissions	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Shovel	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	481	6.32	0.75	13.56	0.15	45.96
Worker Vehicles	204	2.99	0.14	0.32	0.00	0.84

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	233.71
Daily Mobile Emissions	9.31	0.88	13.88	0.15	46.80
TOTAL	20.11	3.28	41.08	2.44	280.51

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	55.04
Daily Mobile Emissions	9.31	0.88	13.88	0.15	46.80
TOTAL	20.11	3.28	41.08	2.44	101.84

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

UNDERLING GRADING/EXCAVATION PHASE CALCULATIONS

Total Earth Export CY	57,273
Total Haul Truck Trips @ 14.00 CY	4,091
Total Earth Export Weight (in tons)	57,273
Daily Earth Export CY	337
Daily Haul Truck Trips @ 14.00 CY	24
Daily Earth Export Weight (in tons)	337
Haul Truck VMT on Unpaved Surface	5.67
HDV Off Site VMT	481
Total Work Crew Size	14
Number of Work Crew Vehicles @ 1.1 AVR	13
Work Crew Vehicle VMT - Local (miles)	204

EQUIPMENT NEEDED FOR GRADING

Site Area in Acres	35.50
Grading Average Depth	0.50
Cubic Yards Graded	28,637
CY Graded/Day	168.45
D7 Dozer Output in CY/Day	216.00
Dozers Needed	1.00

EQUIPMENT NEEDED FOR EXCAVATION

CY Exported	57,273
CY Exported/Day	337
Power Shovel Output in CY /Day	800
Power Shovels Needed	1.00

TOTAL EQUIPMENT NEEDED	2.00
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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

FOUNDATION PHASE EMISSIONS (in pounds per day)

Equipment	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Idling Cement Trucks	2.98	8	16.10	3.58	40.54	3.41	3.34

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Cement Trucks	476.97	6.26	0.74	13.44	0.15	45.54
Worker Vehicles	790.25	11.59	0.53	1.25	0.01	3.27

TOTAL DAILY EMISSIONS	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	16.10	3.58	40.54	3.41	3.34
Daily Mobile Emissions	17.86	1.27	14.69	0.15	48.81
TOTAL	33.96	4.84	55.23	3.57	52.15

UNDERLING FOUNDATION PHASE CALCULATIONS

CF of Cement Required	1,448,800
CY of Cement Required	53,659
No. of Cement Haul Loads @ 9CY/Load	5,962
Labor Hours Required	108,660
Total Worker Requirement	54
Number of Work Crew Vehicles @ 1.1 AVR	49
Number of Cement Loads per Day	23.85
Cement Loads Per Hour	2.98
CF/Day Poured	5,795.20
CY/Day Poured	214.64
HDV Off Site VMT	476.97
Work Crew Vehicle VMT	790.25

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

FINISHING PHASE EMISSIONS (in pounds per day)

Activity Emissions (without mitigation)	Total Area to be Coated (sq. ft.)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating-Nonresidential	Exterior Wall	27,200	-	8.81	-	-	-
	Interior Wall	81,600	-	26.42	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	34,992	-	11.33	-	-	-
	Interior Wall	104,976	-	33.99	-	-	-
TOTAL			0.00	80.54	0.00	0.00	0.00

Activity Emissions (with mitigation)	Total Area to be Coated (x1,000 sf)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating	Exterior Wall	27,200	-	2.20	-	-	-
	Interior Wall	81,600	-	6.60	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	34,992	-	2.83	-	-	-
	Interior Wall	104,976	-	8.49	-	-	-
TOTAL			0.00	20.11	0.00	0.00	0.00

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Worker Vehicles	103	1.51	0.07	0.16	0.001	0.002

TOTAL DAILY EMISSIONS (without mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	80.54	0.00	0.00	0.00
Daily Mobile Emissions	1.51	0.07	0.16	0.001	0.002
TOTAL	1.51	80.61	0.16	0.001	0.002

TOTAL DAILY EMISSIONS (with mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	20.11	0.00	0.00	0.00
Daily Mobile Emissions	1.51	0.07	0.16	0.00	0.00
TOTAL	1.51	20.18	0.16	0.001	0.002

UNDERLING FINISHING PHASE CALCULATIONS

Total Non-Residential Building SF	340,000
SF Non-Residential Building Coated per Day	13,600
Number of SFU	-
Number of MFU	486
Total Number of SFU Building Coated per Day (dwelling units)	-
SF SFU per day	-
Total Number of MFU Building Coated per Day (dwelling units)	19
SF MFU per day	15,552
Total Work Crew Size	7
Number of Work Crew Vehicles @ 1.1 AVR	6
Worker Crew Vehicle VMT	103

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DATE	August 20, 2002
PROJECT NAME	Krausz Only Alternative B
DEMOLITION PHASE	
DURATION OF DEMOLITION PHASE (Work Days)	220
SF OF BUILDINGS TO BE DEMOLISHED	340,000
AVERAGE FLOOR HEIGHT OF BUILDINGS TO BE DEMOLISHED	15.0
SF OF PAVEMENT AREA TO BE REMOVED	1,546,380
THICKNESS OF PAVEMENT TO BE REMOVED	0.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
GRADING AND/OR EXCAVATION PHASE	
DURATION OF EXCAVATION PHASE (Work Days)	170
SITE AREA (ACRES)	35.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
DEPTH OF GRADING (Feet)	0.5
DEPTH OF EXCAVATION (Feet)	1.0
SURFACE AREA OF EXCAVATION IN SF	1,546,380
FOUNDATION PHASE	
DURATION OF FOUNDATION PHASE (Work Days)	350
SIZE OF FOUNDATION SLAB IN SF	2,038,800
SLAB THICKNESS IN SF	1
HOURS IN WORK DAY FOR THIS PHASE	8
CEMENT MIXER ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
FINISHING PHASE	
DURATION OF FINISHING PHASE (Work Days)	45
SF NON-RESIDENTIAL USE	930,000
NUMBER OF SINGLE FAMILY UNITS	-
NUMBER OF MULTI-FAMILY UNITS	486
WORKER ROUND TRIP LENGTH	16
TRUCK CHARACTERISTICS	
HAUL TRUCK CAPACITY IN CUBIC YARDS	14.00
TRUCK TRAVEL PERCENTAGE ON LOCAL STREET	10%
TRUCK TRAVEL PERCENTAGE ON MAJOR STREET	20%
TRUCK TRAVEL PERCENTAGE ON FREEWAY	70%
WORKER AUTO CHARACTERISTICS	
PERCENT WORKER AUTO TRAVEL ON LOCAL STREET	10%
PERCENT WORKER AUTO TRAVEL ON MAJOR STREET	30%
PERCENT WORKER AUTO TRAVEL ON FREEWAY	60%
SITE CONDITIONS	
PREDOMINANT WIND SPEED in MPH	4.0
NATIVE SOIL MOISTURE CONTENT	3%
SOIL MOISTURE CONTENT (MITIGATED)	10%

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)						
Krausz Only Alternative B						
CONSTRUCTION PHASE	CO	ROG (w/o Mitigation)	ROG (w/Mitigation)	NO₂	SO₂	PM¹⁰ (with Rule 403)
DEMOLITION	22	3	3	41	2	74
GRADING/EXCAVATION	20	3	3	41	2	102
FOUNDATION	34	5	5	56	4	52
FINISHING	2	79	20	0.163	0.001	0.002
MAXIMUM	34	79	20	56	4	102
SCAQMD THRESHOLD	550	75	75	100	150	150
EXCEED THRESHOLD?	NO	YES	NO	NO	NO	NO
SOURCE: TERRY A. HAYES ASSOCIATES, LLC.						

TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

DEMOLITION PHASE EMISSIONS (in pounds per day)

Activity Emissions	Daily Unit Volume	PM ¹⁰ Factor **	PM ¹⁰	(Rule 403) PM ¹⁰
Building Wrecking	23,182 ft ³	0.00042 per ft ³	9.74	4.87
Pavement Breaking	3,515 ft ³	0.00042 per ft ³	1.48	0.74
Truck Loading	377 tons	0.02205 per ton	8.32	4.16
Trucks on Unpaved Surface	5.64 miles	5.55141 per vmt	31.33	15.66

** Source: Table A9-9, SCAQMD CEQA Handbook

Equipment Emissions	Source Population	Activity Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Crane	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	479	6.29	0.74	13.50	0.15	45.75
Worker Vehicles	315	4.62	0.21	0.50	0.00	1.30

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	53.10
Daily Mobile Emissions	10.91	0.95	14.00	0.15	47.05
TOTAL	21.71	3.35	41.20	2.44	100.15

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	26.55
Daily Mobile Emissions	10.91	0.95	14.00	0.15	47.05
TOTAL	21.71	3.35	41.20	2.44	73.60

UNDERLING DEMOLITION PHASE CALCULATIONS

Bldg Vol CF	5,100,000
Bldg Vol CY	188,889
Pavement CF	773,190
Pavement CY	28,637
Total Debris CF	1,793,190
Total Debris CY	66,414
Numer of Haul Load @ 14.00 CY/load	5,271
Loads Per Hour	3.0
Number of Haul Loads per Day	24
CF Building Disturbed/Day	23,182
CF/Day Demolished	26,696
CY/Day Demolished	989
Tons of Debris Loaded per Day	377
Number of Dozers to Load @ 6 loads/hr/dozer	1
Numer of Diesel Equipment @ 900 CY/Piece	2
Total Man Hours Required	38,067
Total Work Crew Size	22
HDV Off Site VMT	479
HDV VMT on Unpaved Site (miles)	5.64
Number of Work Crew Vehicles @ 1.1 AVR	20
Work Crew Vehicle VMT - Local (miles)	315

0.235518

TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

GRADING/EXCAVATION PHASE EMISSIONS (in pounds per day)

Activity Emissions (without Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	3%	8	n/a	n/a	99.04
Earth Excavation	n/a	3%	n/a	4	673,804	100.97

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions (with Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	10%	8.0	n/a	n/a	18.36
Earth Excavation	n/a	10%	n/a	4	673,804	18.71

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions	Daily VMT	Emissions Factor	PM ¹⁰	PM ¹⁰ (with Rule 403)
Haul Truck on Unpaved Surface	5.67	5.55	31.46	15.73

Equipment Emissions	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Shovel	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	481	6.32	0.75	13.56	0.15	45.96
Worker Vehicles	204	2.99	0.14	0.32	0.00	0.84

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	233.71
Daily Mobile Emissions	9.31	0.88	13.88	0.15	46.80
TOTAL	20.11	3.28	41.08	2.44	280.51

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	55.04
Daily Mobile Emissions	9.31	0.88	13.88	0.15	46.80
TOTAL	20.11	3.28	41.08	2.44	101.84

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

UNDERLING GRADING/EXCAVATION PHASE CALCULATIONS

Total Earth Export CY	57,273
Total Haul Truck Trips @ 14.00 CY	4,091
Total Earth Export Weight (in tons)	57,273
Daily Earth Export CY	337
Daily Haul Truck Trips @ 14.00 CY	24
Daily Earth Export Weight (in tons)	337
Haul Truck VMT on Unpaved Surface	5.67
HDV Off Site VMT	481
Total Work Crew Size	14
Number of Work Crew Vehicles @ 1.1 AVR	13
Work Crew Vehicle VMT - Local (miles)	204

EQUIPMENT NEEDED FOR GRADING

Site Area in Acres	35.50
Grading Average Depth	0.50
Cubic Yards Graded	28,637
CY Graded/Day	168.45
D7 Dozer Output in CY/Day	216.00
Dozers Needed	1.00

EQUIPMENT NEEDED FOR EXCAVATION

CY Exported	57,273
CY Exported/Day	337
Power Shovel Output in CY /Day	800
Power Shovels Needed	1.00

TOTAL EQUIPMENT NEEDED	2.00
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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

FOUNDATION PHASE EMISSIONS (in pounds per day)

Equipment	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Idling Cement Trucks	3.00	8	16.18	3.60	40.75	3.43	3.36

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Cement Trucks	479.44	6.30	0.74	13.51	0.15	45.78
Worker Vehicles	794.34	11.65	0.53	1.25	0.01	3.28

TOTAL DAILY EMISSIONS	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	16.18	3.60	40.75	3.43	3.36
Daily Mobile Emissions	17.95	1.27	14.76	0.16	49.06
TOTAL	34.13	4.87	55.52	3.58	52.42

UNDERLING FOUNDATION PHASE CALCULATIONS

CF of Cement Required	2,038,800
CY of Cement Required	75,511
No. of Cement Haul Loads @ 9CY/Load	8,390
Labor Hours Required	152,910
Total Worker Requirement	55
Number of Work Crew Vehicles @ 1.1 AVR	50
Number of Cement Loads per Day	23.97
Cement Loads Per Hour	3.00
CF/Day Poured	5,825.14
CY/Day Poured	215.75
HDV Off Site VMT	479.44
Work Crew Vehicle VMT	794.34

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

FINISHING PHASE EMISSIONS (in pounds per day)

Activity Emissions (without mitigation)	Total Area to be Coated (sq. ft.)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating-Nonresidential	Exterior Wall	41,333	-	13.38	-	-	-
	Interior Wall	124,000	-	40.15	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	19,440	-	6.29	-	-	-
	Interior Wall	58,320	-	18.88	-	-	-
TOTAL			0.00	78.70	0.00	0.00	0.00

Activity Emissions (with mitigation)	Total Area to be Coated (x1,000 sf)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating	Exterior Wall	41,333	-	3.34	-	-	-
	Interior Wall	124,000	-	10.03	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	19,440	-	1.57	-	-	-
	Interior Wall	58,320	-	4.72	-	-	-
TOTAL			0.00	19.65	0.00	0.00	0.00

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Worker Vehicles	104	1.52	0.07	0.16	0.001	0.002

TOTAL DAILY EMISSIONS (without mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	78.70	0.00	0.00	0.00
Daily Mobile Emissions	1.52	0.07	0.16	0.001	0.002
TOTAL	1.52	78.77	0.16	0.001	0.002

TOTAL DAILY EMISSIONS (with mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	19.65	0.00	0.00	0.00
Daily Mobile Emissions	1.52	0.07	0.16	0.00	0.00
TOTAL	1.52	19.72	0.16	0.001	0.002

UNDERLING FINISHING PHASE CALCULATIONS

Total Non-Residential Building SF	930,000
SF Non-Residential Building Coated per Day	20,667
Number of SFU	-
Number of MFU	486
Total Number of SFU Building Coated per Day (dwelling units)	-
SF SFU per day	-
Total Number of MFU Building Coated per Day (dwelling units)	11
SF MFU per day	8,640
Total Work Crew Size	7
Number of Work Crew Vehicles @ 1.1 AVR	6
Worker Crew Vehicle VMT	104

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DATE	August 20, 2002
PROJECT NAME	Krausz Only Alternative C
DEMOLITION PHASE	
DURATION OF DEMOLITION PHASE (Work Days)	220
SF OF BUILDINGS TO BE DEMOLISHED	340,000
AVERAGE FLOOR HEIGHT OF BUILDINGS TO BE DEMOLISHED	15.0
SF OF PAVEMENT AREA TO BE REMOVED	1,546,380
THICKNESS OF PAVEMENT TO BE REMOVED	0.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
GRADING AND/OR EXCAVATION PHASE	
DURATION OF EXCAVATION PHASE (Work Days)	170
SITE AREA (ACRES)	35.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
DEPTH OF GRADING (Feet)	0.5
DEPTH OF EXCAVATION (Feet)	1.0
SURFACE AREA OF EXCAVATION IN SF	1,546,380
FOUNDATION PHASE	
DURATION OF FOUNDATION PHASE (Work Days)	270
SIZE OF FOUNDATION SLAB IN SF	1,598,800
SLAB THICKNESS IN SF	1
HOURS IN WORK DAY FOR THIS PHASE	8
CEMENT MIXER ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
FINISHING PHASE	
DURATION OF FINISHING PHASE (Work Days)	30
SF NON-RESIDENTIAL USE	250,000
NUMBER OF SINGLE FAMILY UNITS	-
NUMBER OF MULTI-FAMILY UNITS	786
WORKER ROUND TRIP LENGTH	16
TRUCK CHARACTERISTICS	
HAUL TRUCK CAPACITY IN CUBIC YARDS	14.00
TRUCK TRAVEL PERCENTAGE ON LOCAL STREET	10%
TRUCK TRAVEL PERCENTAGE ON MAJOR STREET	20%
TRUCK TRAVEL PERCENTAGE ON FREEWAY	70%
WORKER AUTO CHARACTERISTICS	
PERCENT WORKER AUTO TRAVEL ON LOCAL STREET	10%
PERCENT WORKER AUTO TRAVEL ON MAJOR STREET	30%
PERCENT WORKER AUTO TRAVEL ON FREEWAY	60%
SITE CONDITIONS	
PREDOMINANT WIND SPEED in MPH	4.0
NATIVE SOIL MOISTURE CONTENT	3%
SOIL MOISTURE CONTENT (MITIGATED)	10%

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)						
Krausz Only Alternative C						
CONSTRUCTION PHASE	CO	ROG (w/o Mitigation)	ROG (w/Mitigation)	NO₂	SO₂	PM¹⁰ (with Rule 403)
DEMOLITION	22	3	3	41	2	74
GRADING/EXCAVATION	20	3	3	41	2	102
FOUNDATION	35	5	5	56	4	53
FINISHING	2	83	21	0.163	0.001	0.002
MAXIMUM	35	83	21	56	4	102
SCAQMD THRESHOLD	550	75	75	100	150	150
EXCEED THRESHOLD?	NO	YES	NO	NO	NO	NO
SOURCE: TERRY A. HAYES ASSOCIATES, LLC.						

TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

DEMOLITION PHASE EMISSIONS (in pounds per day)

Activity Emissions	Daily Unit Volume	PM ¹⁰ Factor **	PM ¹⁰	(Rule 403) PM ¹⁰
Building Wrecking	23,182 ft ³	0.00042 per ft ³	9.74	4.87
Pavement Breaking	3,515 ft ³	0.00042 per ft ³	1.48	0.74
Truck Loading	377 tons	0.02205 per ton	8.32	4.16
Trucks on Unpaved Surface	5.64 miles	5.55141 per vmt	31.33	15.66

** Source: Table A9-9, SCAQMD CEQA Handbook

Equipment Emissions	Source Population	Activity Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Crane	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	479	6.29	0.74	13.50	0.15	45.75
Worker Vehicles	315	4.62	0.21	0.50	0.00	1.30

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	53.10
Daily Mobile Emissions	10.91	0.95	14.00	0.15	47.05
TOTAL	21.71	3.35	41.20	2.44	100.15

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	26.55
Daily Mobile Emissions	10.91	0.95	14.00	0.15	47.05
TOTAL	21.71	3.35	41.20	2.44	73.60

UNDERLING DEMOLITION PHASE CALCULATIONS

Bldg Vol CF	5,100,000
Bldg Vol CY	188,889
Pavement CF	773,190
Pavement CY	28,637
Total Debris CF	1,793,190
Total Debris CY	66,414
Numer of Haul Load @ 14.00 CY/load	5,271
Loads Per Hour	3.0
Number of Haul Loads per Day	24
CF Building Disturbed/Day	23,182
CF/Day Demolished	26,696
CY/Day Demolished	989
Tons of Debris Loaded per Day	377
Number of Dozers to Load @ 6 loads/hr/dozer	1
Numer of Diesel Equipment @ 900 CY/Piece	2
Total Man Hours Required	38,067
Total Work Crew Size	22
HDV Off Site VMT	479
HDV VMT on Unpaved Site (miles)	5.64
Number of Work Crew Vehicles @ 1.1 AVR	20
Work Crew Vehicle VMT - Local (miles)	315

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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

GRADING/EXCAVATION PHASE EMISSIONS (in pounds per day)

Activity Emissions (without Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	3%	8	n/a	n/a	99.04
Earth Excavation	n/a	3%	n/a	4	673,804	100.97

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions (with Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	10%	8.0	n/a	n/a	18.36
Earth Excavation	n/a	10%	n/a	4	673,804	18.71

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions	Daily VMT	Emissions Factor	PM ¹⁰	PM ¹⁰ (with Rule 403)
Haul Truck on Unpaved Surface	5.67	5.55	31.46	15.73

Equipment Emissions	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Shovel	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	481	6.32	0.75	13.56	0.15	45.96
Worker Vehicles	204	2.99	0.14	0.32	0.00	0.84

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	233.71
Daily Mobile Emissions	9.31	0.88	13.88	0.15	46.80
TOTAL	20.11	3.28	41.08	2.44	280.51

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	55.04
Daily Mobile Emissions	9.31	0.88	13.88	0.15	46.80
TOTAL	20.11	3.28	41.08	2.44	101.84

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

UNDERLING GRADING/EXCAVATION PHASE CALCULATIONS

Total Earth Export CY	57,273
Total Haul Truck Trips @ 14.00 CY	4,091
Total Earth Export Weight (in tons)	57,273
Daily Earth Export CY	337
Daily Haul Truck Trips @ 14.00 CY	24
Daily Earth Export Weight (in tons)	337
Haul Truck VMT on Unpaved Surface	5.67
HDV Off Site VMT	481
Total Work Crew Size	14
Number of Work Crew Vehicles @ 1.1 AVR	13
Work Crew Vehicle VMT - Local (miles)	204

EQUIPMENT NEEDED FOR GRADING

Site Area in Acres	35.50
Grading Average Depth	0.50
Cubic Yards Graded	28,637
CY Graded/Day	168.45
D7 Dozer Output in CY/Day	216.00
Dozers Needed	1.00

EQUIPMENT NEEDED FOR EXCAVATION

CY Exported	57,273
CY Exported/Day	337
Power Shovel Output in CY /Day	800
Power Shovels Needed	1.00

TOTAL EQUIPMENT NEEDED	2.00
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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

FOUNDATION PHASE EMISSIONS (in pounds per day)

Equipment	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Idling Cement Trucks	3.05	8	16.45	3.66	41.43	3.48	3.41

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Cement Trucks	487.36	6.40	0.76	13.73	0.15	46.54
Worker Vehicles	807.47	11.85	0.54	1.28	0.01	3.34

TOTAL DAILY EMISSIONS	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	16.45	3.66	41.43	3.48	3.41
Daily Mobile Emissions	18.25	1.29	15.01	0.16	49.87
TOTAL	34.70	4.95	56.43	3.64	53.28

UNDERLING FOUNDATION PHASE CALCULATIONS

CF of Cement Required	1,598,800
CY of Cement Required	59,215
No. of Cement Haul Loads @ 9CY/Load	6,579
Labor Hours Required	119,910
Total Worker Requirement	56
Number of Work Crew Vehicles @ 1.1 AVR	50
Number of Cement Loads per Day	24.37
Cement Loads Per Hour	3.05
CF/Day Poured	5,921.48
CY/Day Poured	219.31
HDV Off Site VMT	487.36
Work Crew Vehicle VMT	807.47

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

FINISHING PHASE EMISSIONS (in pounds per day)

Activity Emissions (without mitigation)	Total Area to be Coated (sq. ft.)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating-Nonresidential	Exterior Wall	16,667	-	5.40	-	-	-
	Interior Wall	50,000	-	16.19	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	47,160	-	15.27	-	-	-
	Interior Wall	141,480	-	45.80	-	-	-
TOTAL			0.00	82.66	0.00	0.00	0.00

Activity Emissions (with mitigation)	Total Area to be Coated (x1,000 sf)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating	Exterior Wall	16,667	-	1.35	-	-	-
	Interior Wall	50,000	-	4.04	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	47,160	-	3.81	-	-	-
	Interior Wall	141,480	-	11.44	-	-	-
TOTAL			0.00	20.64	0.00	0.00	0.00

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Worker Vehicles	103	1.52	0.07	0.16	0.001	0.002

TOTAL DAILY EMISSIONS (without mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	82.66	0.00	0.00	0.00
Daily Mobile Emissions	1.52	0.07	0.16	0.001	0.002
TOTAL	1.52	82.72	0.16	0.001	0.002

TOTAL DAILY EMISSIONS (with mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	20.64	0.00	0.00	0.00
Daily Mobile Emissions	1.52	0.07	0.16	0.00	0.00
TOTAL	1.52	20.71	0.16	0.001	0.002

UNDERLING FINISHING PHASE CALCULATIONS

Total Non-Residential Building SF	250,000
SF Non-Residential Building Coated per Day	8,333
Number of SFU	-
Number of MFU	786
Total Number of SFU Building Coated per Day (dwelling units)	-
SF SFU per day	-
Total Number of MFU Building Coated per Day (dwelling units)	26
SF MFU per day	20,960
Total Work Crew Size	7
Number of Work Crew Vehicles @ 1.1 AVR	6
Worker Crew Vehicle VMT	103

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DATE	August 20, 2002
PROJECT NAME	Krausz Only Alternative D
DEMOLITION PHASE	
DURATION OF DEMOLITION PHASE (Work Days)	220
SF OF BUILDINGS TO BE DEMOLISHED	340,000
AVERAGE FLOOR HEIGHT OF BUILDINGS TO BE DEMOLISHED	15.0
SF OF PAVEMENT AREA TO BE REMOVED	1,546,380
THICKNESS OF PAVEMENT TO BE REMOVED	0.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
GRADING AND/OR EXCAVATION PHASE	
DURATION OF EXCAVATION PHASE (Work Days)	170
SITE AREA (ACRES)	35.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
DEPTH OF GRADING (Feet)	0.5
DEPTH OF EXCAVATION (Feet)	1.0
SURFACE AREA OF EXCAVATION IN SF	1,546,380
FOUNDATION PHASE	
DURATION OF FOUNDATION PHASE (Work Days)	340
SIZE OF FOUNDATION SLAB IN SF	2,038,800
SLAB THICKNESS IN SF	1
HOURS IN WORK DAY FOR THIS PHASE	8
CEMENT MIXER ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
FINISHING PHASE	
DURATION OF FINISHING PHASE (Work Days)	45
SF NON-RESIDENTIAL USE	690,000
NUMBER OF SINGLE FAMILY UNITS	-
NUMBER OF MULTI-FAMILY UNITS	786
WORKER ROUND TRIP LENGTH	16
TRUCK CHARACTERISTICS	
HAUL TRUCK CAPACITY IN CUBIC YARDS	14.00
TRUCK TRAVEL PERCENTAGE ON LOCAL STREET	10%
TRUCK TRAVEL PERCENTAGE ON MAJOR STREET	20%
TRUCK TRAVEL PERCENTAGE ON FREEWAY	70%
WORKER AUTO CHARACTERISTICS	
PERCENT WORKER AUTO TRAVEL ON LOCAL STREET	10%
PERCENT WORKER AUTO TRAVEL ON MAJOR STREET	30%
PERCENT WORKER AUTO TRAVEL ON FREEWAY	60%
SITE CONDITIONS	
PREDOMINANT WIND SPEED in MPH	4.0
NATIVE SOIL MOISTURE CONTENT	3%
SOIL MOISTURE CONTENT (MITIGATED)	10%

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)						
Krausz Only Alternative D						
CONSTRUCTION PHASE	CO	ROG (w/o Mitigation)	ROG (w/Mitigation)	NO₂	SO₂	PM¹⁰ (with Rule 403)
DEMOLITION	22	3	3	41	2	74
GRADING/EXCAVATION	20	3	3	41	2	102
FOUNDATION	35	5	5	57	4	54
FINISHING	2	80	20	0.163	0.001	0.002
MAXIMUM	35	80	20	57	4	102
SCAQMD THRESHOLD	550	75	75	100	150	150
EXCEED THRESHOLD?	NO	YES	NO	NO	NO	NO
SOURCE: TERRY A. HAYES ASSOCIATES, LLC.						

TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

DEMOLITION PHASE EMISSIONS (in pounds per day)

Activity Emissions	Daily Unit Volume	PM ¹⁰ Factor **	PM ¹⁰	(Rule 403) PM ¹⁰
Building Wrecking	23,182 ft ³	0.00042 per ft ³	9.74	4.87
Pavement Breaking	3,515 ft ³	0.00042 per ft ³	1.48	0.74
Truck Loading	377 tons	0.02205 per ton	8.32	4.16
Trucks on Unpaved Surface	5.64 miles	5.55141 per vmt	31.33	15.66

** Source: Table A9-9, SCAQMD CEQA Handbook

Equipment Emissions	Source Population	Activity Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Crane	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	479	6.29	0.74	13.50	0.15	45.75
Worker Vehicles	315	4.62	0.21	0.50	0.00	1.30

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	53.10
Daily Mobile Emissions	10.91	0.95	14.00	0.15	47.05
TOTAL	21.71	3.35	41.20	2.44	100.15

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	26.55
Daily Mobile Emissions	10.91	0.95	14.00	0.15	47.05
TOTAL	21.71	3.35	41.20	2.44	73.60

UNDERLING DEMOLITION PHASE CALCULATIONS

Bldg Vol CF	5,100,000
Bldg Vol CY	188,889
Pavement CF	773,190
Pavement CY	28,637
Total Debris CF	1,793,190
Total Debris CY	66,414
Numer of Haul Load @ 14.00 CY/load	5,271
Loads Per Hour	3.0
Number of Haul Loads per Day	24
CF Building Disturbed/Day	23,182
CF/Day Demolished	26,696
CY/Day Demolished	989
Tons of Debris Loaded per Day	377
Number of Dozers to Load @ 6 loads/hr/dozer	1
Numer of Diesel Equipment @ 900 CY/Piece	2
Total Man Hours Required	38,067
Total Work Crew Size	22
HDV Off Site VMT	479
HDV VMT on Unpaved Site (miles)	5.64
Number of Work Crew Vehicles @ 1.1 AVR	20
Work Crew Vehicle VMT - Local (miles)	315

0.235518

TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

GRADING/EXCAVATION PHASE EMISSIONS (in pounds per day)

Activity Emissions (without Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	3%	8	n/a	n/a	99.04
Earth Excavation	n/a	3%	n/a	4	673,804	100.97

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions (with Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	10%	8.0	n/a	n/a	18.36
Earth Excavation	n/a	10%	n/a	4	673,804	18.71

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions	Daily VMT	Emissions Factor	PM ¹⁰	PM ¹⁰ (with Rule 403)
Haul Truck on Unpaved Surface	5.67	5.55	31.46	15.73

Equipment Emissions	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Shovel	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	481	6.32	0.75	13.56	0.15	45.96
Worker Vehicles	204	2.99	0.14	0.32	0.00	0.84

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	233.71
Daily Mobile Emissions	9.31	0.88	13.88	0.15	46.80
TOTAL	20.11	3.28	41.08	2.44	280.51

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	55.04
Daily Mobile Emissions	9.31	0.88	13.88	0.15	46.80
TOTAL	20.11	3.28	41.08	2.44	101.84

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

UNDERLING GRADING/EXCAVATION PHASE CALCULATIONS

Total Earth Export CY	57,273
Total Haul Truck Trips @ 14.00 CY	4,091
Total Earth Export Weight (in tons)	57,273
Daily Earth Export CY	337
Daily Haul Truck Trips @ 14.00 CY	24
Daily Earth Export Weight (in tons)	337
Haul Truck VMT on Unpaved Surface	5.67
HDV Off Site VMT	481
Total Work Crew Size	14
Number of Work Crew Vehicles @ 1.1 AVR	13
Work Crew Vehicle VMT - Local (miles)	204

EQUIPMENT NEEDED FOR GRADING

Site Area in Acres	35.50
Grading Average Depth	0.50
Cubic Yards Graded	28,637
CY Graded/Day	168.45
D7 Dozer Output in CY/Day	216.00
Dozers Needed	1.00

EQUIPMENT NEEDED FOR EXCAVATION

CY Exported	57,273
CY Exported/Day	337
Power Shovel Output in CY /Day	800
Power Shovels Needed	1.00

TOTAL EQUIPMENT NEEDED	2.00
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TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

FOUNDATION PHASE EMISSIONS (in pounds per day)

Equipment	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Idling Cement Trucks	3.08	8	16.66	3.70	41.95	3.53	3.45

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Cement Trucks	493.54	6.48	0.77	13.91	0.15	47.13
Worker Vehicles	817.70	12.00	0.55	1.29	0.01	3.38

TOTAL DAILY EMISSIONS	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	16.66	3.70	41.95	3.53	3.45
Daily Mobile Emissions	18.48	1.31	15.20	0.16	50.50
TOTAL	35.14	5.01	57.15	3.69	53.96

UNDERLING FOUNDATION PHASE CALCULATIONS

CF of Cement Required	2,038,800
CY of Cement Required	75,511
No. of Cement Haul Loads @ 9CY/Load	8,390
Labor Hours Required	152,910
Total Worker Requirement	56
Number of Work Crew Vehicles @ 1.1 AVR	51
Number of Cement Loads per Day	24.68
Cement Loads Per Hour	3.08
CF/Day Poured	5,996.47
CY/Day Poured	222.09
HDV Off Site VMT	493.54
Work Crew Vehicle VMT	817.70

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

FINISHING PHASE EMISSIONS (in pounds per day)

Activity Emissions (without mitigation)	Total Area to be Coated (sq. ft.)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating-Nonresidential	Exterior Wall	30,667	-	9.93	-	-	-
	Interior Wall	92,000	-	29.79	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	31,440	-	10.18	-	-	-
	Interior Wall	94,320	-	30.54	-	-	-
TOTAL			0.00	80.43	0.00	0.00	0.00

Activity Emissions (with mitigation)	Total Area to be Coated (x1,000 sf)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating	Exterior Wall	30,667	-	2.48	-	-	-
	Interior Wall	92,000	-	7.44	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	31,440	-	2.54	-	-	-
	Interior Wall	94,320	-	7.63	-	-	-
TOTAL			0.00	20.09	0.00	0.00	0.00

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Worker Vehicles	104	1.52	0.07	0.16	0.001	0.002

TOTAL DAILY EMISSIONS (without mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	80.43	0.00	0.00	0.00
Daily Mobile Emissions	1.52	0.07	0.16	0.001	0.002
TOTAL	1.52	80.50	0.16	0.001	0.002

TOTAL DAILY EMISSIONS (with mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	20.09	0.00	0.00	0.00
Daily Mobile Emissions	1.52	0.07	0.16	0.00	0.00
TOTAL	1.52	20.15	0.16	0.001	0.002

UNDERLING FINISHING PHASE CALCULATIONS

Total Non-Residential Building SF	690,000
SF Non-Residential Building Coated per Day	15,333
Number of SFU	-
Number of MFU	786
Total Number of SFU Building Coated per Day (dwelling units)	-
SF SFU per day	-
Total Number of MFU Building Coated per Day (dwelling units)	17
SF MFU per day	13,973
Total Work Crew Size	7
Number of Work Crew Vehicles @ 1.1 AVR	6
Worker Crew Vehicle VMT	104

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DATE	August 20, 2002
PROJECT NAME	Full BuildOut Alternative A
DEMOLITION PHASE	
DURATION OF DEMOLITION PHASE (Work Days)	350
SF OF BUILDINGS TO BE DEMOLISHED	660,650
AVERAGE FLOOR HEIGHT OF BUILDINGS TO BE DEMOLISHED	15.0
SF OF PAVEMENT AREA TO BE REMOVED	1,894,860
THICKNESS OF PAVEMENT TO BE REMOVED	0.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
GRADING AND/OR EXCAVATION PHASE	
DURATION OF EXCAVATION PHASE (Work Days)	205
SITE AREA (ACRES)	43.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
DEPTH OF GRADING (Feet)	0.5
DEPTH OF EXCAVATION (Feet)	1.0
SURFACE AREA OF EXCAVATION IN SF	1,894,860
FOUNDATION PHASE	
DURATION OF FOUNDATION PHASE (Work Days)	280
SIZE OF FOUNDATION SLAB IN SF	1,648,800
SLAB THICKNESS IN SF	1
HOURS IN WORK DAY FOR THIS PHASE	8
CEMENT MIXER ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
FINISHING PHASE	
DURATION OF FINISHING PHASE (Work Days)	30
SF NON-RESIDENTIAL USE	540,000
NUMBER OF SINGLE FAMILY UNITS	-
NUMBER OF MULTI-FAMILY UNITS	486
WORKER ROUND TRIP LENGTH	16
TRUCK CHARACTERISTICS	
HAUL TRUCK CAPACITY IN CUBIC YARDS	14.00
TRUCK TRAVEL PERCENTAGE ON LOCAL STREET	10%
TRUCK TRAVEL PERCENTAGE ON MAJOR STREET	20%
TRUCK TRAVEL PERCENTAGE ON FREEWAY	70%
WORKER AUTO CHARACTERISTICS	
PERCENT WORKER AUTO TRAVEL ON LOCAL STREET	10%
PERCENT WORKER AUTO TRAVEL ON MAJOR STREET	30%
PERCENT WORKER AUTO TRAVEL ON FREEWAY	60%
SITE CONDITIONS	
PREDOMINANT WIND SPEED in MPH	4.0
NATIVE SOIL MOISTURE CONTENT	3%
SOIL MOISTURE CONTENT (MITIGATED)	10%

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)						
Full BuildOut Alternative A						
CONSTRUCTION PHASE	CO	ROG (w/o Mitigation)	ROG (w/Mitigation)	NO₂	SO₂	PM¹⁰ (with Rule 403)
DEMOLITION	23	3	3	42	2	78
GRADING/EXCAVATION	20	3	3	41	2	105
FOUNDATION	35	5	5	56	4	53
FINISHING	2	84	21	0.173	0.001	0.002
MAXIMUM	35	84	21	56	4	105
SCAQMD THRESHOLD	550	75	75	100	150	150
EXCEED THRESHOLD?	NO	YES	NO	NO	NO	NO
SOURCE: TERRY A. HAYES ASSOCIATES, LLC.						

TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

DEMOLITION PHASE EMISSIONS (in pounds per day)

Activity Emissions	Daily Unit Volume	PM ¹⁰ Factor **	PM ¹⁰	(Rule 403) PM ¹⁰
Building Wrecking	28,314 ft ³	0.00042 per ft ³	11.89	5.95
Pavement Breaking	2,707 ft ³	0.00042 per ft ³	1.14	0.57
Truck Loading	387 tons	0.02205 per ton	8.54	4.27
Trucks on Unpaved Surface	6.41 miles	5.55141 per vmt	35.61	17.80

** Source: Table A9-9, SCAQMD CEQA Handbook

Equipment Emissions	Source Population	Activity Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Crane	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	492	6.46	0.76	13.87	0.15	46.98
Worker Vehicles	366	5.36	0.24	0.58	0.00	1.51

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	59.42
Daily Mobile Emissions	11.83	1.01	14.44	0.15	48.49
TOTAL	22.63	3.41	41.64	2.44	107.91

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	29.71
Daily Mobile Emissions	11.83	1.01	14.44	0.15	48.49
TOTAL	22.63	3.41	41.64	2.44	78.20

UNDERLING DEMOLITION PHASE CALCULATIONS

Bldg Vol CF	9,909,750
Bldg Vol CY	367,028
Pavement CF	947,430
Pavement CY	35,090
Total Debris CF	2,929,380
Total Debris CY	108,496
Numer of Haul Load @ 14.00 CY/load	8,611
Loads Per Hour	3.1
Number of Haul Loads per Day	25
CF Building Disturbed/Day	28,314
CF/Day Demolished	31,021
CY/Day Demolished	1,149
Tons of Debris Loaded per Day	387
Number of Dozers to Load @ 6 loads/hr/dozer	1
Numer of Diesel Equipment @ 900 CY/Piece	2
Total Man Hours Required	70,371
Total Work Crew Size	25
HDV Off Site VMT	492
HDV VMT on Unpaved Site (miles)	6.41
Number of Work Crew Vehicles @ 1.1 AVR	23
Work Crew Vehicle VMT - Local (miles)	366

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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

GRADING/EXCAVATION PHASE EMISSIONS (in pounds per day)

Activity Emissions (without Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	3%	8	n/a	n/a	99.04
Earth Excavation	n/a	3%	n/a	4	684,683	102.60

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions (with Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	10%	8.0	n/a	n/a	18.36
Earth Excavation	n/a	10%	n/a	4	684,683	19.02

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions	Daily VMT	Emissions Factor	PM ¹⁰	PM ¹⁰ (with Rule 403)
Haul Truck on Unpaved Surface	6.38	5.55	35.39	17.70

Equipment Emissions	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Shovel	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	489	6.42	0.76	13.78	0.15	46.70
Worker Vehicles	204	2.99	0.14	0.32	0.00	0.84

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	239.27
Daily Mobile Emissions	9.41	0.89	14.10	0.15	47.54
TOTAL	20.21	3.29	41.30	2.44	286.81

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	57.31
Daily Mobile Emissions	9.41	0.89	14.10	0.15	47.54
TOTAL	20.21	3.29	41.30	2.44	104.85

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

UNDERLING GRADING/EXCAVATION PHASE CALCULATIONS

Total Earth Export CY	70,180
Total Haul Truck Trips @ 14.00 CY	5,013
Total Earth Export Weight (in tons)	70,180
Daily Earth Export CY	342
Daily Haul Truck Trips @ 14.00 CY	24
Daily Earth Export Weight (in tons)	342
Haul Truck VMT on Unpaved Surface	6.38
HDV Off Site VMT	489
Total Work Crew Size	14
Number of Work Crew Vehicles @ 1.1 AVR	13
Work Crew Vehicle VMT - Local (miles)	204

EQUIPMENT NEEDED FOR GRADING

Site Area in Acres	43.50
Grading Average Depth	0.50
Cubic Yards Graded	35,090
CY Graded/Day	171.17
D7 Dozer Output in CY/Day	216.00
Dozers Needed	1.00

EQUIPMENT NEEDED FOR EXCAVATION

CY Exported	70,180
CY Exported/Day	342
Power Shovel Output in CY /Day	800
Power Shovels Needed	1.00

TOTAL EQUIPMENT NEEDED	2.00
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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

FOUNDATION PHASE EMISSIONS (in pounds per day)

Equipment	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Idling Cement Trucks	3.03	8	16.36	3.63	41.20	3.47	3.39

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Cement Trucks	484.66	6.37	0.75	13.66	0.15	46.28
Worker Vehicles	802.99	11.78	0.54	1.27	0.01	3.32

TOTAL DAILY EMISSIONS	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	16.36	3.63	41.20	3.47	3.39
Daily Mobile Emissions	18.15	1.29	14.92	0.16	49.60
TOTAL	34.50	4.92	56.12	3.62	52.99

UNDERLING FOUNDATION PHASE CALCULATIONS

CF of Cement Required	1,648,800
CY of Cement Required	61,067
No. of Cement Haul Loads @ 9CY/Load	6,785
Labor Hours Required	123,660
Total Worker Requirement	55
Number of Work Crew Vehicles @ 1.1 AVR	50
Number of Cement Loads per Day	24.23
Cement Loads Per Hour	3.03
CF/Day Poured	5,888.57
CY/Day Poured	218.10
HDV Off Site VMT	484.66
Work Crew Vehicle VMT	802.99

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

FINISHING PHASE EMISSIONS (in pounds per day)

Activity Emissions (without mitigation)	Total Area to be Coated (sq. ft.)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating-Nonresidential	Exterior Wall	36,000	-	11.66	-	-	-
	Interior Wall	108,000	-	34.97	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	29,160	-	9.44	-	-	-
	Interior Wall	87,480	-	28.32	-	-	-
TOTAL			0.00	84.38	0.00	0.00	0.00

Activity Emissions (with mitigation)	Total Area to be Coated (x1,000 sf)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating	Exterior Wall	36,000	-	2.91	-	-	-
	Interior Wall	108,000	-	8.73	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	29,160	-	2.36	-	-	-
	Interior Wall	87,480	-	7.07	-	-	-
TOTAL			0.00	21.07	0.00	0.00	0.00

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Worker Vehicles	109	1.60	0.07	0.17	0.001	0.002

TOTAL DAILY EMISSIONS (without mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	84.38	0.00	0.00	0.00
Daily Mobile Emissions	1.60	0.07	0.17	0.001	0.002
TOTAL	1.60	84.46	0.17	0.001	0.002

TOTAL DAILY EMISSIONS (with mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	21.07	0.00	0.00	0.00
Daily Mobile Emissions	1.60	0.07	0.17	0.00	0.00
TOTAL	1.60	21.15	0.17	0.001	0.002

UNDERLING FINISHING PHASE CALCULATIONS

Total Non-Residential Building SF	540,000
SF Non-Residential Building Coated per Day	18,000
Number of SFU	-
Number of MFU	486
Total Number of SFU Building Coated per Day (dwelling units)	-
SF SFU per day	-
Total Number of MFU Building Coated per Day (dwelling units)	16
SF MFU per day	12,960
Total Work Crew Size	8
Number of Work Crew Vehicles @ 1.1 AVR	7
Worker Crew Vehicle VMT	109

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DATE	August 20, 2002
PROJECT NAME	Full BuildOut Alternative B
DEMOLITION PHASE	
DURATION OF DEMOLITION PHASE (Work Days)	350
SF OF BUILDINGS TO BE DEMOLISHED	660,650
AVERAGE FLOOR HEIGHT OF BUILDINGS TO BE DEMOLISHED	15.0
SF OF PAVEMENT AREA TO BE REMOVED	1,894,860
THICKNESS OF PAVEMENT TO BE REMOVED	0.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
GRADING AND/OR EXCAVATION PHASE	
DURATION OF EXCAVATION PHASE (Work Days)	205
SITE AREA (ACRES)	43.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
DEPTH OF GRADING (Feet)	0.5
DEPTH OF EXCAVATION (Feet)	1.0
SURFACE AREA OF EXCAVATION IN SF	1,894,860
FOUNDATION PHASE	
DURATION OF FOUNDATION PHASE (Work Days)	440
SIZE OF FOUNDATION SLAB IN SF	2,624,800
SLAB THICKNESS IN SF	1
HOURS IN WORK DAY FOR THIS PHASE	8
CEMENT MIXER ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
FINISHING PHASE	
DURATION OF FINISHING PHASE (Work Days)	65
SF NON-RESIDENTIAL USE	1,516,000
NUMBER OF SINGLE FAMILY UNITS	-
NUMBER OF MULTI-FAMILY UNITS	486
WORKER ROUND TRIP LENGTH	16
TRUCK CHARACTERISTICS	
HAUL TRUCK CAPACITY IN CUBIC YARDS	14.00
TRUCK TRAVEL PERCENTAGE ON LOCAL STREET	10%
TRUCK TRAVEL PERCENTAGE ON MAJOR STREET	20%
TRUCK TRAVEL PERCENTAGE ON FREEWAY	70%
WORKER AUTO CHARACTERISTICS	
PERCENT WORKER AUTO TRAVEL ON LOCAL STREET	10%
PERCENT WORKER AUTO TRAVEL ON MAJOR STREET	30%
PERCENT WORKER AUTO TRAVEL ON FREEWAY	60%
SITE CONDITIONS	
PREDOMINANT WIND SPEED in MPH	4.0
NATIVE SOIL MOISTURE CONTENT	3%
SOIL MOISTURE CONTENT (MITIGATED)	10%

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)						
Full BuildOut Alternative B						
CONSTRUCTION PHASE	CO	ROG (w/o Mitigation)	ROG (w/Mitigation)	NO₂	SO₂	PM¹⁰ (with Rule 403)
DEMOLITION	23	3	3	42	2	78
GRADING/EXCAVATION	20	3	3	41	2	105
FOUNDATION	35	5	5	57	4	54
FINISHING	2	78	20	0.163	0.001	0.002
MAXIMUM	35	78	20	57	4	105
SCAQMD THRESHOLD	550	75	75	100	150	150
EXCEED THRESHOLD?	NO	YES	NO	NO	NO	NO
SOURCE: TERRY A. HAYES ASSOCIATES, LLC.						

TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

DEMOLITION PHASE EMISSIONS (in pounds per day)

Activity Emissions	Daily Unit Volume	PM ¹⁰ Factor **	PM ¹⁰	(Rule 403) PM ¹⁰
Building Wrecking	28,314 ft ³	0.00042 per ft ³	11.89	5.95
Pavement Breaking	2,707 ft ³	0.00042 per ft ³	1.14	0.57
Truck Loading	387 tons	0.02205 per ton	8.54	4.27
Trucks on Unpaved Surface	6.41 miles	5.55141 per vmt	35.61	17.80

** Source: Table A9-9, SCAQMD CEQA Handbook

Equipment Emissions	Source Population	Activity Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Crane	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	492	6.46	0.76	13.87	0.15	46.98
Worker Vehicles	366	5.36	0.24	0.58	0.00	1.51

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	59.42
Daily Mobile Emissions	11.83	1.01	14.44	0.15	48.49
TOTAL	22.63	3.41	41.64	2.44	107.91

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	29.71
Daily Mobile Emissions	11.83	1.01	14.44	0.15	48.49
TOTAL	22.63	3.41	41.64	2.44	78.20

UNDERLING DEMOLITION PHASE CALCULATIONS

Bldg Vol CF	9,909,750
Bldg Vol CY	367,028
Pavement CF	947,430
Pavement CY	35,090
Total Debris CF	2,929,380
Total Debris CY	108,496
Numer of Haul Load @ 14.00 CY/load	8,611
Loads Per Hour	3.1
Number of Haul Loads per Day	25
CF Building Disturbed/Day	28,314
CF/Day Demolished	31,021
CY/Day Demolished	1,149
Tons of Debris Loaded per Day	387
Number of Dozers to Load @ 6 loads/hr/dozer	1
Numer of Diesel Equipment @ 900 CY/Piece	2
Total Man Hours Required	70,371
Total Work Crew Size	25
HDV Off Site VMT	492
HDV VMT on Unpaved Site (miles)	6.41
Number of Work Crew Vehicles @ 1.1 AVR	23
Work Crew Vehicle VMT - Local (miles)	366

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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

GRADING/EXCAVATION PHASE EMISSIONS (in pounds per day)

Activity Emissions (without Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	3%	8	n/a	n/a	99.04
Earth Excavation	n/a	3%	n/a	4	684,683	102.60

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions (with Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	10%	8.0	n/a	n/a	18.36
Earth Excavation	n/a	10%	n/a	4	684,683	19.02

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions	Daily VMT	Emissions Factor	PM ¹⁰	PM ¹⁰ (with Rule 403)
Haul Truck on Unpaved Surface	6.38	5.55	35.39	17.70

Equipment Emissions	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Shovel	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	489	6.42	0.76	13.78	0.15	46.70
Worker Vehicles	204	2.99	0.14	0.32	0.00	0.84

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	239.27
Daily Mobile Emissions	9.41	0.89	14.10	0.15	47.54
TOTAL	20.21	3.29	41.30	2.44	286.81

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	57.31
Daily Mobile Emissions	9.41	0.89	14.10	0.15	47.54
TOTAL	20.21	3.29	41.30	2.44	104.85

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

UNDERLING GRADING/EXCAVATION PHASE CALCULATIONS

Total Earth Export CY	70,180
Total Haul Truck Trips @ 14.00 CY	5,013
Total Earth Export Weight (in tons)	70,180
Daily Earth Export CY	342
Daily Haul Truck Trips @ 14.00 CY	24
Daily Earth Export Weight (in tons)	342
Haul Truck VMT on Unpaved Surface	6.38
HDV Off Site VMT	489
Total Work Crew Size	14
Number of Work Crew Vehicles @ 1.1 AVR	13
Work Crew Vehicle VMT - Local (miles)	204

EQUIPMENT NEEDED FOR GRADING

Site Area in Acres	43.50
Grading Average Depth	0.50
Cubic Yards Graded	35,090
CY Graded/Day	171.17
D7 Dozer Output in CY/Day	216.00
Dozers Needed	1.00

EQUIPMENT NEEDED FOR EXCAVATION

CY Exported	70,180
CY Exported/Day	342
Power Shovel Output in CY /Day	800
Power Shovels Needed	1.00

TOTAL EQUIPMENT NEEDED	2.00
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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

FOUNDATION PHASE EMISSIONS (in pounds per day)

Equipment	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Idling Cement Trucks	3.07	8	16.57	3.68	41.73	3.51	3.44

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Cement Trucks	490.98	6.45	0.76	13.84	0.15	46.88
Worker Vehicles	813.47	11.94	0.54	1.28	0.01	3.36

TOTAL DAILY EMISSIONS	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	16.57	3.68	41.73	3.51	3.44
Daily Mobile Emissions	18.38	1.30	15.12	0.16	50.24
TOTAL	34.95	4.99	56.85	3.67	53.68

UNDERLING FOUNDATION PHASE CALCULATIONS

CF of Cement Required	2,624,800
CY of Cement Required	97,215
No. of Cement Haul Loads @ 9CY/Load	10,802
Labor Hours Required	196,860
Total Worker Requirement	56
Number of Work Crew Vehicles @ 1.1 AVR	51
Number of Cement Loads per Day	24.55
Cement Loads Per Hour	3.07
CF/Day Poured	5,965.45
CY/Day Poured	220.94
HDV Off Site VMT	490.98
Work Crew Vehicle VMT	813.47

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

FINISHING PHASE EMISSIONS (in pounds per day)

Activity Emissions (without mitigation)	Total Area to be Coated (sq. ft.)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating-Nonresidential	Exterior Wall	46,646	-	15.10	-	-	-
	Interior Wall	139,938	-	45.31	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	13,458	-	4.36	-	-	-
	Interior Wall	40,375	-	13.07	-	-	-
TOTAL			0.00	77.84	0.00	0.00	0.00

Activity Emissions (with mitigation)	Total Area to be Coated (x1,000 sf)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating	Exterior Wall	46,646	-	3.77	-	-	-
	Interior Wall	139,938	-	11.31	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	13,458	-	1.09	-	-	-
	Interior Wall	40,375	-	3.26	-	-	-
TOTAL			0.00	19.44	0.00	0.00	0.00

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Worker Vehicles	103	1.52	0.07	0.16	0.001	0.002

TOTAL DAILY EMISSIONS (without mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	77.84	0.00	0.00	0.00
Daily Mobile Emissions	1.52	0.07	0.16	0.001	0.002
TOTAL	1.52	77.90	0.16	0.001	0.002

TOTAL DAILY EMISSIONS (with mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	19.44	0.00	0.00	0.00
Daily Mobile Emissions	1.52	0.07	0.16	0.00	0.00
TOTAL	1.52	19.51	0.16	0.001	0.002

UNDERLING FINISHING PHASE CALCULATIONS

Total Non-Residential Building SF	1,516,000
SF Non-Residential Building Coated per Day	23,323
Number of SFU	-
Number of MFU	486
Total Number of SFU Building Coated per Day (dwelling units)	-
SF SFU per day	-
Total Number of MFU Building Coated per Day (dwelling units)	7
SF MFU per day	5,982
Total Work Crew Size	7
Number of Work Crew Vehicles @ 1.1 AVR	6
Worker Crew Vehicle VMT	103

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DATE	August 20, 2002
PROJECT NAME	Full BuildOut Alternative C
DEMOLITION PHASE	
DURATION OF DEMOLITION PHASE (Work Days)	350
SF OF BUILDINGS TO BE DEMOLISHED	660,650
AVERAGE FLOOR HEIGHT OF BUILDINGS TO BE DEMOLISHED	15.0
SF OF PAVEMENT AREA TO BE REMOVED	1,894,860
THICKNESS OF PAVEMENT TO BE REMOVED	0.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
GRADING AND/OR EXCAVATION PHASE	
DURATION OF EXCAVATION PHASE (Work Days)	205
SITE AREA (ACRES)	43.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
DEPTH OF GRADING (Feet)	0.5
DEPTH OF EXCAVATION (Feet)	1.0
SURFACE AREA OF EXCAVATION IN SF	1,894,860
FOUNDATION PHASE	
DURATION OF FOUNDATION PHASE (Work Days)	310
SIZE OF FOUNDATION SLAB IN SF	1,828,800
SLAB THICKNESS IN SF	1
HOURS IN WORK DAY FOR THIS PHASE	8
CEMENT MIXER ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
FINISHING PHASE	
DURATION OF FINISHING PHASE (Work Days)	35
SF NON-RESIDENTIAL USE	400,000
NUMBER OF SINGLE FAMILY UNITS	-
NUMBER OF MULTI-FAMILY UNITS	886
WORKER ROUND TRIP LENGTH	16
TRUCK CHARACTERISTICS	
HAUL TRUCK CAPACITY IN CUBIC YARDS	14.00
TRUCK TRAVEL PERCENTAGE ON LOCAL STREET	10%
TRUCK TRAVEL PERCENTAGE ON MAJOR STREET	20%
TRUCK TRAVEL PERCENTAGE ON FREEWAY	70%
WORKER AUTO CHARACTERISTICS	
PERCENT WORKER AUTO TRAVEL ON LOCAL STREET	10%
PERCENT WORKER AUTO TRAVEL ON MAJOR STREET	30%
PERCENT WORKER AUTO TRAVEL ON FREEWAY	60%
SITE CONDITIONS	
PREDOMINANT WIND SPEED in MPH	4.0
NATIVE SOIL MOISTURE CONTENT	3%
SOIL MOISTURE CONTENT (MITIGATED)	10%

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)						
Full BuildOut Alternative C						
CONSTRUCTION PHASE	CO	ROG (w/o Mitigation)	ROG (w/Mitigation)	NO₂	SO₂	PM¹⁰ (with Rule 403)
DEMOLITION	23	3	3	42	2	78
GRADING/EXCAVATION	20	3	3	41	2	105
FOUNDATION	35	5	5	56	4	53
FINISHING	2	89	22	0.177	0.001	0.002
MAXIMUM	35	89	22	56	4	105
SCAQMD THRESHOLD	550	75	75	100	150	150
EXCEED THRESHOLD?	NO	YES	NO	NO	NO	NO
SOURCE: TERRY A. HAYES ASSOCIATES, LLC.						

TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

DEMOLITION PHASE EMISSIONS (in pounds per day)

Activity Emissions	Daily Unit Volume	PM ¹⁰ Factor **	PM ¹⁰	(Rule 403) PM ¹⁰
Building Wrecking	28,314 ft ³	0.00042 per ft ³	11.89	5.95
Pavement Breaking	2,707 ft ³	0.00042 per ft ³	1.14	0.57
Truck Loading	387 tons	0.02205 per ton	8.54	4.27
Trucks on Unpaved Surface	6.41 miles	5.55141 per vmt	35.61	17.80

** Source: Table A9-9, SCAQMD CEQA Handbook

Equipment Emissions	Source Population	Activity Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Crane	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	492	6.46	0.76	13.87	0.15	46.98
Worker Vehicles	366	5.36	0.24	0.58	0.00	1.51

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	59.42
Daily Mobile Emissions	11.83	1.01	14.44	0.15	48.49
TOTAL	22.63	3.41	41.64	2.44	107.91

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	29.71
Daily Mobile Emissions	11.83	1.01	14.44	0.15	48.49
TOTAL	22.63	3.41	41.64	2.44	78.20

UNDERLING DEMOLITION PHASE CALCULATIONS

Bldg Vol CF	9,909,750
Bldg Vol CY	367,028
Pavement CF	947,430
Pavement CY	35,090
Total Debris CF	2,929,380
Total Debris CY	108,496
Numer of Haul Load @ 14.00 CY/load	8,611
Loads Per Hour	3.1
Number of Haul Loads per Day	25
CF Building Disturbed/Day	28,314
CF/Day Demolished	31,021
CY/Day Demolished	1,149
Tons of Debris Loaded per Day	387
Number of Dozers to Load @ 6 loads/hr/dozer	1
Numer of Diesel Equipment @ 900 CY/Piece	2
Total Man Hours Required	70,371
Total Work Crew Size	25
HDV Off Site VMT	492
HDV VMT on Unpaved Site (miles)	6.41
Number of Work Crew Vehicles @ 1.1 AVR	23
Work Crew Vehicle VMT - Local (miles)	366

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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

GRADING/EXCAVATION PHASE EMISSIONS (in pounds per day)

Activity Emissions (without Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	3%	8	n/a	n/a	99.04
Earth Excavation	n/a	3%	n/a	4	684,683	102.60

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions (with Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	10%	8.0	n/a	n/a	18.36
Earth Excavation	n/a	10%	n/a	4	684,683	19.02

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions	Daily VMT	Emissions Factor	PM ¹⁰	PM ¹⁰ (with Rule 403)
Haul Truck on Unpaved Surface	6.38	5.55	35.39	17.70

Equipment Emissions	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Shovel	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	489	6.42	0.76	13.78	0.15	46.70
Worker Vehicles	204	2.99	0.14	0.32	0.00	0.84

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	239.27
Daily Mobile Emissions	9.41	0.89	14.10	0.15	47.54
TOTAL	20.21	3.29	41.30	2.44	286.81

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	57.31
Daily Mobile Emissions	9.41	0.89	14.10	0.15	47.54
TOTAL	20.21	3.29	41.30	2.44	104.85

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

UNDERLING GRADING/EXCAVATION PHASE CALCULATIONS

Total Earth Export CY	70,180
Total Haul Truck Trips @ 14.00 CY	5,013
Total Earth Export Weight (in tons)	70,180
Daily Earth Export CY	342
Daily Haul Truck Trips @ 14.00 CY	24
Daily Earth Export Weight (in tons)	342
Haul Truck VMT on Unpaved Surface	6.38
HDV Off Site VMT	489
Total Work Crew Size	14
Number of Work Crew Vehicles @ 1.1 AVR	13
Work Crew Vehicle VMT - Local (miles)	204

EQUIPMENT NEEDED FOR GRADING

Site Area in Acres	43.50
Grading Average Depth	0.50
Cubic Yards Graded	35,090
CY Graded/Day	171.17
D7 Dozer Output in CY/Day	216.00
Dozers Needed	1.00

EQUIPMENT NEEDED FOR EXCAVATION

CY Exported	70,180
CY Exported/Day	342
Power Shovel Output in CY /Day	800
Power Shovels Needed	1.00

TOTAL EQUIPMENT NEEDED	2.00
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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

FOUNDATION PHASE EMISSIONS (in pounds per day)

Equipment	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Idling Cement Trucks	3.03	8	16.39	3.64	41.27	3.47	3.40

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Cement Trucks	485.54	6.38	0.75	13.68	0.15	46.36
Worker Vehicles	804.46	11.80	0.54	1.27	0.01	3.32

TOTAL DAILY EMISSIONS	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	16.39	3.64	41.27	3.47	3.40
Daily Mobile Emissions	18.18	1.29	14.95	0.16	49.69
TOTAL	34.57	4.93	56.22	3.63	53.09

UNDERLING FOUNDATION PHASE CALCULATIONS

CF of Cement Required	1,828,800
CY of Cement Required	67,733
No. of Cement Haul Loads @ 9CY/Load	7,526
Labor Hours Required	137,160
Total Worker Requirement	55
Number of Work Crew Vehicles @ 1.1 AVR	50
Number of Cement Loads per Day	24.28
Cement Loads Per Hour	3.03
CF/Day Poured	5,899.35
CY/Day Poured	218.49
HDV Off Site VMT	485.54
Work Crew Vehicle VMT	804.46

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

FINISHING PHASE EMISSIONS (in pounds per day)

Activity Emissions (without mitigation)	Total Area to be Coated (sq. ft.)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating-Nonresidential	Exterior Wall	22,857	-	7.40	-	-	-
	Interior Wall	68,571	-	22.20	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	45,566	-	14.75	-	-	-
	Interior Wall	136,697	-	44.26	-	-	-
TOTAL			0.00	88.61	0.00	0.00	0.00

Activity Emissions (with mitigation)	Total Area to be Coated (x1,000 sf)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating	Exterior Wall	22,857	-	1.85	-	-	-
	Interior Wall	68,571	-	5.54	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	45,566	-	3.68	-	-	-
	Interior Wall	136,697	-	11.05	-	-	-
TOTAL			0.00	22.13	0.00	0.00	0.00

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Worker Vehicles	112	1.64	0.07	0.18	0.001	0.002

TOTAL DAILY EMISSIONS (without mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	88.61	0.00	0.00	0.00
Daily Mobile Emissions	1.64	0.07	0.18	0.001	0.002
TOTAL	1.64	88.68	0.18	0.001	0.002

TOTAL DAILY EMISSIONS (with mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	22.13	0.00	0.00	0.00
Daily Mobile Emissions	1.64	0.07	0.18	0.00	0.00
TOTAL	1.64	22.20	0.18	0.001	0.002

UNDERLING FINISHING PHASE CALCULATIONS

Total Non-Residential Building SF	400,000
SF Non-Residential Building Coated per Day	11,429
Number of SFU	-
Number of MFU	886
Total Number of SFU Building Coated per Day (dwelling units)	-
SF SFU per day	-
Total Number of MFU Building Coated per Day (dwelling units)	25
SF MFU per day	20,251
Total Work Crew Size	8
Number of Work Crew Vehicles @ 1.1 AVR	7
Worker Crew Vehicle VMT	112

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DATE	August 20, 2002
PROJECT NAME	Full BuildOut Alternative D
DEMOLITION PHASE	
DURATION OF DEMOLITION PHASE (Work Days)	350
SF OF BUILDINGS TO BE DEMOLISHED	660,650
AVERAGE FLOOR HEIGHT OF BUILDINGS TO BE DEMOLISHED	15.0
SF OF PAVEMENT AREA TO BE REMOVED	1,894,860
THICKNESS OF PAVEMENT TO BE REMOVED	0.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
GRADING AND/OR EXCAVATION PHASE	
DURATION OF EXCAVATION PHASE (Work Days)	205
SITE AREA (ACRES)	43.50
HOURS IN WORK DAY FOR THIS PHASE	8
HAUL TRUCK ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
DEPTH OF GRADING (Feet)	0.5
DEPTH OF EXCAVATION (Feet)	1.0
SURFACE AREA OF EXCAVATION IN SF	1,894,860
FOUNDATION PHASE	
DURATION OF FOUNDATION PHASE (Work Days)	440
SIZE OF FOUNDATION SLAB IN SF	2,553,800
SLAB THICKNESS IN SF	1
HOURS IN WORK DAY FOR THIS PHASE	8
CEMENT MIXER ROUND TRIP LENGTH	20
WORKER ROUND TRIP LENGTH	16
FINISHING PHASE	
DURATION OF FINISHING PHASE (Work Days)	60
SF NON-RESIDENTIAL USE	1,125,000
NUMBER OF SINGLE FAMILY UNITS	-
NUMBER OF MULTI-FAMILY UNITS	886
WORKER ROUND TRIP LENGTH	16
TRUCK CHARACTERISTICS	
HAUL TRUCK CAPACITY IN CUBIC YARDS	14.00
TRUCK TRAVEL PERCENTAGE ON LOCAL STREET	10%
TRUCK TRAVEL PERCENTAGE ON MAJOR STREET	20%
TRUCK TRAVEL PERCENTAGE ON FREEWAY	70%
WORKER AUTO CHARACTERISTICS	
PERCENT WORKER AUTO TRAVEL ON LOCAL STREET	10%
PERCENT WORKER AUTO TRAVEL ON MAJOR STREET	30%
PERCENT WORKER AUTO TRAVEL ON FREEWAY	60%
SITE CONDITIONS	
PREDOMINANT WIND SPEED in MPH	4.0
NATIVE SOIL MOISTURE CONTENT	3%
SOIL MOISTURE CONTENT (MITIGATED)	10%

**TERRY A. HAYES ASSOCIATES
CONSTRUCTION EMISSIONS MODEL**

DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)						
Full BuildOut Alternative D						
CONSTRUCTION PHASE	CO	ROG (w/o Mitigation)	ROG (w/Mitigation)	NO₂	SO₂	PM¹⁰ (with Rule 403)
DEMOLITION	23	3	3	42	2	78
GRADING/EXCAVATION	20	3	3	41	2	105
FOUNDATION	34	5	5	55	4	52
FINISHING	2	83	21	0.170	0.001	0.002
MAXIMUM	34	83	21	55	4	105
SCAQMD THRESHOLD	550	75	75	100	150	150
EXCEED THRESHOLD?	NO	YES	NO	NO	NO	NO
SOURCE: TERRY A. HAYES ASSOCIATES, LLC.						

TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

DEMOLITION PHASE EMISSIONS (in pounds per day)

Activity Emissions	Daily Unit Volume	PM ¹⁰ Factor **	PM ¹⁰	(Rule 403) PM ¹⁰
Building Wrecking	28,314 ft ³	0.00042 per ft ³	11.89	5.95
Pavement Breaking	2,707 ft ³	0.00042 per ft ³	1.14	0.57
Truck Loading	387 tons	0.02205 per ton	8.54	4.27
Trucks on Unpaved Surface	6.41 miles	5.55141 per vmt	35.61	17.80

** Source: Table A9-9, SCAQMD CEQA Handbook

Equipment Emissions	Source Population	Activity Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Crane	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	492	6.46	0.76	13.87	0.15	46.98
Worker Vehicles	366	5.36	0.24	0.58	0.00	1.51

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	59.42
Daily Mobile Emissions	11.83	1.01	14.44	0.15	48.49
TOTAL	22.63	3.41	41.64	2.44	107.91

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	29.71
Daily Mobile Emissions	11.83	1.01	14.44	0.15	48.49
TOTAL	22.63	3.41	41.64	2.44	78.20

UNDERLING DEMOLITION PHASE CALCULATIONS

Bldg Vol CF	9,909,750
Bldg Vol CY	367,028
Pavement CF	947,430
Pavement CY	35,090
Total Debris CF	2,929,380
Total Debris CY	108,496
Numer of Haul Load @ 14.00 CY/load	8,611
Loads Per Hour	3.1
Number of Haul Loads per Day	25
CF Building Disturbed/Day	28,314
CF/Day Demolished	31,021
CY/Day Demolished	1,149
Tons of Debris Loaded per Day	387
Number of Dozers to Load @ 6 loads/hr/dozer	1
Numer of Diesel Equipment @ 900 CY/Piece	2
Total Man Hours Required	70,371
Total Work Crew Size	25
HDV Off Site VMT	492
HDV VMT on Unpaved Site (miles)	6.41
Number of Work Crew Vehicles @ 1.1 AVR	23
Work Crew Vehicle VMT - Local (miles)	366

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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

GRADING/EXCAVATION PHASE EMISSIONS (in pounds per day)

Activity Emissions (without Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	3%	8	n/a	n/a	99.04
Earth Excavation	n/a	3%	n/a	4	684,683	102.60

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions (with Rule 403)	Silt Content	Moisture Content	Activity Hours	Wind Speed	Pounds per Day	PM ¹⁰
Site Grading	15	10%	8.0	n/a	n/a	18.36
Earth Excavation	n/a	10%	n/a	4	684,683	19.02

Note: Calculation formulas are located in Tables A9-9-F and 9-9-G of the SCAQMD CEQA Handbook

Activity Emissions	Daily VMT	Emissions Factor	PM ¹⁰	PM ¹⁰ (with Rule 403)
Haul Truck on Unpaved Surface	6.38	5.55	35.39	17.70

Equipment Emissions	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Dozer/Shovel	2	8	10.80	2.40	27.20	2.29	2.24

Mobile Emissions	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Haul Trucks	489	6.42	0.76	13.78	0.15	46.70
Worker Vehicles	204	2.99	0.14	0.32	0.00	0.84

TOTAL DAILY EMISSIONS (without Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	239.27
Daily Mobile Emissions	9.41	0.89	14.10	0.15	47.54
TOTAL	20.21	3.29	41.30	2.44	286.81

TOTAL DAILY EMISSIONS (with Rule 403)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	10.80	2.40	27.20	2.29	57.31
Daily Mobile Emissions	9.41	0.89	14.10	0.15	47.54
TOTAL	20.21	3.29	41.30	2.44	104.85

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

UNDERLING GRADING/EXCAVATION PHASE CALCULATIONS

Total Earth Export CY	70,180
Total Haul Truck Trips @ 14.00 CY	5,013
Total Earth Export Weight (in tons)	70,180
Daily Earth Export CY	342
Daily Haul Truck Trips @ 14.00 CY	24
Daily Earth Export Weight (in tons)	342
Haul Truck VMT on Unpaved Surface	6.38
HDV Off Site VMT	489
Total Work Crew Size	14
Number of Work Crew Vehicles @ 1.1 AVR	13
Work Crew Vehicle VMT - Local (miles)	204

EQUIPMENT NEEDED FOR GRADING

Site Area in Acres	43.50
Grading Average Depth	0.50
Cubic Yards Graded	35,090
CY Graded/Day	171.17
D7 Dozer Output in CY/Day	216.00
Dozers Needed	1.00

EQUIPMENT NEEDED FOR EXCAVATION

CY Exported	70,180
CY Exported/Day	342
Power Shovel Output in CY /Day	800
Power Shovels Needed	1.00

TOTAL EQUIPMENT NEEDED	2.00
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TERRY A. HAYES ASSOCIATES CONSTRUCTION EMISSIONS MODEL

FOUNDATION PHASE EMISSIONS (in pounds per day)

Equipment	Source Population	Daily Hours	CO	ROG	NOX	SOX	PM ¹⁰
Idling Cement Trucks	2.99	8	16.12	3.58	40.60	3.42	3.34

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Cement Trucks	477.70	6.27	0.74	13.46	0.15	45.61
Worker Vehicles	791.47	11.61	0.53	1.25	0.01	3.27

TOTAL DAILY EMISSIONS	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	16.12	3.58	40.60	3.42	3.34
Daily Mobile Emissions	17.89	1.27	14.71	0.15	48.88
TOTAL	34.01	4.85	55.32	3.57	52.23

UNDERLING FOUNDATION PHASE CALCULATIONS

CF of Cement Required	2,553,800
CY of Cement Required	94,585
No. of Cement Haul Loads @ 9CY/Load	10,509
Labor Hours Required	191,535
Total Worker Requirement	54
Number of Work Crew Vehicles @ 1.1 AVR	49
Number of Cement Loads per Day	23.89
Cement Loads Per Hour	2.99
CF/Day Poured	5,804.09
CY/Day Poured	214.97
HDV Off Site VMT	477.70
Work Crew Vehicle VMT	791.47

TERRY A. HAYES ASSOCIATES

CONSTRUCTION EMISSIONS MODEL

FINISHING PHASE EMISSIONS (in pounds per day)

Activity Emissions (without mitigation)	Total Area to be Coated (sq. ft.)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating-Nonresidential	Exterior Wall	37,500	-	12.14	-	-	-
	Interior Wall	112,500	-	36.42	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	26,580	-	8.61	-	-	-
	Interior Wall	79,740	-	25.82	-	-	-
TOTAL			0.00	82.98	0.00	0.00	0.00

Activity Emissions (with mitigation)	Total Area to be Coated (x1,000 sf)		CO	ROG	NOX	SOX	PM ¹⁰
Architectural Coating	Exterior Wall	37,500	-	3.03	-	-	-
	Interior Wall	112,500	-	9.10	-	-	-
Architectural Coating-Single Family Units	Exterior Wall	-	-	-	-	-	-
	Interior Wall	-	-	-	-	-	-
Architectural Coating-Multi Family Units	Exterior Wall	26,580	-	2.15	-	-	-
	Interior Wall	79,740	-	6.45	-	-	-
TOTAL			0.00	20.72	0.00	0.00	0.00

Mobile	Daily VMT	CO	ROG	NOX	SOX	PM ¹⁰
Worker Vehicles	108	1.58	0.07	0.17	0.001	0.002

TOTAL DAILY EMISSIONS (without mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	82.98	0.00	0.00	0.00
Daily Mobile Emissions	1.58	0.07	0.17	0.001	0.002
TOTAL	1.58	83.06	0.17	0.001	0.002

TOTAL DAILY EMISSIONS (with mitigation)	CO	ROG	NOX	SOX	PM ¹⁰
Daily Area Source Emissions	0.00	20.72	0.00	0.00	0.00
Daily Mobile Emissions	1.58	0.07	0.17	0.00	0.00
TOTAL	1.58	20.80	0.17	0.001	0.002

UNDERLING FINISHING PHASE CALCULATIONS

Total Non-Residential Building SF	1,125,000
SF Non-Residential Building Coated per Day	18,750
Number of SFU	-
Number of MFU	886
Total Number of SFU Building Coated per Day (dwelling units)	-
SF SFU per day	-
Total Number of MFU Building Coated per Day (dwelling units)	15
SF MFU per day	11,813
Total Work Crew Size	7
Number of Work Crew Vehicles @ 1.1 AVR	7
Worker Crew Vehicle VMT	108

APPENDIX E

Rule 403 - Fugitive Dust

(Adopted May 7, 1976)(Amended November 6, 1992)
(Amended July 9, 1993)(Amended February 14, 1997)
(Amended December 11, 1998)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

- (1) ACTIVE OPERATIONS shall mean any activity capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, or heavy- and light-duty vehicular movement.
- (2) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook, now or hereafter adopted by the Governing Board.
- (3) BEST AVAILABLE CONTROL MEASURES represent fugitive dust control actions which are required to be implemented within the boundaries of the South Coast Air Basin. A detailed listing of best available control measures for each fugitive dust source type shall be as contained in the most recent Rule 403 Implementation Handbook, now or hereafter adopted by the Governing Board.
- (4) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.
- (5) CHEMICAL STABILIZERS mean any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation; and should meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.
- (6) CONSTRUCTION/DEMOLITION ACTIVITIES are any on-site mechanical activities preparatory to or related to the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities; grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.
- (7) CONTINGENCY NOTIFICATION means that the U.S. EPA has determined and notified the District in writing that PM_{10} contingency requirements must be implemented based on a finding that: (1) PM_{10} and PM_{10} precursor emissions reductions were less than required at any three-year

milestone reporting interval, or (2) the region failed to attain the PM_{10} standards within the time frames allotted under the Federal Clean Air Act, or (3) if as part of an Attainment/Maintenance Plan, the region is no longer in attainment of the PM_{10} standards.

(8) **CONTRACTOR** means any person who has a contractual arrangement to conduct an active operation for another person.

(9) **DISTURBED SURFACE AREA** means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:

(A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(B) been paved or otherwise covered by a permanent structure; or

(C) sustained a vegetative ground cover over at least 95 percent of an area for a period of at least 6 months.

(10) **DUST SUPPRESSANTS** are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

(11) **EARTH-MOVING ACTIVITIES** shall include, but not be limited to, grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, or soil mulching.

(12) **FUGITIVE DUST** means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of man.

(13) **INACTIVE DISTURBED SURFACE AREA** means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of ten consecutive days.

(14) **LARGE OPERATIONS** means any active operations on property which contains in excess of 100 acres of disturbed surface area; or any earth-moving operation which exceeds a daily earth-moving or throughput volume of 7,700 cubic meters (10,000 cubic yards) three times during the most recent 365-day period.

(15) **MEDIUM OPERATIONS** means any active operations on property which contains between 50 and 100 acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of between 3,850 cubic meters (5,000 cubic yards) and 7,700 cubic meters (10,000 cubic yards) three times during the most recent 365-day period.

(16) **NON-ROUTINE** means any non-periodic active operation which occurs no more than three times per year, lasts less than 30 cumulative days per year, and is scheduled less than 30 days in advance.

(17) **OPEN STORAGE PILE** is any accumulation of bulk material with 5 percent or greater silt content which is not fully enclosed, covered or chemically stabilized, and which attains a height of

three feet or more and a total surface area of 150 or more square feet. Silt content level is assumed to be 5 percent or greater unless a person can show, by sampling and analysis in accordance with ASTM Method C-136 or other equivalent method approved in writing by the Executive Officer, the California Air Resources Board, and the U. S. EPA, that the silt content is less than 5 percent. The results of ASTM Method C-136 or equivalent method are valid for 60 days from the date the sample was taken.

(18) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

(19) PAVED ROAD means an improved street, highway, alley, public way, or easement that is covered by typical roadway materials excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.

(20) PM₁₀ is particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.

(21) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

(22) REASONABLY AVAILABLE CONTROL MEASURES are appropriate techniques and procedures used to prevent or reduce the emission and airborne transport of fugitive dust, outside the boundaries of the South Coast Air Basin. These include, but are not limited to, application of dust suppressants, use of coverings or enclosures, paving, enshrouding, planting, reduction of vehicle speeds, and other measures as specified by the Executive Officer. A detailed listing of reasonably available control measures for each fugitive dust source type shall be as contained in the most recent Rule 403 Implementation Handbook, now or hereafter adopted by the Governing Board.

(23) SILT means any aggregate material with a particle size less than 74 micrometers in diameter which passes through a No. 200 Sieve.

(24) SIMULTANEOUS SAMPLING means the operation of two PM₁₀ samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.

(25) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

(26) STABILIZED SURFACE means:

- (A) any disturbed surface area or open storage pile which is resistant to wind-driven fugitive dust;

(B) any unpaved road surface in which any fugitive dust plume emanating from vehicular traffic does not exceed 20 percent opacity.

(27) UNPAVED ROADS are any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by one of the following: concrete, asphaltic concrete, recycled asphalt, asphalt or other materials with equivalent performance as determined by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Public unpaved roads are any unpaved roadway owned by Federal, State, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.

(28) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(29) WIND-DRIVEN FUGITIVE DUST means visible emissions from any disturbed surface area which is generated by wind action alone.

(30) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.

(d) Requirements

(1) A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that the presence of such dust remains visible in the atmosphere beyond the property line of the emission source.

(2) A person conducting active operations within the boundaries of the South Coast Air Basin shall utilize one or more of the applicable best available control measures to minimize fugitive dust emissions from each fugitive dust source type which is part of the active operation.

(3) A person conducting active operations outside the boundaries of the South Coast Air Basin may utilize reasonably available control measures in lieu of best available control measures to minimize fugitive dust emissions from each fugitive dust source type which is part of the active operation.

(4) A person shall not cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent method for PM_{10} monitoring. If sampling is conducted, samplers shall be:

(A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM_{10} .

(B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.

(5) Any person in the South Coast Air Basin shall:

(A) prevent or remove within one hour the track-out of bulk material onto public paved roadways as a result of their operations; or

(B) take at least one of the actions listed in Table 3 and:

(i) prevent the track-out of bulk material onto public paved roadways as a result of their operations and remove such material at anytime track-out extends for a cumulative distance of greater than 50 feet on to any paved public road during active operations; and

(ii) remove all visible roadway dust tracked-out upon public paved roadways as a result of active operations at the conclusion of each work day when active operations cease.

(e) Contingency Requirements

When a contingency notification has occurred, the requirements of this subdivision shall become effective in the county subject to the notification 60 days after the first publication date in newspapers of general circulation in that county. Such publication shall specify that a contingency notification has occurred, and that any person who conducts or authorizes the conducting of a medium operation shall be required to comply with the provisions of subdivision (f), in addition to the requirements of subdivision (d).

(f) Special Requirements for Large Operations, and Medium Operations Under a Contingency Notification

(1) Any person who conducts or authorizes the conducting of either a large operation which is subject to the requirements of this rule, or a medium operation under a contingency notification as set forth in subdivision (e), shall either:

(A) take the actions specified in Tables 1 and 2 for each applicable source of fugitive dust within the property lines and shall:

(i) notify the Executive Officer not more than 7 days after qualifying as a large operation or as a medium operation under a contingency notification;

(ii) include, as part of the notification, the items specified in subparagraphs (f)(3)(A) and (f) (3)(B);

(iii) maintain daily records to document the specific actions taken;

(iv) maintain such records for a period of not less than 6 months; and

(v) make such records available to the Executive Officer upon request; or

(B) obtain an approved fugitive dust emissions control plan (plan).

(2) Any person subject to paragraph (f)(1) who elects to obtain an approved fugitive dust emission control plan must submit the plan to the Executive Officer no later than 30 days after the activity becomes a large operation.

(3) Any plan prepared pursuant to subparagraph (f)(1)(B) shall include:

(A) The name(s), address(es), and phone number(s) of the person(s) responsible for the preparation, submittal, and implementation of the plan;

(B) A description of the operation(s), including a map depicting the location of the site;

(C) A listing of all sources of fugitive dust emissions within the property lines;

(D) A description of the required control measures as applied to each of the sources identified in subparagraph (f)(3)(C). The description must be sufficiently detailed to demonstrate that the applicable best available control measures or reasonably available control measures will be utilized and/or installed during all periods of active operations.

(4) In the event that there are special technical (e.g., non-economic) circumstances, including safety, which prevent the use of at least one of the required control measure for any of the sources identified in subparagraph (f)(3)(C), a justification statement must be provided in lieu of the description required in subparagraph (f)(3)(D). The justification statement must explain the reason (s) why the required control measures cannot be implemented.

(5) Within 30 calendar days of the receipt of a plan submitted pursuant to subparagraph (f)(1)(B), the Executive Officer will either approve, conditionally approve, or disapprove the plan , in writing. For a plan to be approved or conditionally approved, three conditions must be satisfied:

(A) All sources of fugitive dust emissions must be identified (e.g., earth-moving, storage piles, vehicular traffic on unpaved roads, etc.).

(B) For each source identified, at least one of the required control measures must be implemented, or an acceptable justification statement pursuant to paragraph (f)(4) must be provided; and

(C) If, after implementation of the required control measures, visible dust emissions are crossing the property line(s), then high wind measures (e.g., increased watering) must be specified for immediate implementation.

(6) Conditional approval will be made if conditions are met, but the stated measures do not satisfactorily conform to the guidance contained in the applicable Rule 403 Implementation Handbook. If a plan is conditionally approved, the conditions necessary to modify the plan will be provided in writing to the person(s) identified in subparagraph (f)(3)(A). Such modifications must be incorporated into the plan within 30 days of the receipt of the notice of conditional approval, or the plan shall be disapproved. A letter to the Executive Officer stating that such modifications will be incorporated into the plan shall be deemed sufficient to result in approval of the plan.

(7) If a plan is disapproved by the Executive Officer:

(A) The reasons for disapproval shall be given to the applicant in writing.

(B) Within 7 days of the receipt of a notice of a disapproved plan, the applicant shall comply with the actions specified in Tables 1 and 2 for each applicable source of fugitive dust within the property lines.

(C) The applicant may resubmit a plan at any time after receiving a disapproval notification, but will not be relieved of complying with subparagraph (f)(7)(B) until such time as the plan has been approved.

(8) Failure to comply with any of the provisions in an approved or conditionally approved plan shall be a violation of subdivision (f).

(9) Any approved plan shall be valid for a period of one year from the date of approval or

conditional approval of the plan. Plans must be resubmitted annually, at least 60 days prior to the expiration date, or the plan shall become disapproved as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously approved plan, the resubmittal may contain a simple statement of no-change. Otherwise, a resubmittal must contain all the items specified in subparagraphs (f)(3)(A through D).

(10) Any person subject to the requirements of paragraph (f)(1) who no longer exceeds, and does not expect to exceed for a period of at least one year, the criteria for a large operation or a medium operation under a contingency notification may request a reclassification as a non-large operation not subject to subparagraph (f). To obtain this reclassification, a person must submit a request in writing to the Executive Officer specifying the conditions which have taken place to reduce the disturbed surface area and/or the earth-moving or throughput conditions to levels below the criteria for large operations. A person must further indicate that the criteria for large operations are not expected to be exceeded during the subsequent 12-month period. The Executive Officer shall either approve or disapprove the reclassification within 60 days from receipt of the reclassification request. The Executive Officer will disapprove the request if the indicated changes can not be verified to be below the criteria for large operations or a medium operation under a contingency notification. If approved, the person shall be relieved of all requirements under subdivision (f). Any person so reclassified would again be subject to the requirements of subdivision (f) if at any time subsequent to the reclassification the criteria for large operations or a medium operation under a contingency notification are met.

(11) A person responsible for more than one operation subject to subparagraph (f) at non-contiguous sites may submit one plan covering multiple sites provided that:

(A) the contents of the plan apply similarly to all sites; and

(B) specific information is provided for each site, including, map of site location, address, description of operations, and a listing of all sources of fugitive dust emissions within the property lines.

(g) Compliance Schedule

All the newly amended provisions of this rule shall become effective upon adoption of this Rule Amendment. Pursuant to subdivision (f), any fugitive dust emission control plan which has been approved or conditionally approved prior to the date of adoption of these amendments shall remain in effect and the plan approval date and annual resubmittal date shall remain unchanged. If any changes to such plans are necessary as a result of these amendments, such changes shall not be required until the annual resubmittal date, pursuant to paragraph (f)(9).

(h) Exemptions

(1) The provisions of this rule shall not apply to:

(A) Agricultural operations outside the boundaries of the South Coast Air Basin, agricultural operations directly related to the raising of fowls or animals, and agricultural operations conducted within the boundaries of the South Coast Air Basin provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.

(B) Agricultural operations within the South Coast Air Basin, until June 30, 1999, whose combined disturbed surface area includes more than 10 acres. All provisions of this Rule

shall become applicable to agricultural operations exceeding 10 acres beginning July 1, 1999, excluding those listed in (h)(1)(A), unless the person responsible for such operations voluntarily implements the conservation practices contained in the most recent Rule 403 Agricultural Handbook, now or hereafter adopted by the Governing Board. The person responsible for such operations must complete and maintain the self-monitoring form documenting sufficient conservation practices, as described in the Rule 403 Agricultural Handbook, and must make it available to the Executive Officer upon request.

(C) Any disturbed surface area less than one-half (1/2) acre on property zoned for residential uses.

(D) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.

(E) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.

(F) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.

(G) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.

(H) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:

(i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; or

(ii) any discing or similar operation which cuts into and disturbs the soil is used and meets the following conditions:

[a] A determination is made by the issuing agency of the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (h)(1)(H)(i); and

[b] Such determination is made in writing and provided to the person conducting the weed abatement operation prior to beginning such activity; and

[c] Such written determination is provided to the Executive Officer upon request from the person conducting the weed abatement operation.

(Note: The provisions of clause (h)(1)(H)(ii) do not exempt the owner of any property from controlling fugitive dust emissions emanating from disturbed surface areas which have been created as a result of the weed abatement actions.)

(I) sandblasting operations.

(2) The provisions of paragraphs (d)(1) and (d)(4) shall not apply:

- (A) When wind gusts exceed 25 miles per hour, provided that:
- (i) The required control measures for high wind conditions are implemented for each applicable fugitive dust source type, as specified in Table 1, and;
 - (ii) Records are maintained in accordance with clauses (f)(1)(A)(iii), (f)(1)(A)(iv) and (f)(1)(A)(v); and
 - (iii) In the event there are technical (e.g., non-economic) reasons, including safety, why any of the required control measures in Table 1 cannot be implemented for one or more fugitive dust source categories, a person submits a "High Wind Fugitive Dust Control Plan" (HW-Plan). The HW-Plan must further provide an alternative measure of fugitive dust control, if technically feasible. Such plan will be subject to the same approval conditions as specified in subparagraphs (f)(5) and (f)(6).
- (B) To unpaved roads, provided such roads:
- (i) are used solely for the maintenance of wind-generating equipment; or
 - (ii) are unpaved public alleys as defined in Rule 1186; or
 - (iii) meet all of the following criteria:
 - [a] are less than 50 feet in width at all points along the road;
 - [b] are within 25 feet of the property line; and
 - [c] have a traffic volume less than 20 vehicle-trips per day.
- (C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act.
- (D) To non-routine or emergency maintenance of flood control channels and water spreading basins.
- (3) The provisions of paragraphs (d)(1), (d)(2), and (d)(4) shall not apply to:
- (A) Blasting operations which have been permitted by the California Division of Industrial Safety; and
 - (B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.
- (4) The provisions of paragraph (d)(4) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for each applicable fugitive dust source type. To qualify for this exemption, a person must:
- (A) maintain records to document the dates of active operations, all applicable fugitive dust source types, and the actions taken consistent with Table 2;
 - (B) retain such records for a period of at least six months; and

(C) make such records available to the Executive Officer upon request.

(5) The provisions of paragraph (d)(5) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles.

(6) The provisions of subdivision (f) shall not apply to:

(A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks;

(B) any construction and/or earth-moving activity in which the completion date is expected to be less than 60 days after the beginning date. To qualify for this exemption, a person must:

(i) notify the Executive Officer not more than 7 days after qualifying as a large operation or a medium operation under a contingency notification;

(ii) include, as part of the notification, the items specified in subparagraphs (f)(3)(A) and (f)(3)(B); and

(iii) take the actions specified in Tables 1 and 2 at such time as the construction and/or earth-moving activities extend more than 60 days after qualifying as a large operation or a medium operation under a contingency notification.

(C) any large operation or a medium operation under a contingency notification which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance. To qualify for this exemption, a person must submit a copy of the city- or county-approved dust control plan to the Executive Officer within 30 days of the effective date of this rule or within 30 days of receiving approval from the city or county government, whichever is later.

(D) any large operation or a medium operation under a contingency notification subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.

(i) Fees

(1) Any person subject to a plan submittal pursuant to subparagraph (f)(1)(B) or clause (h)(2)(A)(iii) or subparagraph (h)(1)(B) shall be assessed applicable filing and evaluation fees pursuant to Rule 306. Any person who simultaneously submits a plan pursuant to subparagraph (f)(1)(B) and clause (h)(2)(A)(iii) shall, for the purpose of this rule, be deemed to submit one plan.

(2) The submittal of an annual statement of no-change, pursuant to paragraph (f)(9), shall not be considered as an annual review, and therefore shall not be subject to annual review fees, pursuant to Rule 306.

(3) The owner/operator of any facility for which the Executive Officer conducts upwind/downwind monitoring for PM₁₀ pursuant to paragraph (d)(4) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(4) or meets the requirements of paragraph (d)(4).

**TABLE 1
BEST [REASONABLY] AVAILABLE CONTROL MEASURES FOR HIGH WIND
CONDITIONS**

FUGITIVE DUST SOURCE CATEGORY		CONTROL MEASURES
Earth-moving	(1A)	Cease all active operations; OR
	(2A)	Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B)	On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR
	(1B)	Apply chemical stabilizers prior to wind event; OR
	(2B)	Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR
	(3B)	Take the actions specified in Table 2, Item (3c); OR
	(4B)	Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C)	Apply chemical stabilizers prior to wind event; OR
	(2C)	Apply water twice [once] per hour during active operation; OR
	(3C)	Stop all vehicular traffic.
Open storage piles	(1D)	Apply water twice [once] per hour; OR
	(2D)	Install temporary coverings.
Paved road track-out	(1E)	Cover all haul vehicles; OR
	(2E)	Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 1 may be used.

* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

**TABLE 2
DUST CONTROL ACTIONS FOR EXEMPTION FROM PARAGRAPH (d)(4)**

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Earth-moving (except construction)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources

cutting and filling areas, and mining operations)		Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

TABLE 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 [70] percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a)	Apply water to at least 80 [70] percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to

		maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 [30] days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

*** Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.**

TABLE 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 [70] percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

*** Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.**

**TABLE 3
TRACK-OUT CONTROL OPTIONS
PARAGRAPH (d)(5)(B)**

CONTROL OPTIONS

(1)	Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
-----	--

(2)	Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that exiting vehicles do not travel on any unpaved road surface after passing through the track-out control device.
(3)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

APPENDIX F

URBEMIS 2001 Printouts

URBEMIS 2001 For Windows 6.2.2

File Name: <Not Saved>
Project Name: Krausz Property - EXISTING
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.06	0.81	0.32	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.06	0.81	0.32	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
General light industry	41.60	56.36	459.39	26.56	0.30
TOTAL EMISSIONS (lbs/day)	41.60	56.36	459.39	26.56	0.30

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
General light industry	8.24 trips / 1000 sq. ft.	340.00	2,801.60

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
General light industry				50.0	25.0	25.0

URBEMIS 2001 For Windows 6.2.2

File Name: <Not Saved>
Project Name: Krausz Property - EXISTING
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.06	0.81	0.32	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.16	0.81	1.01	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
General light industry	44.73	41.98	540.56	26.56	0.34
TOTAL EMISSIONS (lbs/day)	44.73	41.98	540.56	26.56	0.34

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
General light industry	8.24 trips / 1000 sq. ft.	340.00	2,801.60

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
General light industry				50.0	25.0	25.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz Property - ALT A - Elderly Housing
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.21	2.76	1.17	0.01	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	17.91	-	-	-	-
TOTALS(lbs/day,unmitigated)	18.12	2.76	1.17	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Elder Housing	16.48	20.11	167.74	9.40	0.11
TOTAL EMISSIONS (lbs/day)	16.48	20.11	167.74	9.40	0.11

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Elder Housing	3.20 trips / dwelling units	366.00	1,169.37

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz Property - ALT A - Elderly Housing
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.21	2.76	1.17	0.01	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	17.91	-	-	-	-
TOTALS(lbs/day,unmitigated)	18.22	2.77	1.86	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Elder Housing	22.07	15.02	194.77	9.40	0.12
TOTAL EMISSIONS (lbs/day)	22.07	15.02	194.77	9.40	0.12

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Elder Housing	3.20 trips / dwelling units	366.00	1,169.37

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz Property - ALT A - Nursing Home
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.06	0.75	0.32	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	4.89	-	-	-	-
TOTALS(lbs/day,unmitigated)	4.95	0.75	0.32	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Nursing Home	3.73	4.49	37.44	2.10	0.02
TOTAL EMISSIONS (lbs/day)	3.73	4.49	37.44	2.10	0.02

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Nursing Home	2.61 trips / beds	100.00	261.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home- Work	Home- Shop	Home- Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz Property - ALT A - Nursing Home
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.06	0.75	0.32	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	4.89	-	-	-	-
TOTALS(lbs/day,unmitigated)	5.05	0.76	1.01	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Nursing Home	5.32	3.35	43.47	2.10	0.03
TOTAL EMISSIONS (lbs/day)	5.32	3.35	43.47	2.10	0.03

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Nursing Home	2.61 trips / beds	100.00	261.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz Property - Alt A Assisted Ilving
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.03	0.38	0.16	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	2.45	-	-	-	-
TOTALS(lbs/day,unmitigated)	2.48	0.38	0.16	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Assisted Living	1.57	1.86	15.49	0.87	0.01
TOTAL EMISSIONS (lbs/day)	1.57	1.86	15.49	0.87	0.01

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Assisted Living	2.16 trips / dwelling units	50.00	108.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz Property - Alt A Assisted Ilving
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.03	0.38	0.16	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	2.45	-	-	-	-
TOTALS(lbs/day,unmitigated)	2.57	0.38	0.85	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Assisted Living	2.39	1.39	17.99	0.87	0.01
TOTAL EMISSIONS (lbs/day)	2.39	1.39	17.99	0.87	0.01

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Assisted Living	2.16 trips / dwelling units	50.00	108.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

URBEMIS 2001 For Windows 6.2.2

File Name: <Not Saved>
Project Name: Krausz - ALT A
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.24	3.29	1.31	0.01	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.24	3.29	1.31	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Regnl shop. center < 5700	130.70	175.20	1,418.48	80.44	0.92
TOTAL EMISSIONS (lbs/day)	130.70	175.20	1,418.48	80.44	0.92

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Regnl shop. center < 5700	35.23 trips / 1000 sq. ft.	340.00	11,978.20

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Regnl shop. center < 570000 sf	2.0	1.0	97.0
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URBEMIS 2001 For Windows 6.2.2

File Name: <Not Saved>
Project Name: Krausz - ALT A
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.24	3.29	1.31	0.01	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.34	3.29	2.00	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Regnl shop. center < 5700	125.17	131.09	1,624.59	80.44	1.04
TOTAL EMISSIONS (lbs/day)	125.17	131.09	1,624.59	80.44	1.04

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Regnl shop. center < 5700	35.23 trips / 1000 sq. ft.	340.00	11,978.20

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Regnl shop. center < 570000 sf				2.0	1.0	97.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz ALT B
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.45	6.20	2.48	0.01	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.45	6.20	2.48	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
General office building	100.90	135.38	1,101.67	63.39	0.72
TOTAL EMISSIONS (lbs/day)	100.90	135.38	1,101.67	63.39	0.72

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
General office building	7.91 trips / 1000 sq. ft.	930.00	7,357.23

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
General office building				35.0	17.5	47.5

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz ALT B
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.45	6.20	2.48	0.01	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.55	6.21	3.17	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
General office building	110.25	100.96	1,287.78	63.39	0.82
TOTAL EMISSIONS (lbs/day)	110.25	100.96	1,287.78	63.39	0.82

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
General office building	7.91 trips / 1000 sq. ft.	930.00	7,357.23

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

General office building	35.0	17.5	47.5
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URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz - ALT C
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.35	4.68	1.93	0.01	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	14.68	-	-	-	-
TOTALS(lbs/day,unmitigated)	15.03	4.68	1.93	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Condo/townhouse general	20.53	25.62	213.74	11.97	0.14
Regnl shop. center < 5700	107.18	143.78	1,164.08	66.01	0.75
TOTAL EMISSIONS (lbs/day)	127.71	169.40	1,377.83	77.99	0.89

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Condo/townhouse general	4.97 trips / dwelling units	300.00	1,490.10
Regnl shop. center < 5700	39.32 trips / 1000 sq. ft.	250.00	9,830.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Regnl shop. center < 570000 sf	2.0	1.0	97.0
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URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz - ALT C
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.35	4.68	1.93	0.01	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.20	0.01	1.37	0.00	0.00
Consumer Prdcts	14.68	-	-	-	-
TOTALS(lbs/day,unmitigated)	15.23	4.69	3.30	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Condo/townhouse general	24.50	19.13	248.19	11.97	0.16
Regnl shop. center < 5700	102.09	107.58	1,333.23	66.01	0.85
TOTAL EMISSIONS (lbs/day)	126.59	126.72	1,581.42	77.99	1.00

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Condo/townhouse general	4.97 trips / dwelling units	300.00	1,490.10
Regnl shop. center < 5700	39.32 trips / 1000 sq. ft.	250.00	9,830.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Regnl shop. center < 570000 sf				2.0	1.0	97.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz - ALT D
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.51	6.86	2.80	0.01	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	14.68	-	-	-	-
TOTALS(lbs/day,unmitigated)	15.19	6.86	2.80	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Condo/townhouse general	20.53	25.62	213.74	11.97	0.14
General office building	80.09	107.64	875.95	50.40	0.58
TOTAL EMISSIONS (lbs/day)	100.62	133.26	1,089.69	62.38	0.71

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Condo/townhouse general	4.97 trips / dwelling units	300.00	1,490.10
General office building	8.48 trips / 1000 sq. ft.	690.00	5,849.82

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

General office building	35.0	17.5	47.5
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URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Krausz - ALT D
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.51	6.86	2.80	0.01	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.20	0.01	1.37	0.00	0.00
Consumer Prdcts	14.68	-	-	-	-
TOTALS(lbs/day,unmitigated)	15.38	6.87	4.18	0.02	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Condo/townhouse general	24.50	19.13	248.19	11.97	0.16
General office building	86.58	80.28	1,023.93	50.40	0.65
TOTAL EMISSIONS (lbs/day)	111.08	99.41	1,272.12	62.38	0.81

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Condo/townhouse general	4.97 trips / dwelling units	300.00	1,490.10
General office building	8.48 trips / 1000 sq. ft.	690.00	5,849.82

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

General office building	35.0	17.5	47.5
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URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: BuildOut - EXISTING
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.20	2.72	1.09	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.20	2.72	1.09	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Racquet club	3.16	4.25	34.44	1.96	0.02
Racquetball/health	1.04	1.26	10.19	0.58	0.01
Warehouse	2.92	3.57	28.88	1.64	0.02
General light industry	13.79	18.61	151.67	8.77	0.10
Manufacturing	2.88	3.80	30.96	1.79	0.02
TOTAL EMISSIONS (lbs/day)	23.79	31.48	256.13	14.73	0.17

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Racquet club	40.57 trips / Courts	7.00	284.00
Racquetball/health	2.07 trips / 1000 sq. ft.	40.51	84.00
Warehouse	2.50 trips / 1000 sq. ft.	97.55	243.89
General light industry	6.97 trips / 1000 sq. ft.	132.67	924.94
Manufacturing	3.83 trips / 1000 sq. ft.	49.92	190.99

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Racquet club	5.0	2.5	92.5
Racquetball/health	5.0	2.5	92.5
Warehouse	2.0	1.0	97.0
General light industry	50.0	25.0	25.0
Manufacturing	48.0	24.0	28.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: BuildOut - EXISTING
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.20	2.72	1.09	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.50	0.03	3.43	0.01	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.69	2.75	4.52	0.02	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Racquet club	3.01	3.18	39.54	1.96	0.03
Racquetball/health	1.73	0.94	11.69	0.58	0.01
Warehouse	4.52	2.67	33.08	1.64	0.02
General light industry	15.21	13.86	178.47	8.77	0.11
Manufacturing	3.60	2.83	36.40	1.79	0.02
TOTAL EMISSIONS (lbs/day)	28.07	23.48	299.17	14.73	0.19

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Racquet club	40.57 trips / Courts	7.00	284.00
Racquetball/health	2.07 trips / 1000 sq. ft.	40.51	84.00
Warehouse	2.50 trips / 1000 sq. ft.	97.55	243.89
General light industry	6.97 trips / 1000 sq. ft.	132.67	924.94
Manufacturing	3.83 trips / 1000 sq. ft.	49.92	190.99

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Racquet club	5.0	2.5	92.5
Racquetball/health	5.0	2.5	92.5
Warehouse	2.0	1.0	97.0
General light industry	50.0	25.0	25.0
Manufacturing	48.0	24.0	28.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: BuildOut - ALT A
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.38	5.22	2.09	0.01	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.38	5.22	2.09	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Regnl shop. center < 5700	176.21	235.90	1,909.93	108.31	1.23
TOTAL EMISSIONS (lbs/day)	176.21	235.90	1,909.93	108.31	1.23

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Regnl shop. center < 5700	29.87 trips / 1000 sq. ft.	540.00	16,128.18

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Regnl shop. center < 570000 sf				2.0	1.0	97.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: BuildOut - ALT A
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.38	5.22	2.09	0.01	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.48	5.23	2.77	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Regnl shop. center < 5700	170.32	176.51	2,187.44	108.31	1.39
TOTAL EMISSIONS (lbs/day)	170.32	176.51	2,187.44	108.31	1.39

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Regnl shop. center < 5700	29.87 trips / 1000 sq. ft.	540.00	16,128.18

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Regnl shop. center < 570000 sf				2.0	1.0	97.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: BuildOut - ALT B
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.73	10.11	4.04	0.02	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.73	10.11	4.04	0.02	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
General office building	147.31	197.04	1,603.41	92.26	1.05
TOTAL EMISSIONS (lbs/day)	147.31	197.04	1,603.41	92.26	1.05

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
General office building	7.06 trips / 1000 sq. ft.	1,516.00	10,707.96

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
General office building				35.0	17.5	47.5

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: BuildOut - ALT B
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.73	10.11	4.04	0.02	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.83	10.11	4.73	0.02	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
General office building	163.99	146.94	1,874.28	92.26	1.19
TOTAL EMISSIONS (lbs/day)	163.99	146.94	1,874.28	92.26	1.19

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
General office building	7.06 trips / 1000 sq. ft.	1,516.00	10,707.96

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
General office building				35.0	17.5	47.5

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: BuildOut - ALT C
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.51	6.88	2.83	0.01	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	19.57	-	-	-	-
TOTALS(lbs/day,unmitigated)	20.08	6.88	2.83	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Condo/townhouse general	26.28	32.74	273.11	15.30	0.18
Regnl shop. center < 5700	145.16	194.51	1,574.77	89.30	1.02
TOTAL EMISSIONS (lbs/day)	171.45	227.24	1,847.88	104.60	1.20

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Condo/townhouse general	4.76 trips / dwelling units	400.00	1,904.00
Regnl shop. center < 5700	33.25 trips / 1000 sq. ft.	400.00	13,298.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Regnl shop. center < 570000 sf	2.0	1.0	97.0
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URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: BuildOut - ALT C
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.51	6.88	2.83	0.01	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.20	0.01	1.37	0.00	0.00
Consumer Prdcts	19.57	-	-	-	-
TOTALS(lbs/day,unmitigated)	20.28	6.90	4.20	0.02	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Condo/townhouse general	31.67	24.45	317.13	15.30	0.20
Regnl shop. center < 5700	139.45	145.54	1,803.59	89.30	1.15
TOTAL EMISSIONS (lbs/day)	171.12	169.99	2,120.72	104.60	1.35

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Condo/townhouse general	4.76 trips / dwelling units	400.00	1,904.00
Regnl shop. center < 5700	33.25 trips / 1000 sq. ft.	400.00	13,298.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Regnl shop. center < 570000 sf	2.0	1.0	97.0
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URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: BuildOut - ALT D
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.78	10.52	4.28	0.02	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	19.57	-	-	-	-
TOTALS(lbs/day,unmitigated)	20.35	10.52	4.28	0.02	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Condo/townhouse general	26.28	32.74	273.11	15.30	0.18
General office building	116.93	156.70	1,275.19	73.38	0.84
TOTAL EMISSIONS (lbs/day)	143.21	189.44	1,548.30	88.68	1.02

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Condo/townhouse general	4.76 trips / dwelling units	400.00	1,904.00
General office building	7.57 trips / 1000 sq. ft.	1,125.00	8,516.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

General office building	35.0	17.5	47.5
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URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: BuildOut - ALT D
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.78	10.52	4.28	0.02	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.20	0.01	1.37	0.00	0.00
Consumer Prdcts	19.57	-	-	-	-
TOTALS(lbs/day,unmitigated)	20.54	10.53	5.66	0.02	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Condo/townhouse general	31.67	24.45	317.13	15.30	0.20
General office building	128.67	116.86	1,490.61	73.38	0.95
TOTAL EMISSIONS (lbs/day)	160.34	141.31	1,807.73	88.68	1.14

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Condo/townhouse general	4.76 trips / dwelling units	400.00	1,904.00
General office building	7.57 trips / 1000 sq. ft.	1,125.00	8,516.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

General office building	35.0	17.5	47.5
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URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 1 - COURTHOUSE
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.00	0.05	0.02	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.00	0.05	0.02	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Courthouse	63.54	86.26	699.38	39.83	0.45
TOTAL EMISSIONS (lbs/day)	63.54	86.26	699.38	39.83	0.45

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Courthouse	693.75 trips / courts	8.00	5,550.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Courthouse	10.0	5.0	85.0
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URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 1 - COURTHOUSE
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.00	0.05	0.02	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.10	0.06	0.71	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Courthouse	57.97	64.48	805.76	39.83	0.51
TOTAL EMISSIONS (lbs/day)	57.97	64.48	805.76	39.83	0.51

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Courthouse	693.75 trips / courts	8.00	5,550.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Courthouse				10.0	5.0	85.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 2 - Shopping Ctr
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.02	0.27	0.11	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.02	0.27	0.11	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Regnl shop. center < 5700	16.50	22.17	179.53	10.18	0.12
TOTAL EMISSIONS (lbs/day)	16.50	22.17	179.53	10.18	0.12

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Regnl shop. center < 5700	53.37 trips / 1000 sq. ft.	28.40	1,516.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Regnl shop. center < 570000 sf				2.0	1.0	97.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 2 - Shopping Ctr
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.02	0.27	0.11	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.12	0.28	0.80	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Regnl shop. center < 5700	15.52	16.59	205.61	10.18	0.13
TOTAL EMISSIONS (lbs/day)	15.52	16.59	205.61	10.18	0.13

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Regnl shop. center < 5700	53.37 trips / 1000 sq. ft.	28.40	1,516.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Regnl shop. center < 570000 sf				2.0	1.0	97.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 3 - Drug Store
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.01	0.16	0.06	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.01	0.16	0.06	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Convenience market	1.89	2.49	20.13	1.14	0.01
TOTAL EMISSIONS (lbs/day)	1.89	2.49	20.13	1.14	0.01

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Convenience market	10.25 trips / 1000 sq. ft.	16.58	169.95

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Convenience market				2.0	1.0	97.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 3 - Drug Store
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.01	0.16	0.06	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.11	0.17	0.75	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Convenience market	2.03	1.86	23.05	1.14	0.01
TOTAL EMISSIONS (lbs/day)	2.03	1.86	23.05	1.14	0.01

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Convenience market	10.25 trips / 1000 sq. ft.	16.58	169.95

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Convenience market	2.0	1.0	97.0
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URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 4
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.04	0.50	0.21	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	2.84	-	-	-	-
TOTALS(lbs/day,unmitigated)	2.88	0.50	0.21	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Senior Residential	0.82	0.86	7.17	0.40	0.00
Nursery school	2.60	3.38	27.44	1.57	0.02
Place of worship (weekday)	0.68	0.90	7.28	0.41	0.00
TOTAL EMISSIONS (lbs/day)	4.11	5.14	41.89	2.38	0.03

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Senior Residential	0.86 trips / dwelling units	58.00	50.00
Nursery school	4.50 trips / students	45.00	202.50
Place of worship (weekday)	9.10 trips / 1000 sq. ft.	6.70	61.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Nursery school	20.0	10.0	70.0
Place of worship (weekday)	3.0	1.5	95.5

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 4
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.04	0.50	0.21	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.30	0.02	2.06	0.01	0.00
Consumer Prdcts	2.84	-	-	-	-
TOTALS(lbs/day,unmitigated)	3.17	0.52	2.27	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Senior Residential	1.87	0.64	8.33	0.40	0.01
Nursery school	3.24	2.52	31.82	1.57	0.02
Place of worship (weekday)	0.75	0.67	8.35	0.41	0.01
TOTAL EMISSIONS (lbs/day)	5.85	3.84	48.49	2.38	0.03

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Senior Residential	0.86 trips / dwelling units	58.00	50.00
Nursery school	4.50 trips / students	45.00	202.50
Place of worship (weekday)	9.10 trips / 1000 sq. ft.	6.70	61.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

Nursery school	20.0	10.0	70.0
Place of worship (weekday)	3.0	1.5	95.5

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 5 - Porter Ranch
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.00	0.00	0.00	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.00	0.00	0.00	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Mixed Use (office, retail	1,416.88	1,890.51	15,306.00	867.97	9.90
TOTAL EMISSIONS (lbs/day)	1,416.88	1,890.51	15,306.00	867.97	9.90

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Mixed Use (office, retail	21.47 trips / 1000 sq. ft.	6,019.00	129,250.01

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Mixed Use (office, retail, residential)				2.0	1.0	97.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 5 - Porter Ranch
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.00	0.00	0.00	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.10	0.01	0.69	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Mixed Use (office, retail	1,401.76	1,414.54	17,530.00	867.97	11.17
TOTAL EMISSIONS (lbs/day)	1,401.76	1,414.54	17,530.00	867.97	11.17

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Mixed Use (office, retail	21.47 trips / 1000 sq. ft.	6,019.00	129,250.01

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
Mixed Use (office, retail, residential)				2.0	1.0	97.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 6 - Deer Lake Ranch
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.47	6.06	2.58	0.01	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	23.68	-	-	-	-
TOTALS(lbs/day,unmitigated)	24.15	6.06	2.58	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Single family housing	62.57	79.64	664.40	37.22	0.43
TOTAL EMISSIONS (lbs/day)	62.57	79.64	664.40	37.22	0.43

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.57 trips / dwelling units	484.00	4,631.88

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 6 - Deer Lake Ranch
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.47	6.06	2.58	0.01	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.82	0.08	6.94	0.01	0.21
Consumer Prdcts	23.68	-	-	-	-
TOTALS(lbs/day,unmitigated)	24.97	6.15	9.52	0.03	0.21

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
Single family housing	66.39	59.48	771.48	37.22	0.48
TOTAL EMISSIONS (lbs/day)	66.39	59.48	771.48	37.22	0.48

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	9.57 trips / dwelling units	484.00	4,631.88

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zongue Change and Plan Amendment 2002-27\U
Project Name: Related Project 7 - LAUSD
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.00	0.00	0.00	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.00	0.00	0.00	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
High school	17.22	20.01	162.26	9.24	0.11
TOTAL EMISSIONS (lbs/day)	17.22	20.01	162.26	9.24	0.11

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
High school	1.45 trips / students	888.00	1,287.60

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
High school				10.0	5.0	85.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
 Project Name: Related Project 7 - LAUSD
 Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
 (Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.00	0.00	0.00	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.10	0.01	0.69	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
High school	32.74	14.96	186.94	9.24	0.12
TOTAL EMISSIONS (lbs/day)	32.74	14.96	186.94	9.24	0.12

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
High school	1.45 trips / students	888.00	1,287.60

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
High school				10.0	5.0	85.0

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 8 - Office
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.04	0.53	0.21	0.00	-
Wood Stoves	0.00	0.00	0.00	0.00	0.00
Fireplaces	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.04	0.53	0.21	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
General office building	15.16	20.57	167.41	9.63	0.11
TOTAL EMISSIONS (lbs/day)	15.16	20.57	167.41	9.63	0.11

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 60 Season: Winter

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
General office building	13.98 trips / 1000 sq. ft.	80.00	1,118.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
General office building				35.0	17.5	47.5

URBEMIS 2001 For Windows 6.2.2

File Name: J:\Projects\Northridge Zonge Change and Plan Amendment 2002-27\U
Project Name: Related Project 8 - Office
Project Location: South Coast Air Basin (Los Angeles area)

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10	SO2
Natural Gas	0.04	0.53	0.21	0.00	-
Wood Stoves - No summer emissions					
Fireplaces - No summer emissions					
Landscaping	0.10	0.01	0.69	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.14	0.54	0.90	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	PM10	SO2
General office building	15.42	15.34	195.69	9.63	0.12
TOTAL EMISSIONS (lbs/day)	15.42	15.34	195.69	9.63	0.12

Does not include correction for passby trips.
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2001 (10/2001)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
General office building	13.98 trips / 1000 sq. ft.	80.00	1,118.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.40	4.70	94.50	0.80
Light Truck < 3,750 lbs	9.30	11.00	88.90	0.10
Light Truck 3,751- 5,750	16.70	1.80	97.60	0.60
Med Truck 5,751- 8,500	7.20	12.50	79.20	8.30
Lite-Heavy 8,501-10,000	1.10	18.20	72.70	9.10
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.10	9.10	27.30	63.60
Heavy-Heavy 33,001-60,000	0.70	0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.00	0.00	0.00	100.00
Motorcycle	1.40	90.90	9.10	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	0.70	0.00	100.00	0.00

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

General office building	35.0	17.5	47.5
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APPENDIX G

Operations Emissions Reductions

NORTHRIDGE ZONE CHANGE AND PLAN AMENDMENT

Daily Operations Emissions (MOBILE)		CO	ROG	NOX	SOX	PM10
Krausz Property Only Alternative A (w/o mitigation)		1,340.26	115.75	145.3	1.01	66.25
Mitigation Measure		Emission Reduction Efficiency				
AQ 13	The proposed project shall establish a shuttle service from the project site to residential and commercial areas.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 14	The proposed project shall construct on-site or off site bus turnouts, passenger benches, and shelters.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 15	The proposed project shall provide shuttles to major transit stations.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 16	The proposed project shall include bicycle parking facilities, such as bicycle lockers and racks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 17	The proposed project shall construct on-site pedestrian facility improvements, such as walk paths and building access which is physically separated from street and parking lot traffic.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 18	The proposed project shall construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
<i>Total Emission Reduction</i>		<i>8.0</i>	<i>0.7</i>	<i>0.9</i>	<i>0.0</i>	<i>0.4</i>
<i>Total Emission after Mitigation</i>		<i>1,332.22</i>	<i>115.06</i>	<i>144.43</i>	<i>1.00</i>	<i>65.85</i>
<i>Total Percentage of Emissions Reduced</i>		<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>
SOURCE: SCAQMD CEQA Air Quality Handbook, Table 11-6.						

NORTHRIDGE ZONE CHANGE AND PLAN AMENDMENT

Daily Operations Emissions (MOBILE)		CO	ROG	NOX	SOX	PM10
Krausz Property Only Alternative B (w/o mitigation)		1,003.45	95.3	105.48	0.91	49.2
Mitigation Measure		Emission Reduction Efficiency				
AQ 13	The proposed project shall establish a shuttle service from the project site to residential and commercial areas.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
AQ 14	The proposed project shall construct on-site or off site bus turnouts, passenger benches, and shelters.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
AQ 15	The proposed project shall provide shuttles to major transit stations.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
AQ 16	The proposed project shall include bicycle parking facilities, such as bicycle lockers and racks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
AQ 17	The proposed project shall construct on-site pedestrian facility improvements, such as walk paths and building access which is physically separated from street and parking lot traffic.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
AQ 18	The proposed project shall construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
<i>Total Emission Reduction</i>		<i>6.0</i>	<i>0.6</i>	<i>0.6</i>	<i>0.0</i>	<i>0.3</i>
<i>Total Emission after Mitigation</i>		<i>997.43</i>	<i>94.73</i>	<i>104.85</i>	<i>0.90</i>	<i>48.90</i>
<i>Total Percentage of Emissions Reduced</i>		<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>
SOURCE: SCAQMD CEQA Air Quality Handbook, Table 11-6.						

NORTHRIDGE ZONE CHANGE AND PLAN AMENDMENT

Daily Operations Emissions (MOBILE)		CO	ROG	NOX	SOX	PM10
Krausz Property Only Alternative C (w/o mitigation)		1,297.09	112.76	139.5	1.09	63.8
Mitigation Measure		Emission Reduction Efficiency				
AQ 13	The proposed project shall establish a shuttle service from the project site to residential and commercial areas.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 14	The proposed project shall construct on-site or off site bus turnouts, passenger benches, and shelters.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 15	The proposed project shall provide shuttles to major transit stations.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 16	The proposed project shall include bicycle parking facilities, such as bicycle lockers and racks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 17	The proposed project shall construct on-site pedestrian facility improvements, such as walk paths and building access which is physically separated from street and parking lot traffic.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 18	The proposed project shall construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
Total Emission Reduction		7.8	0.7	0.8	0.0	0.4
Total Emission after Mitigation		1,289.31	112.08	138.66	1.08	63.42
Total Percentage of Emissions Reduced		-0.6%	-0.6%	-0.6%	-0.6%	-0.6%
SOURCE: SCAQMD CEQA Air Quality Handbook, Table 11-6.						

NORTHRIDGE ZONE CHANGE AND PLAN AMENDMENT

Daily Operations Emissions (MOBILE)		CO	ROG	NOX	SOX	PM10
Krausz Property Only Alternative D (w/o mitigation)		987.79	96.13	103.36	0.90	48.19
Mitigation Measure		Emission Reduction Efficiency				
AQ 13	The proposed project shall establish a shuttle service from the project site to residential and commercial areas.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
AQ 14	The proposed project shall construct on-site or off site bus turnouts, passenger benches, and shelters.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
AQ 15	The proposed project shall provide shuttles to major transit stations.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
AQ 16	The proposed project shall include bicycle parking facilities, such as bicycle lockers and racks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
AQ 17	The proposed project shall construct on-site pedestrian facility improvements, such as walk paths and building access which is physically separated from street and parking lot traffic.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
AQ 18	The proposed project shall construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.0	0.1	0.1	0.0	0.0
<i>Total Emission Reduction</i>		<i>5.9</i>	<i>0.6</i>	<i>0.6</i>	<i>0.0</i>	<i>0.3</i>
<i>Total Emission after Mitigation</i>		<i>981.86</i>	<i>95.55</i>	<i>102.74</i>	<i>0.89</i>	<i>47.90</i>
<i>Total Percentage of Emissions Reduced</i>		<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>
SOURCE: SCAQMD CEQA Air Quality Handbook, Table 11-6.						

NORTHRIDGE ZONE CHANGE AND PLAN AMENDMENT

Daily Operations Emissions (MOBILE)		CO	ROG	NOX	SOX	PM10
Full Build-Out Alternative A (w/o mitigation)		1,603.94	133.19	174.52	1.29	79.39
Mitigation Measure		Emission Reduction Efficiency				
AQ 13	The proposed project shall establish a shuttle service from the project site to residential and commercial areas.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.6	0.1	0.2	0.0	0.1
AQ 14	The proposed project shall construct on-site or off site bus turnouts, passenger benches, and shelters.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.6	0.1	0.2	0.0	0.1
AQ 15	The proposed project shall provide shuttles to major transit stations.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.6	0.1	0.2	0.0	0.1
AQ 16	The proposed project shall include bicycle parking facilities, such as bicycle lockers and racks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.6	0.1	0.2	0.0	0.1
AQ 17	The proposed project shall construct on-site pedestrian facility improvements, such as walk paths and building access which is physically separated from street and parking lot traffic.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.6	0.1	0.2	0.0	0.1
AQ 18	The proposed project shall construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.6	0.1	0.2	0.0	0.1
<i>Total Emission Reduction</i>		<i>9.6</i>	<i>0.8</i>	<i>1.0</i>	<i>0.0</i>	<i>0.5</i>
<i>Total Emission after Mitigation</i>		<i>1,594.32</i>	<i>132.39</i>	<i>173.47</i>	<i>1.28</i>	<i>78.91</i>
<i>Total Percentage of Emissions Reduced</i>		<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>
SOURCE: SCAQMD CEQA Air Quality Handbook, Table 11-6.						

NORTHRIDGE ZONE CHANGE AND PLAN AMENDMENT

Daily Operations Emissions (MOBILE)		CO	ROG	NOX	SOX	PM10
Full Build-Out Alternative B (w/o mitigation)		1,290.78	120.97	135.66	1.09	63.34
Mitigation Measure		Emission Reduction Efficiency				
AQ 13	The proposed project shall establish a shuttle service from the project site to residential and commercial areas.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 14	The proposed project shall construct on-site or off site bus turnouts, passenger benches, and shelters.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 15	The proposed project shall provide shuttles to major transit stations.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 16	The proposed project shall include bicycle parking facilities, such as bicycle lockers and racks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 17	The proposed project shall construct on-site pedestrian facility improvements, such as walk paths and building access which is physically separated from street and parking lot traffic.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
AQ 18	The proposed project shall construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.3	0.1	0.1	0.0	0.1
<i>Total Emission Reduction</i>		<i>7.7</i>	<i>0.7</i>	<i>0.8</i>	<i>0.0</i>	<i>0.4</i>
<i>Total Emission after Mitigation</i>		<i>1,283.04</i>	<i>120.24</i>	<i>134.85</i>	<i>1.08</i>	<i>62.96</i>
<i>Total Percentage of Emissions Reduced</i>		<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>
SOURCE: SCAQMD CEQA Air Quality Handbook, Table 11-6.						

NORTHRIDGE ZONE CHANGE AND PLAN AMENDMENT

Daily Operations Emissions (MOBILE)		CO	ROG	NOX	SOX	PM10
Full Build-Out Alternative C (w/o mitigation)		1,537.22	128.43	165.86	1.25	75.68
Mitigation Measure		Emission Reduction Efficiency				
AQ 13	The proposed project shall establish a shuttle service from the project site to residential and commercial areas.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.5	0.1	0.2	0.0	0.1
AQ 14	The proposed project shall construct on-site or off site bus turnouts, passenger benches, and shelters.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.5	0.1	0.2	0.0	0.1
AQ 15	The proposed project shall provide shuttles to major transit stations.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.5	0.1	0.2	0.0	0.1
AQ 16	The proposed project shall include bicycle parking facilities, such as bicycle lockers and racks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.5	0.1	0.2	0.0	0.1
AQ 17	The proposed project shall construct on-site pedestrian facility improvements, such as walk paths and building access which is physically separated from street and parking lot traffic.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.5	0.1	0.2	0.0	0.1
AQ 18	The proposed project shall construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.5	0.1	0.2	0.0	0.1
<i>Total Emission Reduction</i>		<i>9.2</i>	<i>0.8</i>	<i>1.0</i>	<i>0.0</i>	<i>0.5</i>
<i>Total Emission after Mitigation</i>		<i>1,528.00</i>	<i>127.66</i>	<i>164.86</i>	<i>1.24</i>	<i>75.23</i>
<i>Total Percentage of Emissions Reduced</i>		<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>
SOURCE: SCAQMD CEQA Air Quality Handbook, Table 11-6.						

NORTHRIDGE ZONE CHANGE AND PLAN AMENDMENT

Daily Operations Emissions (MOBILE)		CO	ROG	NOX	SOX	PM10
Full Build-Out Alternative D (w/o mitigation)		1,224.23	117.32	128.06	1.04	59.76
Mitigation Measure		Emission Reduction Efficiency				
AQ 13	The proposed project shall establish a shuttle service from the project site to residential and commercial areas.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.2	0.1	0.1	0.0	0.1
AQ 14	The proposed project shall construct on-site or off site bus turnouts, passenger benches, and shelters.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.2	0.1	0.1	0.0	0.1
AQ 15	The proposed project shall provide shuttles to major transit stations.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.2	0.1	0.1	0.0	0.1
AQ 16	The proposed project shall include bicycle parking facilities, such as bicycle lockers and racks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.2	0.1	0.1	0.0	0.1
AQ 17	The proposed project shall construct on-site pedestrian facility improvements, such as walk paths and building access which is physically separated from street and parking lot traffic.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.2	0.1	0.1	0.0	0.1
AQ 18	The proposed project shall construct off-site pedestrian facility improvements, such as overpasses and wider sidewalks.	0.1%	0.1%	0.1%	0.1%	0.1%
		1.2	0.1	0.1	0.0	0.1
<i>Total Emission Reduction</i>		<i>7.3</i>	<i>0.7</i>	<i>0.8</i>	<i>0.0</i>	<i>0.4</i>
<i>Total Emission after Mitigation</i>		<i>1,216.88</i>	<i>116.62</i>	<i>127.29</i>	<i>1.03</i>	<i>59.40</i>
<i>Total Percentage of Emissions Reduced</i>		<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-0.6%</i>
SOURCE: SCAQMD CEQA Air Quality Handbook, Table 11-6.						

APPENDIX H

Traffic Noise Calculations

PROJECT NAME	Northridge Zone Change & Plan Amendment
YEAR/SCENARIO	Existing Conditions

VEHICLE DISTRIBUTION				
TYPE	7:00 AM - 7:00 PM	7:00 PM - 10:00 PM	10:00 PM - 7:00 AM	TOTAL
AUTO	0.65	0.13	0.09	0.87
MED TRUCK	0.05	0.00	0.02	0.07
HVY TRUCK	0.05	0.00	0.01	0.06
24 HR DIST.	0.75	0.13	0.12	1.00

ROADWAY SEGMENT	From	To	PEAK HOUR TRAFFIC VOLUME	SPEED (MPH)	RECEPTOR DISTANCE (feet)	CNEL (dBA)
Corbin Avenue	Lassen Street	Plummer Street	2614	40	50	75.4
Plummer Street	Corbin Avenue	Shirley Avenue	1944	40	50	74.1
Nordhoff Place	west of Corbin Avenue	--	495	35	50	67.0
Source: Terry A. Hayes Associates, LLC.						

PROJECT NAME	Northridge Zone Change & Plan Amendment
YEAR/SCENARIO	2005 No Project

VEHICLE DISTRIBUTION					
TYPE	7:00 AM - 7:00 PM	7:00 PM - 10:00 PM	10:00 PM - 7:00 AM	TOTAL	
AUTO	0.65	0.13	0.09	0.87	
MED TRUCK	0.05	0.00	0.02	0.07	
HVY TRUCK	0.05	0.00	0.01	0.06	
24 HR DIST.	0.75	0.13	0.12	1.00	

ROADWAY SEGMENT	From	To	PEAK HOUR TRAFFIC VOLUME	SPEED (MPH)	RECEPTOR DISTANCE (feet)	CNEL (dBA)
Corbin Avenue	Lassen Street	Plummer Street	3016	40	50	76.0
Plummer Street	Corbin Avenue	Shirley Avenue	2074	40	50	74.4
Nordhoff Place	west of Corbin Avenue	--	720	35	50	68.7

Source: Terry A. Hayes Associates, LLC.

PROJECT NAME	Northridge Zone Change & Plan Amendment
YEAR/SCENARIO	2005 Krausz Alt A

VEHICLE DISTRIBUTION					
TYPE	7:00 AM - 7:00 PM	7:00 PM - 10:00 PM	10:00 PM - 7:00 AM	TOTAL	
AUTO	0.65	0.13	0.09	0.87	
MED TRUCK	0.05	0.00	0.02	0.07	
HVY TRUCK	0.05	0.00	0.01	0.06	
24 HR DIST.	0.75	0.13	0.12	1.00	

ROADWAY SEGMENT	From	To	PEAK HOUR TRAFFIC VOLUME	SPEED (MPH)	RECEPTOR DISTANCE (feet)	CNEL (dBA)
Corbin Avenue	Lassen Street	Plummer Street	3142	40	50	76.2
Plummer Street	Corbin Avenue	Shirley Avenue	2131	40	50	74.5
Nordhoff Place	west of Corbin Avenue	--	731	35	50	68.7

Source: Terry A. Hayes Associates, LLC.

PROJECT NAME	Northridge Zone Change & Plan Amendment
YEAR/SCENARIO	2005 Krausz Alt B

VEHICLE DISTRIBUTION					
TYPE	7:00 AM - 7:00 PM	7:00 PM - 10:00 PM	10:00 PM - 7:00 AM	TOTAL	
AUTO	0.65	0.13	0.09	0.87	
MED TRUCK	0.05	0.00	0.02	0.07	
HVY TRUCK	0.05	0.00	0.01	0.06	
24 HR DIST.	0.75	0.13	0.12	1.00	

ROADWAY SEGMENT	From	To	PEAK HOUR TRAFFIC VOLUME	SPEED (MPH)	RECEPTOR DISTANCE (feet)	CNEL (dBA)
Corbin Avenue	Lassen Street	Plummer Street	3142	40	50	76.2
Plummer Street	Corbin Avenue	Shirley Avenue	2130	40	50	74.5
Nordhoff Place	west of Corbin Avenue	--	728	35	50	68.7

Source: Terry A. Hayes Associates, LLC.

PROJECT NAME	Northridge Zone Change & Plan Amendment
YEAR/SCENARIO	2005 Krausz Alt C

VEHICLE DISTRIBUTION					
TYPE	7:00 AM - 7:00 PM	7:00 PM - 10:00 PM	10:00 PM - 7:00 AM	TOTAL	
AUTO	0.65	0.13	0.09	0.87	
MED TRUCK	0.05	0.00	0.02	0.07	
HVY TRUCK	0.05	0.00	0.01	0.06	
24 HR DIST.	0.75	0.13	0.12	1.00	

ROADWAY SEGMENT	From	To	PEAK HOUR TRAFFIC VOLUME	SPEED (MPH)	RECEPTOR DISTANCE (feet)	CNEL (dBA)
Corbin Avenue	Lassen Street	Plummer Street	3132	40	50	76.2
Plummer Street	Corbin Avenue	Shirley Avenue	2127	40	50	74.5
Nordhoff Place	west of Corbin Avenue	--	730	35	50	68.7

Source: Terry A. Hayes Associates, LLC.

PROJECT NAME	Northridge Zone Change & Plan Amendment
YEAR/SCENARIO	2005 Krausz Alt D

VEHICLE DISTRIBUTION					
TYPE	7:00 AM - 7:00 PM	7:00 PM - 10:00 PM	10:00 PM - 7:00 AM	TOTAL	
AUTO	0.65	0.13	0.09	0.87	
MED TRUCK	0.05	0.00	0.02	0.07	
HVY TRUCK	0.05	0.00	0.01	0.06	
24 HR DIST.	0.75	0.13	0.12	1.00	

ROADWAY SEGMENT	From	To	PEAK HOUR TRAFFIC VOLUME	SPEED (MPH)	RECEPTOR DISTANCE (feet)	CNEL (dBA)
Corbin Avenue	Lassen Street	Plummer Street	3121	40	50	76.2
Plummer Street	Corbin Avenue	Shirley Avenue	2122	40	50	74.5
Nordhoff Place	west of Corbin Avenue	--	727	35	50	68.7

Source: Terry A. Hayes Associates, LLC.

PROJECT NAME	Northridge Zone Change & Plan Amendment
YEAR/SCENARIO	2005 Build-Out Alt A

VEHICLE DISTRIBUTION					
TYPE	7:00 AM - 7:00 PM	7:00 PM - 10:00 PM	10:00 PM - 7:00 AM	TOTAL	
AUTO	0.65	0.13	0.09	0.87	
MED TRUCK	0.05	0.00	0.02	0.07	
HVY TRUCK	0.05	0.00	0.01	0.06	
24 HR DIST.	0.75	0.13	0.12	1.00	

ROADWAY SEGMENT	From	To	PEAK HOUR TRAFFIC VOLUME	SPEED (MPH)	RECEPTOR DISTANCE (feet)	CNEL (dBA)
Corbin Avenue	Lassen Street	Plummer Street	3171	40	50	76.2
Plummer Street	Corbin Avenue	Shirley Avenue	2144	40	50	74.5
Nordhoff Place	west of Corbin Avenue	--	733	35	50	68.7

Source: Terry A. Hayes Associates, LLC.

PROJECT NAME	Northridge Zone Change & Plan Amendment
YEAR/SCENARIO	2005 Build-Out Alt B

VEHICLE DISTRIBUTION					
TYPE	7:00 AM - 7:00 PM	7:00 PM - 10:00 PM	10:00 PM - 7:00 AM	TOTAL	
AUTO	0.65	0.13	0.09	0.87	
MED TRUCK	0.05	0.00	0.02	0.07	
HVY TRUCK	0.05	0.00	0.01	0.06	
24 HR DIST.	0.75	0.13	0.12	1.00	

ROADWAY SEGMENT	From	To	PEAK HOUR TRAFFIC VOLUME	SPEED (MPH)	RECEPTOR DISTANCE (feet)	CNEL (dBA)
Corbin Avenue	Lassen Street	Plummer Street	3210	40	50	76.3
Plummer Street	Corbin Avenue	Shirley Avenue	2161	40	50	74.6
Nordhoff Place	west of Corbin Avenue	--	732	35	50	68.7

Source: Terry A. Hayes Associates, LLC.

PROJECT NAME	Northridge Zone Change & Plan Amendment
YEAR/SCENARIO	2005 Build-Out Alt C

VEHICLE DISTRIBUTION					
TYPE	7:00 AM - 7:00 PM	7:00 PM - 10:00 PM	10:00 PM - 7:00 AM	TOTAL	
AUTO	0.65	0.13	0.09	0.87	
MED TRUCK	0.05	0.00	0.02	0.07	
HVY TRUCK	0.05	0.00	0.01	0.06	
24 HR DIST.	0.75	0.13	0.12	1.00	

ROADWAY SEGMENT	From	To	PEAK HOUR TRAFFIC VOLUME	SPEED (MPH)	RECEPTOR DISTANCE (feet)	CNEL (dBA)
Corbin Avenue	Lassen Street	Plummer Street	3155	40	50	76.2
Plummer Street	Corbin Avenue	Shirley Avenue	2137	40	50	74.5
Nordhoff Place	west of Corbin Avenue	--	732	35	50	68.7

Source: Terry A. Hayes Associates, LLC.

PROJECT NAME	Northridge Zone Change & Plan Amendment
YEAR/SCENARIO	2005 Build-Out Alt D

VEHICLE DISTRIBUTION					
TYPE	7:00 AM - 7:00 PM	7:00 PM - 10:00 PM	10:00 PM - 7:00 AM	TOTAL	
AUTO	0.65	0.13	0.09	0.87	
MED TRUCK	0.05	0.00	0.02	0.07	
HVY TRUCK	0.05	0.00	0.01	0.06	
24 HR DIST.	0.75	0.13	0.12	1.00	

ROADWAY SEGMENT	From	To	PEAK HOUR TRAFFIC VOLUME	SPEED (MPH)	RECEPTOR DISTANCE (feet)	CNEL (dBA)
Corbin Avenue	Lassen Street	Plummer Street	3168	40	50	76.2
Plummer Street	Corbin Avenue	Shirley Avenue	2142	40	50	74.5
Nordhoff Place	west of Corbin Avenue	--	730	35	50	68.7

Source: Terry A. Hayes Associates, LLC.