Air Quality Analysis Report
University Hills Specific Plan
City of San Bernardino, California

Prepared for:

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ACRONYMS AND ABBREVIATIONS

µm	Micrometer
AQMP	Air Quality Management Plan
CARB	California Air Resources Control Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
City	City of San Bernardino
CO	Carbon Monoxide
DBR	Daily Breathing Rate
DPM	Diesel Particulate Matter
EPA	Environmental Protection Agency
HVLP	High-Volume Low-Pressure
LOS	Level of Service
LST	Localized Significance Thresholds
NAAQS	National Ambient Air Quality Standards
PM	Particulate matter
PM2.5	Particulate matter less than 2.5 microns in diameter
PM10	Particulate matter less than 10 microns in diameter
ppm	Parts per Million
ppt	Parts per Trillion
PVC	Polyvinyl Chloride
REL	Relative Exposure Level
ROG	Reactive Organic Gases
RTP	Regional Transportation Plans
SCAG	Southern California Association of Governments

SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plans
SRA	Source Receptor Areas
UHSP	University Hills Specific Plan ("Proposed Project")
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

SECTION 1: INTRODUCTION

1.1 - Purpose and Methods of Analysis

The following air quality analysis was prepared to evaluate whether the expected criteria air pollutant emissions generated from the proposed project would cause significant impacts to air resources in the project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000 et seq.). The methodology follows the CEQA Air Quality Handbook prepared by the South Coast Air Quality Management District (SCAQMD) for quantification of emissions and evaluation of potential impacts to air resources.

1.2 - Executive Summary

1.2.1 - Findings

- Short-term construction emissions are above the District's thresholds for reactive organic gases, nitrous oxides, and particulate matter even with implementation of all feasible mitigation.
- Long-term operational emissions are above the District's thresholds for nitrous oxides, carbon monoxide, and reactive organic gases even with implementation of all feasible mitigation;
- The project is not in compliance with the Air Quality Management Plan;
- The project's contribution to cumulative impacts will be cumulatively considerable;
- The project will not expose sensitive receptors to substantial pollutant concentrations;
- The project will not expose sensitive receptors to substantial odor concentrations.

1.2.2 - Mitigation Measures Designed to Reduce Air Emissions

MM AIR-1a Prior to construction of the proposed improvements, the project proponent will provide a Fugitive Dust Control Plan (FDCP) that will describe the application of standard best management practices to control dust during construction. Best management practices will include:

- Application of water on disturbed soils a minimum of two times per day;
- Using track-out prevention devices at construction site access points;
- Stabilizing construction area exit points;
- Covering haul vehicles; and
- Replanting disturbed areas as soon as practical and other measures, as deemed appropriate to the site, to control fugitive dust.

The Fugitive Dust Control Plan shall be submitted to the City for review and approval prior to grading.

MM AIR-1b Prior to construction of the proposed improvements, a Construction Traffic Control Plan (CTCP) will be reviewed and approved by the City. The CTCP will describe in detail safe detours around the project construction site and provide temporary traffic control (i.e. flag person) during construction related truck hauling activities.

MM AIR-1c During construction of the proposed improvements, construction equipment shall be properly maintained at an offsite location and includes proper tuning and timing of engines. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction.

MM AIR-1d During construction of the proposed improvements, all contractors will be advised not to idle construction equipment on the site for more than five minutes.

MM AIR-1e During construction of the proposed improvements, onsite electrical hook ups shall be provided for electric construction tools including saws, drills and compressors, to eliminate the need for diesel powered electric generators.

MM AIR-1f Onsite grading equipment will comply with one or more of the following:

- Use of onsite grading and construction equipment equipped with oxidized diesel catalyst and fueled with aqueous diesel fuel during grading and construction operations with a reduced equipment fleet or hours of operation totaling a maximum of 17,000 horsepower hours per day;
- Use of onsite grading and construction equipment equipped with oxidized diesel catalyst with a reduced equipment fleet or hours of operation totaling a maximum of 14,000 horsepower hours per day;
- Use of onsite grading and construction equipment fueled with aqueous diesel fuel during grading and construction operations with a reduced equipment fleet or hours of operation totaling a maximum of 13,000 horsepower hours per day; and
- Reduce the grading and construction equipment fleet or hours of operation to a maximum total of 10,000 horsepower hours per day.

MM AIR-1g Implementation of the Short-Term Air Quality Mitigation Measures shall be documented in an Air Quality Mitigation Implementation Plan. This plan will detail each mitigation measure and include daily logs documenting implementation of each mitigation measure. Daily logs for each piece of construction equipment will include the hours per day the equipment ran. A master daily log will document the hours of operation all equipment ran each day. The master daily log will also document timing and tuning of equipment, the type of fuel used on construction equipment, and any add-on emissions reduction equipment used such as oxidized diesel catalysts.

MM AIR-3a The project proponent shall install bicycle racks at the community center and all park sites to encourage non-vehicular trips within the project.

MM AIR-3b The project design shall include signs posted in visible places in any truck parking areas that state, "No Idling."

MM AIR-3c The project proponent will contact the local transit authority to determine the practicality of a bus route in the project area and the infrastructure needed including bus turnouts, bus shelters/benches, street lighting, and safe ingress/egress between the designated bus stop and adjacent uses. The developer will install identified improvements when the applicable road is constructed.

MM AIR-3d The project proponent will make a fair share contribution to Cal State San Bernardino to help fund a local shuttle for project residents to access transit connections at the CSUSB campus. The developer shall install any needed infrastructure including bus turnouts, bus shelters/benches, street lighting, and safe ingress/egress between the designated bus stop and adjacent uses.

MM AIR-3e Provide onsite information services connecting community center employees with local car pools, bus schedules and shuttle services in the area that service the project site including maps showing the routes of transit services and employee carpool destinations.

1.3 - Project Description and Location

The proposed project is located north of the CSUSB campus in the foothills of the San Bernardino Mountains, in the northwest portion of the City of San Bernardino, as shown in Exhibit 1. The project can be found within Sections 4, 5, 8, and 9, Township 1 North, Range 4 West, as depicted on the San Bernardino North, California United States Geological Survey (USGS 1996) 7.5 minute series quadrangle topographic map. The project is on the east side of Northpark Boulevard, approximately a quarter mile north of the CSUSB campus (Exhibit 2). There are no sensitive receptors immediately adjacent to the project site – the closest receptor is the CSUSB campus and existing residential housing along North I Street approximately 500 feet south of the eastern portion of the project.

The 404-acre-site comprises a unique residential development nestled in the foothills of the San Bernardino Mountains immediately adjacent to the CSUSB campus. Because of the geologic and hydraulic forces that have shaped the site, the development footprint of University Hills is focused onto approximately 170 acres, or only 42 percent of the total site. Development is mainly concentrated south of the San Andreas Fault on the lower portions of the site where the slopes are generally below 15 percent. North of the San Andreas Fault, approximately 235 acres, or 58 percent of the site, will remain undeveloped and is designated as permanent open space to be used by CSUSB as a land laboratory to study the local biology, habitat, and geology. Within the development footprint, the project proposes a maximum of 980 units, which are distributed among neighborhoods that are separated by open space corridors, drainage ways, roadways, and sloped areas and interconnected by a system of pathways. A centrally located clubhouse offers recreational and community amenities, there are four neighborhood parks, with landscaping and streetscape amenities as well. Residential densities range from 3.1 to 20 dwelling units per acre. The lowest densities (0–3.1 units per acre) are located north of the San Andreas Fault and include single-family detached estate homes. Immediately south of the San Andreas Fault are low density units (3.2–9 units per acre) include single family detached, small lot detached units, and cluster court homes. Medium density units (9.1–15 units per acre), including small lot detached, clustered, and townhomes products are located in the interior and perimeter of the site. The highest densities (15.1–20 units per acre) are in the interior portions of the community around the clubhouse and behind Badger Hill. The higher density products include stacked flats, townhomes, and clustered courtyard developments. Four acres of the highest density area (Planning Area 16) will be dedicated to CSUSB for exclusive use as 60 units of faculty housing. The current site plan is shown in Exhibit 3. Regional access to the project site is via the Interstate 215 Freeway off University Parkway. The project site land use designation in the City of San Bernardino General Plan is Specific Plan (presently called “Paradise Hills”). The proposed use is consistent with the General Plan land use designation and development code zoning for the site. However, the applicant is filing a new Specific Plan called “University Hills” which proposes different densities and locations of residential uses compared to the former Paradise Hills Specific Plan. Discretionary approvals include a general plan amendment, specific plan amendment, tentative parcel map, etc.

1.4 - Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. Commercial and industrial facilities are not included in the definition because employees do not typically remain onsite for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as nitrogen dioxide and carbon monoxide), commercial and/or industrial facilities would be considered sensitive receptors for those purposes. The closest sensitive receptors are the residences located on North I Street at West 59th Street. The residences are approximately 200 meters southeast of the project site.

Exhibit 1: Regional Vicinity Map

Exhibit 2: Local Vicinity Map

Exhibit 3: Site Plan

SECTION 2: SETTING

2.1 - Regulatory Setting

Air pollutants are regulated at the national, state, and air basin level; each agency has a different degree of control. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (CARB) regulates at the state level. The SCAQMD regulates at the air basin level.

2.1.1 - Federal and State Regulatory Agencies

The EPA handles global, international, national, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans (SIP), provides research and guidance in air pollution programs, and sets National Ambient Air Quality Standards (NAAQS), also known as federal standards. There are NAAQS for six common air pollutants, called criteria air pollutants, which were identified resulting from provisions of the Clean Air Act of 1970. The six criteria pollutants are:

- Ozone;
- Particulate matter (PM_{10} and $PM_{2.5}$);
- Nitrogen dioxide;
- Carbon monoxide (CO);
- Lead; and
- Sulfur dioxide.

The NAAQS were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants.

A SIP is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain NAAQS. The SIP for the State of California is administered by CARB who has overall responsibility for statewide air quality maintenance and air pollution prevention. The CARB also administers California Ambient Air Quality Standards (CAAQS),, for the ten air pollutants designated in the California Clean Air Act (CCAA). The ten state air pollutants are the six NAAQS listed above as well as:

- Visibility reducing particulates;
- Hydrogen sulfide;
- Sulfates; and
- Vinyl chloride.

The national and state ambient air quality standards and the most relevant effects are summarized in Table 1.

Table 1: Ambient Air Quality Standards

Air Pollutant	Averaging Time	California Standard	National Standard	Most Relevant Effects
Ozone	1 Hour	0.09 ppm	—	(a) Decrease of pulmonary function and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; (f) Property damage.
	8 Hour	0.070 ppm	0.08 ppm	
Carbon Monoxide (CO)	1 Hour	20 ppm	35 ppm	(a) Aggravation of angina pectoris (chest pain or discomfort) and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses.
	8 Hour	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm*	—	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration.
	Mean	0.030 ppm*	0.053 ppm	
Sulfur Dioxide (SO_2)	1 Hour	0.25 ppm	—	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
	24 Hour	0.04 ppm	0.14 ppm	
	Mean	—	0.030 ppm	
Particulate Matter (PM_{10})	24 hour	50 µg/m^3	150 µg/m^3	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; (c) Increased risk of premature death from heart or lung diseases in the elderly.
	Mean	20 µg/m^3	—	
Particulate Matter ($PM_{2.5}$)	24 Hour	—	35 µg/m^3	
	Mean	12 µg/m^3	15 µg/m^3	
Sulfates	24 Hour	25 µg/m^3	—	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage.
Lead	30-day	1.5 µg/m^3	—	(a) Learning disabilities; (b) Impairment of blood formation and nerve conduction.
	Quarter	—	1.5 µg/m^3	

Table 1: Ambient Air Quality Standards (Cont)

Air Pollutant	Averaging Time	California Standard	National Standard	Most Relevant Effects

Abbreviations:
ppm = parts per million (concentration) $\mu g/m^3$ = micrograms per cubic meter
Mean = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter
* The nitrogen dioxide ambient air quality standard was amended on February 22, 2007. These changes become effective after regulatory changes are submitted and approved by the Office of Administrative Law, expected in 2007.
Source: South Coast Air Quality Management District, 2007c. California Air Resources Board, Ambient Air Quality Standards, 2007.

The CARB approved a regulatory measure to reduce emissions of toxics and criteria pollutants by limiting idling of heavy-duty diesel vehicles. The driver of any vehicle subject to this section: (1) shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location; and (2) shall not idle a diesel-fueled auxiliary power system (APS) for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

2.1.2 - South Coast Air Quality Management District

The air pollution control agency for the South Coast Air Basin (basin) is the SCAQMD. SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the basin. SCAQMD, in coordination with the Southern California Association of Governments (SCAG), is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the basin. An AQMP is a plan prepared by an air pollution control district for a county or region designated as nonattainment of the national and/or California ambient air quality standards. The term nonattainment area is used to refer to an air basin where one or more ambient air quality standards are exceeded.

The current AQMP for the Basin is the 2007 AQMP, which was adopted by the SCAQMD on June 1, 2007. On July 13, 2007, the SCAQMD Board adopted 2007 Final AQMP Transportation Conformity Budgets and directed the Executive Officer to forward them to CARB for its approval and subsequent submittal to the U.S. EPA. On September 27, 2007, CARB adopted the State Strategy for the 2007 State Implementation Plan (SIP) and the 2007 AQMP as part of the SIP.

The 2007 AQMP incorporates significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling. The 2007 AQMP outlines a detailed strategy for meeting the federal health-based standards for PM2.5 by 2015 and 8-hour ozone by 2024 while accounting for and accommodating future expected growth. Most of the reductions will be from mobile sources, which is currently responsible for about 75 percent of all smog and particulate forming emissions. The 2007 AQMP includes 37 control measures proposed for adoption by the SCAQMD, including measures to reduce emissions from new commercial and residential developments, more reductions from industrial facilities, and reductions from wood-burning fireplaces and restaurant charbroilers.

Rules and Regulations

The AQMP for the basin establishes a program of rules and regulations administered by SCAQMD to obtain attainment of the state and national air quality standards. The rules and regulations that apply to this project include, but are not limited to, the following:

- SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard best management practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites. Rule 403 also requires submission of a Fugitive Dust Plan to the SCAQMD for projects that disturb over 100 acres of soil or move 10,000 cubic yards per day of material.

- SCAQMD Rule 1108 governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. Although this rule does not directly apply to the project, it does regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project will be in compliance with SCAQMD Rule 1108.

- SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. Although this rule does not directly apply to the project, it does regulate the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project will be in compliance with SCAQMD Rule 1113.

2.2 - Pollutants

Air pollutants can be categorized into two main sources, stationary and mobile. A point source is a stationary source, which is an emission from an identifiable location, usually associated with manufacturing and industrial sources. Area sources are considered stationary sources, which are widely distributed and produce many small emissions. Mobile source emissions are associated with motor vehicles and include on-road and off-road sources. On-road sources are emissions from vehicles, trucks, motorcycles, buses, etc. Off-road sources include equipment and vehicles in the following sectors: recreational, construction, mining, industrial, lawn and garden, farm, airport service, and rail. A brief summary of the pollutants of concern follows.

2.2.1 - Carbon Monoxide

Description and Properties: Carbon monoxide (CO) is a colorless, odorless toxic gas produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). CO is a primary pollutant, which means that it is emitted directly into the air (unlike secondary pollutants such as ozone that are formed by the reactions of other pollutants). CO levels tend to be highest during the winter months when the meteorological conditions favor the accumulation of the pollutants. This occurs when relatively low inversion levels trap pollutants near the ground and concentrate the CO (EPA 2007). Because CO is somewhat soluble in water, normal winter conditions of rainfall and fog can suppress CO conditions.

Health Effects: CO is essentially inert to plants and materials but can have significant effects on human health. CO gas enters the body through the lungs, dissolves in the blood, and replaces oxygen as an attachment to hemoglobin. This binding reduces available oxygen in the blood and; therefore, reduces oxygen delivery to the body's organs and tissues. Effects on humans range from slight headaches to nausea to death. Elevated levels of CO can also cause visual impairments, reduced manual dexterity, poor learning ability, reduced work capacity, and trouble performing complex tasks.

Sources: CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). The primary source of CO is from on-road motor vehicles. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. Other non-road engines and vehicles (such as construction equipment and boats) contribute about 22 percent of all CO emissions nationwide. Higher levels of CO generally occur in areas with heavy traffic congestion. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves, gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are sources of CO indoors.

2.2.2 - Ozone

Description and Physical Properties: Ozone is what is known as a photochemical pollutant. Ozone is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between volatile organic compounds (VOC), NO_x, and sunlight. VOC and NO_x, also called "ozone precursors," are emitted from automobiles, solvents and fuel combustion. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind. In order to reduce ozone, it is necessary to control emissions of ozone precursors. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. These conditions are prevalent during the summer when thermal inversions are most likely to occur. As a result, summertime conditions of long periods of daylight and hot temperatures form ozone in the greatest quantities. During the summer, thermal inversions trap ozone from dispersing vertically, and high concentrations of this pollutant are prevalent.

Health Effects: Health effects of ozone can include the following: respiratory system irritation, reduction of lung capacity, asthma aggravation, inflammation, and damage to lung cells, aggravated cardiovascular disease, and permanent lung damage. The greatest health risk is to those who are more active outdoors during smoggy periods, such as children, athletes, and outdoor workers. Ozone also damages natural ecosystems such as forests and foothill communities, and damages agricultural crops and some anthropogenic (human) materials such as rubber, paint, and plastics.

Sources: Ozone is a secondary pollutant, thus is not emitted directly into the lower level of the atmosphere. The sources of ozone precursors (VOC and NO_x) are discussed above in the description of ozone as well as the discussions concerning VOC and NO_x.

2.2.3 - Nitrogen Oxides

Description and Physical Properties: During combustion of fossil fuels, oxygen reacts with nitrogen to produce NO_x (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). This occurs primarily in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. As discussed previously, NO_x is an ozone precursor, which means that when it is emitted into the atmosphere, it forms or may cause ozone to be formed. When NO_x and VOC are released in the atmosphere, they can chemically react with one another in the presence of sunlight to form ozone. NO_x can also be a precursor to PM_{10} and $PM_{2.5}$. NO_x can react with moisture, ammonia, and other compounds to form nitric acid and related particles. This deposition can harm natural resources and materials.

Health Effects: The EPA has concluded that the only form of NO_x that exists at a level high enough to cause public health concerns is nitrogen dioxide (NO_2) (EPA 1997). Nitrogen dioxide is a brown gas with a strong odor. The main human health concerns of nitrogen dioxide include lung damage, increased incidence of chronic bronchitis, eye, and mucus membrane damage, negative effects on the respiratory system, pulmonary dysfunction, and premature death. Small particles can penetrate deeply into the sensitive tissue of the lungs and can cause or worsen respiratory disease such as emphysema, asthma, and bronchitis, and can also aggravate existing heart disease (EPA 2005).

Because NO_x is an ozone precursor, the health effects associated with ozone (as discussed above) are also indirect health effects associated with unhealthful levels of NO_x emissions.

Sources: Natural sources of oxides of nitrogen (NO_x) include lightning, soils, wildfires, stratospheric intrusion, and the oceans. Natural sources accounted for approximately seven percent of 1990 emissions of NO_x for the United States.

2.2.4 - Sulfur Dioxide

Description and Physical Properties: Sulfur dioxide (SO_2) is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfuric acid is formed from sulfur dioxide, which is an aerosol particle component that may lead to acid deposition. Acid deposition into water, vegetation, soil, or other materials can harm natural resources and materials. Sulfur oxides (SO_x) include sulfur dioxide and sulfur trioxide (SO_3). Although sulfur dioxide concentrations have been reduced to levels well below state and national standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM_{10}. Sulfates are a particulate formed through the photochemical oxidation of sulfur dioxide.

Health Effects: Sulfur dioxide is a soluble gas; therefore, it can be absorbed in the mucous membranes of the respiratory tract and nose. Long-term exposure of high levels of sulfur dioxide can cause irritation of existing cardiovascular disease, respiratory illness, and changes in the defenses in the lungs. When people with asthma are exposed to high levels of sulfur dioxide for short periods of time during moderate activity, effects may include wheezing, chest tightness, or shortness of breath (EPA 2004d).

Sources: Anthropogenic, or human caused, sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The CARB demonstrates that sulfur dioxide levels in the State are well below the maximum standards (CARB 2006b, Page 107, 408, and 409).

2.2.5 - Lead

Description and Physical Properties: Lead (Pb) is a solid heavy metal that can exist in air pollution as an aerosol particle component. An aerosol is a collection of solid, liquid, or mixed-phase particles suspended in the air. Lead was first regulated as an air pollutant in 1976. Leaded gasoline was first marketed in 1923 and was used in motor vehicles until around 1970. Lead concentrations once exceeded the state and national air quality standards by a wide margin, but have not exceeded state or national air quality standards at any regular monitoring station since 1982. The exclusion of lead from gasoline helped to decrease emissions of lead in the United States from 219,000 to 4,000 short tons per year between 1970 and 1997. Leaded gasoline has been phased out in most countries, but is still in use in some areas.

Health Effects: Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. The more serious effects of lead poisoning include behavior disorders, mental retardation, and neurological impairment. Low levels of lead in fetuses and young children can result in nervous system damage, which can cause learning deficiencies and low IQs. Lead may also contribute to high blood pressure and heart disease.

Sources: Lead ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering. The mechanisms by which lead can be removed from the atmosphere (sinks) include deposition to soils, ice caps, and oceans, and inhalation.

2.2.6 - Particulate Matter (PM_{10} and $PM_{2.5}$)

Description and Physical Properties: Particulate matter is a generic term that defines a broad group of chemically and physically different particles (either liquid droplets or solids) that can exist over a wide range of sizes. Examples of atmospheric particles include those produced from combustion (diesel soot or fly ash), light produced (urban haze), sea spray produced (salt particles), and soil-like particles from re-suspended dust. In discussions of air pollution, particulate matter is typically divided into two size categories: PM_{10} and $PM_{2.5}$ because of the adverse health effects associated with the smaller sized particles. PM_{10} refers to particulate matter that is 10 microns or less in diameter (1 micron is one-millionth of a meter, also known as micrometer [µm]). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter. Soil dust consists of the minerals and organic material found in soil being lifted up into the air by winds. Fugitive dust is entrained particulate matter caused by anthropogenic (grading, road dust) or natural (windblown dust) activities.

Health Effects: Particulate matter can be inhaled into the lungs where it can be absorbed into the bloodstream. It is a respiratory irritant and can cause direct pulmonary effects such as coughing, bronchitis, lung disease, respiratory illnesses, increased airway reactivity, and exacerbation of asthma. Particulate matter is also thought to have direct effects on the heart (SJVAPCD 2006d). Relatively recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. Non-health effects include reduced visibility and soiling of property.

Sources: Particulate matter originates from a variety of stationary and mobile sources. Stationary sources include: fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation-related sources include particulate matter from highway vehicles and non-road vehicles and fugitive dust from paved and unpaved roads.

Diesel Particulate Matter

Description and Physical Properties: Diesel particulate matter (DPM) is a source of $PM_{2.5}$—diesel particles are typically 2.5 microns and smaller. In 1998, DPM made up about 6 percent of the total $PM_{2.5}$ inventory nationwide (EPA 2002). Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which is comprised of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons (PAHs) and their derivatives. 15 PAHs are confirmed carcinogens, a number of which are found in diesel exhaust

(NTP 2005b). The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), expected load, engine emission controls, fuel formulations (high/low sulfur fuel), and engine year (EPA 2002).

Non-Cancer Health Effects: Some short-term (acute) effects of diesel exhaust exposure include eye, nose, throat, and lung irritation, and can cause coughs, headaches, light-headedness, and nausea. Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Numerous studies have linked elevated particle levels in the air to increased hospital admission, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems (OEHHA 2002).

Cancer Health Effects: Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure (NTP 2005b).

2.2.7 - Visibility Reducing Particles

Description and Physical Properties: Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt. The State standard is intended to limit the frequency and severity of visibility impairment due to regional haze.

Health Effects: Health effects of PM are addressed under the PM_{10} and $PM_{2.5}$ section. Non-health effects include reduced visibility and soiling of property. Reduced visibility occurs when light interacts with the particles, becoming modified or reduced. Visibility effects include changes in apparent color as well as reduction of clarity and visible distance.

Sources: Particulate matter originates from a variety sources. Stationary sources include: fuel combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal and recycling. Mobile or transportation-related sources include particulate matter from highway vehicles and non-road vehicles and fugitive dust from paved and unpaved roads. In addition, wildfires and windblown dust contribute to visibility reducing particulates.

2.2.8 - Vinyl Chloride

Description and Physical Properties: Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1978, CARB established a state ambient air quality standard for vinyl chloride. The standard was set at 0.01 ppm for a 24-hour duration because that was the lowest level that could be detected at that time. In 1990, CARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.

Health Effects: Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches (CARB 2005b). Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.

Sources: Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. Vinyl chloride is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloroethylene are broken down. This can occur when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites due to microbial breakdown of chlorinated solvents.

2.2.9 - Hydrogen Sulfide

Description and Physical Properties: Hydrogen sulfide (H_2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.

Health Effects: High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause symptoms like headache, nausea, vomiting, and cough. Long exposure to hydrogen sulfide can cause pulmonary edema.

Sources: Hydrogen sulfide and other reduced-sulfur compounds form by the anaerobic decomposition of manure. Some types of bacteria found in animal and human by-products produce hydrogen sulfide during reduction of sulfur-containing compounds, such as proteins. Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide emissions. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal) and organic matter that undergoes putrefaction. Hydrogen sulfide is used in the production of heavy water for nuclear reactors, the manufacture of chemicals, in metallurgy, and as an analytical reagent.

2.2.10 - Volatile Organic Compounds and Reactive Organic Gases

Description and Physical Properties: Reactive organic gases (ROGs), or volatile organic compounds (VOCs), are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROG and VOC, the two terms are often used interchangeably. VOC consist of non-methane hydrocarbons and oxygenated hydrocarbons. Hydrocarbons are organic compounds that contain only hydrogen and carbon atoms. Non-methane hydrocarbons are hydrocarbons that do not contain the unreactive hydrocarbon, methane. Oxygenated hydrocarbons are hydrocarbons with oxygenated functional groups attached.

There are no state or national ambient air quality standards for VOC because they are not classified as criteria pollutants. They are regulated; however, because VOC is an ozone precursor. As such, a reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.

Health Effects: Although health-based standards have not been established for ROG, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches, loss of coordination, nausea, damage to liver, kidney, and the central nervous system (EPA 2005b). There are many ROGs that have been classified as toxic air contaminants. A particular VOC of concern is benzene, which is described in more detail below. EPA maintains a list of all air substances that have been classified as hazardous to humans and/or animals, and include VOCs, pesticides, herbicides, and radionuclides (EPA 2006e).

Benzene

Description and Physical Properties: Benzene is a VOC. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a "Group A" carcinogen.

Health Effects: Short-term (acute) exposure of high doses from inhalation of benzene may cause dizziness, drowsiness, headaches, eye irritation, skin irritation, and respiratory tract irritation, and at higher levels, unconsciousness can occur. Long-term (chronic) occupational exposure of high doses by inhalation has caused blood disorders, including aplastic anemia and lower levels of red blood cells (EPA 1992). Occupational exposure to benzene has been shown to cause leukemia (mainly acute myelogenous leukemia) (NTP 2005). Studies have also found that benzene exposure increased the risks of lymphatic and hematopoietic cancer (cancers of the lymphatic system and of organs and tissues involved in the production of blood), total leukemia, and specific histologic types of leukemia (NTP 2005).

Sources: Benzene is emitted into the air from gasoline service stations (fuel evaporation), motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is also used as a solvent for paints, inks, oils, waxes, plastic, and rubber. It is used in the extraction of oils from seeds and nuts. It is also used in the manufacture of detergents, explosives, dyestuffs, and pharmaceuticals.

2.3 - Physical Setting

2.3.1 - Local Climate

The project site is located in the north end of the City of San Bernardino, on the northern border of the South Coast Air Basin (basin). Regional and local air quality is impacted by dominant airflows, topography, atmospheric inversions, location, season, and time of day.

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal areas and around the Los Angeles area is transported inland until it reaches the mountains where the combination of mountains and inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas. Air stagnation may occur during the early evening and early morning during periods of transition between day and nighttime flows. The region also experiences periods of hot, dry winds from the desert, known as Santa Ana winds. If the Santa Ana winds are strong, they can surpass the sea breeze, which blows from the ocean to the land, and carry the suspended dust and pollutants out to the ocean. If they are weak, they are opposed by the sea breeze and cause stagnation, resulting in high pollution events.

Temperature inversions limit the vertical depth through which pollution can be mixed. Among the most common temperature inversions in the basin, radiation inversions form on clear winter nights when cold air off the mountains to the south sinks to the valley floor while the air aloft over the valley remains warm. These inversions, in conjunction with calm winds, trap pollutants near the source. Other types of temperature inversions include marine, subsidence, and high-pressure inversions.

Summers are often periods of hazy visibility and occasionally unhealthful air, while winter air quality impacts tend to be highly localized and can consist of odors from agricultural operations or dust near mineral resource recovery operations.

2.3.2 - Local Air Quality

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. SCAQMD has divided the basin into 38 Source Receptor Areas (SRA) for evaluation purposes and operates monitoring stations within each one. Existing levels of ambient air quality and historical trends and projections of air quality in the project area are best documented from measurements made near the project site.

The nearest CARB monitoring station is San Bernardino monitoring station on 4th Street, which is approximately 10 miles southeast of the project site. Table 2 summarizes 2004-2006 published monitoring data. The data show that ozone and PM10 and PM2.5 are recognized air quality problems in the area, as all years experienced violations of the federal standards.

Table 2: Air Quality Monitoring Summary

Air Pollutant	Most Stringent Air Quality Standard	Year, Maximum Concentration (days exceeding standard)			Exceeded Ambient Standards?
		2004	2005	2006	
Ozone (O_3)					
1-Hour	0.09 ppm [a]	0.157 (55)	0.163 (54)	0.160 (47)	Yes
8-Hour	0.070 ppm [b]	0.129 (39)	0.129 (58)	0.123 (49)	Yes
Carbon Monoxide (CO)					
1-Hour	20 ppm [a]	3 (0)	3 (0)	3 (0)	No
8-Hour	9.0 ppm [a]	2.1 (0)	2.1 (0)	2.30 (0)	No
Nitrogen Dioxide (NO_2)					
Mean	0.030 ppm [a]	0.0273 (0)	0.0259 (0)	0.0252 (0)	No
1-Hour	0.18 ppm [a]	0.06 (0)	0.08 (0)	0.09 (0)	No
Sulfur Dioxide (SO_2)					
1-Hour	0.030 ppm [b]	0.006 (0)	0.010 (0)	0.0019 (0)	No
24-Hour	0.04 ppm [a]	0.01 (0)	0.004 (0)	0.003 (0)	No
Suspended Particulate Matter (PM10)					
Mean	20 $\mu g/m^3$ [a]	47.7	42.3	53.5	Yes
24-Hour	50 $\mu g/m^3$ [a]	106 (29)	72 (0)	142	Yes
Fine Suspended Particulate Matter (PM2.5)					
Mean	12 $\mu g/m^3$ [a]	20.0	18.9	17.8	Yes
24 Hours	35 $\mu g/m^3$ [b]	71.4 (1)	48.2 (0)	55.0 (0)	No

Abbrev: ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter; ND: No Data; Mean: Annual Arithmetic Mean;
a California state standard used; b Federal standard used
Notes: Data for all criteria pollutants from SRA34 monitoring stations [Central San Bernardino Valley 1 or 2]
Source: SCAQMD 2007b

2.3.3 - Attainment Status

Air basins where ambient air quality standards are exceeded are designated as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." Federal nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

The current attainment designations for the project area are shown in Table 3. The basin is designated as nonattainment for the state and federal ozone, PM_{10}, and $PM_{2.5}$, standards.

Table 3: Attainment Status

Pollutant	State Status	National Status
Ozone (1-hour)	Extreme Nonattainment	No Standard
Ozone (8-hour)	Unclassified	Severe Nonattainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
PM_{10}	Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Source: State Status from CARB, 2006. National Status from EPA, 2007.		

Exhibit 4: Wind Rose

SECTION 3: THRESHOLDS

3.1 - CEQA Guidelines

The following significance thresholds were derived from Appendix G of the CEQA Guidelines. A significant impact would occur if the proposed project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Violate any air quality standard or contribute substantially to an existing or protected air quality violation;

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

d) Expose sensitive receptors to substantial pollutant concentrations; or

e) Create objectionable odors affecting a substantial number of people.

CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.” To determine if a proposed project would have a significant impact on air quality, the type, level, and impact of emissions generated by the proposed project must be evaluated. While the final determination of whether or not a project is significant is within the purview of the lead agency pursuant to Section 15064(b) of the State CEQA Guidelines, SCAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the lead agency finds that the proposed project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts.

3.2 - Regional Significance Thresholds

The following regional significance thresholds have been established by SCAQMD. Projects within the South Coast Air Basin region with construction or operation related emissions in excess of any of the thresholds presented in Table 4 are considered significant.

Table 4: SCAQMD Regional Thresholds

Pollutant	Construction (pounds per day)	Operation (pounds per day)
Oxides of Nitrogen (NO_x)	100	55
Volatile Organic Compounds (VOC)	75	55

Table 4: SCAQMD Regional Thresholds (Cont)

Pollutant	Construction (pounds per day)	Operation (pounds per day)
Particulate Matter (PM_{10})	150	150
Particulate Matter ($PM_{2.5}$)	55	55
Oxides of Sulfur (SO_x)	150	150
Carbon Monoxide (CO)	550	550
Source: South Coast Air Quality Management District, 2006.		

3.3 - Local Significance Thresholds

Construction

The SCAQMD Governing Board adopted a methodology for calculating localized air quality impacts through localized significance thresholds (LSTs), which is consistent with SCAQMD's Environmental Justice Enhancement Initiative I-4. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable state or national ambient air quality standard. The LSTs are developed based on the ambient concentrations of that pollutant for each source receptor area and are applicable to NO_x, CO, PM_{10}, and $PM_{2.5}$.

The LST for PM_{10} and $PM_{2.5}$ are identified in the SCAQMD Air Quality Significance Thresholds in its CEQA Handbook. The LST for PM_{10} and $PM_{2.5}$ during construction is 10.4 $\mu g/m^3$. LSTs for nitrogen dioxide and CO are derived using the equation: LST = S - C; where, LST is the localized threshold for the project in micrograms per cubic meter; S is the most stringent state or national standard in micrograms per cubic meter (from Table 1); and C is the maximum background concentration that occurred in the past three years at the closest air quality monitoring station in micrograms per cubic meter (from Table 2). The LST for nitrogen dioxide is 0.09 ppm (0.18 ppm minus 0.09 ppm). The LST for 1-hour CO is 17 ppm (20 ppm minus 3 ppm). The LST for 8-hour CO is 6.7 ppm (9 ppm minus 2.3 ppm). The LSTs are summarized in Table 5.

Table 5: SCAQMD Localized Thresholds

Pollutant	Localized Significance Threshold
Nitrogen Dioxide	0.09 ppm
Carbon Monoxide (1-hour)	17 ppm
Carbon Monoxide (8-hour)	6.7 ppm
PM_{10}	10.4 $\mu g/m^3$
$PM_{2.5}$	10.4 $\mu g/m^3$
Source: South Coast Air Quality Management District, 2003 and 2006.	

CO Hotspot Analysis Threshold

Project emissions may also be considered significant if a CO hotspot intersection analysis determines that project generated emissions cause a localized violation of the state CO 1-hour standard of 20 ppm, state CO 8-hour standard of 9 ppm, federal CO 1-hour standard of 35 ppm, or federal CO 8-hour standard of 9 ppm.

SECTION 4: REGIONAL ANALYSIS

This section calculates the expected emissions from the construction and operation of the project as a necessary requisite for assessing the regulatory significance of project emissions on a regional level.

4.1 - Short-Term Impacts

Short-term emissions can be caused by onsite or offsite emissions during construction of the proposed project. Onsite emissions typically consist of exhaust emissions (NOx, SOx, CO, ROG, and PM10) from operation of heavy-duty construction equipment, and fugitive dust (PM10) from disturbed soil. Offsite emissions consist of motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM10). Major construction-related activities include the following: grading/clearing; excavation and earth moving for infrastructure construction of the various facilities; asphalt paving of roads and parking lots; and application of architectural coatings for the facilities. Construction equipment exhaust consists of CO, NOx, ROG, SOx, and PM10. Other equipment that would be used during the finishing phase, paving operations, and application of architectural coatings and other building materials will release ROG emissions. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. A construction emission analysis was performed using the CARB URBEMIS2007 emissions inventory model. Construction activities include site grading (both mass and fine), building and infrastructure construction, and asphalt paving. A list of equipment was developed for the peak day of each phase and is provided in Appendix A.

Table 6 summarizes these construction-related emissions (without mitigation). As shown in the table, emissions of NOx, PM10, and PM2.5 exceed the SCAQMD regional significance thresholds. Therefore, without mitigation, the short-term emissions are considered to have a significant regional impact.

Table 6: Short-Term Emissions (Unmitigated)

Phase	Emissions (pounds per day)						
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Mass Grading	14	117	61	0	1006	214	10431
Fine Grading, Trenching	8	62	33	0	403	87	5662
Asphalt Paving and Building	20	98	150	<1	7	6	20521
Building	13	63	125	<1	4	3	17592
Building and Coating	44	63	127	<1	5	4	17770

Table 6: Short-Term Emissions (Unmitigated) (Cont)

Phase	Emissions (pounds per day)						
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Maximum Daily Emissions*	**44**	**117**	**150**	**<1**	**1006**	**214**	**20521**
Significance Threshold	75	100	550	150	150	55	None
Significant Impact?	No	Yes	No	No	Yes	Yes	**

Notes:
*The maximum daily emissions refer to the maximum emissions that would occur in one day; it was assumed that the grading activities do not occur at the same time as the other construction activities; therefore, their emissions are not summed.
** See Climate Change Analysis prepared by Michael Brandman Associates
VOC = volatile organic compounds NOx = nitrous oxides CO = carbon monoxide
SO_x = sulfur oxides PM_{10} and $PM_{2.5}$ = particulate matter CO_2 = carbon dioxide
Source: URBEMIS output, Appendix A.

Construction Mitigation Measures

In an effort to reduce estimated NOx and PM10 emissions, a range of control measures were considered. Effective emission reduction measures to reduce exhaust emissions by 5% include provide temporary traffic control (e.g., flag person) during transport activities, properly maintaining construction equipment, and prohibit truck and equipment idling in excess of five minutes. A fifteen percent reduction of NOx would be afforded by requiring all onsite grading equipment to be equipped with a combination of low emissions fuel, add-on emissions reduction equipment, and/or reduced hours of operation. The most effective way to reduce PM10 and associated PM2.5 emissions is to reduce dust generation and transport during grading.

The mitigation measures are contained in Section 1.2.2 above and consist of mitigation measures AIR-1a through AIR-1g.

Short-Term Construction Emissions After Mitigation

Table 7 shows the estimated total mitigated short-term emissions. Based on this analysis, PM10 emissions during grading activities exceed the applicable SCAQMD significance thresholds after mitigation. Short-term air quality impacts are therefore significant even with mitigation incorporated into the proposed project.

Table 7: Short-term Emissions (Mitigated)

Phase	Emissions (pounds per day)						
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Mass Grading	14	100	61	0	169	40	10431
Fine Grading, Trenching	8	62	33	0	403	87	5662
Asphalt Paving and Building	20	98	150	<1	7	6	20521
Building	13	63	125	<1	4	3	17592
Building and Coating	44	63	127	<1	5	4	17770
Subtotal	44	100	150	<1	169	40	20521
5% Reduction from Additional Mitigation		-5					
Maximum Daily Emissions*	**44**	**95**	**150**	**<1**	**169**	**40**	**20521**
Significance Threshold	75	100	550	150	150	55	None
Significant Impact?	No	No	No	No	Yes	No	**

Notes:
*The maximum daily emissions refer to the maximum emissions that would occur in one day; it was assumed that the grading activities do not occur at the same time as the other construction activities; therefore, their emissions are not summed.
** See Climate Change Analysis prepared by Michael Brandman Associates
VOC = volatile organic compounds NOx = nitrous oxides CO = carbon monoxide
SO_x = sulfur oxides PM_{10} and $PM_{2.5}$ = particulate matter CO_2 = carbon dioxide
Source: URBEMIS output, Appendix A.

4.2 - Long-Term Impacts

Operational, or long-term, emissions occur over the life of the project. Operational emissions include mobile and area source emissions. Area source emissions are from consumer products, heaters that consume natural gas, gasoline-powered landscape equipment, and architectural coatings (painting). Mobile emissions from motor vehicles are the largest single long-term source of air pollutants from the project. The trip generation rates were obtained from the project specific traffic study completed in October 2007 by Kunzman Associates. The air quality analysis takes into account trucks by assigning emission factors for each size (heavy-duty trucks vs. passenger cars etc.) and type (diesel vs. gasoline etc.) of engine and does not use the numerical value of passenger car equivalents.

Operational emissions from all emission sources generated both onsite and offsite as derived from the URBEMIS2007 model are shown in Table 8 and Table 9. As shown in Table 8 and Table 9, the project emissions of VOC, NOx, and CO exceed the SCAQMD's regional thresholds and are considered significant.

Table 8: Operational Emissions (Buildout year 2011, Summer)

Source	Emissions (pounds per day)						
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Mobile vehicles	51	66	606	<1	107	21	64267
Area source	54	10	11	0	<1	<1	13162
Total	105	76	617	<1	107	21	77429
Significance Threshold	55	55	550	150	150	55	None
Significant Impact?	Yes	Yes	Yes	No	No	No	*

* See Climate Change Analysis prepared by Michael Brandman Associates
VOC = volatile organic compounds NOx = nitrous oxides CO = carbon monoxide
SO_x = sulfur oxides PM_{10} and $PM_{2.5}$ = particulate matter CO_2 = carbon dioxide
Source: URBEMIS output, Appendix A.

Table 9: Operational Emissions (Buildout year 2011, Winter)

Source	Emissions (pounds per day)						
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Mobile vehicles	54	79	579	<1	107	21	58228
Area source	53	16	7	<1	<1	<1	20447
Total	107	95	586	0	107	21	78675
Significance Threshold	55	55	550	150	150	55	None
Significant Impact?	Yes	Yes	Yes	No	No	No	*

* See Climate Change Analysis prepared by Michael Brandman Associates
VOC = volatile organic compounds NOx = nitrous oxides CO = carbon monoxide
SO_x = sulfur oxides PM_{10} and $PM_{2.5}$ = particulate matter CO_2 = carbon dioxide
Source: URBEMIS output, Appendix A.

Operational Mitigation Measures

Unfortunately, there are few effective long-term mitigation to reduce these emissions for residential projects, since there is little or no control that can be exercised over individual resident trips. However, the project will eventually have local bus service available, and the developer will participate in providing a bus shuttle service to the Cal State campus. Eventually, these measures will help reduce mobile emissions from project residents by approximately 5 percent. While this analysis represents "worst case" conditions, it is reasonable to conclude that long-term project emissions of

VOC, NOx, and CO will still continue to exceed SCAQMD thresholds even after transit service is available to the project site.

Additional mitigation measures to reduce operational emissions are contained in Section 1.2.2 and consist of AIR-3a through AIR-3e.

Long-Term Operational Emissions After Mitigation

Long-term emissions after implementation of the above mitigation measures are provided in Table 10 below. As shown in Table 10, long-term operational emissions are still significant after application of mitigation measures.

Table 10: Operational Emissions (Mitigated, Buildout 2011, Winter)

Source	Emissions (pounds per day)						
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$	CO_2
Mobile vehicles	54	79	579	<1	107	21	58228
Mitigation and project design features (5% reduction)	*-3*	*-4*	*-29*	*0*	*-5*	*-1*	*-2911*
Area source	53	16	7	<1	<1	<1	20447
Mitigated Total	**104**	**91**	**557**	**0**	**102**	**20**	**75764**
Significance Threshold	55	55	550	150	150	55	None
Significant Impact?	Yes	Yes	Yes	No	No	No	*

* See Climate Change Analysis prepared by Michael Brandman Associates
VOC = volatile organic compounds NOx = nitrous oxides CO = carbon monoxide
SO_x = sulfur oxides PM_{10} and $PM_{2.5}$ = particulate matter CO_2 = carbon dioxide
Source: URBEMIS output, Appendix A.

SECTION 5: LOCAL ANALYSIS

5.1 - Criteria Pollutant Localized Analysis

The SCAQMD Governing Board adopted a methodology for calculating localized air quality impacts through localized significance thresholds (LSTs), which is consistent with SCAQMD's Environmental Justice Enhancement Initiative I-4. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable state or national ambient air quality standard.

Methodology

The evaluation of localized impacts determines the potential of the project to violate any air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. To evaluate localized impacts for construction, an air dispersion model (EPA model, ISCST3) was used to simulate the movement of project related pollutants through the air and compare the concentration of those pollutants to the localized significance thresholds. The estimated concentrations do not represent actual occurrences nor do they necessarily predict future levels.

To represent fugitive dust, an area source covering approximately 40 acres was placed on the project in the emissions model, which is the maximum amount of land that would be disturbed per day. To represent exhaust emission sources, 64 volume sources were placed on the 40 acre area. A variable emission rate assumed the emissions would be generated during the hours of 8:00 am to 4:00 pm.

Combustion produces NO_x, which contains primarily nitric oxide. Nitrogen dioxide is formed in the atmosphere by atmospheric chemical reactions involving nitric oxide, ozone, and reactive hydrocarbons. Health effects are observed from nitrogen dioxide, not nitric oxide; therefore, ambient air quality standards are set for nitrogen dioxide. The concentration of nitrogen dioxide increases as the distance from the source increases. The concentrations of NO_x as estimated by the dispersion model are converted to nitrogen dioxide based on the receptor's distance from the source. The receptors included a fenceline grid with 50 meter spacing with intervals of 20, 50, 100, 200, 500, and 1,000 meters from the project site boundary.

The closest sensitive receptors are the residences located on North I Street at West 59th Street. The residences are approximately 200 meters southeast of the project site.

Unmitigated Results

The grading emissions estimated by URBEMIS are used in this analysis because onsite emissions of all pollutants are greatest during grading activities. The dispersion modeling results at the maximum and nearest sensitive receptor locations are presented in Table 11. As shown in the table, with mitigation the concentrations do not exceed the localized significance thresholds at the nearest sensitive receptors. Therefore, less than significant impacts are anticipated.

Table 11: Localized Significance Analysis (Construction, Unmitigated)

Location	24-hour PM_{10} (µg/m^3)	24-hour $PM_{2.5}$ (µg/m^3)	1-hour NO_2 (ppm)	1-hour CO (ppm)	8-hour CO (ppm)
Maximum - fenceline	430	91	0.004	0.2	0.1
Sensitive receptor - residences	4	<1	0.004	0.1	0.1
Localized Significance Threshold	10.4	10.4	0.09	17	6.7
Exceed Localized Threshold at Residences?	No	No	No	No	No
Source: ISCST3 output in Appendix B.					

5.2 - CO Hotspot Analysis

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour CO ambient air standards. Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. To provide a worst-case scenario, CO concentrations are estimated at project-impacted intersections, where the concentrations would be the greatest. Intersections with the highest potential for CO hotspots were selected based on their average delay, traffic volumes (obtained from the Traffic Report prepared for this project), and proximity to sensitive receptors. This analysis follows guidelines recommended by the CO Protocol (Caltrans 1997) and the SCAQMD. According to the CO Protocol, intersections with Level of Service (LOS) E or F require detailed analysis. In addition, intersections that operate under LOS D conditions in areas that experience meteorological conditions favorable to CO accumulation require a detailed analysis. The SCAQMD recommends that a local CO hotspot analysis be conducted if the intersection meets one of the following criteria: 1) the intersection is at LOS D or worse and where the project increases the volume to capacity ratio by 2 percent, or 2) the project decreases LOS at an intersection from C to D.

Using the CALINE4 model, potential CO hotspots were analyzed at the intersections listed in Table 12. These intersections were chosen because they operate at LOS D or worse. There were several inputs to the CALINE4 model. One input is the traffic volumes, which is from the project-specific Traffic Report. The traffic volumes with the project were used for the buildout scenario as well as emission factors generated using the EMFAC2007 model for the year 2011.

As shown in Table 12, the estimated 1-hour and 8-hour average CO concentrations at build-out in combination with background concentrations are below the state and national ambient air quality standards. No CO hotspots are anticipated as a result of traffic-generated emissions by the proposed project in combination with other anticipated development in the area. Therefore, the mobile emissions of CO from the project are not anticipated to contribute substantially to an existing or projected air quality violation of CO.

Table 12: Carbon Monoxide Concentrations

Intersection	1 Hour Estimated CO Concentration (ppm)*	8 Hour Estimated CO Concentration (ppm)**	Significant Impact?***
Palm Avenue at Kendall Drive	4.1	3.1	No
University Parkway at Northpark Blvd.	4.4	3.3	No
University Parkway at Kendall Drive	4.8	3.6	No
University Parkway at I-215 NB Ramps	5.4	4.0	No
Little Mountain Dr. at Northpark Blvd.	3.6	2.7	No

* Caline4 output (see Appendix C for model output) plus the 1 hour background concentration of 3 ppm (Table 2).

** The 8-hour project increment was calculated by multiplying the 1-hour Caline4 output by 0.7 (persistence factor), then adding the 8 hour background concentration of 2.3 ppm (from Table 2).

*** Comparison of the 1-hour concentration to the state standard of 20 ppm and the 8-hour concentration to the state/national standard of 9 ppm.

Source: Caline4 output in Appendix C.

SECTION 6: IMPACT ANALYSIS

This section contains an analysis of the criteria in the CEQA Guidelines regarding air quality as well as an assessment of project conformity with the General Plan.

6.1 - Conformance with Air Quality Management Plan

The CEQA Guidelines indicate that a significant impact would occur if the proposed project would conflict with or obstruct implementation of the applicable air quality plan. This assessment will use the following criteria for determining project consistency with the current AQMP.

Project's Contribution to Air Quality Violations

According to the SCAQMD (1993), the project is consistent with the AQMP if the 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 timely attainment of air quality standards or the interim emission reductions specified in the AQMP (SCAQMD 1993, Page 12-3). As shown in Section 6.2, the project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, the project meets the first indicator.

Control Measures

The next criterion is compliance with the control measures in the 2003 AQMP and the 2007 AQMP. The 2007 AQMP has been adopted by the SCAQMD and CARB, but has not been adopted by the U.S. EPA. Therefore, the two plans are discussed herein.

The 2003 AQMP contains a number of land use and transportation control measures including the following: the District's Stationary and Mobile Source Control Measures; State Control Measures proposed by CARB; and Transportation Control Measures provided by Southern California Association of Governments (SCAG) (AQMP 2003, Page 4-3). CARB's strategy for reducing mobile source emissions include the following approaches: new engine standards; reduce emissions from in-use fleet, require clean fuels, support alternative fuels and reduce petroleum dependency, work with EPA to reduce emissions from national and state sources, and pursue long-term advanced technology measures (AQMP 2003, Page 4-25). Transportation control measures provided by SCAG include those contained in the Regional Transportation Plans (RTP), the most current version being the 2004 RTP (SCAG 2004). The RTP has control measures to reduce emissions from on-road sources by incorporating strategies such as high occupancy vehicle interventions, transit, and information-based technology interventions (AQMP 2003, Page 4-19). The measures implemented by CARB and SCAG effect the project indirectly by regulating the vehicles that the residents may use and regulating public transportation. The project indirectly will comply with the control measures set by CARB and SCAG.

The 2007 AQMP aims to attain the federal PM2.5 and 8-hour ozone standards by 2015 and 2024, respectively. This is done by building upon improvements from the previous plans and incorporating all feasible control measures while balancing costs and socioeconomic impacts. The 2007 AQMP indicates that PM2.5 is formed primarily secondarily. Therefore, instead of reducing fugitive dust, the strategy for reducing PM2.5 focuses on reducing precursor emissions of SOx, directly emitted PM2.5, NOx, and VOC. The Final 2007 AQMP control measures consist of four components: 1) the SCAQMD's Stationary and Mobile Source Control Measures; 2) CARB's Proposed State Strategy; 3) SCAQMD Staff's Proposed Policy Options to Supplement CARB's Control Strategy; and 4) Regional Transportation Strategy and Control Measures provided by SCAG.

The project will comply with all of the SCAQMD's applicable rules and regulations. Therefore, the project complies with this criterion.

Compliance with the SCAQMD Regional Thresholds

Although there is no known guidance that correlates AQMP consistency with the SCAQMD regional thresholds, it is common to use the thresholds in assessing AQMP compliance. The regional significance analysis of construction emissions demonstrated that without mitigation, emissions of PM10 would be over the SCAQMD regional significance threshold. The regional significance analysis of operational impacts indicates that without mitigation, the project would violate the SCAQMD regional significance thresholds for VOC, NOx, and CO. Therefore, without mitigation, the project is not consistent with the SCAQMD regional thresholds.

Vehicle Miles Traveled

Determining project conformity to the air plans involves ensuring that the population density or employment characteristics, and land use of the project are consistent with the are growth assumptions used in the air plans for the air basin. According to the CARB's transportation performance standards, the rate of growth in vehicle miles traveled (VMT) and trips should be held to the rate of population growth. Compliance with this performance standard is one way suggested by CARB of showing compliance with the growth assumptions used in the AQMP. If the total VMT generated by the proposed project at build-out is at or below that predicted by the AQMP, then the proposed project's mobile emissions is consistent with the AQMP. It is assumed that the existing and future pollutant emissions computed in the AQMP was based on land uses from area general plans. The proposed project's land use designation and density are compared to those in the San Bernardino General Plan. The land use designation in the General Plan for the project site is Specific Plan but the approved plan includes only 504 residential units. Although the land use designation in the General Plan is the same as the proposed project, the expected vehicle trips and vehicle miles traveled of the University Hills Specific Plan would be higher than those expected under the Paradise Hills Specific Plan.

Level of Significance Before Mitigation

Potentially significant.

Mitigation Measures

Refer to mitigation measures AIR-1a through AIR-1g and AIR-3a through AIR-3e.

Level of Significance After Mitigation

Potentially significant.

6.2 - Potential for Air Quality Standard Violation

The CEQA Guidelines indicate that a significant impact would occur if the proposed project would violate any air quality standard or contribute substantially to an existing or projected air quality violation.

The South Coast Air Basin, the geographical area in which the project is located, is in nonattainment for PM_{10}, $PM_{2.5}$, and ozone. Levels of PM_{10} and $PM_{2.5}$ are locally high enough that contributions from new sources may add to the concentrations of those pollutants and contribute to a projected air quality violation. Although background levels of ozone are high in the basin, the project alone (without other cumulative sources) would not contribute substantially to a projected air quality violation of ozone. Project emissions of VOC and NO_x (ozone precursors) and their cumulative contribution to ozone concentrations are discussed in Cumulative Impacts below.

Two criteria are used to assess the significance of this impact: 1) the localized construction analysis; and 2) the CO hotspot analysis. These analyses are contained in Section 5 above.

The localized construction analysis uses thresholds that represent the maximum emissions for a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SCAQMD 2003). If the project results in emissions under those thresholds, it follows that the project would not cause or contribute to an exceedance of the standard. The localized construction analysis demonstrated that without mitigation, the project would not exceed the localized thresholds for CO, nitrogen dioxide, PM_{10}, or $PM_{2.5}$. Therefore, according to this criterion, the air pollutant emissions during construction would result in a less than significant impact.

A CO hotspot analysis is the appropriate tool to determine if project emissions of CO during operation would exceed ambient air quality standards. The main source of air pollutant emissions during operation are from offsite motor vehicles traveling on the roads surrounding the project. The CO hotspot analysis demonstrated that emissions of CO during operation would not result in an exceedance of the most stringent ambient air quality standards for CO. Therefore, according to this criterion, air pollutant emissions during operation would result in a less than significant impact.

Level of Significance Before Mitigation

Less than significant.

6.3 - Cumulative Impacts

According to the checklist in the CEQA Guidelines, a proposed project would create a significant impact if it would “result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).”

Section 15130(b) of the CEQA Guidelines states the following:

> The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts incorporates a summary of projections. The following tiered approach is to assess cumulative air quality impacts.

1. Consistency with the regional thresholds for non attainment pollutants;
2. Project consistency with existing air quality plans; and
3. Assessment of the cumulative health effects of the pollutants.

6.3.1 - Regional Analysis

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically been over the ambient air quality standard. It follows that if a project exceeds the regional threshold for that non-attainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The South Coast Air Basin is in non-attainment for PM10, PM2.5, and ozone. Therefore, if the project exceeds the regional thresholds for PM10 or PM2.5, then it contributes to a cumulatively considerable impact for those pollutants. Additionally, if the project exceeds the regional threshold for NO_x or VOC, then it follows that the project would contribute to a cumulatively considerable impact for ozone.

The regional significance analysis of construction emissions demonstrated that without mitigation, emissions of NO_x would be over the SCAQMD regional significance threshold. NO_x is a precursor pollutant. Therefore, according to this criterion, the project results in a significant cumulative impact. Additionally during construction, emissions of PM10 and PM2.5 are over the regional significance threshold prior to mitigation.

The regional significance analysis of operational impacts indicates that without mitigation, VOC, NOx, and CO emissions violate the SCAQMD regional significance thresholds. VOC and NO_x are ozone precursors, so the project could cumulatively contribute to an ozone violation. Therefore, according to this criterion, the project results in a significant cumulative impact.

In summary, without mitigation, the project contributes to a cumulatively significant regional impact to the budget of the pollutants PM10, PM2.5, and ozone.

6.3.2 - Plan Approach

The geographic scope for cumulative air quality impacts is the South Coast Air Basin because that is the area in which the air pollutants generated by the sources within the basin circulate, and are often trapped. The SCAQMD is required to prepare and maintain an AQMP and a State Implementation Plan to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the SCAQMD does not have direct authority over land use decisions, it was recognized that changes in land use and circulation planning were necessary to maintain clean air. The SCAQMD evaluated the entire basin when it developed the AQMP.

According to the analysis contained in Section 6.1, the project is not consistent with the most recent AQMP without mitigation. Therefore, the project presents a significant impact according to this criterion.

6.3.3 - Cumulative Health Impacts

The basin is in non-attainment for ozone, PM_{10}, and $PM_{2.5}$, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (i.e., elderly, children, and the sick). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population experience health effects as described above in the sub-section, Air Pollutants. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are factors involved in severity and nature of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects.

The regional analysis of construction emissions indicates that without mitigation, the project would exceed the SCAQMD regional significance thresholds for NO_x (ozone precursor). In addition, long-term operational emissions of VOC and NO_x are over the District's significance thresholds. VOC and NO_x are precursor to ozone. Because ozone is a secondary pollutant (it is not emitted directly but formed by chemical reactions in the air), it can be formed miles downwind of the project site. Project emissions of VOC and NO_x may contribute to the background concentration of ozone and cumulatively cause health effects. Health impacts may or may not include the following: (a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans. Short-term exposure can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (SCAQMD AQMP 2003). Children who live in high ozone communities and who participate in multiple sports have been observed to have a higher asthma risk. This is a significant cumulative health impact associated with ground-level ozone concentrations.

During construction, emissions of PM10 and PM2.5 are over the regional significance thresholds, which could contribute to a cumulative effect. The health effects from exposure to particulate matter may include the following: (a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; (c) Increased risk of premature death from heart or lung diseases in the elderly.

6.3.4 - Summary of Cumulative Impacts

Level of Significance Before Mitigation

Potentially significant.

Mitigation Measures

Refer to mitigation measures AIR-1a through AIR-1g and AIR-3a through AIR-3e.

Level of Significance After Mitigation

Potentially significant.

With mitigation, emissions during construction of NOx are reduced to below the level of significance. However, emissions of NOx and VOC during operation remain above the significance thresholds; therefore, the project could contribute to a cumulative impact from ozone exposure and may cause health effects associated with ozone exposure. With mitigation, emissions of PM10 remain above the regional significance thresholds; therefore, the project could contribute to a cumulative impact from PM10 exposure and may cause health effects associated with PM10 exposure.

6.4 - Expose Sensitive Receptors to Substantial Pollutant Concentrations

The CEQA Guidelines indicate that a significant impact would occur if the proposed project would expose sensitive receptors to substantial pollutant concentrations.

6.4.1 - Construction

The localized construction analysis uses thresholds that represent the maximum emissions for a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SCAQMD 2003). The thresholds are also based on the location of the sensitive receptors. If the project results in emissions under those thresholds, it follows that the project would not cause or contribute to an exceedance of the standard. If the standards are not exceeded at the sensitive receptor locations, it follows that the receptors would not be exposed to substantial pollutant concentrations.

The localized construction analysis demonstrated that without mitigation, the project would not exceed the localized thresholds for CO, nitrogen dioxide, PM_{10}, or $PM_{2.5}$. Therefore, during construction, the project would not expose sensitive receptors to substantial pollutant concentrations of CO, nitrogen dioxide, PM_{10}, or $PM_{2.5}$.

The construction equipment would emit diesel particulate matter, which is a carcinogen. However, the diesel particulate matter emissions are short term in nature. Determination of risk from diesel particulate matter is considered over a 70-year exposure time. Additionally, the nearest sensitive receptors (residences) would be located approximately 200 meters from the project site. Therefore, considering the dispersion of the emissions and the short time frame, exposure to diesel particulate matter is anticipated to be less than significant.

6.4.2 - Operation

Criteria Pollutants

Emissions of NO_x and VOC (ozone precursors) during construction and operation from only the project would not expose sensitive receptors to substantial pollutant concentrations (see Cumulative Impact analysis for an assessment of the cumulative contribution of ozone precursors).

A CO hotspot analysis is the appropriate tool to determine if project emissions of CO during operation would exceed ambient air quality standards. The main source of air pollutant emissions during operation are from offsite motor vehicles traveling on the roads surrounding the project. The CO hotspot analysis demonstrated that emissions of CO during operation would not result in an exceedance of the most stringent ambient air quality standards for CO. Therefore, according to this criterion, air pollutant emissions during operation would result in a less than significant impact.

The CARB Air Quality and Land Use Handbook contains recommendations that will “help keep California’s children and other vulnerable populations out of harm’s way with respect to nearby sources of air pollution” (CARB 2005), including recommendations for distances between sensitive receptors and certain land uses.

CARB recommends avoiding new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. Epidemiological studies indicate that the distance from the roadway and truck traffic densities were key factors in the correlation of health effects, particularly in children. Roads adjacent to the proposed project assessed in the traffic study do not exceed a volume of 50,000 vehicles per day; therefore, the project complies with this recommendation.

CARB recommends avoiding new sensitive land uses within 300 feet of a large fueling station (a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities. The project is not within 300 feet of a fueling station; therefore, the project complies with this recommendation.

CARB recommends avoiding siting new sensitive land uses within 300 feet of any dry cleaning operation that uses perchloroethylene. For operations with two or more machines, CARB recommends a buffer of 500 feet. For operations with three or more machines, CARB recommends consultation with the local air district. The project is not near a dry cleaning operation; therefore, the project complies with this recommendation.

In summary, the project would not expose sensitive receptors to substantial criteria pollutant concentrations during operation of the proposed project.

Toxic Pollutants

During operation of the project, it is not anticipated that the project would expose sensitive receptors to toxic air pollutants because the proposed project does not contain uses that generate toxic pollutants and the proposed project is not near a point source that emits toxic pollutants.

Level of Significance Before Mitigation

Less than significant.

6.5 - Odors

The CEQA Guidelines indicate that a significant impact would occur if the proposed project would create objectionable odors affecting a substantial number of people.

Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of interacting factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works or visits; the type of activity they are engaged in, and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the population, typically presented as the mean (or 50 percent of the population) but is sometimes indicated as 100 percent or 10 percent. The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality by x percent (usually 50 percent) of the population (AIHA 1989). The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies based on subjective experience, frequency, odor character, odor intensity, and duration.

Land uses typically considered to be associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The proposed project does not contain land uses typically associated with emitting objectionable odors.

The proposed project would develop 980 residential units, several parks, and a community center on 170 acres in a currently vacant area. None of these uses would generate substantial odors (e.g., agriculture). Odors may be apparent in and around dumpsters and other refuse collection facilities; however, these facilities would located away from publicly accessible areas (e.g., community center, parks, etc.), and odors would localized in a manner that would not affect a substantial number of people. Therefore, potential odor impacts created by the proposed project would be less than significant.

Diesel exhaust and VOCs will be emitted during construction of the project, which are objectionable to some; however, emissions will disperse rapidly from the project site and therefore should not be at a level to induce a negative response.

Level of Significance Before Mitigation

Less than significant.

SECTION 7: CONCLUSIONS

Under CEQA, air quality impacts may be considered significant if a project:

a) Conflicts with or obstructs implementation of the applicable air quality plan;

Potentially Significant. The AQMP for the SCAQMD sets forth a comprehensive program that will lead the air basin into compliance with all federal and state ambient air quality standards. The control measures and emission reduction estimates in the AQMP are based on emission projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections. As shown in this analysis, the project is consistent with the General Plan but the proposed University Hills Specific Plan contains more units that were approved for the Paradise Hills Specific Plan (980 vs. 504, respectively). In addition, a project-specific evaluation was conducted that demonstrates that with mitigation, project emissions still exceed SCAQMD significance thresholds. Therefore, the project is not consistent with implementation of the AQMP.

b) Violates any air quality standard or contribute substantially to an existing or projected air quality violation;

Less than significant with mitigation. Project emissions only (without background concentrations) would not cause or contribute substantially to an existing or projected air quality violation.

c) Results in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

Less than significant with mitigation. The project is in nonattainment for ozone, PM_{10}, and $PM_{2.5}$. The project-specific evaluation of emissions presented in the preceding analysis supports a conclusion that the air quality impacts for the proposed project are significant. With mitigation, emissions during construction of NOx are reduced to below the level of significance. However, emissions of NOx and VOC during operation remain above the significance thresholds; therefore, the project could contribute to a cumulative impact from ozone exposure and may cause health effects. With mitigation, emissions of PM10 remain above the regional significance thresholds; therefore, the project could contribute to a cumulative impact from PM10 exposure and may cause health effects.

d) Exposes sensitive receptors to substantial pollutant concentrations; or

Less than significant with mitigation. The nearest sensitive receptor is an existing residential neighborhood approximately 600 feet south of the site along North I Street. The preceding analyses of LSTs and CO Hotspots demonstrate that, with mitigation, potential impacts of project emissions on sensitive receptors will be below the significance thresholds. These emissions will dissipate quickly and dilute with the surrounding air. Considering the quantity of emissions and the dispersion of the pollutants, the project is not expected to expose sensitive receptors to substantial pollutant concentrations. Therefore, this impact is less than significant.

e) Creates objectionable odors affecting a substantial number of people.

Less than significant. Diesel emissions from construction equipment operating on the project site may create temporary objectionable odors. However, with mitigation, the dispersion of the diesel exhaust will not be at a concentration to solicit complaints from the surrounding sensitive receptors. Therefore, odor impacts are less than significant.

In summary, with mitigation, the project would have a significant impact to air quality.

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Appendix A: URBEMIS Output

12/12/2007 11:51:02 AM

Urbemis 2007 Version 9.2.2

Combined Summer Emissions Reports (Pounds/Day)

File Name: S:\Cori\Air Quality Peer Reviews\25330006\UnivHillsURBEMIS.urb9

Project Name: University Hills

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (lbs/day unmitigated)	20.09	117.06	149.69	0.16	1,000.02	6.40	1,005.66	208.85	5.87	214.04	20,521.45
2009 TOTALS (lbs/day mitigated)	20.09	99.53	149.69	0.16	163.14	6.40	168.79	34.07	5.87	39.26	20,521.45
2010 TOTALS (lbs/day unmitigated)	43.85	63.18	126.84	0.15	0.63	3.93	4.56	0.22	3.59	3.81	17,770.36
2010 TOTALS (lbs/day mitigated)	43.85	63.18	126.84	0.15	0.63	3.93	4.56	0.22	3.59	3.81	17,770.36

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	53.98	10.37	10.95	0.00	0.04	0.04	13,161.79

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	51.26	65.63	605.98	0.66	107.20	20.89	64,267.22

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	105.24	76.00	616.93	0.66	107.24	20.93	77,429.01

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

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	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/1/2009-7/31/2009 Active Days: 152	13.68	117.06	61.20	0.00	**1,000.02**	5.64	1,005.66	**208.85**	5.19	214.04	10,430.64
Mass Grading 01/01/2009-07/31/2009	13.68	117.06	61.20	0.00	1,000.02	5.64	1,005.66	208.85	5.19	214.04	10,430.64
Mass Grading Dust	0.00	0.00	0.00	0.00	1,000.00	0.00	1,000.00	208.84	0.00	208.84	0.00
Mass Grading Off Road Diesel	13.58	116.88	58.11	0.00	0.00	5.63	5.63	0.00	5.18	5.18	10,088.46
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.10	0.19	3.10	0.00	0.02	0.01	0.03	0.01	0.01	0.01	342.18
Time Slice 8/3/2009-10/30/2009 Active Days: 65	7.61	61.53	33.16	0.00	400.01	3.29	403.30	83.54	3.02	86.57	5,662.15
Fine Grading 08/01/2009-10/31/2009	5.39	42.56	23.71	0.00	400.01	2.35	402.36	83.54	2.16	85.70	3,823.08
Fine Grading Dust	0.00	0.00	0.00	0.00	400.00	0.00	400.00	83.54	0.00	83.54	0.00
Fine Grading Off Road Diesel	5.34	42.46	22.01	0.00	0.00	2.35	2.35	0.00	2.16	2.16	3,636.43
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.10	1.69	0.00	0.01	0.01	0.01	0.00	0.00	0.01	186.65
Trenching 08/01/2009-10/31/2009	2.22	18.96	9.45	0.00	0.01	0.93	0.94	0.00	0.86	0.86	1,839.07
Trenching Off Road Diesel	2.18	18.90	8.32	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,714.64
Trenching Worker Trips	0.04	0.07	1.13	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.43

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Time Slice 11/2/2009-12/31/2009 Active Days: 44	20.09	98.62	149.69	0.16	0.67	6.40	7.08	0.24	5.87	6.10	20,521.45
Asphalt 11/01/2009-12/31/2009	6.58	31.13	16.19	0.01	0.05	2.20	2.25	0.02	2.02	2.04	2,926.75
Paving Off-Gas	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	0.82	10.91	4.19	0.01	0.04	0.46	0.50	0.01	0.42	0.43	1,352.40
Paving Worker Trips	0.05	0.08	1.41	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.54
Building 11/01/2009-12/31/2010	13.51	67.49	133.50	0.15	0.62	4.21	4.83	0.22	3.85	4.07	17,594.71
Building Off Road Diesel	8.35	34.83	24.57	0.00	0.00	2.78	2.78	0.00	2.56	2.56	3,248.78
Building Vendor Trips	2.32	27.38	20.71	0.04	0.16	1.16	1.32	0.05	1.06	1.12	4,607.47
Building Worker Trips	2.84	5.29	88.21	0.10	0.46	0.26	0.72	0.17	0.22	0.39	9,738.45
Time Slice 1/1/2010-2/26/2010 Active Days: 41	12.59	63.09	125.33	0.15	0.62	3.92	4.54	0.22	3.59	3.81	17,592.00
Building 11/01/2009-12/31/2010	12.59	63.09	125.33	0.15	0.62	3.92	4.54	0.22	3.59	3.81	17,592.00
Building Off Road Diesel	7.85	33.29	24.04	0.00	0.00	2.62	2.62	0.00	2.41	2.41	3,248.78
Building Vendor Trips	2.16	24.96	19.26	0.04	0.16	1.04	1.20	0.05	0.95	1.01	4,607.59
Building Worker Trips	2.58	4.84	82.04	0.10	0.46	0.26	0.72	0.17	0.22	0.39	9,735.63
Time Slice 3/1/2010-12/31/2010 Active Days: 220	43.85	63.18	126.84	0.15	0.63	3.93	4.56	0.22	3.59	3.81	17,770.36
Building 11/01/2009-12/31/2010	12.59	63.09	125.33	0.15	0.62	3.92	4.54	0.22	3.59	3.81	17,592.00
Building Off Road Diesel	7.85	33.29	24.04	0.00	0.00	2.62	2.62	0.00	2.41	2.41	3,248.78
Building Vendor Trips	2.16	24.96	19.26	0.04	0.16	1.04	1.20	0.05	0.95	1.01	4,607.59
Building Worker Trips	2.58	4.84	82.04	0.10	0.46	0.26	0.72	0.17	0.22	0.39	9,735.63
Coating 03/01/2010-12/31/2010	31.26	0.09	1.50	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.36
Architectural Coating	31.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.05	0.09	1.50	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.36

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Phase Assumptions

Phase: Fine Grading 8/1/2009 - 10/31/2009 - Default Fine Site Grading/Excavation Description

Total Acres Disturbed: 160

Maximum Daily Acreage Disturbed: 20

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 1/1/2009 - 7/31/2009 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 170

Maximum Daily Acreage Disturbed: 50

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

3 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 8/1/2009 - 10/31/2009 - Default Trenching Description

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Off-Road Equipment:

2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Paving 11/1/2009 - 12/31/2009 - Default Paving Description

Acres to be Paved: 40

Off-Road Equipment:

1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 11/1/2009 - 12/31/2010 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day

3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day

4 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 3/1/2010 - 12/31/2010 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100

Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50

Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/1/2009-7/31/2009 Active Days: 152	13.68	99.53	61.20	0.00	163.14	5.64	168.79	34.07	5.19	39.26	10,430.64
Mass Grading 01/01/2009-07/31/2009	13.68	99.53	61.20	0.00	163.14	5.64	168.79	34.07	5.19	39.26	10,430.64
Mass Grading Dust	0.00	0.00	0.00	0.00	163.13	0.00	163.13	34.07	0.00	34.07	0.00
Mass Grading Off Road Diesel	13.58	99.35	58.11	0.00	0.00	5.63	5.63	0.00	5.18	5.18	10,088.46
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.10	0.19	3.10	0.00	0.02	0.01	0.03	0.01	0.01	0.01	342.18
Time Slice 8/3/2009-10/30/2009 Active Days: 65	7.61	61.53	33.16	0.00	63.06	3.29	66.35	13.17	3.02	16.20	5,662.15
Fine Grading 08/01/2009-10/31/2009	5.39	42.56	23.71	0.00	63.05	2.35	65.41	13.17	2.16	15.33	3,823.08
Fine Grading Dust	0.00	0.00	0.00	0.00	63.05	0.00	63.05	13.17	0.00	13.17	0.00
Fine Grading Off Road Diesel	5.34	42.46	22.01	0.00	0.00	2.35	2.35	0.00	2.16	2.16	3,636.43
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.10	1.69	0.00	0.01	0.01	0.01	0.00	0.00	0.01	186.65
Trenching 08/01/2009-10/31/2009	2.22	18.96	9.45	0.00	0.01	0.93	0.94	0.00	0.86	0.86	1,839.07
Trenching Off Road Diesel	2.18	18.90	8.32	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,714.64
Trenching Worker Trips	0.04	0.07	1.13	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.43

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Time Slice 11/2/2009-12/31/2009 Active Days: 44	20.09	98.62	149.69	0.16	0.67	6.40	7.08	0.24	5.87	6.10	20,521.45
Asphalt 11/01/2009-12/31/2009	6.58	31.13	16.19	0.01	0.05	2.20	2.25	0.02	2.02	2.04	2,926.75
Paving Off-Gas	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.39	20.13	10.59	0.00	0.00	1.74	1.74	0.00	1.60	1.60	1,418.81
Paving On Road Diesel	0.82	10.91	4.19	0.01	0.04	0.46	0.50	0.01	0.42	0.43	1,352.40
Paving Worker Trips	0.05	0.08	1.41	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.54
Building 11/01/2009-12/31/2010	13.51	67.49	133.50	0.15	0.62	4.21	4.83	0.22	3.85	4.07	17,594.71
Building Off Road Diesel	8.35	34.83	24.57	0.00	0.00	2.78	2.78	0.00	2.56	2.56	3,248.78
Building Vendor Trips	2.32	27.38	20.71	0.04	0.16	1.16	1.32	0.05	1.06	1.12	4,607.47
Building Worker Trips	2.84	5.29	88.21	0.10	0.46	0.26	0.72	0.17	0.22	0.39	9,738.45
Time Slice 1/1/2010-2/26/2010 Active Days: 41	12.59	63.09	125.33	0.15	0.62	3.92	4.54	0.22	3.59	3.81	17,592.00
Building 11/01/2009-12/31/2010	12.59	63.09	125.33	0.15	0.62	3.92	4.54	0.22	3.59	3.81	17,592.00
Building Off Road Diesel	7.85	33.29	24.04	0.00	0.00	2.62	2.62	0.00	2.41	2.41	3,248.78
Building Vendor Trips	2.16	24.96	19.26	0.04	0.16	1.04	1.20	0.05	0.95	1.01	4,607.59
Building Worker Trips	2.58	4.84	82.04	0.10	0.46	0.26	0.72	0.17	0.22	0.39	9,735.63
Time Slice 3/1/2010-12/31/2010 Active Days: 220	43.85	63.18	126.84	0.15	0.63	3.93	4.56	0.22	3.59	3.81	17,770.36
Building 11/01/2009-12/31/2010	12.59	63.09	125.33	0.15	0.62	3.92	4.54	0.22	3.59	3.81	17,592.00
Building Off Road Diesel	7.85	33.29	24.04	0.00	0.00	2.62	2.62	0.00	2.41	2.41	3,248.78
Building Vendor Trips	2.16	24.96	19.26	0.04	0.16	1.04	1.20	0.05	0.95	1.01	4,607.59
Building Worker Trips	2.58	4.84	82.04	0.10	0.46	0.26	0.72	0.17	0.22	0.39	9,735.63
Coating 03/01/2010-12/31/2010	31.26	0.09	1.50	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.36
Architectural Coating	31.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.05	0.09	1.50	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.36

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Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 8/1/2009 - 10/31/2009 - Default Fine Site Grading/Excavation Description

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Mass Grading 1/1/2009 - 7/31/2009 - Default Mass Site Grading/Excavation Description

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Water Trucks, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

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For Excavators, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Scrapers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.80	10.30	4.38	0.00	0.02	0.02	13,151.41
Hearth - No Summer Emissions							
Landscape	1.03	0.07	6.57	0.00	0.02	0.02	10.38
Consumer Products	50.27						
Architectural Coatings	1.88						
TOTALS (lbs/day, unmitigated)	53.98	10.37	10.95	0.00	0.04	0.04	13,161.79

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	8.16	10.95	101.07	0.11	17.88	3.48	10,718.48
Condo/townhouse general	43.10	54.68	504.91	0.55	89.32	17.41	53,548.74
TOTALS (lbs/day, unmitigated)	51.26	65.63	605.98	0.66	107.20	20.89	64,267.22

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	70.00	9.57	dwelling units	107.00	1,023.99	10,345.17
Condo/townhouse general	90.00	5.86	dwelling units	873.00	5,115.78	51,683.70
					6,139.77	62,028.87

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.6	0.8	99.0	0.2
Light Truck < 3750 lbs	7.3	2.7	94.6	2.7
Light Truck 3751-5750 lbs	23.0	0.4	99.6	0.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med Truck 5751-8500 lbs	10.6	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.8	64.3	35.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						

Operational Changes to Defaults

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Urbemis 2007 Version 9.2.2

Combined Winter Emissions Reports (Pounds/Day)

File Name: S:\Cori\Air Quality Peer Reviews\25330006\UnivHillsURBEMIS.urb9

Project Name: University Hills

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.80	10.30	4.38	0.00	0.02	0.02	13,151.41
Hearth	0.33	5.71	2.43	0.04	0.46	0.46	7,295.29
Landscaping - No Winter Emissions							
Consumer Products	50.27						
Architectural Coatings	1.88						
TOTALS (lbs/day, unmitigated)	53.28	16.01	6.81	0.04	0.48	0.48	20,446.70

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	8.82	13.19	96.62	0.09	17.88	3.48	9,711.19
Condo/townhouse general	45.13	65.89	482.68	0.46	89.32	17.41	48,516.38
TOTALS (lbs/day, unmitigated)	53.95	79.08	579.30	0.55	107.20	20.89	58,227.57

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	70.00	9.57	dwelling units	107.00	1,023.99	10,345.17
Condo/townhouse general	90.00	5.86	dwelling units	873.00	5,115.78	51,683.70
					6,139.77	62,028.87

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.6	0.8	99.0	0.2
Light Truck < 3750 lbs	7.3	2.7	94.6	2.7
Light Truck 3751-5750 lbs	23.0	0.4	99.6	0.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med Truck 5751-8500 lbs	10.6	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.8	64.3	35.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						

Operational Changes to Defaults

Appendix B:
Localized Significance Analysis

University Hills Specific Plan

LST Analysis

Prepared by Michael Brandman Associates

Exhaust PM2.5	92%	percent of PM10
Fugitive Dust PM2.5	21%	percent of PM10

Unmitigated Emissions

Activity	Pollutant	Emissions (lbs/day)	Area of Source (m2)	Number of Sources	Hours per day of Operation	Emissions (g/s-m2)	Emissions (g/s)
Grading	CO	150		64	8		0.037
Grading	NOx	95		64	8		0.023
Grading	PM10 Exhaust	5.64		64	8		0.0014
Grading	PM10 Fugitive	1000	181319		8	8.69E-05	
Grading	PM2.5 Exhaust	5		64	8		0.0013
Grading	PM2.5 Fugitive	210	181319		8	1.82E-05	

CO Results

Location	1-hour CO (ug/m3)	1-hour CO (ppm)	8-hour CO (ug/m3)	8-hour CO (ppm)
Maximum	241	0.2	135	0.1
Nearest Sensitive Receptor	109	0.1	60	0.1

NOx Conversion to Nitrogen Dioxide - Construction

Distance to Construction Source (m)	NO2/NOx Ratio	NOx (ug/m3)	NO2 (ppm)
20	0.053	153	0.004
50	0.059	107	0.003
100	0.074	85	0.003
200	0.114	60	0.004
500	0.258	32	0.004
1000	0.467	16	0.004

PM10 and PM2.5 Results

The following is an excerpt from the SCAQMD LST Methodology, which is used to estimate PM10 and PM2.5 concentrations.

$$C_x = 0.9403\ C_o\ e^{-0.0462\ x}$$

Where: C_x is the predicted PM10 concentration at x meters from the fence line;
C_o is the PM10 concentration at the fence line as estimated by ISC3;
e is the natural logarithm; and
x is the distance in meters from the fence line.

	Unmitigated	
Distance from fenceline (m)	PM10 Concentration (ug/m3)	PM2.5 Concentration (ug/m3)
At fenceline (ISC Output)	430	91.00
35	80.26	16.98
45	50.56	10.70
50	40.13	8.49
100	3.98	0.84

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses User-Specified Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Not Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.

**Model Assumes Receptors on FLAT Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 2 Short Term Average(s) of: 1-HR   8-HR
and Calculates PERIOD Averages

**This Run Includes: 64 Source(s);   1 Source Group(s); and   48 Receptor(s)

**The Model Assumes A Pollutant Type of: CO_

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

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**Misc. Inputs: Anem. Hgt. (m) =   10.00 ;   Decay Coef. =   0.000   ;   Rot. Angle =   0.0
Emission Units = GRAMS/SEC   ; Emission Rate Unit Factor =   0.10000E+07
Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =   1.3 MB of RAM.

**Input Runstream File: TMP0001_.TMP
**Output Print File: CO.OUT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
VOL2	0	0.36900E-01	-51.3	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL3	0	0.36900E-01	-0.6	337.9	0.0	5.00	11.79	1.16	HROFDY
VOL4	0	0.36900E-01	50.1	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL5	0	0.36900E-01	100.9	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL6	0	0.36900E-01	151.6	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL8	0	0.36900E-01	-51.3	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL9	0	0.36900E-01	-0.6	287.2	0.0	5.00	11.73	1.16	HROFDY
VOL10	0	0.36900E-01	50.2	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL11	0	0.36900E-01	100.9	287.2	0.0	5.00	11.78	1.16	HROFDY
VOL12	0	0.36900E-01	151.6	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL14	0	0.36900E-01	-51.3	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL15	0	0.36900E-01	-0.6	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL16	0	0.36900E-01	50.2	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL17	0	0.36900E-01	100.9	236.5	0.0	5.00	11.80	1.16	HROFDY
VOL18	0	0.36900E-01	151.6	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL22	0	0.36900E-01	-51.3	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL23	0	0.36900E-01	-51.3	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL24	0	0.36900E-01	-51.3	85.3	0.0	5.00	11.79	1.16	HROFDY
VOL25	0	0.36900E-01	-0.6	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL26	0	0.36900E-01	-0.6	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL27	0	0.36900E-01	-0.6	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL28	0	0.36900E-01	50.2	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL29	0	0.36900E-01	50.2	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL30	0	0.36900E-01	50.2	85.3	0.0	5.00	11.79	1.16	HROFDY
VOL31	0	0.36900E-01	100.9	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL32	0	0.36900E-01	100.9	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL33	0	0.36900E-01	100.9	85.3	0.0	5.00	11.80	1.16	HROFDY
VOL34	0	0.36900E-01	151.6	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL35	0	0.36900E-01	151.6	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL36	0	0.36900E-01	151.6	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL37	0	0.36900E-01	202.3	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL38	0	0.36900E-01	202.3	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL39	0	0.36900E-01	202.3	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL40	0	0.36900E-01	202.3	185.8	0.0	5.00	11.80	1.16	HROFDY
VOL41	0	0.36900E-01	202.3	136.0	0.0	5.00	11.93	1.16	HROFDY
VOL42	0	0.36900E-01	202.3	85.3	0.0	5.00	11.80	1.16	HROFDY
VOL44	0	0.36900E-01	-51.3	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL45	0	0.36900E-01	-0.6	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL46	0	0.36900E-01	50.2	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL47	0	0.36900E-01	100.9	34.5	0.0	5.00	11.80	1.16	HROFDY

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
VOL48	0	0.36900E-01	151.6	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL49	0	0.36900E-01	202.3	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL50	0	0.36900E-01	253.0	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL51	0	0.36900E-01	303.8	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL54	0	0.36900E-01	253.0	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL55	0	0.36900E-01	303.8	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL56	0	0.36900E-01	253.1	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL57	0	0.36900E-01	303.8	236.5	0.0	5.00	11.80	1.16	HROFDY
VOL58	0	0.36900E-01	253.0	185.8	0.0	5.00	11.80	1.16	HROFDY
VOL59	0	0.36900E-01	303.8	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL60	0	0.36900E-01	253.0	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL61	0	0.36900E-01	303.8	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL62	0	0.36900E-01	253.1	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL63	0	0.36900E-01	303.8	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL64	0	0.36900E-01	253.0	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL65	0	0.36900E-01	303.8	34.5	0.0	5.00	11.79	1.16	HROFDY
VOL66	0	0.36900E-01	-51.3	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL67	0	0.36900E-01	-0.6	-16.2	0.0	5.00	11.79	1.16	HROFDY
VOL68	0	0.36900E-01	50.2	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL69	0	0.36900E-01	100.9	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL70	0	0.36900E-01	151.6	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL71	0	0.36900E-01	202.3	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL72	0	0.36900E-01	253.0	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL73	0	0.36900E-01	303.8	-16.2	0.0	5.00	11.79	1.16	HROFDY

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID SOURCE IDs

ALL VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 , VOL10 , VOL11 , VOL12 , VOL14 , VOL15 ,
VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 , VOL26 , VOL27 , VOL28 , VOL29 , VOL30 ,
VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , VOL37 , VOL38 , VOL39 , VOL40 , VOL41 , VOL42 ,
VOL44 , VOL45 , VOL46 , VOL47 , VOL48 , VOL49 , VOL50 , VOL51 , VOL54 , VOL55 , VOL56 , VOL57 ,
VOL58 , VOL59 , VOL60 , VOL61 , VOL62 , VOL63 , VOL64 , VOL65 , VOL66 , VOL67 , VOL68 , VOL69 ,
VOL70 , VOL71 , VOL72 , VOL73 ,

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL2 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL3 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL4 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL5 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL6 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL8 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL9 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL10 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL11 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL12 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL14 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL15 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL16 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL17 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL18 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL22 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL23 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

```
SOURCE ID = VOL24    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL25    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL26    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

```
   HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL27    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL28    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL29    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL30    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL31    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

```
   HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL32    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL33    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL34    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL35    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL36    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL37 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL38 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL39 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL40 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL41 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL42 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL44 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL45 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL46 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL47 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL48 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

```
SOURCE ID = VOL49    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL50    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL51    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL54    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```



```
                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL55    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL56    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL57    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL58    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL59    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```



```
                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL60    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL61    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL62    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL63    ;  SOURCE TYPE = VOLUME    :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```

SOURCE ID = VOL64 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = VOL65 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL66 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL67 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL68 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL69 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = VOL70 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL71 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL72 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL73 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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

(363.6,	-175.9,	0.0,	2.0);	(448.9,	-111.2,	0.0,	2.0);
(283.2,	-190.5,	0.0,	2.0);	(238.1,	-190.5,	0.0,	2.0);
(193.1,	-190.5,	0.0,	2.0);	(148.1,	-190.5,	0.0,	2.0);
(103.0,	-190.5,	0.0,	2.0);	(58.0,	-190.5,	0.0,	2.0);
(13.0,	-190.5,	0.0,	2.0);	(-32.1,	-190.5,	0.0,	2.0);
(-77.1,	-190.5,	0.0,	2.0);	(-212.5,	-75.9,	0.0,	2.0);
(-147.8,	-161.2,	0.0,	2.0);	(-227.1,	4.6,	0.0,	2.0);
(-227.1,	49.8,	0.0,	2.0);	(-227.1,	94.9,	0.0,	2.0);
(-227.1,	140.1,	0.0,	2.0);	(-227.1,	185.2,	0.0,	2.0);
(-227.1,	230.4,	0.0,	2.0);	(-227.1,	275.5,	0.0,	2.0);

(-227.1,	320.7,	0.0,	2.0);	(-227.1,	365.8,	0.0,	2.0);
(-112.8,	501.1,	0.0,	2.0);	(-197.9,	436.4,	0.0,	2.0);
(-32.5,	515.9,	0.0,	2.0);	(12.6,	516.1,	0.0,	2.0);
(57.6,	516.2,	0.0,	2.0);	(102.6,	516.3,	0.0,	2.0);
(147.6,	516.4,	0.0,	2.0);	(192.7,	516.6,	0.0,	2.0);
(237.7,	516.7,	0.0,	2.0);	(282.8,	516.8,	0.0,	2.0);
(327.8,	517.0,	0.0,	2.0);	(463.5,	402.4,	0.0,	2.0);
(398.7,	487.8,	0.0,	2.0);	(478.2,	321.7,	0.0,	2.0);
(478.2,	276.4,	0.0,	2.0);	(478.2,	231.1,	0.0,	2.0);
(478.2,	185.9,	0.0,	2.0);	(478.2,	140.6,	0.0,	2.0);
(478.2,	95.3,	0.0,	2.0);	(478.2,	50.0,	0.0,	2.0);
(478.2,	4.8,	0.0,	2.0);	(478.2,	-40.5,	0.0,	2.0);
(-77.1,	365.8,	0.0,	2.0);	(-77.1,	-40.5,	0.0,	2.0);
(328.2,	-40.5,	0.0,	2.0);	(328.2,	367.0,	0.0,	2.0);

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

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

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

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

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

FILE: REDLANDS.ASC
FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.: 54161   UPPER AIR STATION NO.: 99999
NAME: REDLANDS   NAME: UNKNOWN
YEAR: 1981   YEAR: 1981

YR MN DY HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
81 01 01 01	292.3	1.00	284.3	7	522.6	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 02	282.4	0.00	284.3	7	507.0	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 03	287.5	0.00	283.1	7	491.4	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 04	301.0	0.00	283.1	7	475.8	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 05	286.5	0.00	282.6	7	460.3	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 06	297.0	0.00	283.1	7	444.7	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 07	297.0	0.00	285.4	6	1.4	170.7	0.0000	0.0	0.0000	0	0.00
81 01 01 08	314.6	1.00	287.6	5	47.0	192.0	0.0000	0.0	0.0000	0	0.00
81 01 01 09	299.0	1.00	289.8	4	92.5	213.3	0.0000	0.0	0.0000	0	0.00
81 01 01 10	54.2	1.34	291.5	3	138.0	234.7	0.0000	0.0	0.0000	0	0.00
81 01 01 11	89.1	1.79	294.3	3	183.5	256.0	0.0000	0.0	0.0000	0	0.00
81 01 01 12	103.1	1.34	297.6	2	229.0	277.3	0.0000	0.0	0.0000	0	0.00
81 01 01 13	87.2	1.34	298.7	2	274.5	298.7	0.0000	0.0	0.0000	0	0.00
81 01 01 14	124.2	1.79	299.8	3	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81 01 01 15	134.8	2.24	299.3	3	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81 01 01 16	98.2	2.24	298.7	4	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81 01 01 17	110.1	2.24	295.4	5	325.6	318.5	0.0000	0.0	0.0000	0	0.00
81 01 01 18	210.1	1.00	291.5	6	357.2	310.3	0.0000	0.0	0.0000	0	0.00
81 01 01 19	268.0	1.00	289.8	7	388.8	302.1	0.0000	0.0	0.0000	0	0.00
81 01 01 20	303.2	1.00	287.0	7	420.4	293.9	0.0000	0.0	0.0000	0	0.00
81 01 01 21	291.1	1.34	286.5	7	452.0	285.7	0.0000	0.0	0.0000	0	0.00
81 01 01 22	294.5	1.34	287.0	7	483.5	277.4	0.0000	0.0	0.0000	0	0.00
81 01 01 23	293.2	0.00	285.9	7	515.1	269.2	0.0000	0.0	0.0000	0	0.00
81 01 01 24	292.2	0.00	285.4	7	546.7	261.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

CONC URBAN FLAT FLGPOL NOCALM

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
363.57	-175.87	2.17596	448.92	-111.22	3.79554
283.18	-190.51	1.60697	238.14	-190.51	1.40084
193.11	-190.51	1.18162	148.07	-190.51	0.95881
103.04	-190.51	0.74387	58.00	-190.51	0.55076
12.97	-190.51	0.39475	-32.07	-190.51	0.28657
-77.10	-190.51	0.22258	-212.46	-75.87	0.27672
-147.81	-161.22	0.19596	-227.10	4.64	0.46698
-227.10	49.78	0.59706	-227.10	94.93	0.72037
-227.10	140.08	0.82751	-227.10	185.22	0.91347
-227.10	230.37	0.97606	-227.10	275.52	1.01091
-227.10	320.66	1.00732	-227.10	365.81	0.95719
-112.79	501.12	1.05248	-197.91	436.42	0.93867
-32.49	515.94	1.27766	12.55	516.06	1.43099
57.58	516.19	1.57880	102.62	516.32	1.71410
147.65	516.44	1.82675	192.68	516.57	1.90741
237.72	516.70	1.94681	282.75	516.82	1.93650
327.79	516.95	1.88491	463.52	402.36	3.49603
398.68	487.76	2.16820	478.21	321.68	5.40243
478.21	276.40	6.45556	478.21	231.13	7.19767
478.21	185.86	7.62465	478.21	140.58	7.77152
478.21	95.31	7.65515	478.21	50.04	7.25908
478.21	4.76	6.53220	478.21	-40.51	5.45979
-77.10	365.81	3.46406	-77.10	-40.51	0.97628
328.21	-40.51	13.28876	328.21	366.95	10.47887

CONC URBAN FLAT FLGPOL NOCALM

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
363.57	-175.87	82.16145	(81032911)	448.92	-111.22	109.49839	(81042509)
283.18	-190.51	80.09653	(81022709)	238.14	-190.51	80.13587	(81012715)
193.11	-190.51	79.54725	(81012715)	148.07	-190.51	79.72211	(81021110)
103.04	-190.51	80.11374	(81021110)	58.00	-190.51	80.08405	(81031609)
12.97	-190.51	80.00727	(81032309)	-32.07	-190.51	79.94445	(81032309)
-77.10	-190.51	85.63185	(81122716)	-212.46	-75.87	102.14720	(81120509)
-147.81	-161.22	107.86315	(81122716)	-227.10	4.64	106.59872	(81120509)
-227.10	49.78	107.18727	(81120309)	-227.10	94.93	107.32719	(81121409)
-227.10	140.08	107.47436	(81122609)	-227.10	185.22	107.46049	(81111909)
-227.10	230.37	107.24268	(81121909)	-227.10	275.52	107.17712	(81011709)
-227.10	320.66	106.97749	(81112809)	-227.10	365.81	106.14499	(81021309)
-112.79	501.12	108.29886	(81110209)	-197.91	436.42	109.40308	(81112009)
-32.49	515.94	105.95891	(81122309)	12.55	516.06	106.01564	(81123110)
57.58	516.19	105.97492	(81111809)	102.62	516.32	105.83673	(81110409)
147.65	516.44	105.75592	(81092909)	192.68	516.57	105.82362	(81111609)
237.72	516.70	104.91499	(81111609)	282.75	516.82	105.38202	(81052910)
327.79	516.95	104.92125	(81122009)	463.52	402.36	109.37783	(81112410)
398.68	487.76	108.87177	(81123109)	478.21	321.68	97.18822	(81112410)
478.21	276.40	104.51783	(81053109)	478.21	231.13	107.25556	(81053109)
478.21	185.86	107.95236	(81053109)	478.21	140.58	107.92492	(81060209)
478.21	95.31	107.80721	(81122714)	478.21	50.04	107.64357	(81051510)
478.21	4.76	105.98785	(81051510)	478.21	-40.51	105.93729	(81122713)
-77.10	365.81	237.33908	(81022810)	-77.10	-40.51	241.92209	(81122716)
328.21	-40.51	238.22705	(81042509)	328.21	366.95	237.06967	(81031109)

CONC URBAN FLAT FLGPOL NOCALM

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
363.57	-175.87	52.50029	(81032916)	448.92	-111.22	40.06005	(81042516)
283.18	-190.51	56.50762	(81032916)	238.14	-190.51	55.87526	(81032916)
193.11	-190.51	52.96040	(81032916)	148.07	-190.51	48.31237	(81032916)
103.04	-190.51	41.96484	(81032916)	58.00	-190.51	33.88029	(81032916)
12.97	-190.51	26.16544	(81030616)	-32.07	-190.51	20.72253	(81030616)
-77.10	-190.51	16.59654	(81030616)	-212.46	-75.87	29.93890	(81123016)
-147.81	-161.22	17.97972	(81123016)	-227.10	4.64	37.94680	(81123016)
-227.10	49.78	41.35690	(81123016)	-227.10	94.93	44.23454	(81123016)
-227.10	140.08	46.40891	(81123016)	-227.10	185.22	47.22081	(81123016)
-227.10	230.37	46.27819	(81123016)	-227.10	275.52	43.35099	(81123016)
-227.10	320.66	44.41759	(81122716)	-227.10	365.81	42.73243	(81122716)
-112.79	501.12	35.97047	(81012816)	-197.91	436.42	37.33950	(81122716)
-32.49	515.94	34.62282	(81012816)	12.55	516.06	37.38530	(81112616)
57.58	516.19	41.37517	(81112616)	102.62	516.32	43.06518	(81112616)

147.65	516.44	43.12460	(81112616)	192.68	516.57	41.87022	(81112616)
237.72	516.70	39.31191	(81112616)	282.75	516.82	34.98896	(81112616)
327.79	516.95	27.69897	(81112616)	463.52	402.36	37.34554	(81102716)
398.68	487.76	30.85046	(81100416)	478.21	321.68	46.41278	(81060216)
478.21	276.40	53.68884	(81051416)	478.21	231.13	58.00194	(81051416)
478.21	185.86	59.28568	(81051416)	478.21	140.58	60.03897	(81112416)
478.21	95.31	58.82084	(81112416)	478.21	50.04	56.33997	(81112416)
478.21	4.76	53.17866	(81112416)	478.21	-40.51	47.46321	(81112416)
-77.10	365.81	112.20686	(81122716)	-77.10	-40.51	73.76863	(81123016)
328.21	-40.51	135.04521	(81032916)	328.21	366.95	103.18425	(81102716)

*** THE MAXIMUM 10 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

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

RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR)	OF TYPE
1.	241.92209	(81122716) AT	(-77.10, -40.51)	DC	6.	237.06967	(81031109) AT	(328.21, 366.95)	DC
2.	238.22705	(81042509) AT	(328.21, -40.51)	DC	7.	237.06833	(81111509) AT	(-77.10, 365.81)	DC
3.	237.33908	(81022810) AT	(-77.10, 365.81)	DC	8.	236.95398	(81112716) AT	(328.21, 366.95)	DC
4.	237.32837	(81020709) AT	(-77.10, 365.81)	DC	9.	236.83995	(81092509) AT	(328.21, 366.95)	DC
5.	237.07996	(81110309) AT	(-77.10, 365.81)	DC	10.	236.03769	(81120109) AT	(-77.10, 365.81)	DC

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

*** THE MAXIMUM 10 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

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

RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR)	OF TYPE
1.	135.04521	(81032916) AT	(328.21, -40.51)	DC	6.	98.36444	(81031216) AT	(328.21, -40.51)	DC
2.	112.20686	(81122716) AT	(-77.10, 365.81)	DC	7.	97.96164	(81112416) AT	(328.21, -40.51)	DC
3.	104.82979	(81042516) AT	(328.21, -40.51)	DC	8.	95.93655	(81042416) AT	(328.21, -40.51)	DC
4.	103.57574	(81020916) AT	(328.21, -40.51)	DC	9.	95.43346	(81012816) AT	(-77.10, 365.81)	DC
5.	103.18425	(81102716) AT	(328.21, 366.95)	DC	10.	91.72650	(81031516) AT	(328.21, -40.51)	DC

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

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

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

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	13.28876 AT	(328.21, -40.51, 0.00, 2.00)	DC	NA
	2ND HIGHEST VALUE IS	10.47887 AT	(328.21, 366.95, 0.00, 2.00)	DC	NA
	3RD HIGHEST VALUE IS	7.77152 AT	(478.21, 140.58, 0.00, 2.00)	DC	NA
	4TH HIGHEST VALUE IS	7.65515 AT	(478.21, 95.31, 0.00, 2.00)	DC	NA
	5TH HIGHEST VALUE IS	7.62465 AT	(478.21, 185.86, 0.00, 2.00)	DC	NA
	6TH HIGHEST VALUE IS	7.25908 AT	(478.21, 50.04, 0.00, 2.00)	DC	NA
	7TH HIGHEST VALUE IS	7.19767 AT	(478.21, 231.13, 0.00, 2.00)	DC	NA
	8TH HIGHEST VALUE IS	6.53220 AT	(478.21, 4.76, 0.00, 2.00)	DC	NA
	9TH HIGHEST VALUE IS	6.45556 AT	(478.21, 276.40, 0.00, 2.00)	DC	NA
	10TH HIGHEST VALUE IS	5.45979 AT	(478.21, -40.51, 0.00, 2.00)	DC	NA

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

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

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

GROUP ID		AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	241.92209	ON 81122716: AT	(-77.10, -40.51, 0.00, 2.00)	DC	NA

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

```
                    BD = BOUNDARY
  *** ISCST3 - VERSION 02035 ***   *** UNIVERSITY HILLS LST                                                       ***       12/12/07
                                  *** CARBON MONOXIDE                                                            ***       13:19:12
**MODELOPTs:                                                                                                               PAGE  28
CONC                    URBAN FLAT  FLGPOL                            NOCALM

                                                   *** THE SUMMARY OF HIGHEST  8-HR RESULTS ***

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

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

ALL      HIGH  1ST HIGH VALUE IS     135.04521  ON 81032916: AT (     328.21,      -40.51,        0.00,       2.00)  DC      NA


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
                      BD = BOUNDARY
  *** ISCST3 - VERSION 02035 ***   *** UNIVERSITY HILLS LST                                                       ***       12/12/07
                                  *** CARBON MONOXIDE                                                            ***       13:19:12
**MODELOPTs:                                                                                                               PAGE  29
CONC                    URBAN FLAT  FLGPOL                            NOCALM

*** Message Summary : ISCST3 Model Execution ***

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

A Total of           0 Fatal Error Message(s)
A Total of           0 Warning Message(s)
A Total of        1398 Informational Message(s)

A Total of        1398 Calm Hours Identified

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

   ********   WARNING MESSAGES   ********
              ***  NONE  ***

   ************************************
   *** ISCST3 Finishes Successfully ***
   ************************************
```

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses User-Specified Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Not Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.

**Model Assumes Receptors on FLAT Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

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

**This Run Includes: 64 Source(s); 1 Source Group(s); and 468 Receptor(s)

**The Model Assumes A Pollutant Type of: NOX_

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

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 1.3 MB of RAM.

**Input Runstream File: TMP0001_.TMP
**Output Print File: NOX.OUT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
VOL2	0	0.23400E-01	-51.3	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL3	0	0.23400E-01	-0.6	337.9	0.0	5.00	11.79	1.16	HROFDY
VOL4	0	0.23400E-01	50.1	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL5	0	0.23400E-01	100.9	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL6	0	0.23400E-01	151.6	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL8	0	0.23400E-01	-51.3	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL9	0	0.23400E-01	-0.6	287.2	0.0	5.00	11.73	1.16	HROFDY
VOL10	0	0.23400E-01	50.2	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL11	0	0.23400E-01	100.9	287.2	0.0	5.00	11.78	1.16	HROFDY
VOL12	0	0.23400E-01	151.6	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL14	0	0.23400E-01	-51.3	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL15	0	0.23400E-01	-0.6	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL16	0	0.23400E-01	50.2	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL17	0	0.23400E-01	100.9	236.5	0.0	5.00	11.80	1.16	HROFDY
VOL18	0	0.23400E-01	151.6	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL22	0	0.23400E-01	-51.3	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL23	0	0.23400E-01	-51.3	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL24	0	0.23400E-01	-51.3	85.3	0.0	5.00	11.79	1.16	HROFDY
VOL25	0	0.23400E-01	-0.6	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL26	0	0.23400E-01	-0.6	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL27	0	0.23400E-01	-0.6	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL28	0	0.23400E-01	50.2	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL29	0	0.23400E-01	50.2	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL30	0	0.23400E-01	50.2	85.3	0.0	5.00	11.79	1.16	HROFDY
VOL31	0	0.23400E-01	100.9	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL32	0	0.23400E-01	100.9	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL33	0	0.23400E-01	100.9	85.3	0.0	5.00	11.80	1.16	HROFDY
VOL34	0	0.23400E-01	151.6	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL35	0	0.23400E-01	151.6	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL36	0	0.23400E-01	151.6	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL37	0	0.23400E-01	202.3	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL38	0	0.23400E-01	202.3	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL39	0	0.23400E-01	202.3	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL40	0	0.23400E-01	202.3	185.8	0.0	5.00	11.80	1.16	HROFDY
VOL41	0	0.23400E-01	202.3	136.0	0.0	5.00	11.93	1.16	HROFDY
VOL42	0	0.23400E-01	202.3	85.3	0.0	5.00	11.80	1.16	HROFDY
VOL44	0	0.23400E-01	-51.3	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL45	0	0.23400E-01	-0.6	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL46	0	0.23400E-01	50.2	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL47	0	0.23400E-01	100.9	34.5	0.0	5.00	11.80	1.16	HROFDY

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
VOL48	0	0.23400E-01	151.6	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL49	0	0.23400E-01	202.3	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL50	0	0.23400E-01	253.0	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL51	0	0.23400E-01	303.8	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL54	0	0.23400E-01	253.0	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL55	0	0.23400E-01	303.8	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL56	0	0.23400E-01	253.1	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL57	0	0.23400E-01	303.8	236.5	0.0	5.00	11.80	1.16	HROFDY
VOL58	0	0.23400E-01	253.0	185.8	0.0	5.00	11.80	1.16	HROFDY
VOL59	0	0.23400E-01	303.8	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL60	0	0.23400E-01	253.0	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL61	0	0.23400E-01	303.8	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL62	0	0.23400E-01	253.1	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL63	0	0.23400E-01	303.8	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL64	0	0.23400E-01	253.0	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL65	0	0.23400E-01	303.8	34.5	0.0	5.00	11.79	1.16	HROFDY
VOL66	0	0.23400E-01	-51.3	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL67	0	0.23400E-01	-0.6	-16.2	0.0	5.00	11.79	1.16	HROFDY
VOL68	0	0.23400E-01	50.2	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL69	0	0.23400E-01	100.9	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL70	0	0.23400E-01	151.6	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL71	0	0.23400E-01	202.3	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL72	0	0.23400E-01	253.0	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL73	0	0.23400E-01	303.8	-16.2	0.0	5.00	11.79	1.16	HROFDY

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID   SOURCE IDs

ALL   VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 , VOL10 , VOL11 , VOL12 , VOL14 , VOL15 ,
VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 , VOL26 , VOL27 , VOL28 , VOL29 , VOL30 ,
VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , VOL37 , VOL38 , VOL39 , VOL40 , VOL41 , VOL42 ,
VOL44 , VOL45 , VOL46 , VOL47 , VOL48 , VOL49 , VOL50 , VOL51 , VOL54 , VOL55 , VOL56 , VOL57 ,
VOL58 , VOL59 , VOL60 , VOL61 , VOL62 , VOL63 , VOL64 , VOL65 , VOL66 , VOL67 , VOL68 , VOL69 ,
VOL70 , VOL71 , VOL72 , VOL73 ,

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL2 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL3 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL4 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL5 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL6 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL8 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL9 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL10 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL11 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL12 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL14 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL15 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL16 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL17 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL18 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL22 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL23 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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SOURCE ID = VOL24    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL25    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL26    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
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                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL27    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL28    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL29    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL30    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL31    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```



```
                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL32    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL33    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL34    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL35    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL36    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
```

19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = VOL37 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = VOL38 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = VOL39 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = VOL40 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = VOL41 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = VOL42 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = VOL44 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = VOL45 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = VOL46 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00
SOURCE ID = VOL47 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SOURCE ID = VOL48 ; SOURCE TYPE = VOLUME :											
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

```
SOURCE ID = VOL49    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL50    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL51    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL54    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

```
   HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL55    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL56    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL57    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL58    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL59    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

```
   HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL60    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL61    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL62    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL63    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```

SOURCE ID = VOL64 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = VOL65 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL66 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL67 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL68 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL69 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = VOL70 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL71 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL72 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL73 ; SOURCE TYPE = VOLUME :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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

(328.2,	-60.5,	0.0,	2.0);	(283.2,	-60.5,	0.0,	2.0);
(238.1,	-60.5,	0.0,	2.0);	(193.1,	-60.5,	0.0,	2.0);
(148.1,	-60.5,	0.0,	2.0);	(103.0,	-60.5,	0.0,	2.0);
(58.0,	-60.5,	0.0,	2.0);	(13.0,	-60.5,	0.0,	2.0);
(-32.1,	-60.5,	0.0,	2.0);	(-77.1,	-60.5,	0.0,	2.0);
(328.2,	-90.5,	0.0,	2.0);	(283.2,	-90.5,	0.0,	2.0);
(238.1,	-90.5,	0.0,	2.0);	(193.1,	-90.5,	0.0,	2.0);
(148.1,	-90.5,	0.0,	2.0);	(103.0,	-90.5,	0.0,	2.0);
(58.0,	-90.5,	0.0,	2.0);	(13.0,	-90.5,	0.0,	2.0);

```
 (    -32.1,     -90.5,       0.0,       2.0);         (    -77.1,     -90.5,       0.0,       2.0);
 (    363.6,    -125.9,       0.0,       2.0);         (    413.6,     -75.9,       0.0,       2.0);
 (    328.2,    -140.5,       0.0,       2.0);         (    283.2,    -140.5,       0.0,       2.0);
 (    238.1,    -140.5,       0.0,       2.0);         (    193.1,    -140.5,       0.0,       2.0);
 (    148.1,    -140.5,       0.0,       2.0);         (    103.0,    -140.5,       0.0,       2.0);
 (     58.0,    -140.5,       0.0,       2.0);         (     13.0,    -140.5,       0.0,       2.0);
 (    -32.1,    -140.5,       0.0,       2.0);         (    -77.1,    -140.5,       0.0,       2.0);
 (    363.6,    -225.9,       0.0,       2.0);         (    398.9,    -211.2,       0.0,       2.0);
 (    434.3,    -196.6,       0.0,       2.0);         (    484.3,    -146.6,       0.0,       2.0);
 (    498.9,    -111.2,       0.0,       2.0);         (    513.6,     -75.9,       0.0,       2.0);
 (    328.2,    -240.5,       0.0,       2.0);         (    283.2,    -240.5,       0.0,       2.0);
 (    238.1,    -240.5,       0.0,       2.0);         (    193.1,    -240.5,       0.0,       2.0);
 (    148.1,    -240.5,       0.0,       2.0);         (    103.0,    -240.5,       0.0,       2.0);
 (     58.0,    -240.5,       0.0,       2.0);         (     13.0,    -240.5,       0.0,       2.0);
 (    -32.1,    -240.5,       0.0,       2.0);         (    -77.1,    -240.5,       0.0,       2.0);
 (    367.5,    -524.2,       0.0,       2.0);         (    406.8,    -508.0,       0.0,       2.0);
 (    446.1,    -491.7,       0.0,       2.0);         (    485.3,    -475.4,       0.0,       2.0);
 (    524.6,    -459.1,       0.0,       2.0);         (    563.9,    -442.9,       0.0,       2.0);
 (    603.2,    -426.6,       0.0,       2.0);         (    642.5,    -410.3,       0.0,       2.0);
 (    698.0,    -354.8,       0.0,       2.0);         (    714.3,    -315.5,       0.0,       2.0);
 (    730.6,    -276.2,       0.0,       2.0);         (    746.8,    -236.9,       0.0,       2.0);
 (    763.1,    -197.6,       0.0,       2.0);         (    779.4,    -158.4,       0.0,       2.0);
 (    795.7,    -119.1,       0.0,       2.0);         (    811.9,     -79.8,       0.0,       2.0);
 (    328.2,    -540.5,       0.0,       2.0);         (    283.2,    -540.5,       0.0,       2.0);
 (    238.1,    -540.5,       0.0,       2.0);         (    193.1,    -540.5,       0.0,       2.0);
 (    148.1,    -540.5,       0.0,       2.0);         (    103.0,    -540.5,       0.0,       2.0);
 (     58.0,    -540.5,       0.0,       2.0);         (     13.0,    -540.5,       0.0,       2.0);
 (    -32.1,    -540.5,       0.0,       2.0);         (    -77.1,    -540.5,       0.0,       2.0);
 (    369.8,   -1023.3,       0.0,       2.0);         (    411.4,   -1006.0,       0.0,       2.0);
 (    453.0,    -988.8,       0.0,       2.0);         (    494.6,    -971.6,       0.0,       2.0);
 (    536.2,    -954.4,       0.0,       2.0);         (    577.8,    -937.1,       0.0,       2.0);
 (    619.4,    -919.9,       0.0,       2.0);         (    661.0,    -902.7,       0.0,       2.0);
 (    702.6,    -885.5,       0.0,       2.0);         (    744.2,    -868.2,       0.0,       2.0);
 (    785.8,    -851.0,       0.0,       2.0);         (    827.3,    -833.8,       0.0,       2.0);
 (    868.9,    -816.5,       0.0,       2.0);         (    910.5,    -799.3,       0.0,       2.0);
 (    952.1,    -782.1,       0.0,       2.0);         (    993.7,    -764.8,       0.0,       2.0);
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

```
 (   1052.6,    -706.0,       0.0,       2.0);         (   1069.8,    -664.4,       0.0,       2.0);
 (   1087.0,    -622.8,       0.0,       2.0);         (   1104.2,    -581.2,       0.0,       2.0);
 (   1121.5,    -539.6,       0.0,       2.0);         (   1138.7,    -498.0,       0.0,       2.0);
 (   1155.9,    -456.5,       0.0,       2.0);         (   1173.2,    -414.9,       0.0,       2.0);
 (   1190.4,    -373.3,       0.0,       2.0);         (   1207.6,    -331.7,       0.0,       2.0);
 (   1224.8,    -290.1,       0.0,       2.0);         (   1242.1,    -248.5,       0.0,       2.0);
 (   1259.3,    -206.9,       0.0,       2.0);         (   1276.5,    -165.3,       0.0,       2.0);
 (   1293.8,    -123.7,       0.0,       2.0);         (   1311.0,     -82.1,       0.0,       2.0);
 (    328.2,   -1040.5,       0.0,       2.0);         (    283.2,   -1040.5,       0.0,       2.0);
 (    238.1,   -1040.5,       0.0,       2.0);         (    193.1,   -1040.5,       0.0,       2.0);
 (    148.1,   -1040.5,       0.0,       2.0);         (    103.0,   -1040.5,       0.0,       2.0);
 (     58.0,   -1040.5,       0.0,       2.0);         (     13.0,   -1040.5,       0.0,       2.0);
 (    -32.1,   -1040.5,       0.0,       2.0);         (    -77.1,   -1040.5,       0.0,       2.0);
 (    -97.1,     -40.5,       0.0,       2.0);         (    -97.1,       4.6,       0.0,       2.0);
 (    -97.1,      49.8,       0.0,       2.0);         (    -97.1,      94.9,       0.0,       2.0);
 (    -97.1,     140.1,       0.0,       2.0);         (    -97.1,     185.2,       0.0,       2.0);
 (    -97.1,     230.4,       0.0,       2.0);         (    -97.1,     275.5,       0.0,       2.0);
 (    -97.1,     320.7,       0.0,       2.0);         (    -97.1,     365.8,       0.0,       2.0);
 (   -127.1,     -40.5,       0.0,       2.0);         (   -127.1,       4.6,       0.0,       2.0);
 (   -127.1,      49.8,       0.0,       2.0);         (   -127.1,      94.9,       0.0,       2.0);
 (   -127.1,     140.1,       0.0,       2.0);         (   -127.1,     185.2,       0.0,       2.0);
 (   -127.1,     230.4,       0.0,       2.0);         (   -127.1,     275.5,       0.0,       2.0);
 (   -127.1,     320.7,       0.0,       2.0);         (   -127.1,     365.8,       0.0,       2.0);
 (   -162.5,     -75.9,       0.0,       2.0);         (   -112.5,    -125.9,       0.0,       2.0);
 (   -177.1,     -40.5,       0.0,       2.0);         (   -177.1,       4.6,       0.0,       2.0);
 (   -177.1,      49.8,       0.0,       2.0);         (   -177.1,      94.9,       0.0,       2.0);
 (   -177.1,     140.1,       0.0,       2.0);         (   -177.1,     185.2,       0.0,       2.0);
 (   -177.1,     230.4,       0.0,       2.0);         (   -177.1,     275.5,       0.0,       2.0);
 (   -177.1,     320.7,       0.0,       2.0);         (   -177.1,     365.8,       0.0,       2.0);
 (   -262.5,     -75.9,       0.0,       2.0);         (   -247.8,    -111.2,       0.0,       2.0);
 (   -233.2,    -146.6,       0.0,       2.0);         (   -183.2,    -196.6,       0.0,       2.0);
 (   -147.8,    -211.2,       0.0,       2.0);         (   -112.5,    -225.9,       0.0,       2.0);
 (   -277.1,     -40.5,       0.0,       2.0);         (   -277.1,       4.6,       0.0,       2.0);
 (   -277.1,      49.8,       0.0,       2.0);         (   -277.1,      94.9,       0.0,       2.0);
 (   -277.1,     140.1,       0.0,       2.0);         (   -277.1,     185.2,       0.0,       2.0);
 (   -277.1,     230.4,       0.0,       2.0);         (   -277.1,     275.5,       0.0,       2.0);
 (   -277.1,     320.7,       0.0,       2.0);         (   -277.1,     365.8,       0.0,       2.0);
 (   -560.8,     -79.8,       0.0,       2.0);         (   -544.6,    -119.1,       0.0,       2.0);
 (   -528.3,    -158.4,       0.0,       2.0);         (   -512.0,    -197.6,       0.0,       2.0);
 (   -495.7,    -236.9,       0.0,       2.0);         (   -479.5,    -276.2,       0.0,       2.0);
 (   -463.2,    -315.5,       0.0,       2.0);         (   -446.9,    -354.8,       0.0,       2.0);
 (   -391.4,    -410.3,       0.0,       2.0);         (   -352.1,    -426.6,       0.0,       2.0);
 (   -312.8,    -442.9,       0.0,       2.0);         (   -273.5,    -459.1,       0.0,       2.0);
 (   -234.2,    -475.4,       0.0,       2.0);         (   -194.9,    -491.7,       0.0,       2.0);
 (   -155.7,    -508.0,       0.0,       2.0);         (   -116.4,    -524.2,       0.0,       2.0);
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

```
 (   -577.1,     -40.5,       0.0,       2.0);         (   -577.1,       4.6,       0.0,       2.0);
 (   -577.1,      49.8,       0.0,       2.0);         (   -577.1,      94.9,       0.0,       2.0);
 (   -577.1,     140.1,       0.0,       2.0);         (   -577.1,     185.2,       0.0,       2.0);
 (   -577.1,     230.4,       0.0,       2.0);         (   -577.1,     275.5,       0.0,       2.0);
 (   -577.1,     320.7,       0.0,       2.0);         (   -577.1,     365.8,       0.0,       2.0);
 (  -1059.9,     -82.1,       0.0,       2.0);         (  -1042.6,    -123.7,       0.0,       2.0);
 (  -1025.4,    -165.3,       0.0,       2.0);         (  -1008.2,    -206.9,       0.0,       2.0);
 (   -991.0,    -248.5,       0.0,       2.0);         (   -973.7,    -290.1,       0.0,       2.0);
 (   -956.5,    -331.7,       0.0,       2.0);         (   -939.3,    -373.3,       0.0,       2.0);
 (   -922.0,    -414.9,       0.0,       2.0);         (   -904.8,    -456.5,       0.0,       2.0);
 (   -887.6,    -498.0,       0.0,       2.0);         (   -870.3,    -539.6,       0.0,       2.0);
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(-853.1,	-581.2,	0.0,	2.0);	(-835.9,	-622.8,	0.0,	2.0);
(-818.7,	-664.4,	0.0,	2.0);	(-801.4,	-706.0,	0.0,	2.0);
(-742.6,	-764.8,	0.0,	2.0);	(-701.0,	-782.1,	0.0,	2.0);
(-659.4,	-799.3,	0.0,	2.0);	(-617.8,	-816.5,	0.0,	2.0);
(-576.2,	-833.8,	0.0,	2.0);	(-534.6,	-851.0,	0.0,	2.0);
(-493.0,	-868.2,	0.0,	2.0);	(-451.5,	-885.5,	0.0,	2.0);
(-409.9,	-902.7,	0.0,	2.0);	(-368.3,	-919.9,	0.0,	2.0);
(-326.7,	-937.1,	0.0,	2.0);	(-285.1,	-954.4,	0.0,	2.0);
(-243.5,	-971.6,	0.0,	2.0);	(-201.9,	-988.8,	0.0,	2.0);
(-160.3,	-1006.0,	0.0,	2.0);	(-118.7,	-1023.3,	0.0,	2.0);
(-1077.1,	-40.5,	0.0,	2.0);	(-1077.1,	4.6,	0.0,	2.0);
(-1077.1,	49.8,	0.0,	2.0);	(-1077.1,	94.9,	0.0,	2.0);
(-1077.1,	140.1,	0.0,	2.0);	(-1077.1,	185.2,	0.0,	2.0);
(-1077.1,	230.4,	0.0,	2.0);	(-1077.1,	275.5,	0.0,	2.0);
(-1077.1,	320.7,	0.0,	2.0);	(-1077.1,	365.8,	0.0,	2.0);
(-77.2,	385.8,	0.0,	2.0);	(-32.1,	385.9,	0.0,	2.0);
(12.9,	386.1,	0.0,	2.0);	(58.0,	386.2,	0.0,	2.0);
(103.0,	386.3,	0.0,	2.0);	(148.0,	386.4,	0.0,	2.0);
(193.1,	386.6,	0.0,	2.0);	(238.1,	386.7,	0.0,	2.0);
(283.1,	386.8,	0.0,	2.0);	(328.1,	387.0,	0.0,	2.0);
(-77.2,	415.8,	0.0,	2.0);	(-32.2,	415.9,	0.0,	2.0);
(12.8,	416.1,	0.0,	2.0);	(57.9,	416.2,	0.0,	2.0);
(102.9,	416.3,	0.0,	2.0);	(147.9,	416.4,	0.0,	2.0);
(193.0,	416.6,	0.0,	2.0);	(238.0,	416.7,	0.0,	2.0);
(283.0,	416.8,	0.0,	2.0);	(328.1,	417.0,	0.0,	2.0);
(-112.7,	451.1,	0.0,	2.0);	(-162.5,	401.1,	0.0,	2.0);
(-77.4,	465.8,	0.0,	2.0);	(-32.3,	465.9,	0.0,	2.0);
(12.7,	466.1,	0.0,	2.0);	(57.7,	466.2,	0.0,	2.0);
(102.8,	466.3,	0.0,	2.0);	(147.8,	466.4,	0.0,	2.0);
(192.8,	466.6,	0.0,	2.0);	(237.9,	466.7,	0.0,	2.0);
(282.9,	466.8,	0.0,	2.0);	(327.9,	467.0,	0.0,	2.0);
(-112.9,	551.1,	0.0,	2.0);	(-148.2,	536.4,	0.0,	2.0);
(-183.5,	521.7,	0.0,	2.0);	(-233.3,	471.7,	0.0,	2.0);
(-247.9,	436.4,	0.0,	2.0);	(-262.5,	401.1,	0.0,	2.0);

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

(-77.7,	565.8,	0.0,	2.0);	(-32.6,	565.9,	0.0,	2.0);
(12.4,	566.1,	0.0,	2.0);	(57.4,	566.2,	0.0,	2.0);
(102.5,	566.3,	0.0,	2.0);	(147.5,	566.4,	0.0,	2.0);
(192.5,	566.6,	0.0,	2.0);	(237.6,	566.7,	0.0,	2.0);
(282.6,	566.8,	0.0,	2.0);	(327.6,	567.0,	0.0,	2.0);
(-117.7,	849.5,	0.0,	2.0);	(-156.9,	833.2,	0.0,	2.0);
(-196.1,	816.8,	0.0,	2.0);	(-235.2,	800.5,	0.0,	2.0);
(-274.4,	784.2,	0.0,	2.0);	(-313.6,	767.8,	0.0,	2.0);
(-352.8,	751.5,	0.0,	2.0);	(-392.0,	735.2,	0.0,	2.0);
(-447.4,	679.6,	0.0,	2.0);	(-463.6,	640.4,	0.0,	2.0);
(-479.8,	601.2,	0.0,	2.0);	(-496.0,	562.0,	0.0,	2.0);
(-512.2,	522.7,	0.0,	2.0);	(-528.5,	483.5,	0.0,	2.0);
(-544.7,	444.3,	0.0,	2.0);	(-560.9,	405.0,	0.0,	2.0);
(-78.5,	865.8,	0.0,	2.0);	(-33.5,	865.9,	0.0,	2.0);
(11.6,	866.1,	0.0,	2.0);	(56.6,	866.2,	0.0,	2.0);
(101.6,	866.3,	0.0,	2.0);	(146.7,	866.4,	0.0,	2.0);
(191.7,	866.6,	0.0,	2.0);	(236.7,	866.7,	0.0,	2.0);
(281.8,	866.8,	0.0,	2.0);	(326.8,	867.0,	0.0,	2.0);
(-121.4,	1348.5,	0.0,	2.0);	(-162.9,	1331.2,	0.0,	2.0);
(-204.4,	1313.9,	0.0,	2.0);	(-245.9,	1296.7,	0.0,	2.0);
(-287.4,	1279.4,	0.0,	2.0);	(-328.8,	1262.1,	0.0,	2.0);
(-370.3,	1244.8,	0.0,	2.0);	(-411.8,	1227.5,	0.0,	2.0);
(-453.3,	1210.2,	0.0,	2.0);	(-494.8,	1192.9,	0.0,	2.0);
(-536.3,	1175.7,	0.0,	2.0);	(-577.8,	1158.4,	0.0,	2.0);
(-619.3,	1141.1,	0.0,	2.0);	(-660.7,	1123.8,	0.0,	2.0);
(-702.2,	1106.5,	0.0,	2.0);	(-743.7,	1089.2,	0.0,	2.0);
(-802.4,	1030.4,	0.0,	2.0);	(-819.5,	988.8,	0.0,	2.0);
(-836.7,	947.3,	0.0,	2.0);	(-853.9,	905.8,	0.0,	2.0);
(-871.0,	864.2,	0.0,	2.0);	(-888.2,	822.7,	0.0,	2.0);
(-905.4,	781.2,	0.0,	2.0);	(-922.6,	739.6,	0.0,	2.0);
(-939.7,	698.1,	0.0,	2.0);	(-956.9,	656.6,	0.0,	2.0);
(-974.1,	615.0,	0.0,	2.0);	(-991.3,	573.5,	0.0,	2.0);
(-1008.4,	532.0,	0.0,	2.0);	(-1025.6,	490.4,	0.0,	2.0);
(-1042.8,	448.9,	0.0,	2.0);	(-1059.9,	407.4,	0.0,	2.0);
(-79.9,	1365.8,	0.0,	2.0);	(-34.9,	1365.9,	0.0,	2.0);
(10.2,	1366.1,	0.0,	2.0);	(55.2,	1366.2,	0.0,	2.0);
(100.2,	1366.3,	0.0,	2.0);	(145.3,	1366.4,	0.0,	2.0);
(190.3,	1366.6,	0.0,	2.0);	(235.3,	1366.7,	0.0,	2.0);
(280.4,	1366.8,	0.0,	2.0);	(325.4,	1366.9,	0.0,	2.0);
(348.2,	367.0,	0.0,	2.0);	(348.2,	321.7,	0.0,	2.0);
(348.2,	276.4,	0.0,	2.0);	(348.2,	231.1,	0.0,	2.0);
(348.2,	185.9,	0.0,	2.0);	(348.2,	140.6,	0.0,	2.0);
(348.2,	95.3,	0.0,	2.0);	(348.2,	50.0,	0.0,	2.0);
(348.2,	4.8,	0.0,	2.0);	(348.2,	-40.5,	0.0,	2.0);
(378.2,	367.0,	0.0,	2.0);	(378.2,	321.7,	0.0,	2.0);

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

(378.2,	276.4,	0.0,	2.0);	(378.2,	231.1,	0.0,	2.0);
(378.2,	185.9,	0.0,	2.0);	(378.2,	140.6,	0.0,	2.0);
(378.2,	95.3,	0.0,	2.0);	(378.2,	50.0,	0.0,	2.0);
(378.2,	4.8,	0.0,	2.0);	(378.2,	-40.5,	0.0,	2.0);
(413.5,	402.4,	0.0,	2.0);	(363.4,	452.4,	0.0,	2.0);
(428.2,	367.0,	0.0,	2.0);	(428.2,	321.7,	0.0,	2.0);
(428.2,	276.4,	0.0,	2.0);	(428.2,	231.1,	0.0,	2.0);
(428.2,	185.9,	0.0,	2.0);	(428.2,	140.6,	0.0,	2.0);
(428.2,	95.3,	0.0,	2.0);	(428.2,	50.0,	0.0,	2.0);
(428.2,	4.8,	0.0,	2.0);	(428.2,	-40.5,	0.0,	2.0);
(513.5,	402.4,	0.0,	2.0);	(498.8,	437.8,	0.0,	2.0);
(484.1,	473.2,	0.0,	2.0);	(434.0,	523.2,	0.0,	2.0);
(398.5,	537.8,	0.0,	2.0);	(363.1,	552.3,	0.0,	2.0);

(528.2,	367.0,	0.0,	2.0);	(528.2,	321.7,	0.0,	2.0);
(528.2,	276.4,	0.0,	2.0);	(528.2,	231.1,	0.0,	2.0);
(528.2,	185.9,	0.0,	2.0);	(528.2,	140.6,	0.0,	2.0);
(528.2,	95.3,	0.0,	2.0);	(528.2,	50.0,	0.0,	2.0);
(528.2,	4.8,	0.0,	2.0);	(528.2,	-40.5,	0.0,	2.0);
(811.9,	406.3,	0.0,	2.0);	(795.6,	445.6,	0.0,	2.0);
(779.2,	485.0,	0.0,	2.0);	(762.9,	524.3,	0.0,	2.0);
(746.6,	563.6,	0.0,	2.0);	(730.3,	603.0,	0.0,	2.0);
(713.9,	642.3,	0.0,	2.0);	(697.6,	681.7,	0.0,	2.0);
(641.9,	737.2,	0.0,	2.0);	(602.5,	753.4,	0.0,	2.0);
(563.1,	769.7,	0.0,	2.0);	(523.7,	785.9,	0.0,	2.0);
(484.3,	802.1,	0.0,	2.0);	(445.0,	818.3,	0.0,	2.0);
(405.6,	834.5,	0.0,	2.0);	(366.2,	850.7,	0.0,	2.0);
(828.2,	367.0,	0.0,	2.0);	(828.2,	321.7,	0.0,	2.0);
(828.2,	276.4,	0.0,	2.0);	(828.2,	231.1,	0.0,	2.0);
(828.2,	185.9,	0.0,	2.0);	(828.2,	140.6,	0.0,	2.0);
(828.2,	95.3,	0.0,	2.0);	(828.2,	50.0,	0.0,	2.0);
(828.2,	4.8,	0.0,	2.0);	(828.2,	-40.5,	0.0,	2.0);
(1310.9,	408.6,	0.0,	2.0);	(1293.6,	450.3,	0.0,	2.0);
(1276.3,	491.9,	0.0,	2.0);	(1259.1,	533.6,	0.0,	2.0);
(1241.8,	575.2,	0.0,	2.0);	(1224.5,	616.9,	0.0,	2.0);
(1207.2,	658.5,	0.0,	2.0);	(1189.9,	700.2,	0.0,	2.0);
(1172.6,	741.8,	0.0,	2.0);	(1155.3,	783.5,	0.0,	2.0);
(1138.1,	825.1,	0.0,	2.0);	(1120.8,	866.8,	0.0,	2.0);
(1103.5,	908.4,	0.0,	2.0);	(1086.2,	950.1,	0.0,	2.0);
(1068.9,	991.7,	0.0,	2.0);	(1051.6,	1033.4,	0.0,	2.0);
(992.6,	1092.2,	0.0,	2.0);	(950.9,	1109.4,	0.0,	2.0);
(909.2,	1126.6,	0.0,	2.0);	(867.5,	1143.7,	0.0,	2.0);
(825.8,	1160.9,	0.0,	2.0);	(784.1,	1178.1,	0.0,	2.0);
(742.4,	1195.2,	0.0,	2.0);	(700.7,	1212.4,	0.0,	2.0);
(659.0,	1229.6,	0.0,	2.0);	(617.3,	1246.8,	0.0,	2.0);
(575.6,	1263.9,	0.0,	2.0);	(533.9,	1281.1,	0.0,	2.0);

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

(492.2,	1298.3,	0.0,	2.0);	(450.5,	1315.4,	0.0,	2.0);
(408.8,	1332.6,	0.0,	2.0);	(367.1,	1349.8,	0.0,	2.0);
(1328.2,	367.0,	0.0,	2.0);	(1328.2,	321.7,	0.0,	2.0);
(1328.2,	276.4,	0.0,	2.0);	(1328.2,	231.1,	0.0,	2.0);
(1328.2,	185.9,	0.0,	2.0);	(1328.2,	140.6,	0.0,	2.0);
(1328.2,	95.3,	0.0,	2.0);	(1328.2,	50.0,	0.0,	2.0);
(1328.2,	4.8,	0.0,	2.0);	(1328.2,	-40.5,	0.0,	2.0);
(-77.1,	365.8,	0.0,	2.0);	(-77.1,	-40.5,	0.0,	2.0);
(328.2,	-40.5,	0.0,	2.0);	(328.2,	367.0,	0.0,	2.0);

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

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1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

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

FILE: REDLANDS.ASC
FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.: 54161 UPPER AIR STATION NO.: 99999
NAME: REDLANDS NAME: UNKNOWN
YEAR: 1981 YEAR: 1981

YR MN DY HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
81 01 01 01	292.3	1.00	284.3	7	522.6	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 02	282.4	0.00	284.3	7	507.0	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 03	287.5	0.00	283.1	7	491.4	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 04	301.0	0.00	283.1	7	475.8	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 05	286.5	0.00	282.6	7	460.3	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 06	297.0	0.00	283.1	7	444.7	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 07	297.0	0.00	285.4	6	1.4	170.7	0.0000	0.0	0.0000	0	0.00
81 01 01 08	314.6	1.00	287.6	5	47.0	192.0	0.0000	0.0	0.0000	0	0.00
81 01 01 09	299.0	1.00	289.8	4	92.5	213.3	0.0000	0.0	0.0000	0	0.00
81 01 01 10	54.2	1.34	291.5	3	138.0	234.7	0.0000	0.0	0.0000	0	0.00
81 01 01 11	89.1	1.79	294.3	3	183.5	256.0	0.0000	0.0	0.0000	0	0.00
81 01 01 12	103.1	1.34	297.6	2	229.0	277.3	0.0000	0.0	0.0000	0	0.00
81 01 01 13	87.2	1.34	298.7	2	274.5	298.7	0.0000	0.0	0.0000	0	0.00
81 01 01 14	124.2	1.79	299.8	3	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81 01 01 15	134.8	2.24	299.3	3	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81 01 01 16	98.2	2.24	298.7	4	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81 01 01 17	110.1	2.24	295.4	5	325.6	318.5	0.0000	0.0	0.0000	0	0.00
81 01 01 18	210.1	1.00	291.5	6	357.2	310.3	0.0000	0.0	0.0000	0	0.00
81 01 01 19	268.0	1.00	289.8	7	388.8	302.1	0.0000	0.0	0.0000	0	0.00
81 01 01 20	303.2	1.00	287.0	7	420.4	293.9	0.0000	0.0	0.0000	0	0.00
81 01 01 21	291.1	1.34	286.5	7	452.0	285.7	0.0000	0.0	0.0000	0	0.00
81 01 01 22	294.5	1.34	287.0	7	483.5	277.4	0.0000	0.0	0.0000	0	0.00
81 01 01 23	293.2	0.00	285.9	7	515.1	269.2	0.0000	0.0	0.0000	0	0.00
81 01 01 24	292.2	0.00	285.4	7	546.7	261.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

CONC URBAN FLAT FLGPOL NOCALM

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
328.21	-60.51	5.56048	283.18	-60.51	5.42740
238.14	-60.51	5.16402	193.11	-60.51	4.82183
148.07	-60.51	4.37713	103.04	-60.51	3.82144
58.00	-60.51	3.17215	12.97	-60.51	2.37530
-32.07	-60.51	1.30649	-77.10	-60.51	0.44765
328.21	-90.51	3.41894	283.18	-90.51	3.26323
238.14	-90.51	3.03997	193.11	-90.51	2.76043
148.07	-90.51	2.42121	103.04	-90.51	2.02194
58.00	-90.51	1.55273	12.97	-90.51	1.03786
-32.07	-90.51	0.55371	-77.10	-90.51	0.30595
363.57	-125.87	2.26370	413.57	-75.87	3.55735
328.21	-140.51	1.86520	283.18	-140.51	1.71990
238.14	-140.51	1.54124	193.11	-140.51	1.33753
148.07	-140.51	1.11322	103.04	-140.51	0.87586
58.00	-140.51	0.63910	12.97	-140.51	0.42767
-32.07	-140.51	0.27519	-77.10	-140.51	0.19545
363.57	-225.87	0.89648	398.92	-211.22	1.06574
434.28	-196.58	1.23133	484.28	-146.58	1.75389
498.92	-111.22	2.16123	513.57	-75.87	2.54068
328.21	-240.51	0.73657	283.18	-240.51	0.64987
238.14	-240.51	0.55791	193.11	-240.51	0.46522
148.07	-240.51	0.37622	103.04	-240.51	0.29511
58.00	-240.51	0.22581	12.97	-240.51	0.17152
-32.07	-240.51	0.13346	-77.10	-240.51	0.10884
367.49	-524.24	0.15359	406.78	-507.97	0.18105
446.06	-491.69	0.21157	485.34	-475.42	0.24482
524.63	-459.15	0.28038	563.91	-442.88	0.31766
603.20	-426.61	0.35592	642.48	-410.34	0.39427
698.04	-354.78	0.51511	714.31	-315.50	0.60960
730.58	-276.21	0.71198	746.85	-236.93	0.81723
763.12	-197.64	0.91923	779.39	-158.36	1.01153
795.67	-119.08	1.08852	811.94	-79.79	1.14588
328.21	-540.51	0.12939	283.18	-540.51	0.11387
238.14	-540.51	0.09927	193.11	-540.51	0.08588
148.07	-540.51	0.07394	103.04	-540.51	0.06363
58.00	-540.51	0.05502	12.97	-540.51	0.04811
-32.07	-540.51	0.04269	-77.10	-540.51	0.03844
369.80	-1023.28	0.03375	411.40	-1006.05	0.03805
452.99	-988.82	0.04285	494.59	-971.59	0.04813
536.18	-954.36	0.05384	577.78	-937.14	0.05994

CONC URBAN FLAT FLGPOL NOCALM

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
619.37	-919.91	0.06637	660.97	-902.68	0.07308

702.56	-885.45	0.08001	744.16	-868.22	0.08713
785.75	-850.99	0.09443	827.34	-833.76	0.10192
868.94	-816.53	0.10965	910.53	-799.30	0.11766
952.13	-782.07	0.12601	993.72	-764.85	0.13470
1052.55	-706.02	0.16239	1069.77	-664.43	0.18350
1087.00	-622.83	0.20694	1104.23	-581.24	0.23241
1121.46	-539.64	0.25940	1138.69	-498.05	0.28720
1155.92	-456.46	0.31499	1173.15	-414.86	0.34194
1190.38	-373.27	0.36715	1207.61	-331.67	0.38991
1224.84	-290.08	0.40956	1242.06	-248.48	0.42570
1259.29	-206.89	0.43803	1276.52	-165.29	0.44646
1293.75	-123.70	0.45101	1310.98	-82.10	0.45182
328.21	-1040.51	0.02996	283.18	-1040.51	0.02740
238.14	-1040.51	0.02508	193.11	-1040.51	0.02301
148.07	-1040.51	0.02119	103.04	-1040.51	0.01959
58.00	-1040.51	0.01819	12.97	-1040.51	0.01696
-32.07	-1040.51	0.01586	-77.10	-1040.51	0.01487
-97.10	-40.51	0.52174	-97.10	4.64	1.03558
-97.10	49.78	1.38124	-97.10	94.93	1.60656
-97.10	140.08	1.75617	-97.10	185.22	1.86283
-97.10	230.37	1.91536	-97.10	275.52	1.92961
-97.10	320.66	1.89160	-97.10	365.81	1.68554
-127.10	-40.51	0.39699	-127.10	4.64	0.66807
-127.10	49.78	0.90078	-127.10	94.93	1.07116
-127.10	140.08	1.19652	-127.10	185.22	1.28703
-127.10	230.37	1.34344	-127.10	275.52	1.36889
-127.10	320.66	1.34838	-127.10	365.81	1.22200
-162.46	-75.87	0.21588	-112.46	-125.87	0.17973
-177.10	-40.51	0.28150	-177.10	4.64	0.41208
-177.10	49.78	0.54436	-177.10	94.93	0.65871
-177.10	140.08	0.75002	-177.10	185.22	0.81917
-177.10	230.37	0.86697	-177.10	275.52	0.89170
-177.10	320.66	0.88350	-177.10	365.81	0.82299
-262.46	-75.87	0.14686	-247.81	-111.22	0.12125
-233.17	-146.58	0.10267	-183.17	-196.58	0.09298
-147.81	-211.22	0.09680	-112.46	-225.87	0.10192
-277.10	-40.51	0.17617	-277.10	4.64	0.22939
-277.10	49.78	0.28535	-277.10	94.93	0.34039
-277.10	140.08	0.39112	-277.10	185.22	0.43428

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
-277.10	230.37	0.46712	-277.10	275.52	0.48628
-277.10	320.66	0.48767	-277.10	365.81	0.47065
-560.83	-79.79	0.06854	-544.56	-119.08	0.05985
-528.28	-158.36	0.05198	-512.01	-197.64	0.04551
-495.74	-236.93	0.04060	-479.47	-276.21	0.03708
-463.20	-315.50	0.03457	-446.93	-354.78	0.03267
-391.37	-410.34	0.03194	-352.09	-426.61	0.03264
-312.80	-442.88	0.03315	-273.52	-459.15	0.03360
-234.23	-475.42	0.03412	-194.95	-491.69	0.03482
-155.67	-507.97	0.03575	-116.38	-524.24	0.03694
-577.10	-40.51	0.07735	-577.10	4.64	0.09040
-577.10	49.78	0.10354	-577.10	94.93	0.11632
-577.10	140.08	0.12822	-577.10	185.22	0.13869
-577.10	230.37	0.14713	-577.10	275.52	0.15316
-577.10	320.66	0.15677	-577.10	365.81	0.15828
-1059.87	-82.10	0.03395	-1042.64	-123.70	0.03116
-1025.41	-165.29	0.02828	-1008.18	-206.89	0.02544
-990.95	-248.48	0.02278	-973.73	-290.08	0.02041
-956.50	-331.67	0.01838	-939.27	-373.27	0.01672
-922.04	-414.86	0.01541	-904.81	-456.46	0.01441
-887.58	-498.05	0.01369	-870.35	-539.64	0.01319
-853.12	-581.24	0.01286	-835.89	-622.83	0.01264
-818.66	-664.43	0.01249	-801.44	-706.02	0.01234
-742.61	-764.85	0.01249	-701.02	-782.07	0.01271
-659.42	-799.30	0.01281	-617.83	-816.53	0.01279
-576.23	-833.76	0.01268	-534.64	-850.99	0.01252
-493.05	-868.22	0.01236	-451.45	-885.45	0.01223
-409.86	-902.68	0.01218	-368.26	-919.91	0.01223
-326.67	-937.14	0.01238	-285.07	-954.36	0.01264
-243.48	-971.59	0.01299	-201.88	-988.82	0.01341
-160.29	-1006.05	0.01387	-118.69	-1023.28	0.01436
-1077.10	-40.51	0.03650	-1077.10	4.64	0.03979
-1077.10	49.78	0.04280	-1077.10	94.93	0.04546
-1077.10	140.08	0.04773	-1077.10	185.22	0.04960
-1077.10	230.37	0.05109	-1077.10	275.52	0.05226
-1077.10	320.66	0.05315	-1077.10	365.81	0.05384
-77.16	385.81	1.78684	-32.12	385.94	2.70135
12.91	386.06	3.55335	57.95	386.19	4.16003
102.98	386.32	4.58998	148.02	386.44	4.89133
193.05	386.57	5.06486	238.08	386.70	5.10070

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
283.12	386.82	4.96173	328.15	386.95	4.51079

-77.24	415.81	1.34859	-32.21	415.94	1.77215
12.83	416.06	2.20254	57.86	416.19	2.57251
102.90	416.32	2.86300	147.93	416.44	3.07418
192.97	416.57	3.20508	238.00	416.70	3.24732
283.03	416.82	3.17589	328.07	416.95	2.95865
-112.65	451.12	0.86154	-162.51	401.12	0.81481
-77.38	465.81	0.94074	-32.35	465.94	1.12522
12.69	466.06	1.30860	57.72	466.19	1.48442
102.76	466.32	1.63751	147.79	466.44	1.75785
192.83	466.57	1.83803	237.86	466.70	1.87167
282.89	466.82	1.84948	327.93	466.95	1.77047
-112.93	551.11	0.53326	-148.19	536.42	0.50200
-183.46	521.73	0.46862	-233.32	471.73	0.45968
-247.91	436.42	0.47464	-262.51	401.12	0.47829
-77.66	565.81	0.55588	-32.63	565.94	0.62014
12.41	566.06	0.67864	57.44	566.19	0.73410
102.48	566.32	0.78575	147.51	566.44	0.83026
192.54	566.57	0.86311	237.58	566.70	0.87977
282.61	566.82	0.87838	327.65	566.95	0.86408
-117.69	849.48	0.20389	-156.87	833.15	0.19826
-196.05	816.83	0.19139	-235.24	800.50	0.18424
-274.42	784.17	0.17761	-313.60	767.85	0.17188
-352.78	751.52	0.16699	-391.97	735.19	0.16252
-447.37	679.64	0.16569	-463.58	640.41	0.17211
-479.80	601.18	0.17660	-496.02	561.95	0.17881
-512.23	522.72	0.17867	-528.45	483.50	0.17624
-544.67	444.27	0.17178	-560.88	405.04	0.16567
-78.51	865.81	0.20753	-33.47	865.93	0.21880
11.56	866.06	0.22776	56.60	866.19	0.23437
101.63	866.31	0.23879	146.67	866.44	0.24124
191.70	866.57	0.24200	236.73	866.69	0.24158
281.77	866.82	0.24064	326.80	866.95	0.23995
-121.40	1348.52	0.08244	-162.89	1331.23	0.08176
-204.38	1313.94	0.08043	-245.86	1296.66	0.07856
-287.35	1279.37	0.07630	-328.84	1262.08	0.07385
-370.33	1244.79	0.07137	-411.81	1227.51	0.06905
-453.30	1210.22	0.06699	-494.79	1192.93	0.06528
-536.28	1175.65	0.06396	-577.76	1158.36	0.06301
-619.25	1141.07	0.06239	-660.74	1123.78	0.06202

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
-702.23	1106.50	0.06180	-743.71	1089.21	0.06160
-802.37	1030.39	0.06389	-819.54	988.85	0.06620
-836.71	947.31	0.06811	-853.88	905.78	0.06951
-871.05	864.24	0.07034	-888.22	822.71	0.07060
-905.39	781.17	0.07034	-922.56	739.63	0.06963
-939.74	698.10	0.06855	-956.91	656.56	0.06718
-974.08	615.03	0.06558	-991.25	573.49	0.06380
-1008.42	531.95	0.06191	-1025.59	490.42	0.05994
-1042.76	448.88	0.05793	-1059.93	407.35	0.05589
-79.91	1365.81	0.08240	-34.88	1365.93	0.08382
10.16	1366.06	0.08451	55.19	1366.19	0.08452
100.23	1366.31	0.08393	145.26	1366.44	0.08288
190.29	1366.57	0.08156	235.33	1366.69	0.08017
280.36	1366.82	0.07887	325.40	1366.95	0.07780
348.21	366.95	5.94274	348.21	321.68	10.12043
348.21	276.40	11.80534	348.21	231.13	12.58221
348.21	185.86	12.92165	348.21	140.58	12.95852
348.21	95.31	12.64677	348.21	50.04	12.02057
348.21	4.76	10.78868	348.21	-40.51	7.62763
378.21	366.95	4.69709	378.21	321.68	7.15374
378.21	276.40	8.54431	378.21	231.13	9.23069
378.21	185.86	9.55478	378.21	140.58	9.61930
378.21	95.31	9.42867	378.21	50.04	8.96510
378.21	4.76	8.00521	378.21	-40.51	5.98361
413.52	402.36	2.67630	363.37	452.35	1.91913
428.21	366.95	3.41199	428.21	321.68	4.67446
428.21	276.40	5.64851	428.21	231.13	6.23952
428.21	185.86	6.54420	428.21	140.58	6.62723
428.21	95.31	6.50515	428.21	50.04	6.15561
428.21	4.76	5.48690	428.21	-40.51	4.39246
513.52	402.36	1.86260	498.82	437.76	1.56954
484.13	473.17	1.30749	433.99	523.16	1.04497
398.54	537.76	0.98957	363.09	552.35	0.92712
528.21	366.95	2.15356	528.21	321.68	2.66903
528.21	276.40	3.13887	528.21	231.13	3.50085
528.21	185.86	3.73047	528.21	140.58	3.82545
528.21	95.31	3.78753	528.21	50.04	3.61236
528.21	4.76	3.29057	528.21	-40.51	2.83527
811.88	406.29	0.82356	795.56	445.63	0.75429
779.23	484.97	0.68402	762.90	524.31	0.61660

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
746.57	563.64	0.55435	730.25	602.98	0.49790

713.92	642.32	0.44696	697.59	681.66	0.40103
641.88	737.22	0.35151	602.50	753.43	0.34112
563.11	769.65	0.32856	523.73	785.87	0.31415
484.34	802.08	0.29852	444.96	818.30	0.28250
405.57	834.52	0.26700	366.19	850.73	0.25271
828.21	366.95	0.88723	828.21	321.68	0.99346
828.21	276.40	1.09340	828.21	231.13	1.18051
828.21	185.86	1.24880	828.21	140.58	1.29282
828.21	95.31	1.30849	828.21	50.04	1.29381
828.21	4.76	1.24982	828.21	-40.51	1.18062
1310.92	408.60	0.35076	1293.63	450.26	0.33429
1276.35	491.91	0.31649	1259.06	533.56	0.29813
1241.77	575.21	0.27989	1224.48	616.87	0.26231
1207.20	658.52	0.24578	1189.91	700.17	0.23045
1172.62	741.83	0.21630	1155.33	783.48	0.20321
1138.05	825.13	0.19099	1120.76	866.79	0.17947
1103.47	908.44	0.16856	1086.18	950.09	0.15817
1068.90	991.74	0.14829	1051.61	1033.40	0.13891
992.62	1092.22	0.12821	950.92	1109.39	0.12605
909.22	1126.56	0.12357	867.52	1143.73	0.12077
825.81	1160.90	0.11763	784.11	1178.07	0.11417
742.41	1195.24	0.11042	700.71	1212.41	0.10644
659.01	1229.58	0.10232	617.31	1246.75	0.09818
575.61	1263.92	0.09415	533.90	1281.09	0.09035
492.20	1298.26	0.08690	450.50	1315.44	0.08390
408.80	1332.61	0.08139	367.10	1349.78	0.07937
1328.21	366.95	0.36519	1328.21	321.68	0.38809
1328.21	276.40	0.40874	1328.21	231.13	0.42639
1328.21	185.86	0.44042	1328.21	140.58	0.45044
1328.21	95.31	0.45622	1328.21	50.04	0.45779
1328.21	4.76	0.45529	1328.21	-40.51	0.44904
-77.10	365.81	2.19672	-77.10	-40.51	0.61910
328.21	-40.51	8.42700	328.21	366.95	6.64513

CONC URBAN FLAT FLGPOL NOCALM

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
328.21	-60.51	119.06920	(81042509)	283.18	-60.51	113.09293	(81042509)
238.14	-60.51	105.32962	(81042509)	193.11	-60.51	96.96371	(81032909)
148.07	-60.51	98.90689	(81021110)	103.04	-60.51	103.23195	(81122716)
58.00	-60.51	107.99219	(81122716)	12.97	-60.51	118.46691	(81122716)
-32.07	-60.51	126.31425	(81122716)	-77.10	-60.51	131.43106	(81122716)
328.21	-90.51	85.27602	(81042509)	283.18	-90.51	79.48166	(81022809)
238.14	-90.51	78.63008	(81021111)	193.11	-90.51	78.26759	(81021110)
148.07	-90.51	79.07687	(81021110)	103.04	-90.51	79.07294	(81021110)
58.00	-90.51	84.87572	(81122716)	12.97	-90.51	91.96090	(81122716)
-32.07	-90.51	97.60538	(81122716)	-77.10	-90.51	101.60683	(81122716)
363.57	-125.87	65.42075	(81042509)	413.57	-75.87	85.00655	(81042509)
328.21	-140.51	61.19516	(81040109)	283.18	-140.51	61.49976	(81021111)
238.14	-140.51	61.40783	(81032915)	193.11	-140.51	61.18062	(81012715)
148.07	-140.51	61.15072	(81021110)	103.04	-140.51	61.31631	(81021110)
58.00	-140.51	61.33420	(81031609)	12.97	-140.51	61.81110	(81122716)
-32.07	-140.51	67.99405	(81122716)	-77.10	-140.51	72.85627	(81122716)
363.57	-225.87	44.29192	(81040109)	398.92	-211.22	44.86558	(81020911)
434.28	-196.58	44.46820	(81042309)	484.28	-146.58	58.02067	(81042509)
498.92	-111.22	60.08067	(81042509)	513.57	-75.87	59.43943	(81122713)
328.21	-240.51	43.08475	(81021111)	283.18	-240.51	43.45290	(81022709)
238.14	-240.51	43.51372	(81012715)	193.11	-240.51	42.94418	(81012715)
148.07	-240.51	43.26686	(81021110)	103.04	-240.51	43.60607	(81021110)
58.00	-240.51	43.51315	(81031609)	12.97	-240.51	43.49956	(81031609)
-32.07	-240.51	43.43797	(81032309)	-77.10	-240.51	43.08289	(81030609)
367.49	-524.24	23.24408	(81022709)	406.78	-507.97	23.52097	(81021111)
446.06	-491.69	23.67760	(81022809)	485.34	-475.42	23.75343	(81040109)
524.63	-459.15	23.67966	(81050210)	563.91	-442.88	23.46520	(81032910)
603.20	-426.61	23.07323	(81042309)	642.48	-410.34	22.43711	(81020814)
698.04	-354.78	26.25154	(81042509)	714.31	-315.50	29.76462	(81042509)
730.58	-276.21	31.44945	(81042509)	746.85	-236.93	31.02496	(81042509)
763.12	-197.64	31.86295	(81122713)	779.39	-158.36	31.00448	(81122713)
795.67	-119.08	28.52654	(81122713)	811.94	-79.79	28.41269	(81051510)
328.21	-540.51	22.92044	(81032914)	283.18	-540.51	22.96914	(81012715)
238.14	-540.51	22.04131	(81012715)	193.11	-540.51	20.70238	(81021110)
148.07	-540.51	22.62212	(81021110)	103.04	-540.51	23.43911	(81021110)
58.00	-540.51	23.42022	(81032909)	12.97	-540.51	23.25810	(81031609)
-32.07	-540.51	22.95342	(81031609)	-77.10	-540.51	22.88842	(81032309)
369.80	-1023.28	11.56693	(81012715)	411.40	-1006.05	12.01051	(81012715)
452.99	-988.82	12.10746	(81032914)	494.59	-971.59	12.19514	(81022709)
536.18	-954.36	12.11331	(81021111)	577.78	-937.14	12.26494	(81021111)

CONC URBAN FLAT FLGPOL NOCALM

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
619.37	-919.91	12.29425	(81022809)	660.97	-902.68	12.06680	(81022809)
702.56	-885.45	12.24478	(81040109)	744.16	-868.22	12.17359	(81032911)
785.75	-850.99	12.09076	(81020911)	827.34	-833.76	11.97830	(81022812)
868.94	-816.53	11.84312	(81042511)	910.53	-799.30	11.68067	(81042309)
952.13	-782.07	11.45758	(81020814)	993.72	-764.85	10.98871	(81030510)
1052.55	-706.02	11.19965	(81030510)	1069.77	-664.43	12.59602	(81042509)
1087.00	-622.83	14.29225	(81042509)	1104.23	-581.24	15.50082	(81042509)

1121.46	-539.64	16.05626	(81042509)	1138.69	-498.05	15.87474	(81042509)
1155.92	-456.46	15.86056	(81122713)	1173.15	-414.86	16.41218	(81122713)
1190.38	-373.27	16.18131	(81122713)	1207.61	-331.67	15.20983	(81122713)
1224.84	-290.08	13.63419	(81122713)	1242.06	-248.48	12.20546	(81112409)
1259.29	-206.89	13.95594	(81051510)	1276.52	-165.29	15.27964	(81051510)
1293.75	-123.70	15.95445	(81051510)	1310.98	-82.10	15.92858	(81051510)
328.21	-1040.51	10.93282	(81011115)	283.18	-1040.51	10.68762	(81011115)
238.14	-1040.51	10.00424	(81011115)	193.11	-1040.51	10.01705	(81021110)
148.07	-1040.51	11.11140	(81021110)	103.04	-1040.51	11.77345	(81021110)
58.00	-1040.51	11.93263	(81021110)	12.97	-1040.51	11.85569	(81032909)
-32.07	-1040.51	11.50413	(81031609)	-77.10	-1040.51	11.75371	(81031609)
-97.10	-40.51	126.88170	(81122716)	-97.10	4.64	125.70024	(81120509)
-97.10	49.78	123.98717	(81120509)	-97.10	94.93	128.19704	(81123009)
-97.10	140.08	131.42201	(81111909)	-97.10	185.22	131.75278	(81121509)
-97.10	230.37	129.50011	(81122609)	-97.10	275.52	124.81107	(81122509)
-97.10	320.66	127.22771	(81010109)	-97.10	365.81	130.74463	(81112009)
-127.10	-40.51	103.02435	(81120509)	-127.10	4.64	105.43556	(81120509)
-127.10	49.78	104.74790	(81120509)	-127.10	94.93	104.33283	(81122609)
-127.10	140.08	105.75405	(81010209)	-127.10	185.22	105.87550	(81123009)
-127.10	230.37	104.66663	(81123009)	-127.10	275.52	104.55363	(81120709)
-127.10	320.66	105.55052	(81051610)	-127.10	365.81	105.68104	(81022009)
-162.46	-75.87	77.39165	(81122716)	-112.46	-125.87	81.99812	(81122716)
-177.10	-40.51	80.69229	(81120509)	-177.10	4.64	82.00174	(81120509)
-177.10	49.78	81.96813	(81123013)	-177.10	94.93	82.02377	(81012009)
-177.10	140.08	82.23780	(81122609)	-177.10	185.22	82.23653	(81123009)
-177.10	230.37	82.02325	(81121909)	-177.10	275.52	81.96912	(81120809)
-177.10	320.66	82.03265	(81011509)	-177.10	365.81	81.56056	(81011009)
-262.46	-75.87	57.20430	(81120509)	-247.81	-111.22	50.56567	(81120509)
-233.17	-146.58	55.14366	(81122716)	-183.17	-196.58	58.51841	(81122716)
-147.81	-211.22	54.52586	(81122716)	-112.46	-225.87	47.91922	(81122716)
-277.10	-40.51	57.62223	(81120509)	-277.10	4.64	57.94206	(81123013)
-277.10	49.78	58.29862	(81012009)	-277.10	94.93	58.42588	(81121409)
-277.10	140.08	58.49691	(81010209)	-277.10	185.22	58.49450	(81111909)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
-277.10	230.37	58.39809	(81122709)	-277.10	275.52	58.29978	(81011709)
-277.10	320.66	58.11035	(81112809)	-277.10	365.81	57.52801	(81120709)
-560.83	-79.79	30.32148	(81120509)	-544.56	-119.08	31.49700	(81120509)
-528.28	-158.36	30.92088	(81120509)	-512.01	-197.64	28.31199	(81120509)
-495.74	-236.93	23.87445	(81120509)	-479.47	-276.21	23.33760	(81010809)
-463.20	-315.50	25.43045	(81122716)	-446.93	-354.78	28.08498	(81122716)
-391.37	-410.34	30.17137	(81122716)	-352.09	-426.61	29.30250	(81122716)
-312.80	-442.88	26.72464	(81122716)	-273.52	-459.15	23.60817	(81020910)
-234.23	-475.42	23.25733	(81030712)	-194.95	-491.69	23.65718	(81030712)
-155.67	-507.97	23.35843	(81030609)	-116.38	-524.24	22.90858	(81032309)
-577.10	-40.51	30.66994	(81123013)	-577.10	4.64	31.02610	(81012009)
-577.10	49.78	31.27416	(81121409)	-577.10	94.93	31.35048	(81111209)
-577.10	140.08	31.46979	(81010209)	-577.10	185.22	31.45039	(81111909)
-577.10	230.37	31.40585	(81123009)	-577.10	275.52	31.05220	(81121909)
-577.10	320.66	30.87161	(81011709)	-577.10	365.81	30.66192	(81020209)
-1059.87	-82.10	17.17142	(81012009)	-1042.64	-123.70	16.91444	(81120309)
-1025.41	-165.29	16.61836	(81120309)	-1008.18	-206.89	15.59078	(81120309)
-990.95	-248.48	16.11374	(81120509)	-973.73	-290.08	16.45005	(81120509)
-956.50	-331.67	16.01110	(81120509)	-939.27	-373.27	14.83351	(81120509)
-922.04	-414.86	13.05911	(81120509)	-904.81	-456.46	11.50760	(81010809)
-887.58	-498.05	11.99018	(81010809)	-870.35	-539.64	11.91898	(81010809)
-853.12	-581.24	11.30704	(81010809)	-835.89	-622.83	11.41292	(81122716)
-818.66	-664.43	12.92644	(81122716)	-801.44	-706.02	14.02065	(81122716)
-742.61	-764.85	15.15693	(81122716)	-701.02	-782.07	15.11138	(81122716)
-659.42	-799.30	14.43677	(81122716)	-617.83	-816.53	13.19770	(81122716)
-576.23	-833.76	11.68864	(81020910)	-534.64	-850.99	12.08092	(81020910)
-493.05	-868.22	11.90990	(81020910)	-451.45	-885.45	11.75598	(81030712)
-409.86	-902.68	12.24851	(81030712)	-368.26	-919.91	12.25035	(81030609)
-326.67	-937.14	12.17372	(81030609)	-285.07	-954.36	11.54105	(81030609)
-243.48	-971.59	11.98388	(81032309)	-201.88	-988.82	12.10801	(81032309)
-160.29	-1006.05	11.69351	(81032309)	-118.69	-1023.28	11.73246	(81031609)
-1077.10	-40.51	16.91075	(81012009)	-1077.10	4.64	16.34718	(81121409)
-1077.10	49.78	15.88169	(81111209)	-1077.10	94.93	15.97672	(81122609)
-1077.10	140.08	16.00149	(81010709)	-1077.10	185.22	15.97973	(81121509)
-1077.10	230.37	15.95642	(81111909)	-1077.10	275.52	15.91917	(81123009)
-1077.10	320.66	15.74965	(81122709)	-1077.10	365.81	15.67655	(81121909)
-77.16	385.81	129.08206	(81121709)	-32.12	385.94	124.88811	(81121709)
12.91	386.06	122.76911	(81110209)	57.95	386.19	126.08239	(81111609)
102.98	386.32	128.03909	(81092909)	148.02	386.44	127.69175	(81110409)
193.05	386.57	125.28870	(81022209)	238.08	386.70	122.95798	(81021010)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
283.12	386.82	124.95367	(81022309)	328.15	386.95	128.26564	(81022309)
-77.24	415.81	104.19868	(81110209)	-32.21	415.94	103.95699	(81111309)
12.83	416.06	103.04747	(81111309)	57.86	416.19	102.82325	(81110409)
102.90	416.32	103.40419	(81121310)	147.93	416.44	103.27265	(81110409)
192.97	416.57	102.43983	(81092909)	238.00	416.70	102.75801	(81052910)
283.03	416.82	103.67341	(81081809)	328.07	416.95	103.64442	(81021010)
-112.65	451.12	83.36116	(81121709)	-162.51	401.12	83.97831	(81112009)

-77.38	465.81	79.97015	(81111309)	-32.35	465.94	81.13706	(81011409)
12.69	466.06	80.97309	(81011909)	57.72	466.19	80.83801	(81121809)
102.76	466.32	80.73011	(81110409)	147.79	466.44	80.66600	(81092909)
192.83	466.57	80.67095	(81111609)	237.86	466.70	80.22360	(81052910)
282.89	466.82	80.81770	(81052910)	327.93	466.95	80.33162	(81081809)
-112.93	551.11	57.33163	(81110209)	-148.19	536.42	59.41846	(81110209)
-183.46	521.73	58.81753	(81122909)	-233.32	471.73	59.02843	(81122712)
-247.91	436.42	59.71148	(81121609)	-262.51	401.12	59.06627	(81011009)
-77.66	565.81	57.15919	(81111309)	-32.63	565.94	57.63113	(81122309)
12.41	566.06	57.76443	(81122715)	57.44	566.19	57.78579	(81022209)
102.48	566.32	57.72155	(81110409)	147.51	566.44	57.67320	(81092909)
192.54	566.57	57.72353	(81111609)	237.58	566.70	57.10086	(81111609)
282.61	566.82	56.98297	(81052910)	327.65	566.95	56.95544	(81052910)
-117.69	849.48	30.85470	(81122309)	-156.87	833.15	31.28278	(81111309)
-196.05	816.83	30.92051	(81111309)	-235.24	800.50	30.06820	(81110209)
-274.42	784.17	31.41587	(81110209)	-313.60	767.85	30.78309	(81121709)
-352.78	751.52	30.75316	(81122909)	-391.97	735.19	30.13915	(81111509)
-447.37	679.64	30.15194	(81120109)	-463.58	640.41	30.69406	(81112009)
-479.80	601.18	31.10917	(81121609)	-496.02	561.95	31.59046	(81122710)
-512.23	522.72	31.71659	(81010109)	-528.45	483.50	31.64626	(81051610)
-544.67	444.27	31.45388	(81120709)	-560.88	405.04	31.09257	(81112809)
-78.51	865.81	30.46632	(81011909)	-33.47	865.93	30.83443	(81122715)
11.56	866.06	31.06212	(81052709)	56.60	866.19	30.98797	(81022209)
101.63	866.31	31.19213	(81110409)	146.67	866.44	31.13359	(81092909)
191.70	866.57	30.98862	(81111609)	236.73	866.69	30.91521	(81111609)
281.77	866.82	29.31774	(81111609)	326.80	866.95	28.10872	(81052910)
-121.40	1348.52	15.86866	(81121009)	-162.89	1331.23	16.01634	(81123110)
-204.38	1313.94	16.09071	(81102509)	-245.86	1296.66	16.23693	(81122309)
-287.35	1279.37	16.33951	(81011409)	-328.84	1262.08	16.38276	(81111309)
-370.33	1244.79	16.08694	(81111309)	-411.81	1227.51	15.04580	(81111309)
-453.30	1210.22	14.86991	(81110209)	-494.79	1192.93	15.85365	(81110209)
-536.28	1175.65	16.12573	(81110209)	-577.76	1158.36	15.65005	(81110209)
-619.25	1141.07	15.77780	(81121709)	-660.74	1123.78	15.53440	(81122909)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
-702.23	1106.50	15.31331	(81111509)	-743.71	1089.21	15.08491	(81022810)
-802.37	1030.39	15.06578	(81110309)	-819.54	988.85	15.34836	(81010909)
-836.71	947.31	15.52710	(81122712)	-853.88	905.78	15.79016	(81112009)
-871.05	864.24	15.91259	(81121609)	-888.22	822.71	16.14422	(81012609)
-905.39	781.17	16.43228	(81010109)	-922.56	739.63	16.80755	(81010109)
-939.74	698.10	16.38958	(81010109)	-956.91	656.56	16.43630	(81113009)
-974.08	615.03	16.87170	(81120709)	-991.25	573.49	16.58284	(81120709)
-1008.42	531.95	16.30521	(81112809)	-1025.59	490.42	16.20630	(81120809)
-1042.76	448.88	16.07697	(81011709)	-1059.93	407.35	15.83038	(81121909)
-79.91	1365.81	15.83380	(81112209)	-34.88	1365.93	16.22892	(81112209)
10.16	1366.06	15.92667	(81112209)	55.19	1366.19	15.39445	(81110409)
100.23	1366.31	15.92704	(81110409)	145.26	1366.44	15.88946	(81092909)
190.29	1366.57	15.25218	(81092909)	235.33	1366.69	15.64778	(81111609)
280.36	1366.82	15.78246	(81111609)	325.40	1366.95	15.23919	(81111609)
348.21	366.95	131.67166	(81111310)	348.21	321.68	126.50724	(81061109)
348.21	276.40	125.76011	(81053109)	348.21	231.13	130.62758	(81060209)
348.21	185.86	133.31749	(81111009)	348.21	140.58	132.85439	(81053109)
348.21	95.31	128.86095	(81053109)	348.21	50.04	126.41096	(81122713)
348.21	4.76	129.10037	(81042509)	348.21	-40.51	133.04620	(81042509)
378.21	366.95	106.41027	(81112410)	378.21	321.68	105.17054	(81112410)
378.21	276.40	103.75081	(81053109)	378.21	231.13	105.59206	(81053109)
378.21	185.86	106.79588	(81053109)	378.21	140.58	106.59269	(81060209)
378.21	95.31	105.10919	(81060209)	378.21	50.04	104.84151	(81122713)
378.21	4.76	106.54257	(81122713)	378.21	-40.51	106.52859	(81122713)
413.52	402.36	84.40260	(81032209)	363.37	452.35	83.34082	(81022309)
428.21	366.95	80.74108	(81112410)	428.21	321.68	78.53648	(81112410)
428.21	276.40	80.60561	(81053109)	428.21	231.13	82.11757	(81053109)
428.21	185.86	82.70921	(81053109)	428.21	140.58	82.67376	(81060209)
428.21	95.31	82.48466	(81112411)	428.21	50.04	82.34442	(81051510)
428.21	4.76	81.31049	(81051510)	428.21	-40.51	82.08413	(81122713)
513.52	402.36	57.69872	(81112410)	498.82	437.76	59.87165	(81112410)
484.13	473.17	59.14057	(81050411)	433.99	523.16	58.46139	(81123109)
398.54	537.76	59.34608	(81112109)	363.09	552.35	58.32494	(81021010)
528.21	366.95	52.83743	(81112410)	528.21	321.68	50.13174	(81053109)
528.21	276.40	56.39954	(81053109)	528.21	231.13	58.32207	(81053109)
528.21	185.86	58.70572	(81053109)	528.21	140.58	58.70417	(81060209)
528.21	95.31	58.64442	(81122714)	528.21	50.04	58.55835	(81051510)
528.21	4.76	57.60493	(81051510)	528.21	-40.51	56.50962	(81122713)
811.88	406.29	23.19868	(81060110)	795.56	445.63	23.46955	(81051411)
779.23	484.97	26.66712	(81112410)	762.90	524.31	29.80347	(81112410)

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
746.57	563.64	31.42723	(81112410)	730.25	602.98	31.32254	(81112309)
713.92	642.32	30.83397	(81111310)	697.59	681.66	29.74710	(81050411)
641.88	737.22	30.12605	(81031109)	602.50	753.43	30.51378	(81123109)
563.11	769.65	31.22080	(81022309)	523.73	785.87	31.38915	(81100409)
484.34	802.08	31.42656	(81021010)	444.96	818.30	31.51456	(81122009)
405.57	834.52	31.27158	(81052910)	366.19	850.73	30.37570	(81052910)
828.21	366.95	22.89741	(81060109)	828.21	321.68	26.36441	(81053109)

828.21	276.40	29.67946	(81053109)	828.21	231.13	31.29851	(81053109)
828.21	185.86	31.39708	(81053109)	828.21	140.58	31.55875	(81060209)
828.21	95.31	30.92203	(81122714)	828.21	50.04	31.33828	(81122714)
828.21	4.76	31.10228	(81051510)	828.21	-40.51	30.12763	(81051510)
1310.92	408.60	11.89175	(81042410)	1293.63	450.26	12.00079	(81051515)
1276.35	491.91	12.09898	(81060109)	1259.06	533.56	12.18343	(81060110)
1241.77	575.21	12.20359	(81051511)	1224.48	616.87	12.25266	(81051411)
1207.20	658.52	12.27729	(81051912)	1189.91	700.17	12.70757	(81112410)
1172.62	741.83	14.42655	(81112410)	1155.33	783.48	15.61407	(81112410)
1138.05	825.13	16.11658	(81112410)	1120.76	866.79	16.00460	(81052909)
1103.47	908.44	15.80341	(81032209)	1086.18	950.09	15.59797	(81111310)
1068.90	991.74	15.23500	(81050411)	1051.61	1033.40	14.80574	(81092509)
992.62	1092.22	15.06367	(81031109)	950.92	1109.39	15.26141	(81031109)
909.22	1126.56	15.20091	(81123109)	867.52	1143.73	15.80225	(81123109)
825.81	1160.90	15.96417	(81022309)	784.11	1178.07	16.13097	(81100409)
742.41	1195.24	16.19586	(81021010)	700.71	1212.41	16.19395	(81021010)
659.01	1229.58	16.25895	(81081809)	617.31	1246.75	16.34253	(81122009)
575.61	1263.92	16.33366	(81052910)	533.90	1281.09	16.20665	(81052910)
492.20	1298.26	15.34967	(81052910)	450.50	1315.44	13.88674	(81052910)
408.80	1332.61	12.96563	(81111609)	367.10	1349.78	14.37985	(81111609)
1328.21	366.95	13.15572	(81053109)	1328.21	321.68	14.70578	(81053109)
1328.21	276.40	15.69242	(81053109)	1328.21	231.13	16.00505	(81053109)
1328.21	185.86	15.96746	(81111009)	1328.21	140.58	16.02499	(81060209)
1328.21	95.31	15.79877	(81060209)	1328.21	50.04	15.33183	(81122714)
1328.21	4.76	15.83560	(81122714)	1328.21	-40.51	15.72003	(81112411)
-77.10	365.81	150.50768	(81022810)	-77.10	-40.51	153.41402	(81122716)
328.21	-40.51	151.07082	(81042509)	328.21	366.95	150.33687	(81031109)

*** THE MAXIMUM 10 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

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

RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE			RANK	CONC	(YYMMDDHH) AT	RECEPTOR (XR,YR) OF TYPE		
1.	153.41402	(81122716) AT (	-77.10,	-40.51)	DC	6.	150.33687	(81031109) AT (	328.21,	366.95)	DC
2.	151.07082	(81042509) AT (	328.21,	-40.51)	DC	7.	150.33601	(81111509) AT (	-77.10,	365.81)	DC
3.	150.50768	(81022810) AT (	-77.10,	365.81)	DC	8.	150.26352	(81112716) AT (	328.21,	366.95)	DC
4.	150.50095	(81020709) AT (	-77.10,	365.81)	DC	9.	150.19116	(81092509) AT (	328.21,	366.95)	DC
5.	150.34340	(81110309) AT (	-77.10,	365.81)	DC	10.	149.68237	(81120109) AT (	-77.10,	365.81)	DC

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

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

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

GROUP ID		AVERAGE CONC	RECEPTOR (XR,	YR,	ZELEV,	ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	12.95852 AT (	348.21,	140.58,	0.00,	2.00)	DC	NA
	2ND HIGHEST VALUE IS	12.92165 AT (	348.21,	185.86,	0.00,	2.00)	DC	NA
	3RD HIGHEST VALUE IS	12.64677 AT (	348.21,	95.31,	0.00,	2.00)	DC	NA
	4TH HIGHEST VALUE IS	12.58221 AT (	348.21,	231.13,	0.00,	2.00)	DC	NA
	5TH HIGHEST VALUE IS	12.02057 AT (	348.21,	50.04,	0.00,	2.00)	DC	NA
	6TH HIGHEST VALUE IS	11.80534 AT (	348.21,	276.40,	0.00,	2.00)	DC	NA
	7TH HIGHEST VALUE IS	10.78868 AT (	348.21,	4.76,	0.00,	2.00)	DC	NA
	8TH HIGHEST VALUE IS	10.12043 AT (	348.21,	321.68,	0.00,	2.00)	DC	NA
	9TH HIGHEST VALUE IS	9.61930 AT (	378.21,	140.58,	0.00,	2.00)	DC	NA
	10TH HIGHEST VALUE IS	9.55478 AT (	378.21,	185.86,	0.00,	2.00)	DC	NA

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

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

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

GROUP ID		AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR,	YR,	ZELEV,	ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	153.41402	ON 81122716: AT (	-77.10,	-40.51,	0.00,	2.00)	DC	NA

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

*** Message Summary : ISCST3 Model Execution ***

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

A Total of           0 Fatal Error Message(s)
A Total of           0 Warning Message(s)
A Total of        1398 Informational Message(s)

A Total of        1398 Calm Hours Identified


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


   ********   WARNING MESSAGES   ********
              ***  NONE  ***


   ************************************
   *** ISCST3 Finishes Successfully ***
   ************************************
```

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses User-Specified Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Not Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.

**Model Assumes Receptors on FLAT Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 24-HR

**This Run Includes: 65 Source(s);   1 Source Group(s); and   44 Receptor(s)

**The Model Assumes A Pollutant Type of: PM25_

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

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**Misc. Inputs: Anem. Hgt. (m) =   10.00 ;   Decay Coef. =   0.000   ;   Rot. Angle =   0.0
Emission Units = GRAMS/SEC   ; Emission Rate Unit Factor = 0.10000E+07
Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =   1.3 MB of RAM.

**Input Runstream File: TMP0001_.TMP
**Output Print File: PM25U.OUT

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
VOL2	0	0.13000E-02	-51.3	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL3	0	0.13000E-02	-0.6	337.9	0.0	5.00	11.79	1.16	HROFDY
VOL4	0	0.13000E-02	50.1	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL5	0	0.13000E-02	100.9	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL6	0	0.13000E-02	151.6	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL8	0	0.13000E-02	-51.3	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL9	0	0.13000E-02	-0.6	287.2	0.0	5.00	11.73	1.16	HROFDY
VOL10	0	0.13000E-02	50.2	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL11	0	0.13000E-02	100.9	287.2	0.0	5.00	11.78	1.16	HROFDY
VOL12	0	0.13000E-02	151.6	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL14	0	0.13000E-02	-51.3	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL15	0	0.13000E-02	-0.6	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL16	0	0.13000E-02	50.2	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL17	0	0.13000E-02	100.9	236.5	0.0	5.00	11.80	1.16	HROFDY
VOL18	0	0.13000E-02	151.6	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL22	0	0.13000E-02	-51.3	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL23	0	0.13000E-02	-51.3	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL24	0	0.13000E-02	-51.3	85.3	0.0	5.00	11.79	1.16	HROFDY
VOL25	0	0.13000E-02	-0.6	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL26	0	0.13000E-02	-0.6	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL27	0	0.13000E-02	-0.6	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL28	0	0.13000E-02	50.2	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL29	0	0.13000E-02	50.2	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL30	0	0.13000E-02	50.2	85.3	0.0	5.00	11.79	1.16	HROFDY
VOL31	0	0.13000E-02	100.9	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL32	0	0.13000E-02	100.9	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL33	0	0.13000E-02	100.9	85.3	0.0	5.00	11.80	1.16	HROFDY
VOL34	0	0.13000E-02	151.6	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL35	0	0.13000E-02	151.6	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL36	0	0.13000E-02	151.6	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL37	0	0.13000E-02	202.3	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL38	0	0.13000E-02	202.3	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL39	0	0.13000E-02	202.3	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL40	0	0.13000E-02	202.3	185.8	0.0	5.00	11.80	1.16	HROFDY
VOL41	0	0.13000E-02	202.3	136.0	0.0	5.00	11.93	1.16	HROFDY
VOL42	0	0.13000E-02	202.3	85.3	0.0	5.00	11.80	1.16	HROFDY
VOL44	0	0.13000E-02	-51.3	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL45	0	0.13000E-02	-0.6	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL46	0	0.13000E-02	50.2	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL47	0	0.13000E-02	100.9	34.5	0.0	5.00	11.80	1.16	HROFDY

CONC URBAN FLAT FLGPOL NOCALM

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
VOL48	0	0.13000E-02	151.6	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL49	0	0.13000E-02	202.3	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL50	0	0.13000E-02	253.0	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL51	0	0.13000E-02	303.8	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL54	0	0.13000E-02	253.0	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL55	0	0.13000E-02	303.8	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL56	0	0.13000E-02	253.1	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL57	0	0.13000E-02	303.8	236.5	0.0	5.00	11.80	1.16	HROFDY
VOL58	0	0.13000E-02	253.0	185.8	0.0	5.00	11.80	1.16	HROFDY
VOL59	0	0.13000E-02	303.8	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL60	0	0.13000E-02	253.0	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL61	0	0.13000E-02	303.8	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL62	0	0.13000E-02	253.1	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL63	0	0.13000E-02	303.8	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL64	0	0.13000E-02	253.0	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL65	0	0.13000E-02	303.8	34.5	0.0	5.00	11.79	1.16	HROFDY
VOL66	0	0.13000E-02	-51.3	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL67	0	0.13000E-02	-0.6	-16.2	0.0	5.00	11.79	1.16	HROFDY
VOL68	0	0.13000E-02	50.2	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL69	0	0.13000E-02	100.9	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL70	0	0.13000E-02	151.6	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL71	0	0.13000E-02	202.3	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL72	0	0.13000E-02	253.0	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL73	0	0.13000E-02	303.8	-16.2	0.0	5.00	11.79	1.16	HROFDY

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	COORD (SW CORNER) Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
AREA1	0	0.18202E-04	-88.6	-52.0	0.0	0.00	427.75	423.89	0.00	0.00	HROFDY

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID SOURCE IDs

ALL VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 , VOL10 , VOL11 , VOL12 , VOL14 , VOL15 ,
VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 , VOL26 , VOL27 , VOL28 , VOL29 , VOL30 ,
VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , VOL37 , VOL38 , VOL39 , VOL40 , VOL41 , VOL42 ,
VOL44 , VOL45 , VOL46 , VOL47 , VOL48 , VOL49 , VOL50 , VOL51 , VOL54 , VOL55 , VOL56 , VOL57 ,
VOL58 , VOL59 , VOL60 , VOL61 , VOL62 , VOL63 , VOL64 , VOL65 , VOL66 , VOL67 , VOL68 , VOL69 ,
VOL70 , VOL71 , VOL72 , VOL73 , AREA1 ,

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL2 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL3 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL4 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL5 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

```
SOURCE ID = VOL6     ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```



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                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL8     ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL9     ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL10    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL11    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL12    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```



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                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL14    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL15    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL16    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL17    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL18    ;  SOURCE TYPE = VOLUME    :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```



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                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
SOURCE ID = VOL22    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL23    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL24    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL25    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL26    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

```
    HOUR   SCALAR      HOUR   SCALAR      HOUR   SCALAR      HOUR   SCALAR      HOUR   SCALAR      HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL27    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL28    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL29    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL30    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL31    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *


```
    HOUR   SCALAR      HOUR   SCALAR      HOUR   SCALAR      HOUR   SCALAR      HOUR   SCALAR      HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL32    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL33    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL34    ;  SOURCE TYPE = VOLUME    :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00
```

```
SOURCE ID = VOL35    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL36    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```



```
                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL37    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL38    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL39    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL40    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL41    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
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                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL42    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL44    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL45    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL46    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL47    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
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                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
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HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = VOL48 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL49 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL50 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL51 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL54 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = VOL55 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL56 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL57 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL58 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL59 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

SOURCE ID = VOL60 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL61 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL62 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL63 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL64 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL65 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL66 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL67 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL68 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL69 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL70 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL71 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL72 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL73 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = AREA1 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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

```
(   328.2,    -41.0,     0.0,     2.0);     (   283.2,    -41.0,     0.0,     2.0);
(   238.1,    -41.0,     0.0,     2.0);     (   193.1,    -41.0,     0.0,     2.0);
(   148.1,    -41.0,     0.0,     2.0);     (   103.0,    -41.0,     0.0,     2.0);
(    58.0,    -41.0,     0.0,     2.0);     (    13.0,    -41.0,     0.0,     2.0);
(   -32.1,    -41.0,     0.0,     2.0);     (   -77.1,    -41.0,     0.0,     2.0);
(   -77.6,    -40.5,     0.0,     2.0);     (   -77.6,      4.6,     0.0,     2.0);
(   -77.6,     49.8,     0.0,     2.0);     (   -77.6,     94.9,     0.0,     2.0);
(   -77.6,    140.1,     0.0,     2.0);     (   -77.6,    185.2,     0.0,     2.0);
(   -77.6,    230.4,     0.0,     2.0);     (   -77.6,    275.5,     0.0,     2.0);
(   -77.6,    320.7,     0.0,     2.0);     (   -77.6,    365.8,     0.0,     2.0);
(   -77.1,    366.3,     0.0,     2.0);     (   -32.1,    366.4,     0.0,     2.0);
(    13.0,    366.6,     0.0,     2.0);     (    58.0,    366.7,     0.0,     2.0);
(   103.0,    366.8,     0.0,     2.0);     (   148.1,    366.9,     0.0,     2.0);
(   193.1,    367.1,     0.0,     2.0);     (   238.1,    367.2,     0.0,     2.0);
(   283.2,    367.3,     0.0,     2.0);     (   328.2,    367.5,     0.0,     2.0);
(   328.7,    367.0,     0.0,     2.0);     (   328.7,    321.7,     0.0,     2.0);
(   328.7,    276.4,     0.0,     2.0);     (   328.7,    231.1,     0.0,     2.0);
(   328.7,    185.9,     0.0,     2.0);     (   328.7,    140.6,     0.0,     2.0);
(   328.7,     95.3,     0.0,     2.0);     (   328.7,     50.0,     0.0,     2.0);
(   328.7,      4.8,     0.0,     2.0);     (   328.7,    -40.5,     0.0,     2.0);
(   -77.1,    365.8,     0.0,     2.0);     (   -77.1,    -40.5,     0.0,     2.0);
(   328.2,    -40.5,     0.0,     2.0);     (   328.2,    367.0,     0.0,     2.0);
```


* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER OR 3*ZLB IN DISTANCE, OR WITHIN OPEN PIT SOURCE

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
VOL22	-77.6	185.2	0.96
VOL57	328.7	231.1	0.15
VOL59	328.7	185.9	-0.41
VOL61	328.7	140.6	0.01
VOL68	58.0	-41.0	0.64
VOL69	103.0	-41.0	-0.47
VOL70	148.1	-41.0	-0.32

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

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

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

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

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

```
     FILE:   REDLANDS.ASC
     FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
     SURFACE STATION NO.:  54161                  UPPER AIR STATION NO.:  99999
                    NAME: REDLANDS                                 NAME: UNKNOWN
                    YEAR:   1981                                   YEAR:   1981

             FLOW   SPEED  TEMP  STAB  MIXING HEIGHT (M)  USTAR  M-O LENGTH   Z-0 IPCODE PRATE
YR MN DY HR VECTOR  (M/S)   (K)  CLASS   RURAL   URBAN    (M/S)     (M)       (M)        (mm/HR)
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

81 01 01 01  292.3   1.00  284.3   7     522.6   170.0    0.0000        0.0  0.0000   0   0.00
81 01 01 02  282.4   0.00  284.3   7     507.0   170.0    0.0000        0.0  0.0000   0   0.00
81 01 01 03  287.5   0.00  283.1   7     491.4   170.0    0.0000        0.0  0.0000   0   0.00
81 01 01 04  301.0   0.00  283.1   7     475.8   170.0    0.0000        0.0  0.0000   0   0.00
81 01 01 05  286.5   0.00  282.6   7     460.3   170.0    0.0000        0.0  0.0000   0   0.00
81 01 01 06  297.0   0.00  283.1   7     444.7   170.0    0.0000        0.0  0.0000   0   0.00
81 01 01 07  297.0   0.00  285.4   6       1.4   170.7    0.0000        0.0  0.0000   0   0.00
81 01 01 08  314.6   1.00  287.6   5      47.0   192.0    0.0000        0.0  0.0000   0   0.00
81 01 01 09  299.0   1.00  289.8   4      92.5   213.3    0.0000        0.0  0.0000   0   0.00
81 01 01 10   54.2   1.34  291.5   3     138.0   234.7    0.0000        0.0  0.0000   0   0.00
81 01 01 11   89.1   1.79  294.3   3     183.5   256.0    0.0000        0.0  0.0000   0   0.00
81 01 01 12  103.1   1.34  297.6   2     229.0   277.3    0.0000        0.0  0.0000   0   0.00
81 01 01 13   87.2   1.34  298.7   2     274.5   298.7    0.0000        0.0  0.0000   0   0.00
81 01 01 14  124.2   1.79  299.8   3     320.0   320.0    0.0000        0.0  0.0000   0   0.00
81 01 01 15  134.8   2.24  299.3   3     320.0   320.0    0.0000        0.0  0.0000   0   0.00
81 01 01 16   98.2   2.24  298.7   4     320.0   320.0    0.0000        0.0  0.0000   0   0.00
81 01 01 17  110.1   2.24  295.4   5     325.6   318.5    0.0000        0.0  0.0000   0   0.00
81 01 01 18  210.1   1.00  291.5   6     357.2   310.3    0.0000        0.0  0.0000   0   0.00
81 01 01 19  268.0   1.00  289.8   7     388.8   302.1    0.0000        0.0  0.0000   0   0.00
81 01 01 20  303.2   1.00  287.0   7     420.4   293.9    0.0000        0.0  0.0000   0   0.00
81 01 01 21  291.1   1.34  286.5   7     452.0   285.7    0.0000        0.0  0.0000   0   0.00
81 01 01 22  294.5   1.34  287.0   7     483.5   277.4    0.0000        0.0  0.0000   0   0.00
81 01 01 23  293.2   0.00  285.9   7     515.1   269.2    0.0000        0.0  0.0000   0   0.00
81 01 01 24  292.2   0.00  285.4   7     546.7   261.0    0.0000        0.0  0.0000   0   0.00


*** NOTES:  STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
            FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.
```



```
                             *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):      VOL2     , VOL3     , VOL4     , VOL5     , VOL6     , VOL8     , VOL9     ,
         VOL10    , VOL11    , VOL12    , VOL14    , VOL15    , VOL16    , VOL17    , VOL18    , VOL22    , VOL23    , VOL24    , VOL25    ,
         VOL26    , VOL27    , VOL28    , VOL29    , VOL30    , VOL31    , VOL32    , VOL33    , VOL34    , VOL35    , VOL36    , . . .    ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                       ** CONC OF PM25_    IN MICROGRAMS/M**3                         **
```

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
328.21	-41.01	84.55866	(81032924)	283.18	-41.01	87.09189	(81032924)
238.14	-41.01	87.36401	(81032924)	193.11	-41.01	85.37463	(81032924)
148.07	-41.01	83.19563	(81032924)	103.04	-41.01	79.78909	(81032924)
58.00	-41.01	76.27505	(81032924)	12.97	-41.01	69.41026	(81032924)
-32.07	-41.01	57.71480	(81032924)	-77.10	-41.01	55.14222	(81123024)
-77.60	-40.51	55.52064	(81123024)	-77.60	4.64	73.06865	(81123024)
-77.60	49.78	78.87229	(81123024)	-77.60	94.93	81.32768	(81123024)
-77.60	140.08	82.83871	(81122724)	-77.60	185.22	84.74075	(81122724)
-77.60	230.37	86.10928	(81122724)	-77.60	275.52	85.12032	(81122724)
-77.60	320.66	82.95177	(81122724)	-77.60	365.81	74.50505	(81122724)
-77.10	366.31	74.52650	(81122724)	-32.07	366.44	77.77648	(81122724)
12.97	366.56	75.76347	(81122724)	58.00	366.69	72.97485	(81122724)
103.04	366.82	71.34306	(81122724)	148.07	366.94	70.52081	(81120124)
193.11	367.07	69.37806	(81120124)	238.14	367.20	70.92897	(81102724)
283.17	367.32	71.91653	(81102724)	328.21	367.45	70.42213	(81102724)
328.71	366.95	70.60955	(81102724)	328.71	321.68	78.95735	(81112424)
328.71	276.40	87.55643	(81112424)	328.71	231.13	90.52100	(81112424)
328.71	185.86	91.28797	(81112424)	328.71	140.58	91.21259	(81112424)
328.71	95.31	90.25939	(81112424)	328.71	50.04	88.02380	(81112424)
328.71	4.76	83.61353	(81112424)	328.71	-40.51	84.46445	(81032924)
-77.10	365.81	74.63782	(81122724)	-77.10	-40.51	55.57435	(81123024)
328.21	-40.51	84.57615	(81032924)	328.21	366.95	70.70577	(81102724)


```
                                                   *** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

                                       ** CONC OF PM25_    IN MICROGRAMS/M**3                         **

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

ALL      HIGH  1ST HIGH VALUE IS      91.28797  ON 81112424: AT (     328.71,      185.86,        0.00,        2.00)  DC       NA

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



```
*** Message Summary : ISCST3 Model Execution ***

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

A Total of            0 Fatal Error Message(s)
A Total of            0 Warning Message(s)
```

```
A Total of         1398 Informational Message(s)

A Total of         1398 Calm Hours Identified

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

   ********   WARNING MESSAGES   ********
              ***  NONE  ***

   ************************************
   *** ISCST3 Finishes Successfully ***
   ************************************
```

**MODELOPTs:
CONC URBAN FLAT FLGPOL NOCALM

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses User-Specified Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Not Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.

**Model Assumes Receptors on FLAT Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 24-HR
and Calculates PERIOD Averages

**This Run Includes: 65 Source(s); 1 Source Group(s); and 44 Receptor(s)

**The Model Assumes A Pollutant Type of: PM10_U

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

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 1.3 MB of RAM.

**Input Runstream File: TMP0001_.TMP
**Output Print File: PM10UN.OUT

**MODELOPTs:
CONC URBAN FLAT FLGPOL NOCALM

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
VOL2	0	0.14000E-02	-51.3	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL3	0	0.14000E-02	-0.6	337.9	0.0	5.00	11.79	1.16	HROFDY
VOL4	0	0.14000E-02	50.1	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL5	0	0.14000E-02	100.9	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL6	0	0.14000E-02	151.6	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL8	0	0.14000E-02	-51.3	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL9	0	0.14000E-02	-0.6	287.2	0.0	5.00	11.73	1.16	HROFDY
VOL10	0	0.14000E-02	50.2	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL11	0	0.14000E-02	100.9	287.2	0.0	5.00	11.78	1.16	HROFDY
VOL12	0	0.14000E-02	151.6	287.2	0.0	5.00	11.79	1.16	HROFDY
VOL14	0	0.14000E-02	-51.3	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL15	0	0.14000E-02	-0.6	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL16	0	0.14000E-02	50.2	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL17	0	0.14000E-02	100.9	236.5	0.0	5.00	11.80	1.16	HROFDY
VOL18	0	0.14000E-02	151.6	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL22	0	0.14000E-02	-51.3	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL23	0	0.14000E-02	-51.3	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL24	0	0.14000E-02	-51.3	85.3	0.0	5.00	11.79	1.16	HROFDY
VOL25	0	0.14000E-02	-0.6	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL26	0	0.14000E-02	-0.6	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL27	0	0.14000E-02	-0.6	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL28	0	0.14000E-02	50.2	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL29	0	0.14000E-02	50.2	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL30	0	0.14000E-02	50.2	85.3	0.0	5.00	11.79	1.16	HROFDY
VOL31	0	0.14000E-02	100.9	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL32	0	0.14000E-02	100.9	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL33	0	0.14000E-02	100.9	85.3	0.0	5.00	11.80	1.16	HROFDY
VOL34	0	0.14000E-02	151.6	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL35	0	0.14000E-02	151.6	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL36	0	0.14000E-02	151.6	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL37	0	0.14000E-02	202.3	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL38	0	0.14000E-02	202.3	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL39	0	0.14000E-02	202.3	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL40	0	0.14000E-02	202.3	185.8	0.0	5.00	11.80	1.16	HROFDY
VOL41	0	0.14000E-02	202.3	136.0	0.0	5.00	11.93	1.16	HROFDY
VOL42	0	0.14000E-02	202.3	85.3	0.0	5.00	11.80	1.16	HROFDY
VOL44	0	0.14000E-02	-51.3	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL45	0	0.14000E-02	-0.6	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL46	0	0.14000E-02	50.2	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL47	0	0.14000E-02	100.9	34.5	0.0	5.00	11.80	1.16	HROFDY

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
VOL48	0	0.14000E-02	151.6	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL49	0	0.14000E-02	202.3	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL50	0	0.14000E-02	253.0	337.9	0.0	5.00	11.80	1.16	HROFDY
VOL51	0	0.14000E-02	303.8	338.0	0.0	5.00	11.79	1.16	HROFDY
VOL54	0	0.14000E-02	253.0	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL55	0	0.14000E-02	303.8	287.2	0.0	5.00	11.80	1.16	HROFDY
VOL56	0	0.14000E-02	253.1	236.5	0.0	5.00	11.79	1.16	HROFDY
VOL57	0	0.14000E-02	303.8	236.5	0.0	5.00	11.80	1.16	HROFDY
VOL58	0	0.14000E-02	253.0	185.8	0.0	5.00	11.80	1.16	HROFDY
VOL59	0	0.14000E-02	303.8	185.8	0.0	5.00	11.79	1.16	HROFDY
VOL60	0	0.14000E-02	253.0	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL61	0	0.14000E-02	303.8	136.0	0.0	5.00	11.79	1.16	HROFDY
VOL62	0	0.14000E-02	253.1	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL63	0	0.14000E-02	303.8	85.2	0.0	5.00	11.79	1.16	HROFDY
VOL64	0	0.14000E-02	253.0	34.5	0.0	5.00	11.80	1.16	HROFDY
VOL65	0	0.14000E-02	303.8	34.5	0.0	5.00	11.79	1.16	HROFDY
VOL66	0	0.14000E-02	-51.3	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL67	0	0.14000E-02	-0.6	-16.2	0.0	5.00	11.79	1.16	HROFDY
VOL68	0	0.14000E-02	50.2	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL69	0	0.14000E-02	100.9	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL70	0	0.14000E-02	151.6	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL71	0	0.14000E-02	202.3	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL72	0	0.14000E-02	253.0	-16.2	0.0	5.00	11.80	1.16	HROFDY
VOL73	0	0.14000E-02	303.8	-16.2	0.0	5.00	11.79	1.16	HROFDY

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	COORD (SW CORNER) Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
AREA1	0	0.86897E-04	-88.6	-52.0	0.0	0.00	427.75	423.89	0.00	0.00	HROFDY

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs											
ALL	VOL2	, VOL3	, VOL4	, VOL5	, VOL6	, VOL8	, VOL9	, VOL10	, VOL11	, VOL12	, VOL14	, VOL15 ,
	VOL16	, VOL17	, VOL18	, VOL22	, VOL23	, VOL24	, VOL25	, VOL26	, VOL27	, VOL28	, VOL29	, VOL30 ,
	VOL31	, VOL32	, VOL33	, VOL34	, VOL35	, VOL36	, VOL37	, VOL38	, VOL39	, VOL40	, VOL41	, VOL42 ,
	VOL44	, VOL45	, VOL46	, VOL47	, VOL48	, VOL49	, VOL50	, VOL51	, VOL54	, VOL55	, VOL56	, VOL57 ,
	VOL58	, VOL59	, VOL60	, VOL61	, VOL62	, VOL63	, VOL64	, VOL65	, VOL66	, VOL67	, VOL68	, VOL69 ,
	VOL70	, VOL71	, VOL72	, VOL73	, AREA1 ,							

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL2 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL3 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL4 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL5 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01

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     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOL6     ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .00000E+00      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

  *** ISCST3 - VERSION 02035 ***     *** UNIVERSITY HILLS LST                                                ***         12/12/07
                                    *** PM10 - WITHOUT MITIGATION                                           ***         13:48:05
**MODELOPTs:                                                                                                            PAGE   7
CONC                    URBAN FLAT  FLGPOL                                 NOCALM

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = VOL8     ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .00000E+00      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOL9     ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .00000E+00      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOL10    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .00000E+00      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOL11    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .00000E+00      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOL12    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .00000E+00      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

  *** ISCST3 - VERSION 02035 ***     *** UNIVERSITY HILLS LST                                                ***         12/12/07
                                    *** PM10 - WITHOUT MITIGATION                                           ***         13:48:05
**MODELOPTs:                                                                                                            PAGE   8
CONC                    URBAN FLAT  FLGPOL                                 NOCALM

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = VOL14    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .00000E+00      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOL15    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .00000E+00      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOL16    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .00000E+00      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOL17    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .00000E+00      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00


SOURCE ID = VOL18    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .00000E+00      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   .00000E+00

  *** ISCST3 - VERSION 02035 ***     *** UNIVERSITY HILLS LST                                                ***         12/12/07
                                    *** PM10 - WITHOUT MITIGATION                                           ***         13:48:05
**MODELOPTs:                                                                                                            PAGE   9
CONC                    URBAN FLAT  FLGPOL                                 NOCALM

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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SOURCE ID = VOL22    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL23    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL24    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL25    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL26    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00
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```
                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL27    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL28    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL29    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL30    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL31    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00
```



```
                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

SOURCE ID = VOL32    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL33    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
    19  .00000E+00    20  .00000E+00    21  .00000E+00    22  .00000E+00    23  .00000E+00    24  .00000E+00

SOURCE ID = VOL34    ;  SOURCE TYPE = VOLUME   :
     1  .00000E+00     2  .00000E+00     3  .00000E+00     4  .00000E+00     5  .00000E+00     6  .00000E+00
     7  .00000E+00     8  .00000E+00     9  .10000E+01    10  .10000E+01    11  .10000E+01    12  .10000E+01
    13  .10000E+01    14  .10000E+01    15  .10000E+01    16  .10000E+01    17  .00000E+00    18  .00000E+00
```

```
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00


SOURCE ID = VOL35    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00


SOURCE ID = VOL36    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```



```
                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = VOL37    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00


SOURCE ID = VOL38    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00


SOURCE ID = VOL39    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00


SOURCE ID = VOL40    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00


SOURCE ID = VOL41    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```



```
                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = VOL42    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00


SOURCE ID = VOL44    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00


SOURCE ID = VOL45    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00


SOURCE ID = VOL46    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00


SOURCE ID = VOL47    ;  SOURCE TYPE = VOLUME   :
     1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
     7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
    13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
    19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL48 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL49 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL50 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL51 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL54 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL55 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL56 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL57 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL58 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL59 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

SOURCE ID = VOL60 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = VOL61 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.00000E+00	8	.00000E+00	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

```
SOURCE ID = VOL62    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL63    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL64    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```



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                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = VOL65    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL66    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL67    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL68    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL69    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00
```



```
                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = VOL70    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL71    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL72    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = VOL73    ;  SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24   .00000E+00

SOURCE ID = AREA1    ;  SOURCE TYPE = AREA     :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6   .00000E+00
      7   .00000E+00     8   .00000E+00     9   .10000E+01    10   .10000E+01    11   .10000E+01    12   .10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .00000E+00    18   .00000E+00
```

19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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

```
(    328.2,    -41.0,    0.0,    2.0);        (    283.2,    -41.0,    0.0,    2.0);
(    238.1,    -41.0,    0.0,    2.0);        (    193.1,    -41.0,    0.0,    2.0);
(    148.1,    -41.0,    0.0,    2.0);        (    103.0,    -41.0,    0.0,    2.0);
(     58.0,    -41.0,    0.0,    2.0);        (     13.0,    -41.0,    0.0,    2.0);
(    -32.1,    -41.0,    0.0,    2.0);        (    -77.1,    -41.0,    0.0,    2.0);
(    -77.6,    -40.5,    0.0,    2.0);        (    -77.6,      4.6,    0.0,    2.0);
(    -77.6,     49.8,    0.0,    2.0);        (    -77.6,     94.9,    0.0,    2.0);
(    -77.6,    140.1,    0.0,    2.0);        (    -77.6,    185.2,    0.0,    2.0);
(    -77.6,    230.4,    0.0,    2.0);        (    -77.6,    275.5,    0.0,    2.0);
(    -77.6,    320.7,    0.0,    2.0);        (    -77.6,    365.8,    0.0,    2.0);
(    -77.1,    366.3,    0.0,    2.0);        (    -32.1,    366.4,    0.0,    2.0);
(     13.0,    366.6,    0.0,    2.0);        (     58.0,    366.7,    0.0,    2.0);
(    103.0,    366.8,    0.0,    2.0);        (    148.1,    366.9,    0.0,    2.0);
(    193.1,    367.1,    0.0,    2.0);        (    238.1,    367.2,    0.0,    2.0);
(    283.2,    367.3,    0.0,    2.0);        (    328.2,    367.5,    0.0,    2.0);
(    328.7,    367.0,    0.0,    2.0);        (    328.7,    321.7,    0.0,    2.0);
(    328.7,    276.4,    0.0,    2.0);        (    328.7,    231.1,    0.0,    2.0);
(    328.7,    185.9,    0.0,    2.0);        (    328.7,    140.6,    0.0,    2.0);
(    328.7,     95.3,    0.0,    2.0);        (    328.7,     50.0,    0.0,    2.0);
(    328.7,      4.8,    0.0,    2.0);        (    328.7,    -40.5,    0.0,    2.0);
(    -77.1,    365.8,    0.0,    2.0);        (    -77.1,    -40.5,    0.0,    2.0);
(    328.2,    -40.5,    0.0,    2.0);        (    328.2,    367.0,    0.0,    2.0);
```


* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER OR 3*ZLB IN DISTANCE, OR WITHIN OPEN PIT SOURCE

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
VOL22	-77.6	185.2	0.96
VOL57	328.7	231.1	0.15
VOL59	328.7	185.9	-0.41
VOL61	328.7	140.6	0.01
VOL68	58.0	-41.0	0.64
VOL69	103.0	-41.0	-0.47
VOL70	148.1	-41.0	-0.32

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

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

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

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

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

FILE: REDLANDS.ASC
FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.: 54161 UPPER AIR STATION NO.: 99999
NAME: REDLANDS NAME: UNKNOWN
YEAR: 1981 YEAR: 1981

YR MN DY HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
81 01 01 01	292.3	1.00	284.3	7	522.6	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 02	282.4	0.00	284.3	7	507.0	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 03	287.5	0.00	283.1	7	491.4	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 04	301.0	0.00	283.1	7	475.8	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 05	286.5	0.00	282.6	7	460.3	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 06	297.0	0.00	283.1	7	444.7	170.0	0.0000	0.0	0.0000	0	0.00
81 01 01 07	297.0	0.00	285.4	6	1.4	170.7	0.0000	0.0	0.0000	0	0.00
81 01 01 08	314.6	1.00	287.6	5	47.0	192.0	0.0000	0.0	0.0000	0	0.00
81 01 01 09	299.0	1.00	289.8	4	92.5	213.3	0.0000	0.0	0.0000	0	0.00
81 01 01 10	54.2	1.34	291.5	3	138.0	234.7	0.0000	0.0	0.0000	0	0.00
81 01 01 11	89.1	1.79	294.3	3	183.5	256.0	0.0000	0.0	0.0000	0	0.00
81 01 01 12	103.1	1.34	297.6	2	229.0	277.3	0.0000	0.0	0.0000	0	0.00
81 01 01 13	87.2	1.34	298.7	2	274.5	298.7	0.0000	0.0	0.0000	0	0.00
81 01 01 14	124.2	1.79	299.8	3	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81 01 01 15	134.8	2.24	299.3	3	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81 01 01 16	98.2	2.24	298.7	4	320.0	320.0	0.0000	0.0	0.0000	0	0.00
81 01 01 17	110.1	2.24	295.4	5	325.6	318.5	0.0000	0.0	0.0000	0	0.00
81 01 01 18	210.1	1.00	291.5	6	357.2	310.3	0.0000	0.0	0.0000	0	0.00
81 01 01 19	268.0	1.00	289.8	7	388.8	302.1	0.0000	0.0	0.0000	0	0.00
81 01 01 20	303.2	1.00	287.0	7	420.4	293.9	0.0000	0.0	0.0000	0	0.00
81 01 01 21	291.1	1.34	286.5	7	452.0	285.7	0.0000	0.0	0.0000	0	0.00
81 01 01 22	294.5	1.34	287.0	7	483.5	277.4	0.0000	0.0	0.0000	0	0.00
81 01 01 23	293.2	0.00	285.9	7	515.1	269.2	0.0000	0.0	0.0000	0	0.00
81 01 01 24	292.2	0.00	285.4	7	546.7	261.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM10_U IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
328.21	-41.01	153.16997	283.18	-41.01	155.90909
238.14	-41.01	153.93153	193.11	-41.01	150.35901
148.07	-41.01	145.94119	103.04	-41.01	140.12436
58.00	-41.01	131.93651	12.97	-41.01	120.63371
-32.07	-41.01	100.54975	-77.10	-41.01	39.26463
-77.60	-40.51	38.17646	-77.60	4.64	53.82623
-77.60	49.78	58.46101	-77.60	94.93	61.21907
-77.60	140.08	62.82079	-77.60	185.22	64.14105
-77.60	230.37	64.83733	-77.60	275.52	65.06808
-77.60	320.66	64.36625	-77.60	365.81	56.15052
-77.10	366.31	56.82553	-32.07	366.44	106.72820
12.97	366.56	121.78928	58.00	366.69	129.29002
103.04	366.82	134.90289	148.07	366.94	138.26010
193.11	367.07	139.55183	238.14	367.20	140.13396
283.17	367.32	138.44641	328.21	367.45	127.76044
328.71	366.95	129.67059	328.71	321.68	189.27621
328.71	276.40	202.83238	328.71	231.13	208.25400
328.71	185.86	210.90631	328.71	140.58	210.96611
328.71	95.31	208.58173	328.71	50.04	204.18094
328.71	4.76	193.18094	328.71	-40.51	154.10678
-77.10	365.81	57.55365	-77.10	-40.51	39.72621
328.21	-40.51	154.24678	328.21	366.95	129.93810

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): VOL2 , VOL3 , VOL4 , VOL5 , VOL6 , VOL8 , VOL9 ,
VOL10 , VOL11 , VOL12 , VOL14 , VOL15 , VOL16 , VOL17 , VOL18 , VOL22 , VOL23 , VOL24 , VOL25 ,
VOL26 , VOL27 , VOL28 , VOL29 , VOL30 , VOL31 , VOL32 , VOL33 , VOL34 , VOL35 , VOL36 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM10_U IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
328.21	-41.01	397.84558	(81032924)	283.18	-41.01	409.75583	(81032924)
238.14	-41.01	411.30350	(81032924)	193.11	-41.01	402.13208	(81032924)
148.07	-41.01	392.47983	(81032924)	103.04	-41.01	376.69211	(81032924)
58.00	-41.01	360.48282	(81032924)	12.97	-41.01	326.62445	(81032924)
-32.07	-41.01	272.14224	(81032924)	-77.10	-41.01	260.07690	(81123024)
-77.60	-40.51	261.86511	(81123024)	-77.60	4.64	343.98679	(81123024)
-77.60	49.78	371.08517	(81123024)	-77.60	94.93	382.53577	(81123024)
-77.60	140.08	390.32834	(81122724)	-77.60	185.22	400.02768	(81122724)
-77.60	230.37	405.98965	(81122724)	-77.60	275.52	401.16739	(81122724)
-77.60	320.66	390.76224	(81122724)	-77.60	365.81	350.83963	(81122724)
-77.10	366.31	350.95801	(81122724)	-32.07	366.44	366.69608	(81122724)
12.97	366.56	357.40225	(81122724)	58.00	366.69	344.11441	(81122724)
103.04	366.82	336.64355	(81122724)	148.07	366.94	332.63138	(81120124)
193.11	367.07	326.74121	(81120124)	238.14	367.20	334.20389	(81102724)
283.17	367.32	338.71829	(81102724)	328.21	367.45	331.75461	(81102724)
328.71	366.95	332.63284	(81102724)	328.71	321.68	371.63940	(81112424)

```
          328.71       276.40     411.66183  (81112424)                  328.71       231.13      427.29056  (81112424)
          328.71       185.86     430.82443  (81112424)                  328.71       140.58      430.43762  (81112424)
          328.71        95.31     424.86789  (81112424)                  328.71        50.04      414.34167  (81112424)
          328.71         4.76     393.64771  (81112424)                  328.71       -40.51      397.41516  (81032924)
          -77.10       365.81     351.45654  (81122724)                  -77.10       -40.51      262.11465  (81123024)
          328.21       -40.51     397.91141  (81032924)                  328.21       366.95      333.07629  (81102724)
  *** ISCST3 - VERSION 02035 ***    *** UNIVERSITY HILLS LST                                                  ***         12/12/07
                                   *** PM10 - WITHOUT MITIGATION                                             ***         13:48:05
**MODELOPTs:                                                                                                             PAGE  25
CONC                    URBAN FLAT  FLGPOL                         NOCALM

                                            *** THE SUMMARY OF MAXIMUM PERIOD (  8760 HRS) RESULTS ***

                                        ** CONC OF PM10_U   IN MICROGRAMS/M**3                         **

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

ALL      1ST HIGHEST VALUE IS     210.96611 AT (     328.71,      140.58,       0.00,       2.00)  DC      NA
         2ND HIGHEST VALUE IS     210.90631 AT (     328.71,      185.86,       0.00,       2.00)  DC      NA
         3RD HIGHEST VALUE IS     208.58173 AT (     328.71,       95.31,       0.00,       2.00)  DC      NA
         4TH HIGHEST VALUE IS     208.25400 AT (     328.71,      231.13,       0.00,       2.00)  DC      NA
         5TH HIGHEST VALUE IS     204.18094 AT (     328.71,       50.04,       0.00,       2.00)  DC      NA
         6TH HIGHEST VALUE IS     202.83238 AT (     328.71,      276.40,       0.00,       2.00)  DC      NA
         7TH HIGHEST VALUE IS     193.18094 AT (     328.71,        4.76,       0.00,       2.00)  DC      NA
         8TH HIGHEST VALUE IS     189.27621 AT (     328.71,      321.68,       0.00,       2.00)  DC      NA
         9TH HIGHEST VALUE IS     155.90909 AT (     283.18,      -41.01,       0.00,       2.00)  DC      NA
        10TH HIGHEST VALUE IS     154.24678 AT (     328.21,      -40.51,       0.00,       2.00)  DC      NA

 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
                      BD = BOUNDARY
  *** ISCST3 - VERSION 02035 ***    *** UNIVERSITY HILLS LST                                                  ***         12/12/07
                                   *** PM10 - WITHOUT MITIGATION                                             ***         13:48:05
**MODELOPTs:                                                                                                             PAGE  26
CONC                    URBAN FLAT  FLGPOL                         NOCALM

                                                *** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

                                        ** CONC OF PM10_U   IN MICROGRAMS/M**3                         **

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

ALL      HIGH  1ST HIGH VALUE IS     430.82443  ON 81112424: AT (     328.71,      185.86,       0.00,       2.00)  DC      NA

 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
                      BD = BOUNDARY
  *** ISCST3 - VERSION 02035 ***    *** UNIVERSITY HILLS LST                                                  ***         12/12/07
                                   *** PM10 - WITHOUT MITIGATION                                             ***         13:48:05
**MODELOPTs:                                                                                                             PAGE  27
CONC                    URBAN FLAT  FLGPOL                         NOCALM

*** Message Summary : ISCST3 Model Execution ***

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

A Total of           0 Fatal Error Message(s)
A Total of           0 Warning Message(s)
A Total of        1398 Informational Message(s)

A Total of        1398 Calm Hours Identified

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

   ********   WARNING MESSAGES   ********
             ***  NONE  ***

   ************************************
   *** ISCST3 Finishes Successfully ***
   ************************************
```

Appendix C: Caline4 Output

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 2011 University @ Kendall - PM Peak
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 1.0 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 4.4 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
	LINK COORDINATES (M)								
A. NB External	15	0	15	600	AG	2027	3.8	.0	17.6
B. NB Approach	15	600	15	755	AG	1341	6.5	.0	17.6
C. NB Depart	15	755	15	911	AG	1477	6.5	.0	17.6
D. NB External	15	911	15	1511	AG	1477	3.8	.0	17.6
E. NB Left	15	600	7	755	AG	686	6.5	.0	17.6
F. SB Left	0	911	7	755	AG	149	6.5	.0	17.6
G. SB External	0	1511	0	911	AG	1477	3.8	.0	17.6
H. SB Approach	0	911	0	755	AG	1328	6.5	.0	17.6
I. SB Depart	0	755	0	600	AG	1782	6.5	.0	17.6
J. SB External	0	600	0	0	AG	1782	3.8	.0	17.6
K. EB External	-750	750	-150	750	AG	632	3.8	.0	14.0
L. EB Approach	-150	750	7	750	AG	494	6.5	.0	14.0
M. EB Depart	7	750	165	750	AG	615	6.5	.0	14.0
N. EB External	165	750	765	750	AG	615	3.8	.0	14.0
O. WB External	765	761	165	761	AG	940	3.8	.0	14.0
P. WB Approach	165	761	7	761	AG	487	6.5	.0	14.0
Q. WB Depart	7	761	-150	761	AG	1202	6.5	.0	14.0
R. WB External	-150	761	-750	761	AG	1202	3.8	.0	14.0
S. EB Left	-150	750	7	755	AG	138	6.5	.0	14.0
T. WB Left	165	761	7	755	AG	453	6.5	.0	14.0

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
	COORDINATES (M)		
1. Receptor	-10	742	2.0
2. Receptor	25	742	2.0
3. Receptor	25	769	2.0
4. Receptor	-10	769	2.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. Receptor	7.	1.5	.0	.0	.1	.2	.0	.0	.0	.7
2. Receptor	353.	1.4	.0	.0	.7	.0	.0	.0	.2	.1
3. Receptor	187.	1.6	.0	.7	.0	.0	.2	.0	.0	.0
4. Receptor	171.	1.8	.1	.2	.0	.0	.2	.0	.0	.0

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. Receptor	.0	.0	.0	.1	.0	.0	.0	.0	.2	.0	.0	.0
2. Receptor	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
3. Receptor	.2	.2	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
4. Receptor	.8	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 2011 Little Mountain @ Northpark - AM Peak w/Project
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 1.0 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 4.4 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NB External	10	0	10	600	AG	344	3.8	.0	13.4
B. NB Approach	10	600	10	756	AG	187	6.5	.0	13.4
C. NB Depart	10	756	10	912	AG	37	6.5	.0	13.4
D. NB External	10	912	10	1512	AG	37	3.8	.0	13.4
E. NB Left	10	600	5	756	AG	157	6.5	.0	13.4
F. SB Left	0	912	5	756	AG	61	6.5	.0	13.4
G. SB External	0	1512	0	912	AG	86	3.8	.0	13.4
H. SB Approach	0	912	0	756	AG	25	6.5	.0	13.4
I. SB Depart	0	756	0	600	AG	139	6.5	.0	13.4
J. SB External	0	600	0	0	AG	139	3.8	.0	13.4
K. EB External	-750	750	-150	750	AG	331	3.8	.0	14.9
L. EB Approach	-150	750	5	750	AG	327	6.5	.0	14.9
M. EB Depart	5	750	160	750	AG	517	6.5	.0	14.9
N. EB External	160	750	760	750	AG	517	3.8	.0	14.9
O. WB External	760	762	160	762	AG	522	3.8	.0	14.9
P. WB Approach	160	762	5	762	AG	448	6.5	.0	14.9
Q. WB Depart	5	762	-150	762	AG	590	6.5	.0	14.9
R. WB External	-150	762	-750	762	AG	590	3.8	.0	14.9
S. EB Left	-150	750	5	756	AG	4	6.5	.0	14.9
T. WB Left	160	762	5	756	AG	74	6.5	.0	14.9

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. Receptor	-8	741	2.0
2. Receptor	19	741	2.0
3. Receptor	19	771	2.0
4. Receptor	-8	771	2.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
1. Receptor	84.	.6	.0	.0	.0	.0	.0	.0	.0	.0
2. Receptor	277.	.5	.0	.0	.0	.0	.0	.0	.0	.0
3. Receptor	265.	.5	.0	.0	.0	.0	.0	.0	.0	.0
4. Receptor	96.	.5	.0	.0	.0	.0	.0	.0	.0	.0

CONC/LINK (PPM)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
1. Receptor	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
2. Receptor	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
3. Receptor	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
4. Receptor	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 2011 Palm @ Kendall - AM Peak w/Project
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NB External	8	0	8	600	AG	836	3.8	.0	10.9
B. NB Approach	8	600	8	755	AG	724	6.5	.0	10.9
C. NB Depart	8	755	8	911	AG	464	6.5	.0	10.9
D. NB External	8	911	8	1511	AG	464	3.8	.0	10.9
E. NB Left	8	600	4	755	AG	112	6.5	.0	10.9
F. SB Left	0	911	4	755	AG	233	6.5	.0	10.9
G. SB External	0	1511	0	911	AG	951	3.8	.0	10.9
H. SB Approach	0	911	0	755	AG	718	6.5	.0	10.9
I. SB Depart	0	755	0	600	AG	1087	6.5	.0	10.9
J. SB External	0	600	0	0	AG	1087	3.8	.0	10.9
K. EB External	-750	750	-150	750	AG	241	3.8	.0	14.0
L. EB Approach	-150	750	4	750	AG	211	6.5	.0	14.0
M. EB Depart	4	750	158	750	AG	757	6.5	.0	14.0
N. EB External	158	750	758	750	AG	757	3.8	.0	14.0
O. WB External	758	761	158	761	AG	524	3.8	.0	14.0
P. WB Approach	158	761	4	761	AG	222	6.5	.0	14.0
Q. WB Depart	4	761	-150	761	AG	244	6.5	.0	14.0
R. WB External	-150	761	-750	761	AG	244	3.8	.0	14.0
S. EB Left	-150	750	4	755	AG	30	6.5	.0	14.0
T. WB Left	158	761	4	755	AG	302	6.5	.0	14.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Receptor	-7	742	2.0
2. Receptor	15	742	2.0
3. Receptor	15	769	2.0
4. Receptor	-7	769	2.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Receptor	84.	1.0	.0	.1	.0	.0	.0	.0	.0	.0
2. Receptor	352.	.9	.0	.0	.3	.0	.0	.1	.0	.2
3. Receptor	186.	1.1	.0	.4	.0	.0	.0	.0	.0	.0
4. Receptor	174.	1.0	.0	.2	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. Receptor	.2	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
2. Receptor	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3. Receptor	.2	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
4. Receptor	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 2011 University @ I215NB - AM Peak w/Project
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	1.0 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NB External	4	0	4	600	AG	656	3.8	.0	10.0
B. NB Approach	4	600	4	757	AG	537	6.5	.0	10.0
C. NB Depart	4	757	4	914	AG	2163	6.5	.0	10.0
D. NB External	4	914	4	1514	AG	2163	3.8	.0	10.0
E. NB Left	4	600	2	757	AG	119	6.5	.0	10.0
F. SB Left	0	914	2	757	AG	0	6.5	.0	10.0
G. SB External	0	1514	0	914	AG	1703	3.8	.0	10.0
H. SB Approach	0	914	0	757	AG	1703	6.5	.0	10.0
I. SB Depart	0	757	0	600	AG	1983	6.5	.0	10.0
J. SB External	0	600	0	0	AG	1983	3.8	.0	10.0
K. EB External	-750	750	-150	750	AG	0	3.8	.0	17.0
L. EB Approach	-150	750	2	750	AG	0	6.5	.0	17.0
M. EB Depart	2	750	154	750	AG	0	6.5	.0	17.0
N. EB External	154	750	754	750	AG	0	3.8	.0	17.0
O. WB External	754	764	154	764	AG	2097	3.8	.0	17.0
P. WB Approach	154	764	2	764	AG	1626	6.5	.0	17.0
Q. WB Depart	2	764	-150	764	AG	310	6.5	.0	17.0
R. WB External	-150	764	-750	764	AG	310	3.8	.0	17.0
S. EB Left	-150	750	2	757	AG	0	6.5	.0	17.0
T. WB Left	154	764	2	757	AG	471	6.5	.0	17.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Receptor	-5	740	2.0
2. Receptor	9	740	2.0
3. Receptor	9	774	2.0
4. Receptor	-5	774	2.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. Receptor	5.	2.4	.0	.0	.7	.1	.0	.0	.0	.9
2. Receptor	356.	2.3	.0	.1	1.1	.1	.0	.0	.1	.5
3. Receptor	186.	2.2	.0	.3	.6	.0	.0	.0	.0	.0
4. Receptor	5.	2.2	.0	.0	.6	.2	.0	.0	.0	1.3

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. Receptor	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Receptor	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
3. Receptor	.7	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
4. Receptor	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 2011 University @ Northpark - PM Peak w/Project
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= 1.0 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= .0 CM/S
CLAS= 7 (G) VS= .0 CM/S
MIXH= 1000. M AMB= .0 PPM
SIGTH= 5. DEGREES TEMP= 4.4 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NB External	14	0	14	600	AG	1623	3.8	.0	16.7
B. NB Approach	14	600	14	757	AG	1127	6.5	.0	16.7
C. NB Depart	14	757	14	914	AG	840	6.5	.0	16.7
D. NB External	14	914	14	1514	AG	840	3.8	.0	16.7
E. NB Left	14	600	7	757	AG	496	6.5	.0	16.7
F. SB Left	0	914	7	757	AG	107	6.5	.0	16.7
G. SB External	0	1514	0	914	AG	588	3.8	.0	16.7
H. SB Approach	0	914	0	757	AG	481	6.5	.0	16.7
I. SB Depart	0	757	0	600	AG	1509	6.5	.0	16.7
J. SB External	0	600	0	0	AG	1509	3.8	.0	16.7
K. EB External	-750	750	-150	750	AG	651	3.8	.0	17.0
L. EB Approach	-150	750	7	750	AG	622	6.5	.0	17.0
M. EB Depart	7	750	164	750	AG	684	6.5	.0	17.0
N. EB External	164	750	764	750	AG	684	3.8	.0	17.0
O. WB External	764	764	164	764	AG	965	3.8	.0	17.0
P. WB Approach	164	764	7	764	AG	340	6.5	.0	17.0
Q. WB Depart	7	764	-150	764	AG	794	6.5	.0	17.0
R. WB External	-150	764	-750	764	AG	794	3.8	.0	17.0
S. EB Left	-150	750	7	757	AG	29	6.5	.0	17.0
T. WB Left	164	764	7	757	AG	625	6.5	.0	17.0

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. Receptor	-10	740	2.0
2. Receptor	24	740	2.0
3. Receptor	24	774	2.0
4. Receptor	-10	774	2.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
1. Receptor	80.	1.2	.0	.2	.0	.0	.0	.0	.0	.0
2. Receptor	277.	1.1	.0	.2	.0	.0	.0	.0	.0	.0
3. Receptor	187.	1.4	.0	.5	.0	.0	.2	.0	.0	.0
4. Receptor	173.	1.4	.2	.1	.0	.0	.1	.0	.0	.0

CONC/LINK (PPM)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
1. Receptor	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.2
2. Receptor	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
3. Receptor	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
4. Receptor	.7	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0