DISPERSION OF VAPOR FROM LNG SPILLS AT GREEN POINT ENERGY CENTER: SIMULATION IN A WIND TUNNEL

by

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Prepared for
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EXECUTIVE SUMMARY

A 1:400 scale model of Brooklyn Union Gas Company (BUGC) was placed in the Environmental Wind Tunnel to determine the dispersion of LNG spills from an accidental release under neutral atmospheric conditions. The LNG dispersion from BUGC tank number 2 with wind speeds of 2.23 m/sec (5 mph), 5.49 m/sec (12.3 mph) and 8.93 m/sec (20 mph) were investigated for various wind directions and the following three source configurations:

a) Boiloff from a 13,000 gpm spill onto a soil dike floor for unlimited spill duration,

b) Boiloff from an instantaneous spill of a full tank onto a soil dike floor, and

c) Boiloff from an instantaneous spill of a full tank onto a Dycon dike floor.

The flow visualization study was performed for the same three sources, but at maximum boiloff rate, with four wind speeds under neutral stability and with two wind speeds under stable approach flow conditions. The study resulted in the following conclusions:

- The distances of Lower Flammability Limit (LFL) contours were maximum for the instantaneous LNG spills on a soil floor.
- The 13,000 gpm LNG spills on a soil dike floor resulted in larger LFL distances than instantaneous LNG spills on a Dycon floor.
- The vertical extent of LFL at the LNG flare under 5 mph wind was less than the heights of the flare for all three sources.
- The distance to LFL was reduced with an increase in the wind speed.

- Applied Technology, Inc., numerical prediction of LFL distances were conservative as compared with the wind tunnel measurements.
- The distances to LFL were within the property line of BUGC for 12.3 mph and 20.0 mph wind speeds.
- The wind direction has little effect on the approximate distances to LFL. However, the concentration patterns were different for various wind directions.

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LIST OF SYMBOLS

Dimensions are given in terms of mass (m), length, (L), time (t), moles (n), and temperature (T)

Symbol	Definition	
A	Area	$[L^2]$
C_p	Specific heat capacity at constant pressure	$[L^2 t^{-2} T^{-1}]$
D	Source diameter	[L]
g	Gravitational acceleration	$[Lt^{-2}]$
k	Thermal conductivity	$[mLT^{-1}t^{-3}]$
L	Length	[L]
$\dot{m}$	Mass flow rate	[m/t]
M	Molecular weight	$[mn^{-1}]$
n	Mole	[n]
c	Exponent of velocity distributions power law	
p	Pressure	$[mL^{-1}t^{-2}]$
Q	Volumetric rate of gas flow	$[L^3 t^{-1}]$
T	Temperature	[T]
ΔT	Temperature difference across some reference layer	[T]

Symbol	Definition	
t	Time	$[t]$
U	Velocity	$\left[Lt^{-1}\right]$
u_*	Frictional velocity	$\left[Lt^{-1}\right]$
$\forall$	Volume	$\left[L^3\right]$
W	Plume vertical velocity	$\left[Lt^{-1}\right]$
x	General downwind coordinate	$[L]$
y	General lateral coordinate	$[L]$
z	General vertical coordinate	$[L]$
z_o	Surface roughness parameter	$[L]$
δ	Boundary layer thickness	$[L]$
ν	Kinematic viscosity	$\left[L^3\ t^{-1}\right]$
$\Delta\rho$	Density difference between source gas and air	$\left[ML^{-3}\right]$
ρ	Density	$\left[ML^{-3}\right]$
χ	Mole fraction of gas component	
Ω	Angular velocity of earth = 0.726×10^{-4} (radians/sec)	$\left[t^{-1}\right]$
λ	Wave length	$[L]$
Λ	Integral length scale of turbulence	$[L]$

Subscripts

a	Air
Ar	Argon
Fr	Freon
g	Gas
i	Cartesian index
LNG	Liquified Natural Gas
LFL	Lower Flammability Limit
m	Model
NG	Natural gas
o	Reference conditions
p	Prototype
S	Source gas

1.0 INTRODUCTION

Natural gas is a highly desirable form of energy for consumption and its conversion to home heating and industrial use are achieved with very little environmental impact. Recent efforts to expand the United States' natural gas supply include the transport of natural gas in a liquid state from distant gas fields; however, the storage and transport of liquid natural gas may include a relatively large environmental risk (Fay, 1973; Burgess, 1972). Liquified natural gas (LNG) is cooled to a temperature of -162°C to transport and store. At this temperature if a storage tank on a ship or land were to rupture and the contents spill out onto the surface, rapid boiling of the LNG would occur and the liberation of a flammable vapor would result. It has been demonstrated (Neff and Meroney, 1976, 1979; AGA, 1974) that the cold LNG vapor plume will remain negatively buoyant for a majority of its lifetime representing a ground level hazard. This hazard will extend downwind until the atmosphere has diluted the LNG vapor below the lower flammability limit (a local concentration for methane below 5% by volume).

It is important that accurate predictive models for LNG vapor cloud physics be developed, so that the associated hazards of transportation may be evaluated. Various industrial and governmental agencies have sponsored a combination of analytical, empirical, and physical modeling studies to analyze problems associated with the

transportation and storage of LNG. Since these models require assumptions to permit tractable solution procedure one must perform prototype tests to verify their accuracy.

A 1:400 scale model of the Brooklyn Union Gas Company (BUGC) LNG storage tank number 2 and surroundings were placed in the Environmental Wind Tunnel (EWT) to determine the dispersion of LNG vapor plume under neutral stability and three wind speeds. Two dike floor surfaces; soil, and Dycon; and two different spill rates were investigated. The flow visualization study was performed for eight wind directions with neutral conditions under three wind speeds and with stable conditions under two wind speeds. The meteorological and source conditions for the various tests are summarized in Table 1.

The methods employed in the physical modeling of atmospheric and plume motion are discussed in Chapter 2. The details of model construction and experimental measurements are described in Chapter 3. Chapter 4 discusses the test program and results obtained and Chapter 5 contains the conclusion of the study.

2.0 MODELING OF PLUME DISPERSION

A predictive model for a specific plume dispersion problem requires combining the pertinent physical variables and parameters into a logical expression that determines their inter-relationships. This task is achieved for the atmospheric boundary layer by the governing equations of conservation of mass, momentum, and energy. These equations with site and source conditions and associated constituitive relations are highly descriptive of the actual physical inter-relationship of the various independent (space and time) and dependent (velocity, temperature, pressure, density, etc.) variables.

These generalized conservation equations subjected to the typical boundary conditions of atmospheric flow are too complex to be solved by present analytical or numerical techniques. It is also unlikely that one could create a physical model for which exact similarity exists for all the dependent variables over all the scales of motion present in the atmosphere. Thus, various degrees of approximation are required to obtain a predictive model. Due to the problem of turbulent closure (Hinze, 1975), exact analytical and numerical solutions of plume dispersion are unavailable. The techniques of obtaining solutions rely heavily upon empirical input from observed or physically modeled data. The combined emperical-analytical-numerical solutions have been combined into several different predictive approaches by Pasquill (1974). However, the estimates of dispersion by these approaches are often crude and do not account for site terrain and obstacle effects. Boundary layer wind tunnels are capable of physically modeling plume processes in the atmosphere with the restrictions discussed in the next section.

2.1 Physical Modeling of the Atmospheric Boundary Layer

The atmospheric boundary layer is that portion of the atmosphere extending from ground level to approximately 100 meters within which the major exchanges of mass, momentum, and heat occur and is desribed mathematically by equation of conservation of mass, momentum, and energy (Cermak, 1971). The general requirements for laboratory-atmospheric-flow similarity may be obtained by fractional analysis of these governing equations (Kline, 1965). This methodology is accomplished by scaling the pertinent dependent and independent variables and then casting the equations into dimensionless form. Performing these operations on such dimensional equations yields dimensionless parameters commonly known as:

Reynolds number	$Re = U_o L_o / \nu_o$	$= \frac{\text{Inertial Force}}{\text{Viscous Force}}$
Bulk Richardson number	$Ri = \frac{g_o}{\overline{T}_o} \frac{(\Delta T)_o L_o}{U_o^2}$	$= \frac{\text{Gravitational Force}}{\text{Inertial Force}}$
Rossby number	$Ro = U_o / L_o \Omega_o$	$= \frac{\text{Inertial Force}}{\text{Coriolis Force}}$
Prandtl number	$Pr = \nu_o / (k_o / \rho_o C_{p_o})$	$= \frac{\text{Viscous Diffusivity}}{\text{Thermal Diffusivity}}$
Eckert number	$Ec = U_o^2 / C_{p_o} (\Delta \overline{T})_o$	

For exact similarity between different flows which are governed by the same set of equations, each of these dimensionless parameters must be equal for both prototype and model systems. In addition to these requirements, there must be similarity between the boundary conditions.

Boundary condition similarity requires equivalence of the following features:

a) Surface-roughness distributions,

b) Topographic relief, and

c) Surface-temperature distribution.

If all the foregoing requirements are met simultaneously, all atmospheric scales of motion ranging from micro to mesoscale could be simulated within the same flow field for a given set of boundary conditions (Cermak, 1975). However, all of the requirements cannot be satisfied simultaneously by existing laboratory facilities; thus, a partial or approximate simulation must be used. This limitation requires that atmospheric simulation for a particular wind-engineering application must be designed to simulate most accurately those scales of motion which are of significance for the given application.

2.1.1 Partial Simulation of the Atmospheric Boundary Layer

A partial simulation is practically realizable only because the kinematics and dynamics of flow systems are independent above a critical Reynolds number (Schlichting, 1968; Zoric, 1972). The magnitude of this critical Reynolds number will depend upon the geometry of the flow system being studied. Halitsky (1969) reported that for concentration measurements on a cube placed in a near uniform flow field the Reynolds

number required for invariance of the concentration distribution over the cube surface and downwind must exceed 11,000. Because of this invariance, exact similarity of Reynolds parameter was unnecessary in the present research.

When the flow scale being modeled is small enough such that the turning of the mean wind directions with heights is unimportant, similarity of the Rossby number may be relaxed. For the case of dispersion of LNG near the ground level the Coriolis effect on the plume motion would be extremely small and the exact Rossby number similarity was also considered unnecessary.

The Eckert number for air is equivalent to

$0.4\ M_a^2\ (\frac{T_o}{\Delta T_o})$ where M_a is the Mach number (Hinze, 1975), For the wind velocities and temperature differences which occur in either the atmosphere or the laboratory flow the Eckert number is very small; thus, the effects of energy dissipation with respect to the convection of energy is negligible for both model and prototype. Eckert number equality is not required.

Prandtl number equality is obtained since it is dependent on the molecular properties of the working fluid which is air for both model and prototype.

Bulk Richardson number equality may be obtained in special laboratory facilities such as the Meteorological Wind Tunnel at Colorado State University (Plate, 1963).

Quite often during the modeling of a specific flow phenomena it is sufficient to model only a portion of the boundary layer or a portion of the spectral energy distribution. This relaxation allows more

flexibility in the choice of the length scale that is to be used in a model study. When this technique is employed it is common to scale the flow by any combination of the following length scales, δ, the portion of the boundary layer to be simulated; z_o, the aerodynamic roughness; Λ, the integral length scale of the velocity fluctuations, or λ_p, the wave length at which the peak spectral energy is observed. Unfortunately many of the scaling parameters and characteristic profiles are difficult to obtain in the atmosphere. Counihan (1975) has summarized measured values of some of these different descriptions for the atmospheric flow at many different sites and flow conditions.

2.2 Physical Modeling of Plume Motion

In addition to modeling the turbulent structure of the atmospheric boundary layer in the vicinity of a test site it is necessary to scale the plume source conditions. An ideal method is to consider the conservation statements for the combined flow system followed by fractional analysis to find the governing parameters. An alternative approach, the one which will be used here, is that of similitude (Kline, 1965). The method determines scaling parameters by reasoning that the mass ratios, force ratios, energy ratios, and property ratios should be equal for both model and prototype. The dynamics of gaseous plume behavior leads to the following nondimensional parameters of importance (Hoot, 1974; Skinner, 1978; Snyder, 1972; Halitsky, 1969):[1,2]

[1] It has been assumed that the dominant transfer mechanism is that of turbulent entrainment. Thus the transfer processes of heat conduction, convection, and radiation are negligible.

[2] The scaling of plume Reynolds number is also a significant parameter. Its effects are invariant over a large range thus making it possible to scale the distribution of mean and turbulent velocities and relax exact parameter equality.

$$\text{Mass Ratio} = \frac{\text{mass flow of plume}}{\text{effective mass flow of air}}$$

$$= \frac{\rho_s W_s A_s}{\rho_a U_a A_a} = \frac{\rho_s Q}{\rho_a U_a L^2} \quad ,$$

$$\text{Momentum Ratio} = \frac{\text{inertia of plume}}{\text{effective inertia of air}}$$

$$= \frac{\rho_s W_s^2 A_s}{\rho_a U_a^2 A_a} = \frac{\rho_s Q^2}{\rho_a U_a^2 L^4} \quad ,$$

$$\text{Densimetric Froude No. (Fr)} = \frac{\text{effective inertia of air}}{\text{buoyance of plume}}$$

$$= \frac{\rho_a U_a^2 A_a}{g(\rho_s - \rho_a)\forall_s} = \frac{U_a^2}{g\left(\frac{\rho_s - \rho_a}{\rho_a}\right) L}$$

$$\text{Volume Flux Ratio} = \frac{\text{Volume flow of plume}}{\text{effective volume flow of air}}$$

$$= \frac{Q}{UL^2}$$

In order to obtain simultaneous simulation of these four parameters, it is necessary to maintain equality of the plume's specific gravity ρ_s/ρ_a.

2.2.1 Partial Simulation of Plume Motion

The restriction to an exact variation of the density ratio for the entire life of a plume is difficult to meet for plumes which simultaneously vary in molecular weight and temperature. To emphasize this point more clearly, consider the mixing of two volumes of gas, one being the source gas, $\forall_s$, the other being ambient air, $\forall_a$.

Consideration of the conservation of mass and energy for this system yields (Skinner, 1978):[1]

$$\frac{\rho_g}{\rho_a} = \frac{\frac{\rho_s}{\rho_a}\Psi_s + \Psi_a}{\left(\frac{T_a}{T_s}\Psi_s + \Psi_a\right)\left(\frac{C_{p_s}M_s}{C_{p_a}M_a} + \Psi_a\right) \Big/ \left(\frac{C_{p_s}M_s}{C_{p_a}M_a}\frac{T_a}{T_s}\Psi_s + \Psi_a\right)}$$

If the temperature of the air, T_a, equals the temperature of the source gases, T_s, or if the product, C_pM, is equal for both source gas and air then the equation reduces to:

$$\frac{\rho_g}{\rho_a} = \frac{\frac{\rho_s}{\rho_a}\Psi_s + \Psi_a}{\Psi_s + \Psi_a} \quad .$$

Thus for two prototype cases: 1) an isothermal plume and 2) a thermal plume which is composed mostly of air, it does not matter how one produces the model density ratio as long as the initial density ratio value is equal for both model and prototype.

For a plume whose temperature, molecular weight, and specific heat are all different from that of the ambient air, i.e., a cold natural gas plume, equality in the variation of the density ratio upon mixing must be relaxed slightly if one is to model utilizing a

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[1]The pertinent assumption in this derivation is that the gases are ideal and properties are constant.

gas different from that of the prototype.[1] In most situations this deviation from exact similarity is very small.

Scaling of the effects of heat transfer by conduction, convection, radiation, or latent heat release from entrained water vapor cannot be reproduced when the model source gas and environment are isothermal. Fortunately in a large majority of industrial plumes the effects of heat transfer by conduction, convection, and radiation from the environment are small enough that the plume buoyancy essentially remains unchanged. The influence of latent heat release by moisture upon the plume's buoyancy is a function of the quantity of water vapor present in the plume and the humidity of the ambient atmosphere. Such phase change effects on plume buoyancy can be very pronounced in some prototype situations. Figure 1 displays the variation of specific gravity from a spill of liquified natural gas in atmospheres of different humidities. Humidity effects are expected to reduce the extent in space and time of plume buoyancy dominance on plume motion. Hence a dry adiabatic condition should be conservative in terms of distances to LFL.

Equality of densimetric Froude number results in the following relationship between model and prototype velocity fields:

$$\left(U_a\right)_m = \left(\frac{S.G._m - 1}{S.G._p - 1}\right)^{1/2} \left(\frac{1}{L.S.}\right)^{1/2} \left(U_a\right)_p$$

[1] If one was to use a gas whose temperature is different from that of the ambient air then consideration of similarity in the scaling of the energy ratios must be considered.

where S.G. is the specific gravity, (ρ_s/ρ_a), and L.S. is the length scale (L_p/L_m). However, when the prototype velocity is low, the equivalent model velocity utilizing above relationship would be extremely low. At such low velocities the instrumentation becomes increasingly inaccurate; in addition, the wind tunnel is difficult to control. Often the wind speed remains erratic and nonstationary. Although such conditions could be arranged for short periods with exacting attention, it is more efficient to select an alternative model criteria which permit higher wind tunnel speeds for the bulk of the experimental conditions. This can be achieved by relaxing the equality of density ratio while stipulating equality of momentum ratio and flux Froude number, $\rho_a U_a^3/(g\ (\rho_s - \rho_a) W_s L)$. This partial simulation technique relaxes the requirement of source gas density in favor of operating at higher model wind speeds.

Skinner and Ludwig (1978) experimentally demonstrated that buoyancy and exit momentum of the stack effluent, and compensating with an increase in wind speed produces the same dispersion as the stipulation of equality in stack exit density to ambient air density ratio. Neff and Meroney (1979) used similar criteria while modeling the behavior of LNG spills. Kothari and Meroney (1979) have utilized this method to obtain the stack gas dispersion. Unfortunately, there is disagreement within the modeling community as to the efficiency of approximate modeling methods. Isyumov and Tanaka (1979) reported a comparative study of five relaxed stack gas dispersion techniques. They concluded all approximation methods exaggerate the influence of density. For the dense plumes this might

suggest an exaggerated drop of the plume centerline; if this is indeed the case, this represents a conservative condition for the purposes of this study.

2.3 Modeling of Plume Dispersion at Brooklyn Union Gas Company

In the sections above a review of the extent to which wind tunnels can model plume dispersion in the atmospheric boundary layer has been presented. In this section these arguments are applied to the specific case of an LNG spill at the Brooklyn Union Gas Company.

2.3.1 Physical Modeling of the BUGC Atmospheric Surface Layer

The neutral boundary layer was generated in the EWT using spires in the entrance of the tunnel and 2.54 cm (1 in.) roughness on the floor. The wind speeds were specified at 10 m (prototype) height. The aerodynamic roughness, z_o, and power law exponent, c, were specified such that the boundary layer profile is similar to that expected at the BUGC. The stable atmospheric boundary layer required during the part of flow visualization study was generated in the Meteorological Wind Tunnel (MWT), however, no roughness elements were utilized.

2.3.2 Physical Modeling of the BUGC Spill Plume

The buoyancy of a plume resulting from a LNG spill is a function of both the mole fraction of methane and temperature. If the plume entrains air adiabatically, then the plume would remain negatively buoyant for its entire lifetime. If the humidity of the atmosphere were high then the state of buoyancy of the plume will vary from negative to weakly positive. These conclusions are shown in

Figure 1, which illustrates the specific gravity of a mixture of methane at boiloff temperature with ambient air and water vapor.

Since the adiabatic plume assumption will yield the most conservative downwind dispersion estimates, this situation was simulated. Several investigators have confirmed that the Froude number is the parameter which governs plume spread rate, trajectory, plume size and entrainment during initial dense plume dilution (Hoot and Meroney, 1974; Bodurtha, 1961; Van Ulden, 1974; Boyle and Kneebone, 1973; and Neff and Meroney, 1979). The equality of model and prototype specific gravity was relaxed so that pure Argon gas could be used for the model source gas.

Argon provides almost eight times the detection sensitivity for instantaneous concentration measurements as the carbon dioxide used in previous studies (Meroney, 1977). The variation of specific gravity with equivalent observed mole fraction of methane and Argon is plotted in Figure 3. Over the concentration range where the buoyancy forces are dominant, the variation of the Froude number is properly simulated. Undistorted scaling of velocity components was maintained which implies the undistorted scaling of source strength for higher prototype wind speeds of 5.49 m/sec (12.3 mph) and 8.93 m/sec (20 mph). However, in order to obtain a reasonable model wind speed equivalent to prototype wind speeds of 1.34 m/sec (3 mph) and 2.23 m/sec (5 mph) enhanced modeling techniques were utilized, i.e., flux Froude number and momentum equality with pure Freon 112 as a tracer gas. The actual source condition, boiloff

rates, were provided by Applied Technology, Inc. for BUGC. Boiloff curves were approximated as a step variation function with respect to time.

Since the thermally variable prototype gas was simulated by an isothermal simulation gas, the concentration measurements observed in the model must be adjusted to equivalent concentrations that would be measured in the field. This relationship which is derived in Appendix A is:

$$\chi_p = \frac{\chi_m}{\chi_m + (1 - \chi_m)\frac{T_s}{T_a}}$$

where

χ_m = volume or mole fraction measured during the model tests

T_s = source temperature of LNG during field conditions and

T_a = ambient air temperature during field conditions

However, with enhanced modeling technique the relation is:

$$\chi_p = \frac{\chi_m}{\chi_m + (1- \chi_m)\frac{T_s}{T_a}\left(\frac{S.G._p}{S.G._m}\right)^{1/2}}$$

and is also derived in Appendix A.

3.0 DATA ACQUISITION AND ANALYSIS

The experimental measurements and conversions of these quantities to meaningful field equivalent quantities are described in this section. Attention has been given to the limitations of the techniques. Some of the methods are conventional and require little elaboration.

3.1 Wind Tunnel Facilities

All concentration measurements were performed in the Environmental Wind Tunnel (EWT) and the schematic of the tunnel is shown in Figure 4. This tunnel is designed to study atmospheric flow phenomena. It has special features such as adjustable ceiling, rotating turntables, transparent boundary walls, and a long test section to permit reproduction of micrometeorological behavior at lower scales. Wind speeds of 0.15 to 12 m/s and boundary layer thickness of about 1 m at the downstream distances of about 6 m can be obtained with the use of the vortex generators at the entrance of the test section and surface roughness on the floor. The additional flow straightener tubes were installed at the front and rear of the test section to produce a larger wind tunnel pressure drop which permits the blower to be run at higher and more stable rotational speeds. The flexible test section roof facilitates the adjustment in heights to obtain a zero longitudinal pressure gradient. The vortex generators at the test section entrance were followed by 11 m of a floor with roughness elements of 2.54 cm (1 in.) in height to the 1:400 scale model of the BUGC Green Point Energy Center.

The flow visualization sequences at the lower two winds were performed in the Meteorological Wind Tunnel (MWT), as shown in Figure 5, under stable flow conditions. This wind tunnel is designed to study atmospheric phenomena and incorporates special features such as an adjustable ceiling, temperature controlled boundary walls, and a long test section to permit reproduction of micro-meteorological behavior. Mean wind speeds of 0.3 to 40 m/s at the free stream can be obtained in the MWT. Thermal stratification in the MWT is provided by the heating and cooling system in the section passage and test section floor. The flexible test section roof on the MWT is adjustable in height to permit the longitudinal pressure gradient to be set at zero. The MWT facility is described in detail by Plate and Cermak (1963), A set of vortex generators was installed at the entrance of test section. The plate was cooled to approximately 0°C and freestream air was heated to approximately 40°C to obtain stable stratification.

3.2 Model

A 1:400 scale model of the Brooklyn Union Gas Company topography was constructed from styrofoam sheets. The LNG tank number 2 and surrounding dike area (LNG release site) were constructed from plexiglas material. The source gas, Argon or Freon, was stored in a high pressure cylinder and directed through a set of solenoidal valves into the center of the dike area. The Argon or Freon directed to the center brass tube was distributed over the dike area by eight smaller brass tubes with holes on the circumference.

A cardboard plate with 0.47 cm (3/16 in.) diameter hole on 1.25 cm (0.5 in.) center to center matrix was placed above the brass tubes inside the dike area. The gas passes through center of dike, divides evenly into eight directions and comes out from circumferential holes on the brass tubes. The gas is then exited through the cardboard holes with even distribution.

Three typical boiloff rates were furnished by Applied Technology Corporation for BUGC and are shown in Figures 6 to 8. The simulated LNG boiloff rate curves were approximated as a step function and are also displayed in Figures 6 to 8. In order to obtain the model boiloff rate curves, a special electrical circuit was designed. Flow rates were adjusted utilizing precision needle valves. The electrical circuit counts the time elapsed from the start of the gas release and depending upon the specific time, it opens the appropriate solenoidal valve. The schematic of the source gas flow is shown in Figure 9.

3.3 Flow Visualization Techniques

Smoke was used to visually define the plume envelope emitted from the LNG spills at BUGC dike area. The smoke was produced by passing the Argon or Freon, stored in a high pressure gas cylinder, through a Fischer and Porter flow controller into a container of titanium tetrachloride located outside the wind tunnel. Smoke produced by the interaction of titanium tetrachloride and moisture in the gas mixture was transported through the wind tunnel wall by means of a tygon tube terminating at the dike inlet. Attempts

to photograph a smoke plume generated by a flow which strictly followed the specified boiloff rate undulations were unsuccessful. The smoke apparatus could not cope with the variable flow rates to produce a well defined plume. Hence for the flow visualization portion of the study the gas was released at the maximum boiloff rate rather than a step function variation. Visual comparison of the maximum extent of the modulated and unmodulated plumes presented similar maximum plume outlines.

The plume was illuminated with carbon arc-lamp beams. A visible record was obtained by means of black and white pictures taken with a Speed Graphic camera, 35 mm color slides, and 16 mm silent movie film taken with a Bolex motion picture camera.

3.4 Wind Profiles and Turbulence Measurements

Measurements of mean velocity and turbulence intensity were accomplished with a single hot-film anemometer with axis horizontal. The instrumentation used was a Thermo-Systems constant temperature anemometer model 1015 connected to a 2.54×10^{-3} cm diameter platinum film sensing element 0.0508 cm long. The output of the constant temperature anemometer was directed to an on-line data acquisition system consisting of a Hewlett-Packard 21 MX Computer, disc unit, card reader, printer, Digi-Data digital tape drive and a Preston Scientific Analog-digital converter. The data was processed immediately into mean velocity and turbulence intensity at each corresponding height and stored on the computer disc for printout or further analysis.

Calibration of the hot-film anemometer was performed using a calibrator suitable for low velocity and developed by CSU staff. The

calibration data were fit to a variable exponent King's law relationship

$$E^2 = A + BU^n$$

where E is the hot-wire output voltage, U is the velocity and A, B, and n are coefficients selected to fit the calibration data. All measurements were performed with a sample rate of 250 samples per second for 20 seconds, and the above calibration relationship was used to determine the mean velocity. The King's Law relationship is not normally used for very low velocities where the heat transfer from the sensor is governed by mixed forces/free convection; hence, the low velocity measurements obtained by the hot-film are somewhat questionable. Absolute accuracy is probably no better than $\pm$10% at such low velocities, however, relative magnitudes are consistent. The fluctuating velocity may be characterized by the statistic U_{rms} (root-mean-square velocity). It was calculated from

$$U_{rms} = \frac{2E\ E_{rms}}{Bn\ U^{n-1}}$$

Where E_{rms} is the root-mean-square of voltage output from the anemometer. The local turbulence intensity, U_{rms}/U was then calculated. The hot-film was mounted on a vertical traverse and positioned over the measurement location on the model to obtain the mean velocity and turbulence intensity profiles. The velocity data reduction flow chart is shown in Figure 10.

The stable velocity profiles were measured utilizing Datametric 800-LV linear probe. The output of the system being linear, it was easier to measure the velocity profiles. The mean velocity was corrected for the difference in density of air during calibration and measurement location.

3.5 Concentration Measurements

The concentrations of methane produced during an LNG spill are definitely time dependent. Hence, it is necessary to have a frequency response to concentration fluctuations of at least 50 Hz to isolate peaks of methane concentrations above 5 percent (the lower flammability limit of methane in air, LFL); hence, a set of eight aspirating hot wire probes was utilized for the present study.

3.5.1 Hot Wire Aspirating Probe

The basic principles governing the behavior of a hot film aspirating probe have been discussed by Blackshear and Fingerson (1962), Brown and Rebollo (1972); and Kuretsky (1967). A schematic of eight probes is presented in Figure 11. The films on these probes were replaced with 0.0127 cm (0.005 in.) platinum wire to improve signal-to-noise characteristics. A vacuum source sufficient to choke the flow through the small orifice just downwind of the sensing elements was applied. The wires were operated in a constant temperature mode at a temperature above that of the ambient air temperature. Feedback amplifiers maintained a constant overheat resistance through adjustment of the heating current. The change in output voltage from each sensor corresponds to a change in heat transfer between each hot wire and the sampling environment.

The heat transfer rate from a hot cylindrical wire to a gas flowing over it depends primarily upon the wire diameter, the temperature difference between the wire and the gas, the thermal conductivity and viscosity of the gas, and the gas velocity. For a wire in an aspirated probe with a sonic throat, the gas velocity can be expressed

as a function of the probe cross-sectional area at the wire position to the area at the throat, the specific heat ratio, and the speed of sound in the gas. The latter two parameters, as well as the thermal conductivity and viscosity of the gas mentioned earlier, are determined by the gas composition and temperature. Hence, for a fixed probe geometry and wire temperature, the heat transfer rate, or the related voltage drop across the wire is a function of only the gas composition and temperature. Since all tests performed in this study were in an isothermal flow situation, the wire's response was only a function of gas composition.

During probe calibration known compositions of Argon-air or Freon-air mixtures were passed through a pre-heat exchanger to condition the gas to the tunnel temperature environment. These known compositions were produced from a bottle of pure Freon and bottle of pure air passed through a Matheson gas proportioner or drawn from a bottle of prepared gas composition provided by Matheson Laboratories. Figure 12 displays the measured variation of the voltage drop with percentage of Argon in an Argon-air mixture for three different values of the film temperature overheat. For an overheat ratio (temperature of film/ambient temperature) of 1.75 the voltage drop varies linearly with Argon concentration and has the maximum sensitivity. Similar calibrations were obtained for Freon concentrations also. This particular overheat ratio of 1.75 was used during all wind tunnel measurements.

The eight instantaneous concentration sensors were operated by an eight channel Thermo-Systems, Inc., anemometer system. The output voltages from the anemometers were conditioned by a d.c. suppression

circuit, a passive low-pass filter circuit tuned to 100 Hz, and an operational amplifier of times five magnitude and then fed to the analog-in-digital converter. The time series data were stored in the computer and analyzed at a later time. The schematic of the system is shown in Figure 13.

3.5.2 Errors in Concentration Measurement

The travel time from the sensor to the sonic choke limits the upper frequency response of the probe. At high frequencies the correlation between concentration fluctuation and velocity fluctuations (velocity fluctuations are a result of the changes of sonic velocity with concentration) at the sensor begin to decline. The CSU aspirated probe is expected to have a 1000 Hz upper frequency response, but, to improve signal to noise characteristics, the signal was filtered at 100 Hz. This is well above the frequencies of concentration fluctuations that were expected to occur.

The errors caused by a linearity assumption in the reduction of concentration data are approximately the component value (percent Argon or Freon) $\pm$0.75 percent. The errors caused by calibration change due to temperature drift are approximately 0.1 percent of the component value per degree centigrade. Since the tunnel temperatures vary at most $\pm$5°C during a given test period the maximum error due to temperature drift would be 0.5 percent of the component value.

4.0 TEST PROGRAM

The test program consisted of three different test series. The overall objectives were:

- To determine the qualitative behavior of the LNG spills at the BUGC facility scaled to 1:400 for three wind speeds and three source gas release conditions under neutral stability, and for two wind speeds and three source gas release conditions under stable conditions utilizing the flow visualization.
- To determine the distances to LFL of LNG spills at the BUGC facility scaled to 1:400 for three wind speeds and three source gas release conditions utilizing hot-wire kathermometer probes.
- To compare physical modeling data with numerical predictive technique.

A summary of all tests simulated in the laboratory is presented in Table 1. All dimensions reported in the following discussions have been converted to equivalent full scale values appropriate to the Brooklyn Union Gas Company site with the origin at the center of the BUGC LNG tank number 2. The positive x-axis is in the direction of the prevailing wind.

4.1 Results and Discussion

4.1.1 Approach Velocities

The approach flow velocity profiles were measured at the release site center (without dike and tank number two in place). All neutral flow situations were performed in the EWT and the characteristics mean velocity and turbulence profiles are shown in Figure 14. The

stable test conditions were performed in the MWT. The mean velocity and mean temperature profiles for stable case are shown in Figure 15. The average values of velocity profile power-law exponent was 0.16 for neutral flow. The frictional velocity, u_*, were 1.6, 2.9, and 2.4 cm/sec equivalent to prototype values of 0.35, 0.69, and 0.25 m/sec corresponding to 12.3 mph, 20 mph and 5 mph at 10 m height.

4.1.2 Flow Visualization Results

The 1:400 scale BUGC model was installed in the wind tunnel and the flow visualization study was performed with the maximum flow rates for each of the three different source release conditions and three wind speeds in neutral atmospheric and two wind speeds in stable atmosphere. The two lower wind speeds (1.34 and 2.23 m/sec; 3 mph and 5 mph) conditions were simulated using Freon as a source gas. This enhanced density method resulted in higher wind tunnel speed. For each test run, 4 x 5 black and white still photographs and 35 mm color slides were taken to obtain the plume outline. The 16 mm silent movie was taken for all neutral runs. As the flow rates were maximum for each test, a conservative estimate of the plume outline was obtained. The photographs and movie were forwarded to the sponsor under a separate cover.

4.1.3 Instantaneous Concentration Measurements Results

Two sets of concentration measurements were performed in the EWT. The first set of measurements corresponds to two higher wind speeds viz. 5.49 m/sec and 8.93 m/sec (12.3 mph and 20 mph at

10 m height) with three source release configuration and neutral stability. These tests were performed with the Argon as a source gas and equality of the Froude number and volume flow rate. Use of Froude number equality results in too low a wind tunnel speed for prototype wind speed of 2.23 m/sec (5 mph at 10 m height). Hence, to achieve a reasonable operational wind tunnel speed an enhanced density criteria was utilized. Instead of Argon, pure Freon 112 was utilized as a source gas with flux Froude number and exit momentum equality rather than equality specified in and discussed in Section 2.3.2.

For the tests performed with Argon the concentration measurement were performed for two downwind locations, eight wind directions and three source conditions. The flow visualization performed for low wind speed (5 mph at 10 m height) suggested markedly broader plumes and greater distances to LFL. Hence, it was decided to obtain concentration measurements for four downwind distances for each of the four wind directions and three source releases for equivalent prototype wind speed of 5 mph. Figures 16 and 17 show the concentration measurement locations.

The tests were also performed with Argon, for wind direction of zero degree, with cylindrical LNG tank number two removed. A vertical profile of concentration was measured for a wind direction of 180° under 5 mph conditions to determine the vertical extent of LFL at the LNG flare.

For each position and run, the disc files were created and concentration data were stored for further analysis. In order to

extract data from each file name, the following conventions are used throughout the report:

1) The first alphanumeric letter on each tile indicates rack position,

2) Next three digits indicate run number, and

3) Last two digits indicate sampling position for the particular rack position.

A 1:400 scale model of the BUGC was placed in the EWT. The three transient boiloff experiments were performed:

a) Boiloff from a 13,000 gpm spill onto soil dike floor for unlimited spill duration (source description AA) corresponding to a pipe failure,

b) Boiloff from an instantaneous spill (catastrophic complete tank failure) onto soil dike floor (source description BB),

c) Boiloff from an instantaneous spill (catastrophic complete tank failure) onto Dycon dike floor (source description CC).

The times of arrival, peak concentrations, and time for passage of the plume for the various measurements sites are given in Appendix B for the two higher wind speeds and tests performed with Argon as a source gas. The higher wind tunnel speeds with corresponding increases in the source gas flow rates were required for the enhanced density technique. The 5 mph wind speeds (Freon as a source gas), transient concentration data are tabulated in Appendix C. It should be noted that when a small building is located at the sample location, the sampling point was moved to the roof of the building.

However, in analyzing the data the sample point was still assumed to be located on the ground level.

Many researchers have observed that for a ground base neutrally buoyant plume the concentrations decay versus longitudinal distance follows a straight line relationship when both the variables are plotted on a logarithmic scale. Hence, interpolation or extrapolation of the peak concentration were obtained with straight line curve fit through logarithms of a pair of data points. The peak concentration isopleths for various tests are displayed in Figures 18 through 60. The distances to LFL peak contours are shown in Table 2. The LFL distances are smaller when Dycon dike floors were used. Even for an instantaneous LNG spill, the Dycon dike floor resulted in the shorter LFL distances as compared with 13,000 gpm LNG spills on soil floor for unlimited time duration. The LFL distances were maximum with instantaneous LNG spills on a soil floor, as expected. The LNG plume was much wider and LFL distances were longer with the 5 mph wind speed. With the increase in the wind speed the distances to LFL contours are reduced. For each LNG release configuration and wind speed, the distances to LFL contour were approximately the same for various wind directions. However, actual peak concentration level detected at each sampling locations were different.

The experimental results of LFL distances are compared against numerical results predicted by Applied Technology Corporation. These results were furnished by BUGC and also shown in Table 2. The numerical results predict conservative distances to LFL for 12.3 mph and 20 mph wind conditions. At the wind speed of 5 mph the experimental results are in fair agreement with numerical methods.

However, the numerical predictions did not account for the gravity spread and assume Gaussian concentration distribution should result in a conservative estimate. Thus, the enhanced density experimental method for the 5 mph wind speed tests should also give a conservative estimate. The vertical profile of peak concentrations confirm that the vertical extent of LFL distance was smaller than the height of LNG flame at 5 mph wind and for all three source configurations.

5.0 CONCLUSIONS

A 1:400 scale model of Brooklyn Union Gas Company was placed in the Environmental Wind Tunnel to determine the dispersion of LNG spills from an accidental release under neutral stability. Two dike surfaces and three wind speeds were investigated and resulted in the following conclusions:

- The distances of LFL contours were maximum for the instantaneous LNG spills on a soil floor.
- The 13,000 gpm LNG spills on a soil dike floor resulted in larger LFL distances than instantaneous LNG spills on a dycon floor.
- The vertical extent of LFL at the LNG flare under 5 mph wind was less than the heights of the flare for three source configurations investigated.
- The distance to LFL was reduced with an increase in the wind speed.
- Applied Technology, Inc., numerical prediction of LFL distances were conservative as compared with the wind tunnel measurements.
- The distances to LFL were within the property line of BUGC for 12.3 mph and 20 mph wind speeds.
- The wind direction has little effect on the approximate distances to LFL. However, the concentration patterns were different for various wind directions.

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Table 1. Summary of Tests

Source Description *	Pasquill-Gifford Stability	Prototype Wind Speed m/sec @ 10m	Run Number for Wind Direction of							
			0°	45°	90°	135°	180°	225°	270°	315°
AA	D	2.23	1	10	19	28	37	46	55	64
BB	D	2.23	2	11	20	29	38	47	56	65
CC	D	2.23	3	12	21	30	39	48	57	66
AA	D	5.49	4	13	22	31	40	49	58	67
BB	D	5.49	5	14	23	32	41	50	59	68
CC	D	5.49	6	15	24	33	42	51	60	69
AA	D	8.93	7	16	25	34	43	52	61	70
BB	D	8.93	8	17	26	35	44	53	62	71
CC	D	8.93	9	18	27	36	45	54	63	72
AA	F	1.34	73	81	89	97	105	113	121	129
BB	F	1.34	74	82	90	98	106	114	122	130
CC	F	1.34	75	83	91	99	107	115	123	131
AA	F	2.23	77	85	93	101	109	117	125	133
BB	F	2.23	78	86	94	102	110	118	126	134
CC	F	2.23	79	87	95	103	111	119	127	135
AA	D	5.49	145+	--	--	---	---	---	---	---
BB	D	5.49	146+	--	--	---	---	---	---	---
CC	D	5.49	147+	--	--	---	---	---	---	---
AA	D	8.93	148+	--	--	---	---	---	---	---
BB	D	8.93	149+	--	--	---	---	---	---	---
CC	D	8.93	150+	--	--	---	---	---	---	---

+ With center tank number two removed (No building runs).

* AA Boiloff from a 13000 gpm spill onto a soil dike floor for unlimited spill duration.
BB Boiloff from an instantaneous spill of a full tank onto a soil dike floor.
CC Boiloff from an instantaneous spill of a full tank onto a Dycon dike floor.

Note:
i) Tests at the prototype wind speeds of 1.34 and 2.23 m/sec were performed with Freon as a source gas (enhanced modeling, specific gravity, ρ_s/ρ_a, equal to 4.18).
ii) Tests at the prototype wind speeds of 5.49 and 8.93 m/sec were performed with Argon as a source gas, specific gravity, ρ_s/ρ_a, equal to 1.38.
iii) Flow visualization tests were performed with maximum boiloff rates
iv) Specific gravity of methane at boiloff equals to 1.55.

Table 2. Longitudinal Distances to LFL

Source Description*	Pasquill-Gifford Stability	Prototype Wind Speed m/sec @ 10m	Longitudinal Distance to LFL in Meters for Wind Directions of							Average LFL Distance, Meters	Numerical† Prediction Distance, Meters
			0°	45°	90°	135°	180°	225°	270°		
AA	D	2.23	770	--	1050	--	1100	--	--	973	600
BB	D	2.23	1430	--	1500	--	1520	--	--	1483	1675
CC	D	2.23	310	--	530	--	300	--	350	372	305
AA	D	5.49	270	190	160	160	150	170	170	181	305
BB	D	5.49	340	300	290	230	275	--	330	294	1065
CC	D	5.49	<120	<120	<120	<120	<120	<120	<120	<120	135
AA	D	8.93	<120	<120	<120	<120	130	120	<120	<120	185
BB	D	8.93	380	230	320	230	190	310	215	267	730
CC	D	8.93	<120	<120	<120	<120	<120	<120	<120	<120	70

* AA Boiloff from a 13000 gpm spill onto a soil dike floor for unlimited spill duration.
BB Boiloff from an instantaneous spill of a full tank onto a soil dike floor.
CC Boiloff from an instantaneous spill of a full tank onto a Dycon floor.

Note: i) Tests at prototype wind speed of 2.23 m/sec were performed with Freon as a source gas.
ii) Tests at prototype wind speeds of 5.49 m/sec and 8.93 m/sec were performed with Argon as a source gas.
iii) Distances to LFL were calculated using two point log-log straight line curve fitting.

†Numerical prediction results were obtained from the Applied Technology Corporation Report.

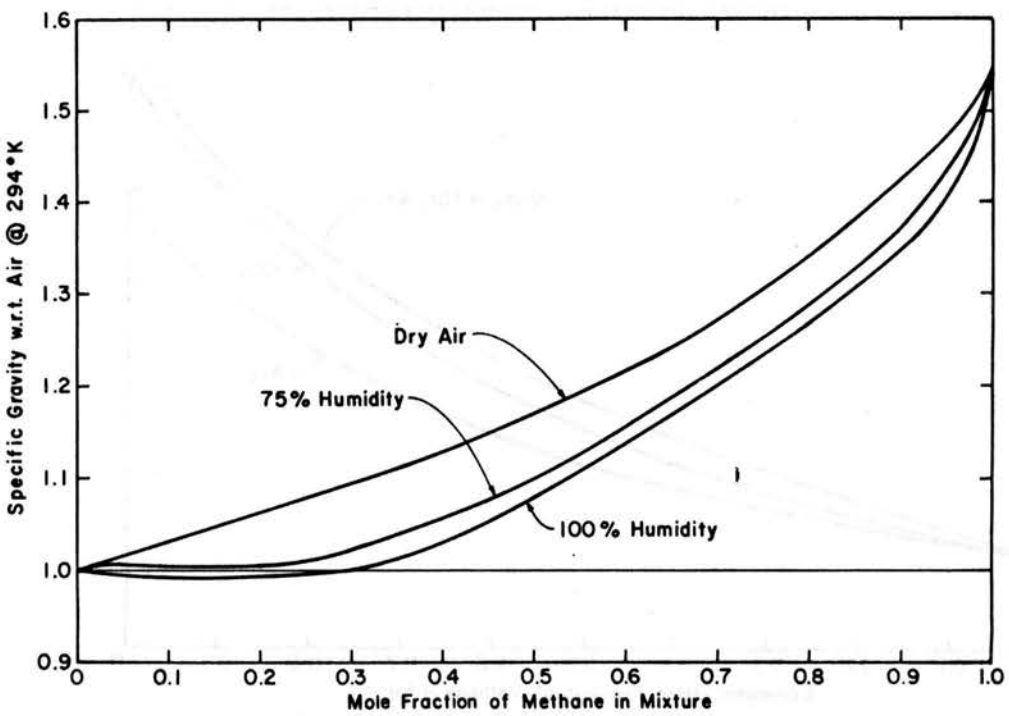


Figure 1. Specific Gravity of LNG Vapor - Humid Atmosphere Mixtures

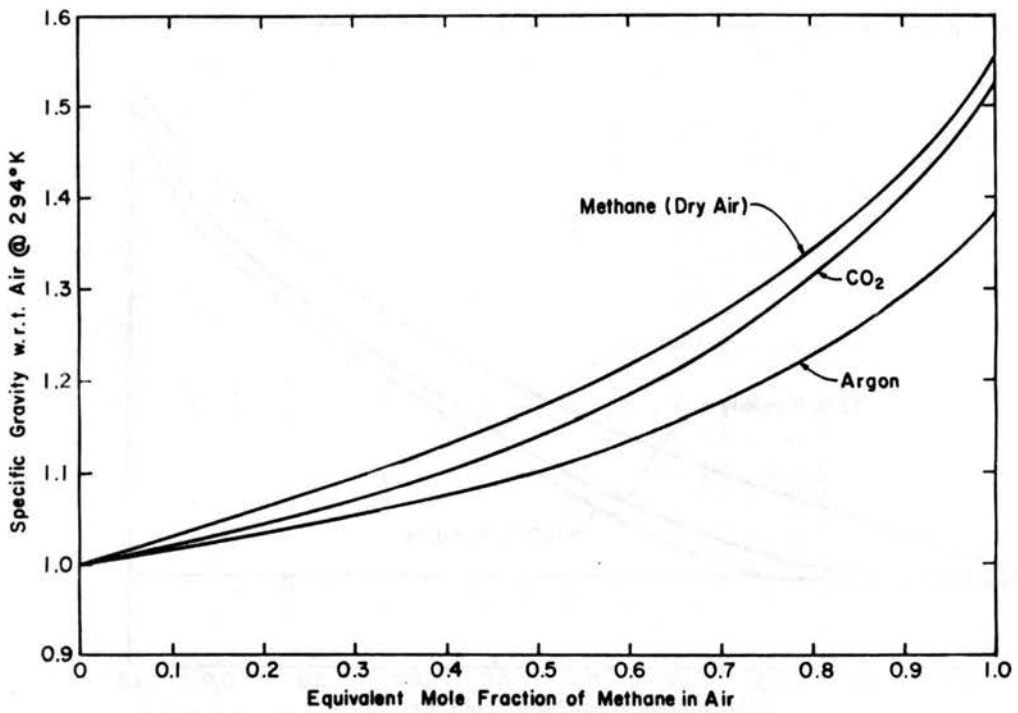


Figure 2. Specific Gravity of Gas-Air Mixtures

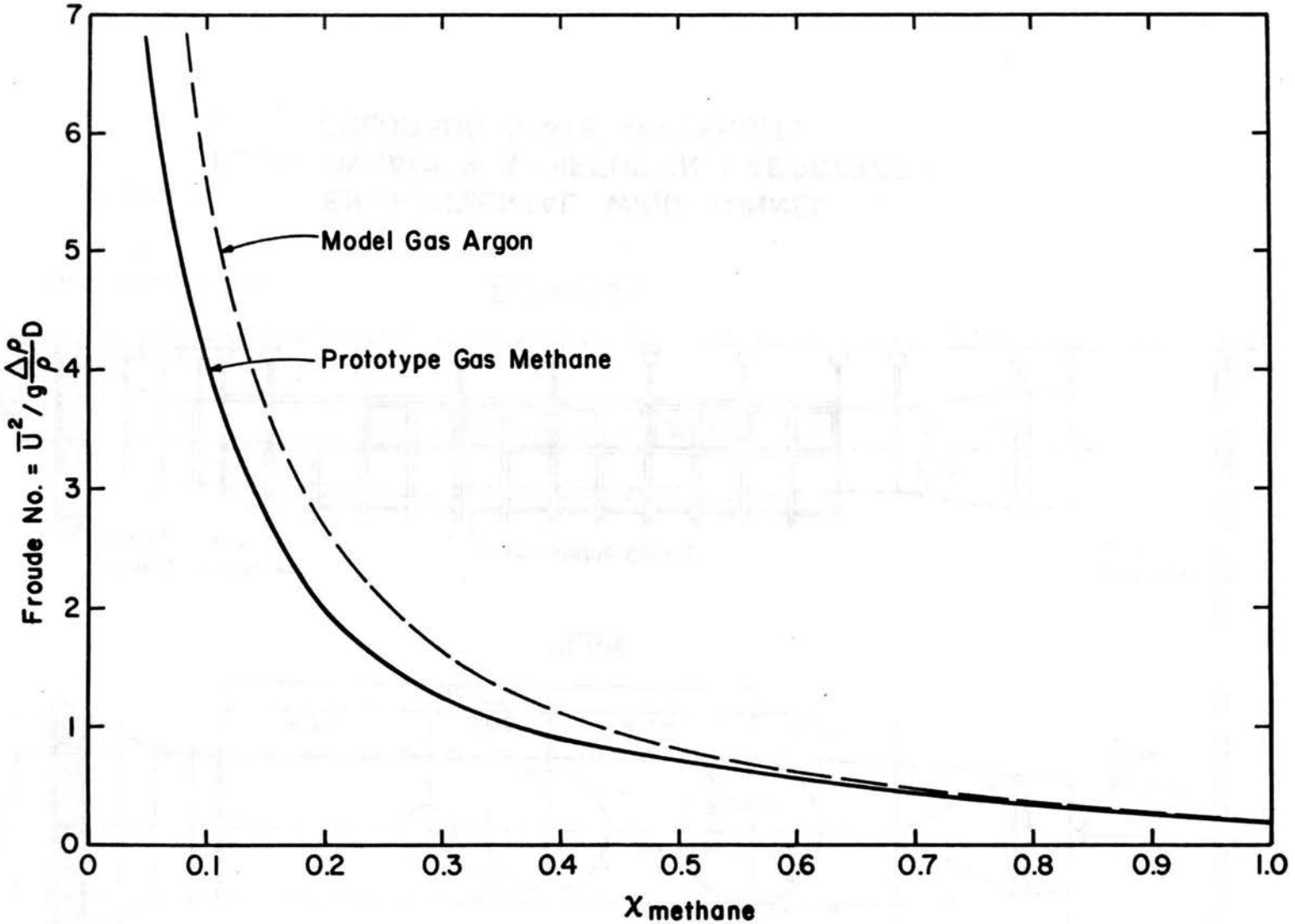


Figure 3. Variation of Froude Number for Gas-Air Mixtures

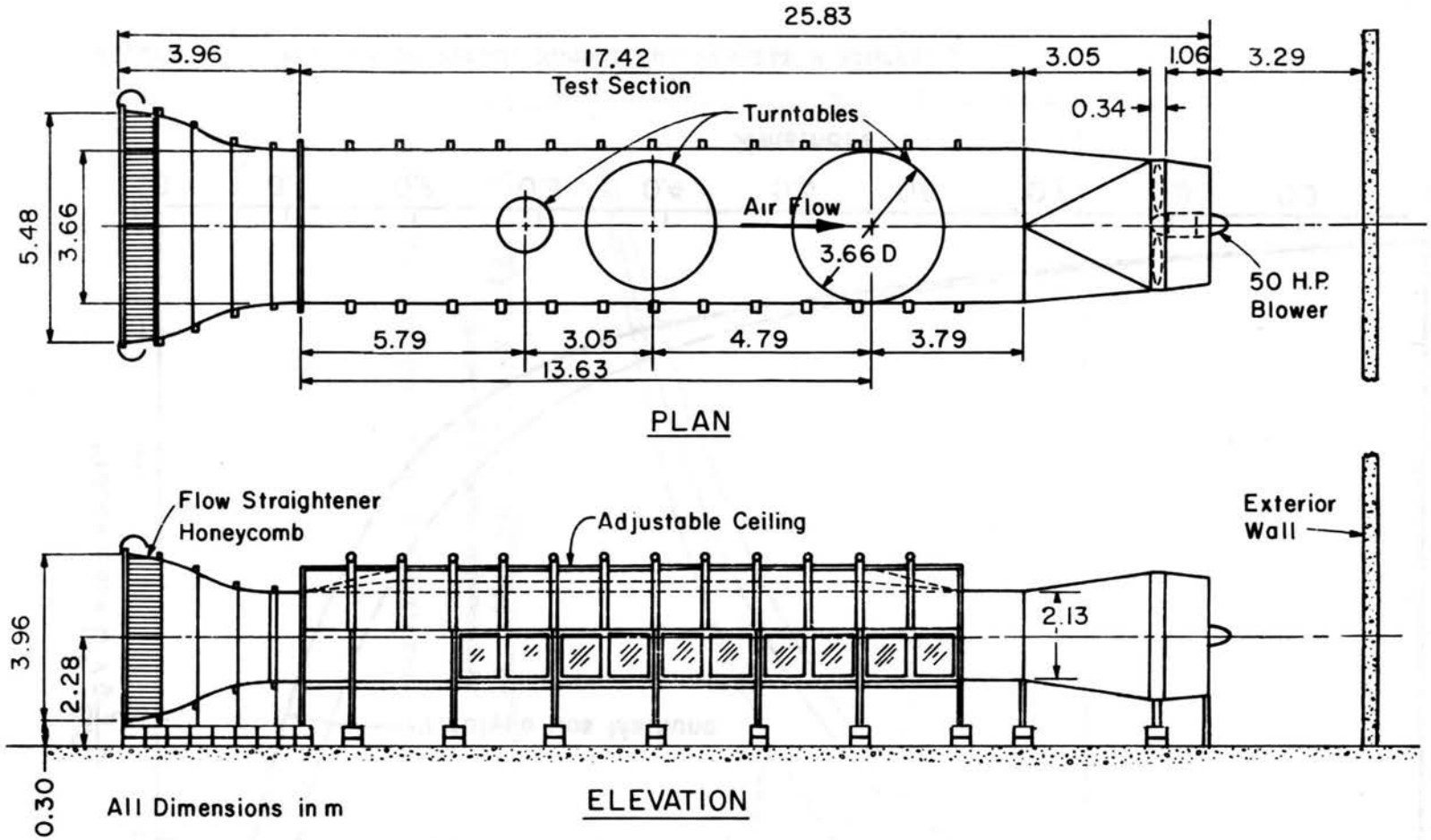


Figure 4. **ENVIRONMENTAL WIND TUNNEL**
FLUID DYNAMICS & DIFFUSION LABORATORY
COLORADO STATE UNIVERSITY

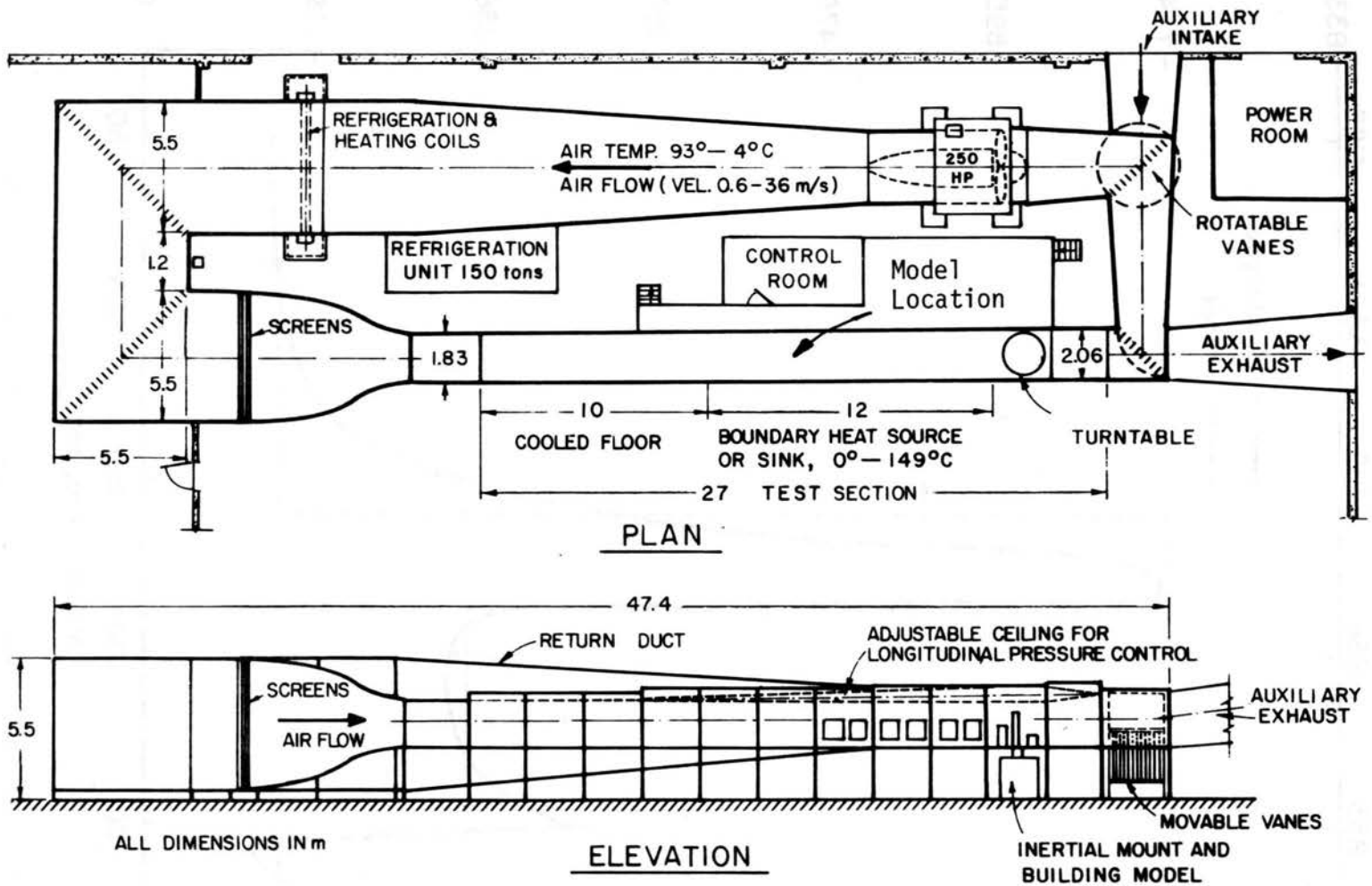


Figure 5. METEOROLOGICAL WIND TUNNEL (Completed in 1963)
FLUID DYNAMICS & DIFFUSION LABORATORY
COLORADO STATE UNIVERSITY

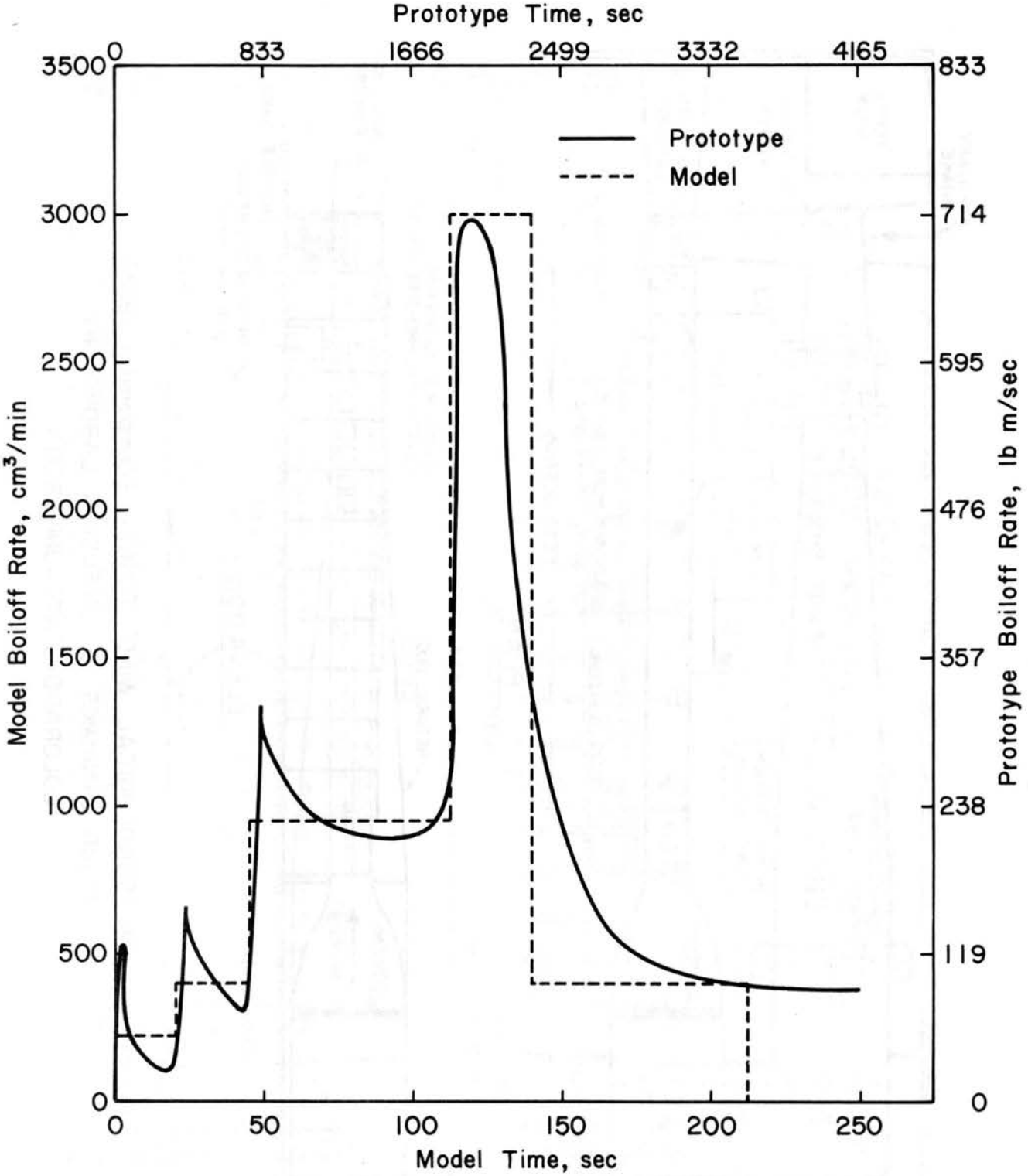


Figure 6. Boiloff Rates From a 13000 gpm Spill Into Soil Dike Floor for Unlimited Spill Duration for Model and Prototype (Source Description AA)

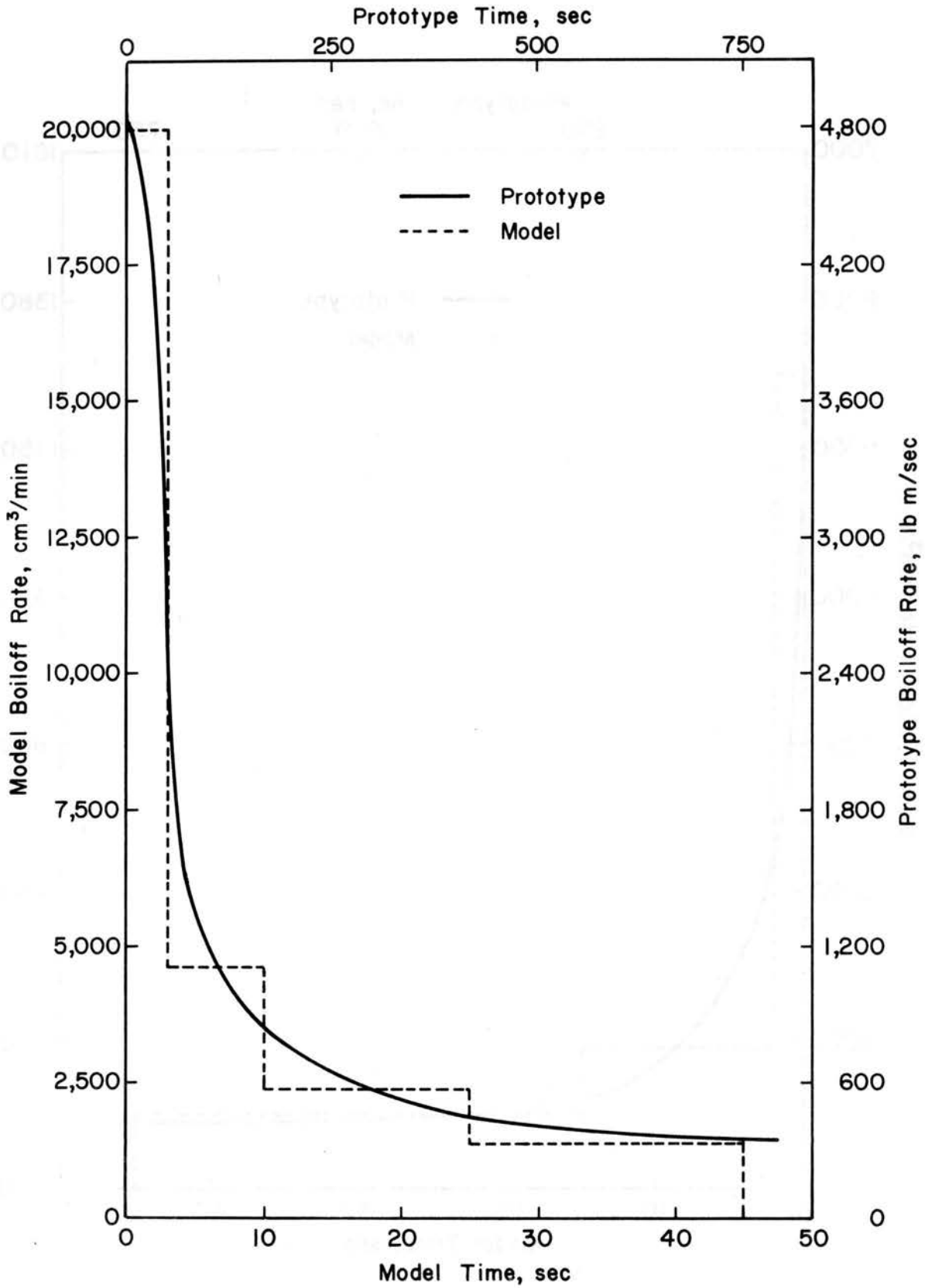


Figure 7. Boiloff Rates From an Instantaneous Spill Into Soil Dike Floor for Model and Prototype (Source Description BB)

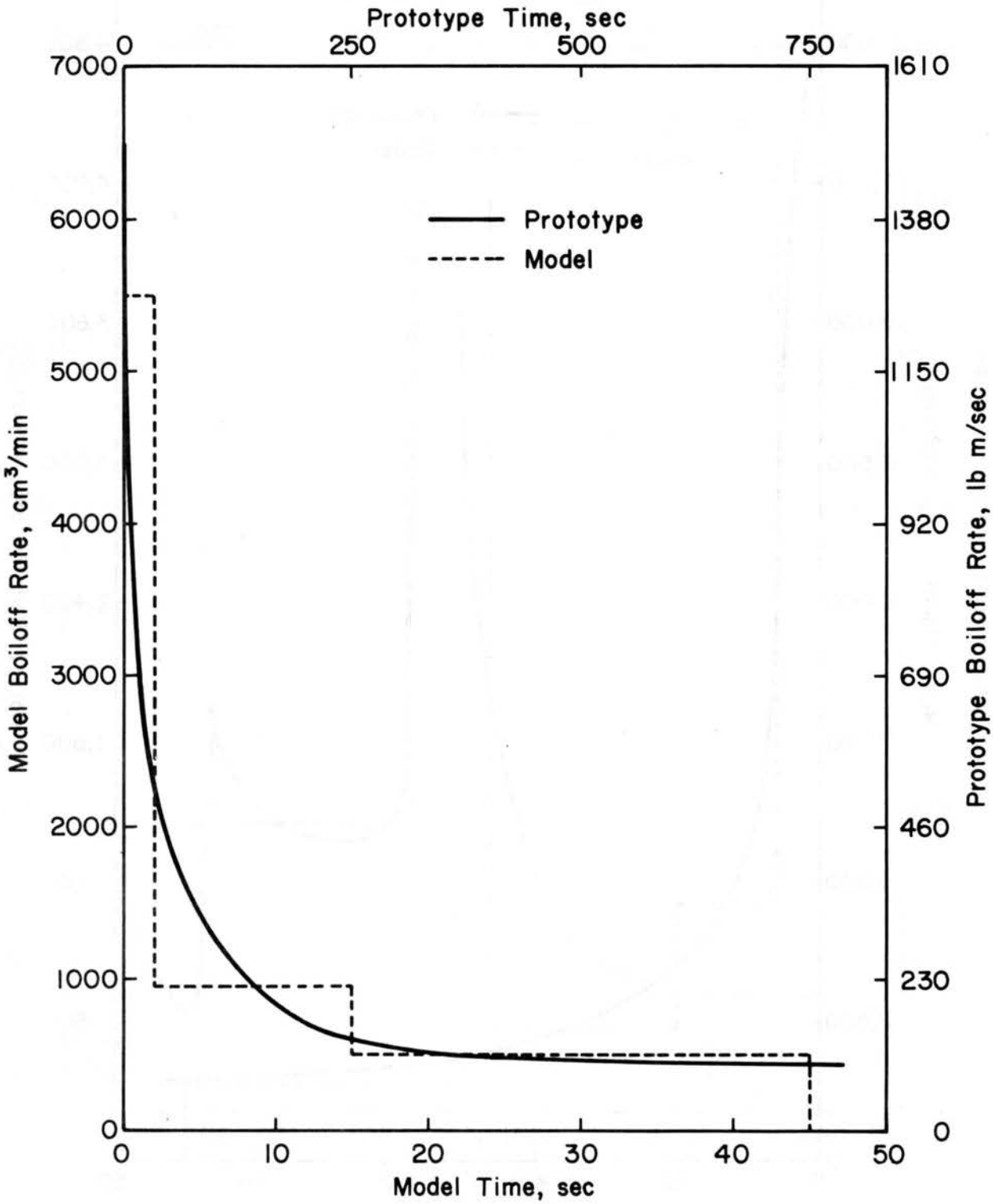


Figure 8. Boiloff Rates From an Instantaneous Spill Into Dycon Floor for Model and Prototype (Source Description CC)

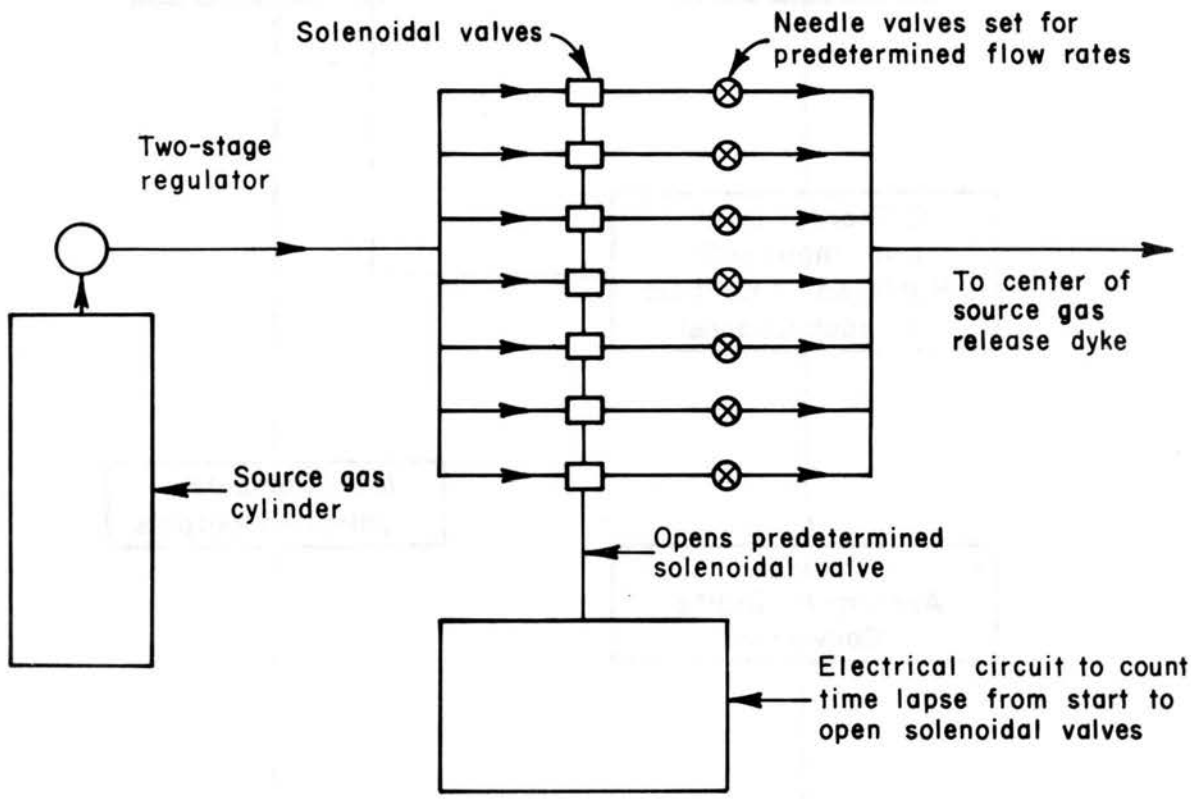


Figure 9. Schematic of the Source Gas Flow Diagram

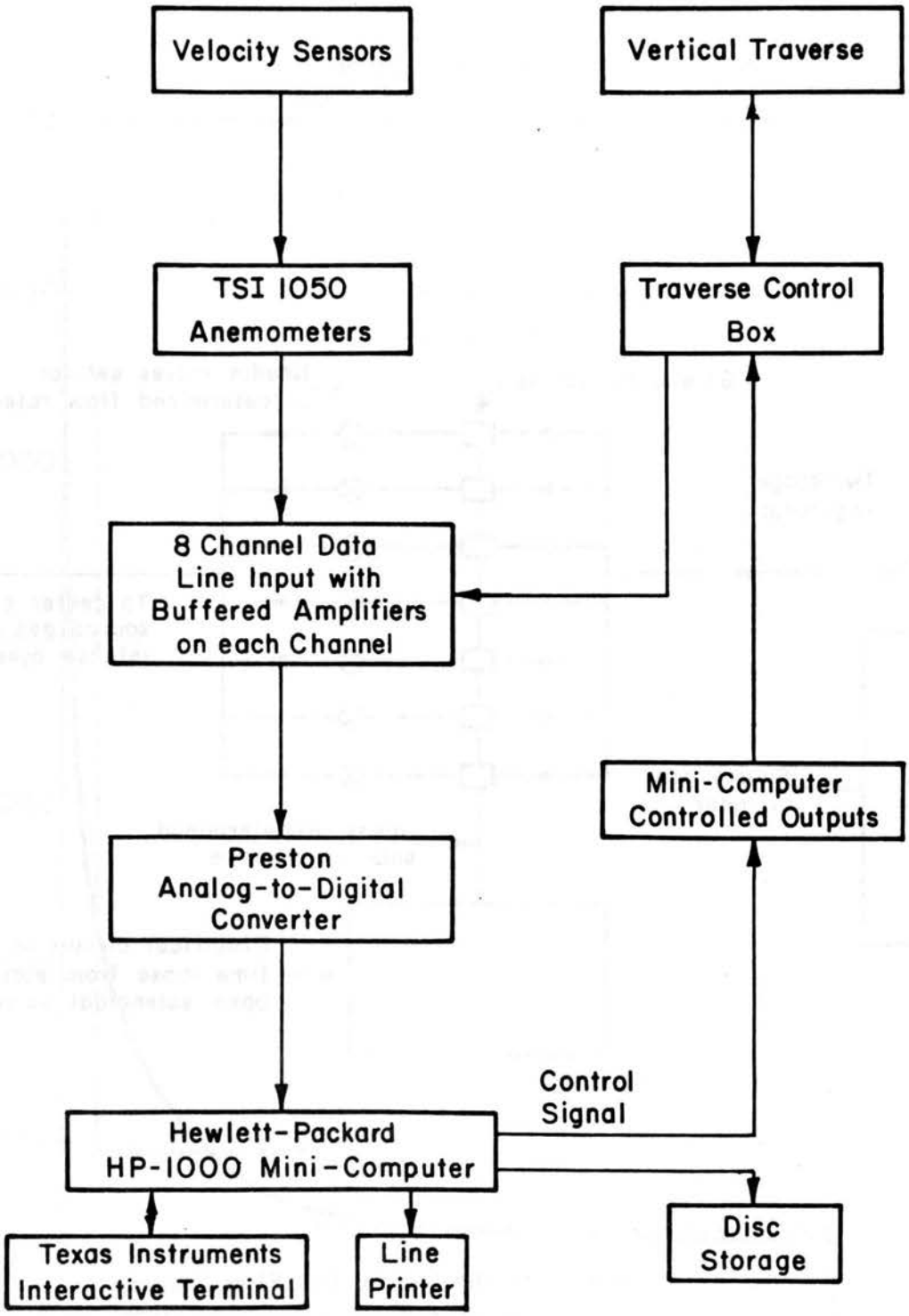


Figure 10. Velocity Data Reduction Flow Chart

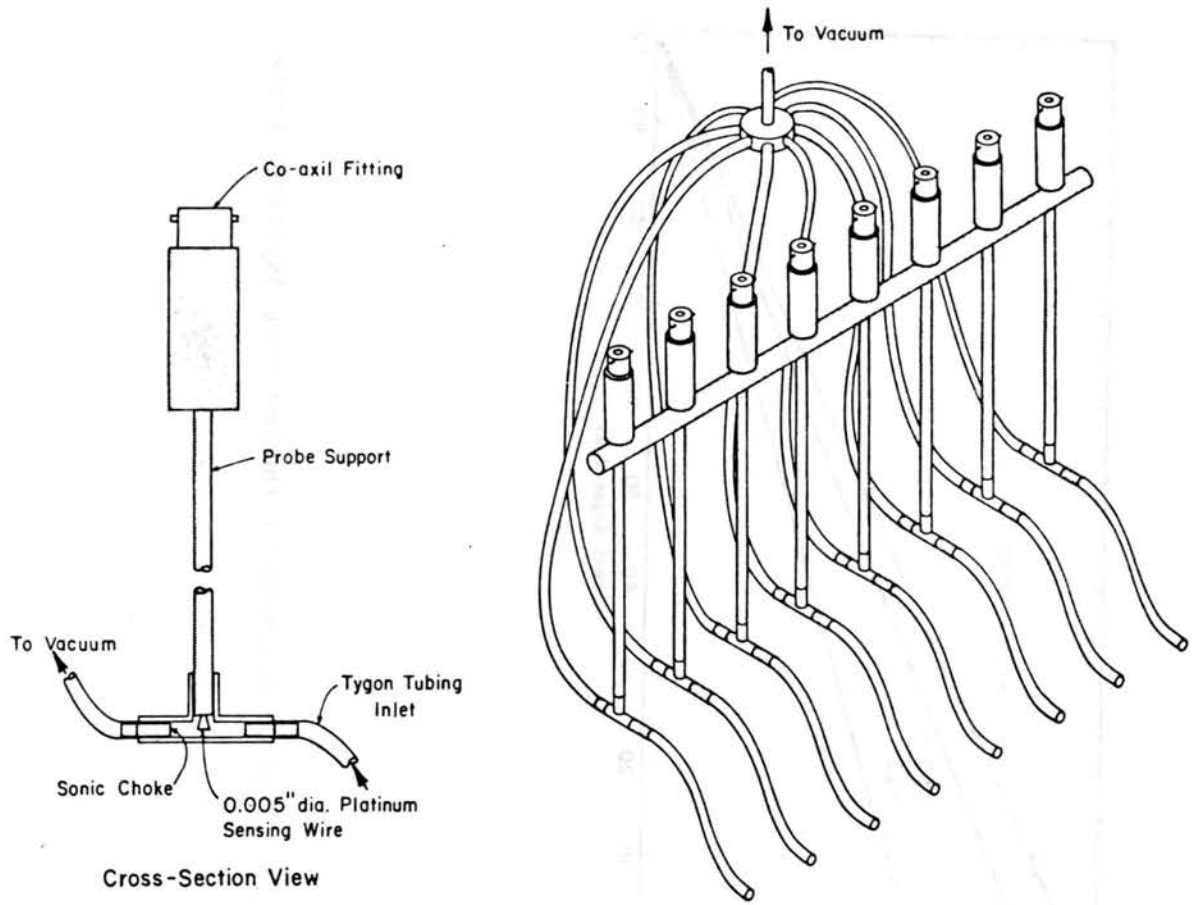


Figure 11. Schematic of the Aspirated Probe

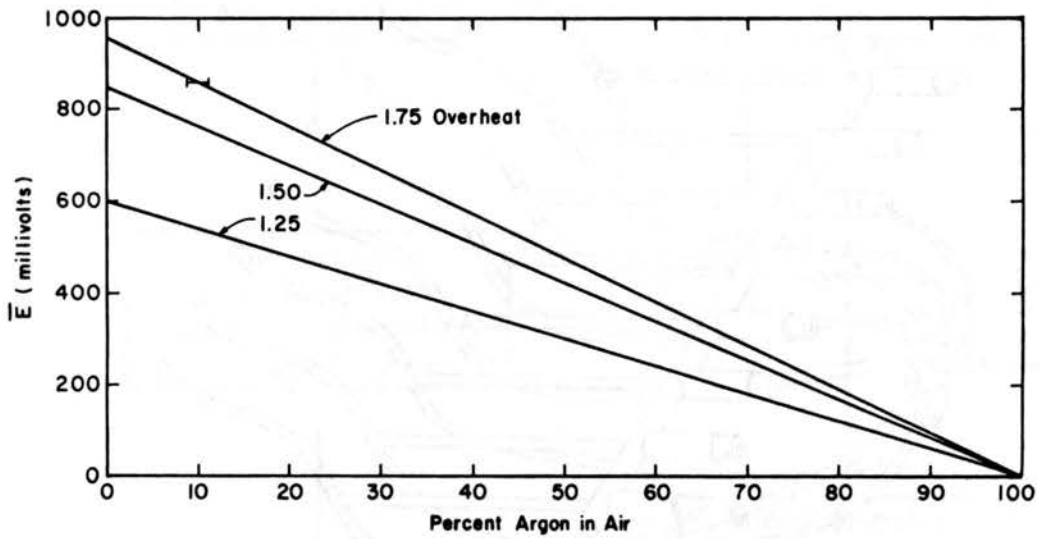


Figure 12. Typical Response of the Hot Wire Aspirated Probe

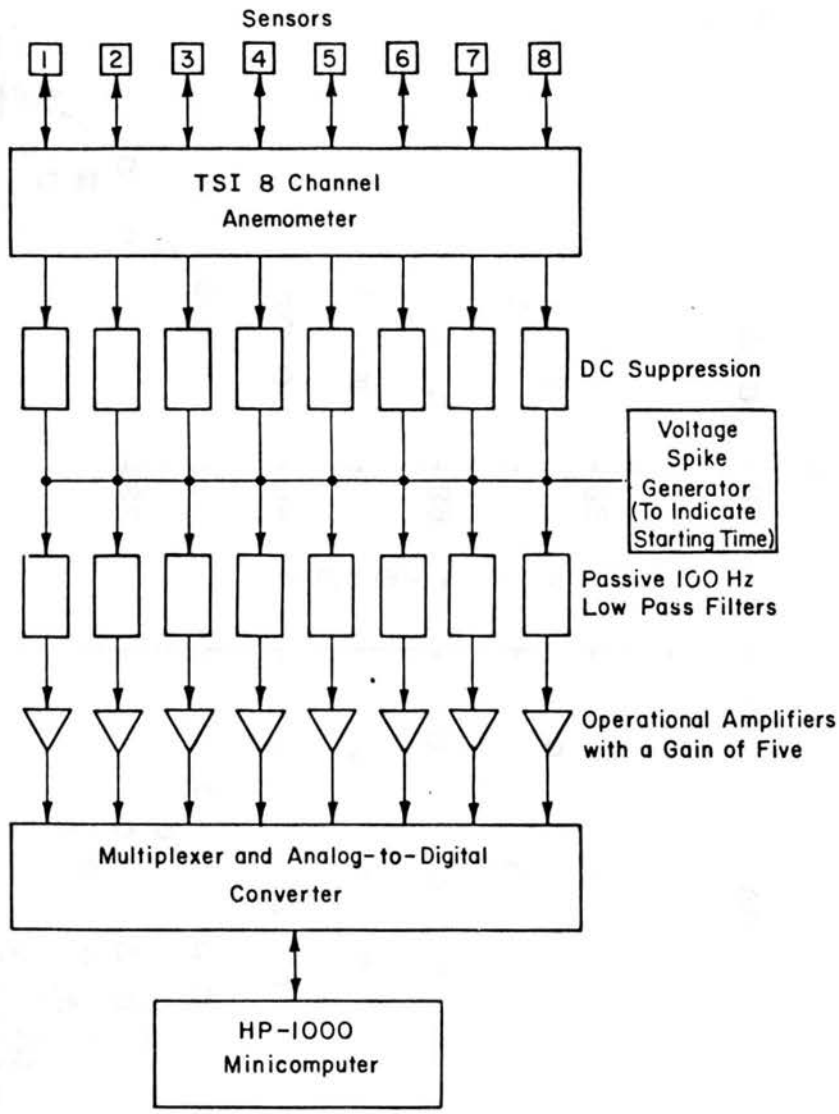


Figure 13. Schematic of the Concentration Measurement System

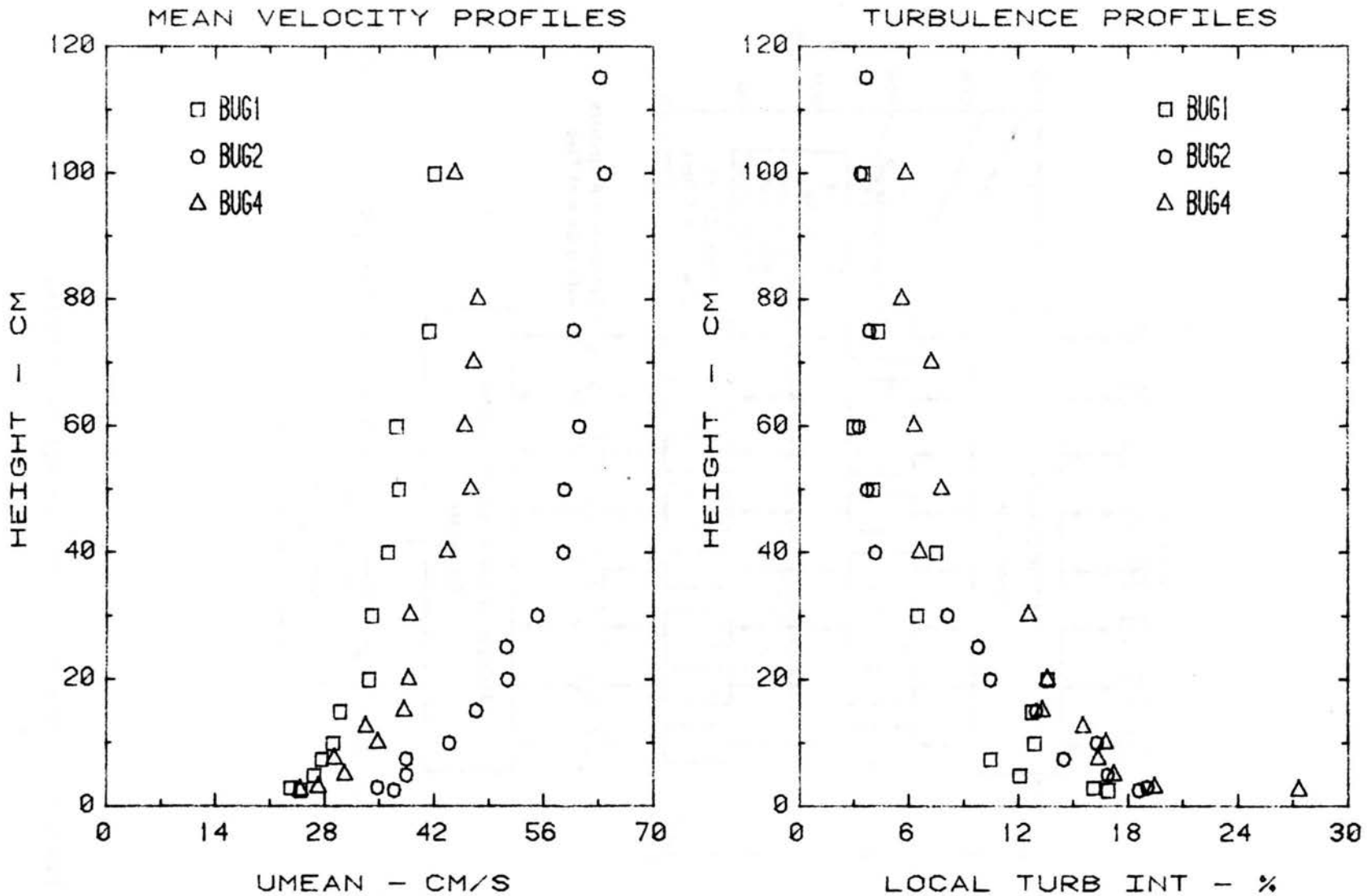


Figure 14. Velocity and Turbulence Profiles for Neutral Flow

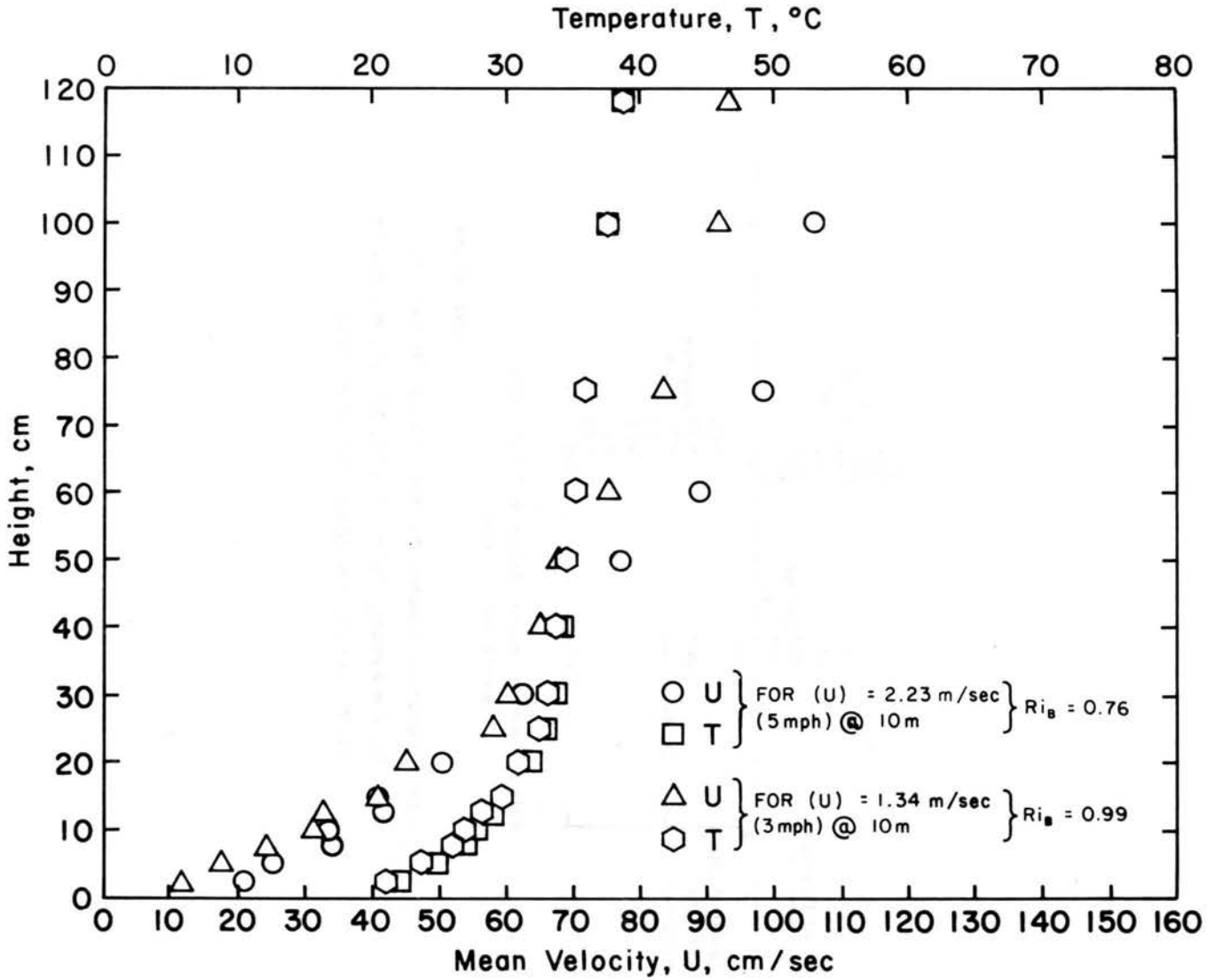
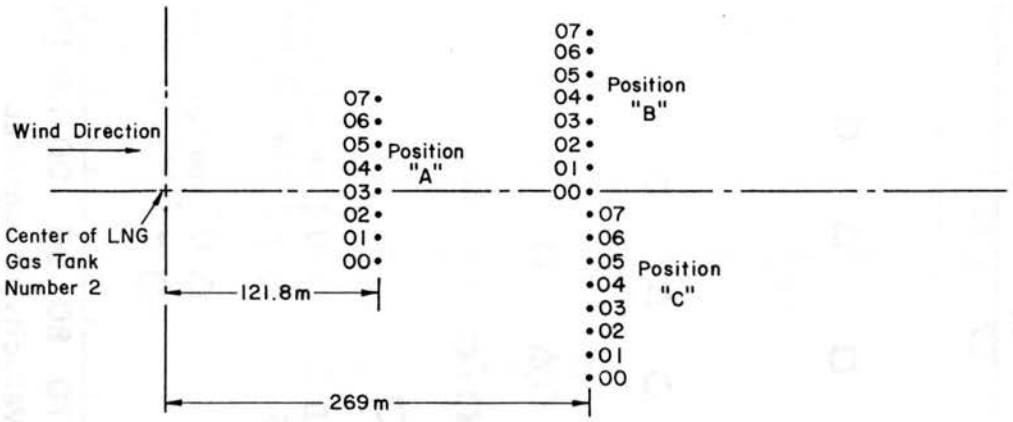


Figure 15. Velocity and Temperature Profiles for Stable Flow Conditions



Note: Longitudinal Distance for Rack Position "B" and "C" for Run Numbers 49, 50, 51, 52, 53, 54, 67, 68, 69, 70, 71, and 72 was 223m Instead of 269m.

Figure 16. Concentration Measurement Locations for Prototype Wind Speeds of 5.49 and 8.93 m/sec (12.3 and 20 mph)

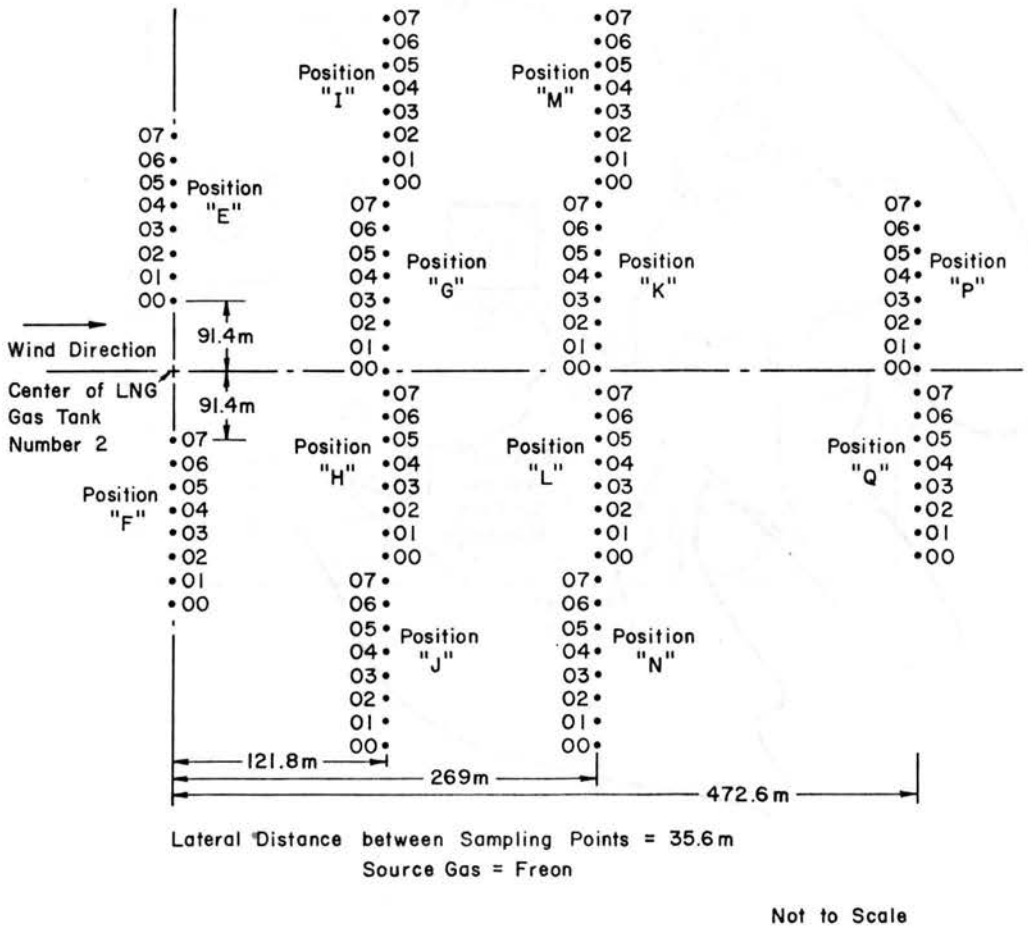


Figure 17. Concentration Measurements Locations for Prototype Wind Speeds of 2.23 m/sec (5 mph)

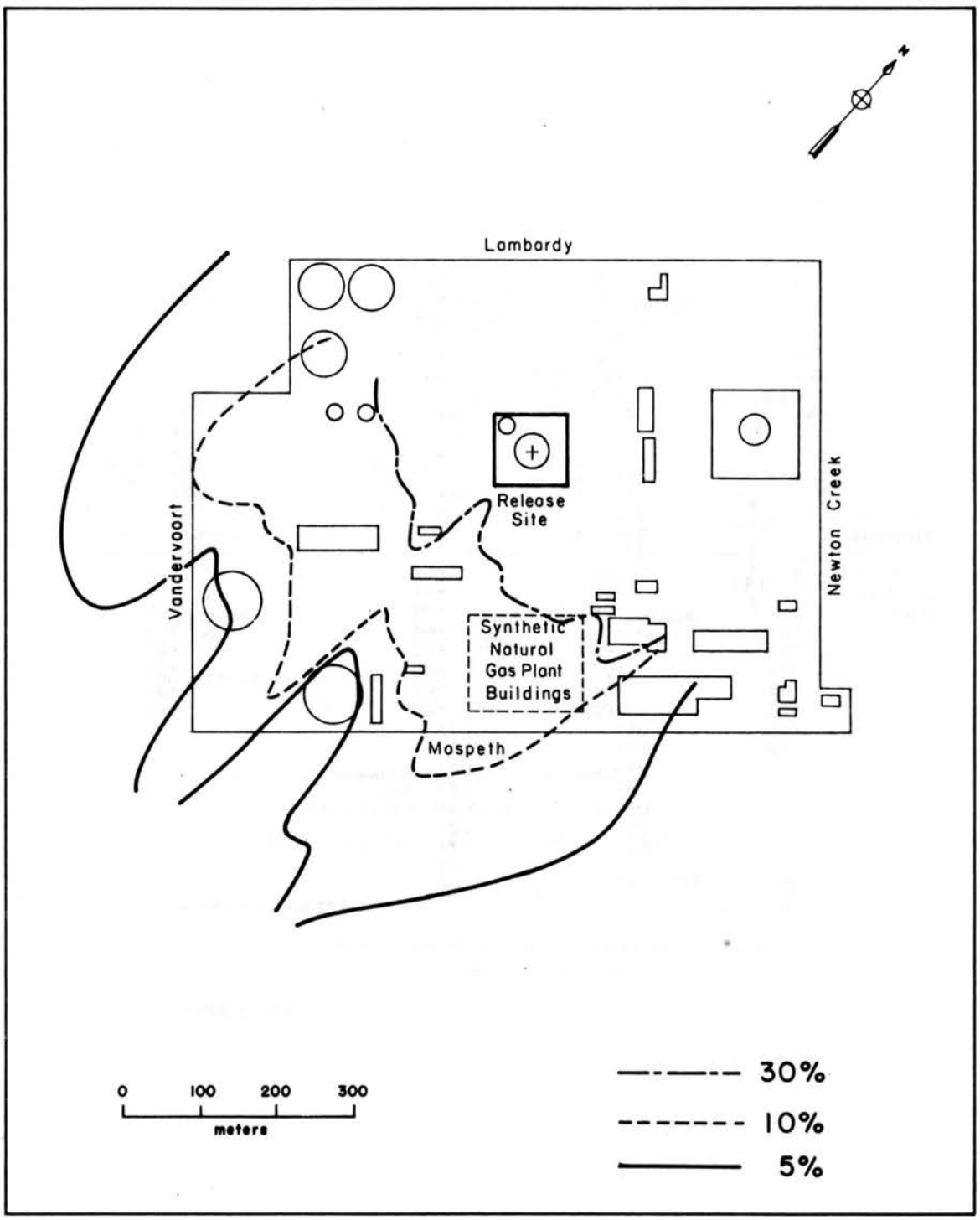


Figure 18. The Peak Concentration Isopleths for Run Number 1 With 2.23 m/sec Wind Speed, Wind Direction of 0°, Source Gas Release Description AA, and Neutral Flow Conditions

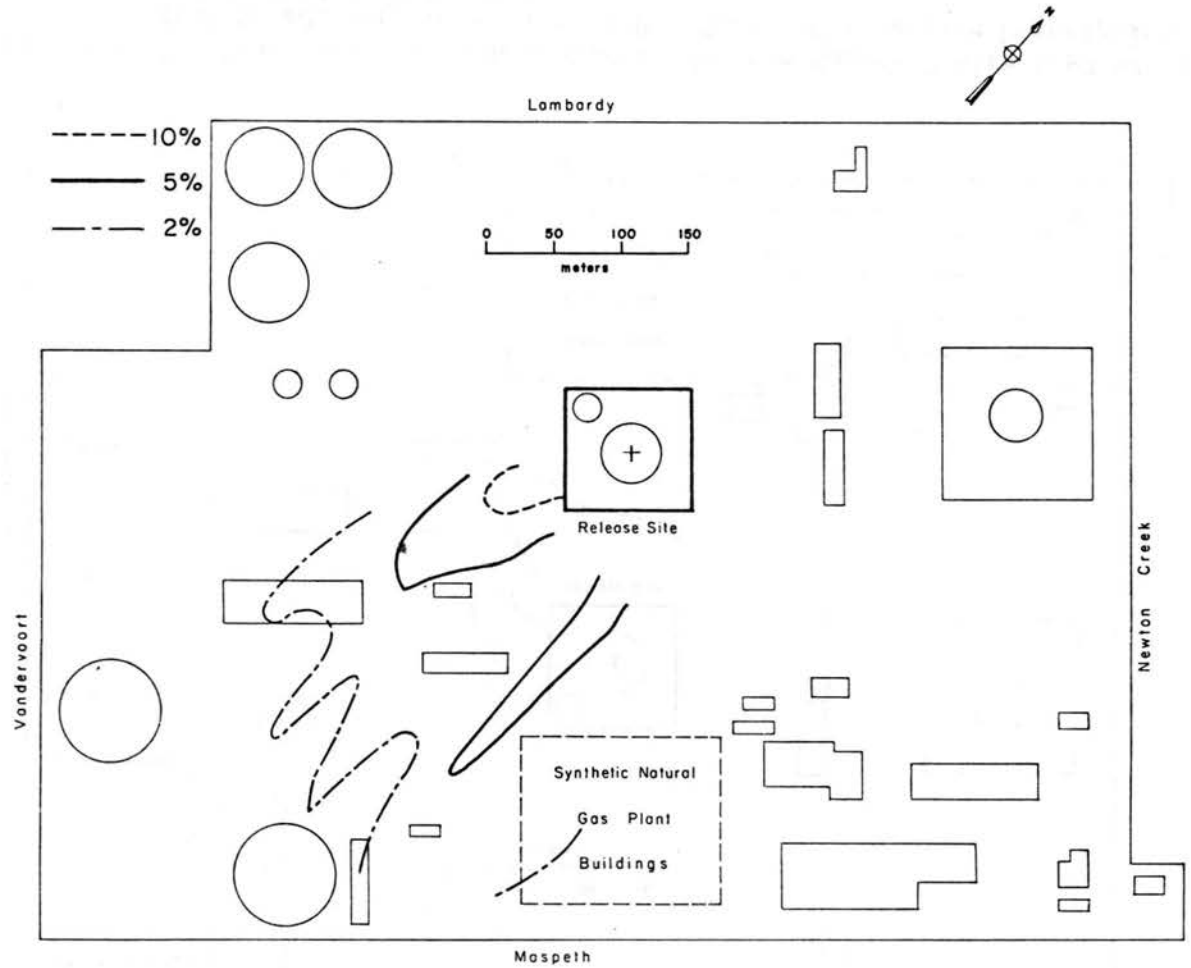


Figure 19. The Peak Concentration Isopleths for Run Number 4 With 5.49 m/sec Wind Speed, Wind Direction of 0°, Source Gas Release Description AA, and Neutral Flow Conditions

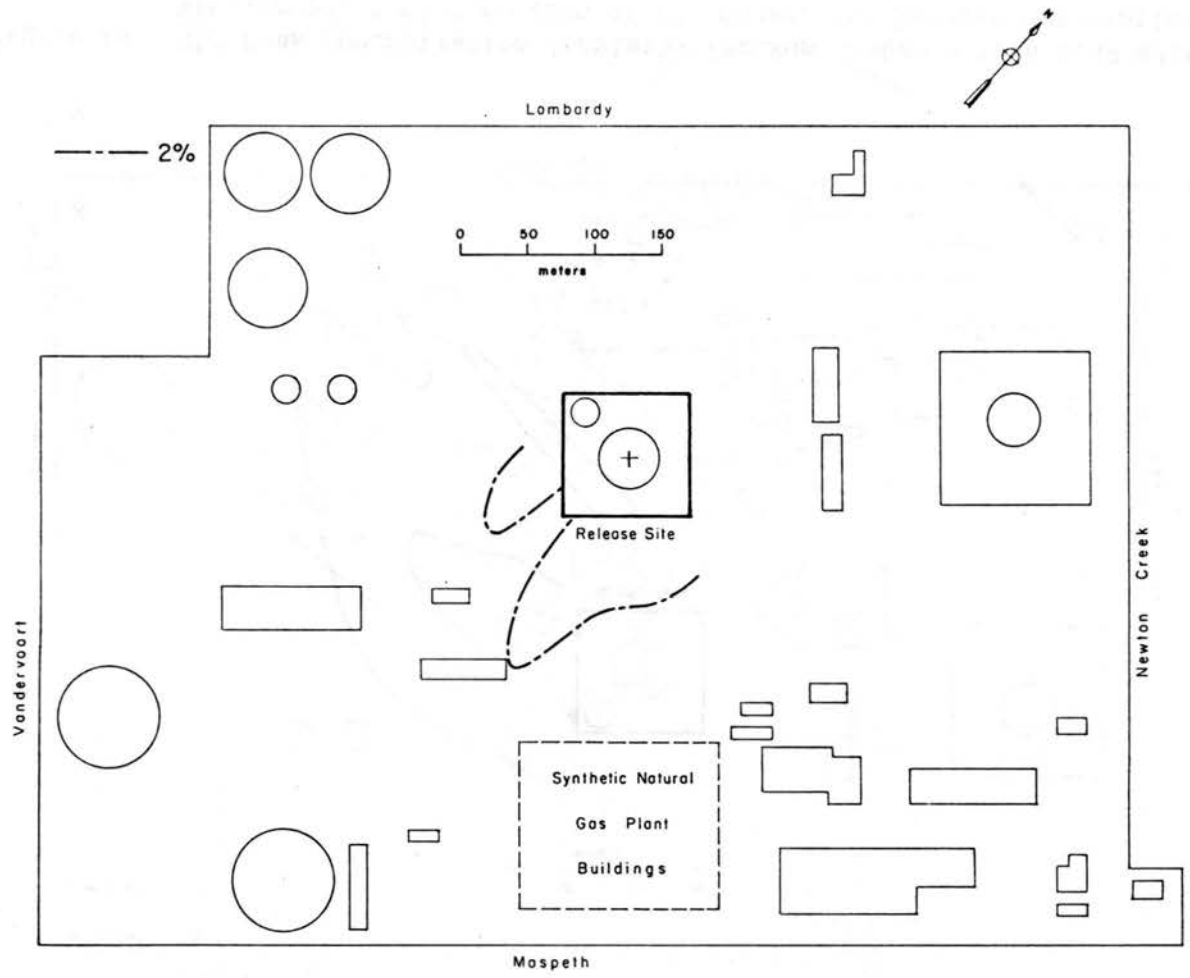


Figure 20. The Peak Concentration Isopleths for Run Number 7 With 8.93 m/sec Wind Speed, Wind Direction of 0°, Source Gas Release Description AA, and Neutral Flow Conditions

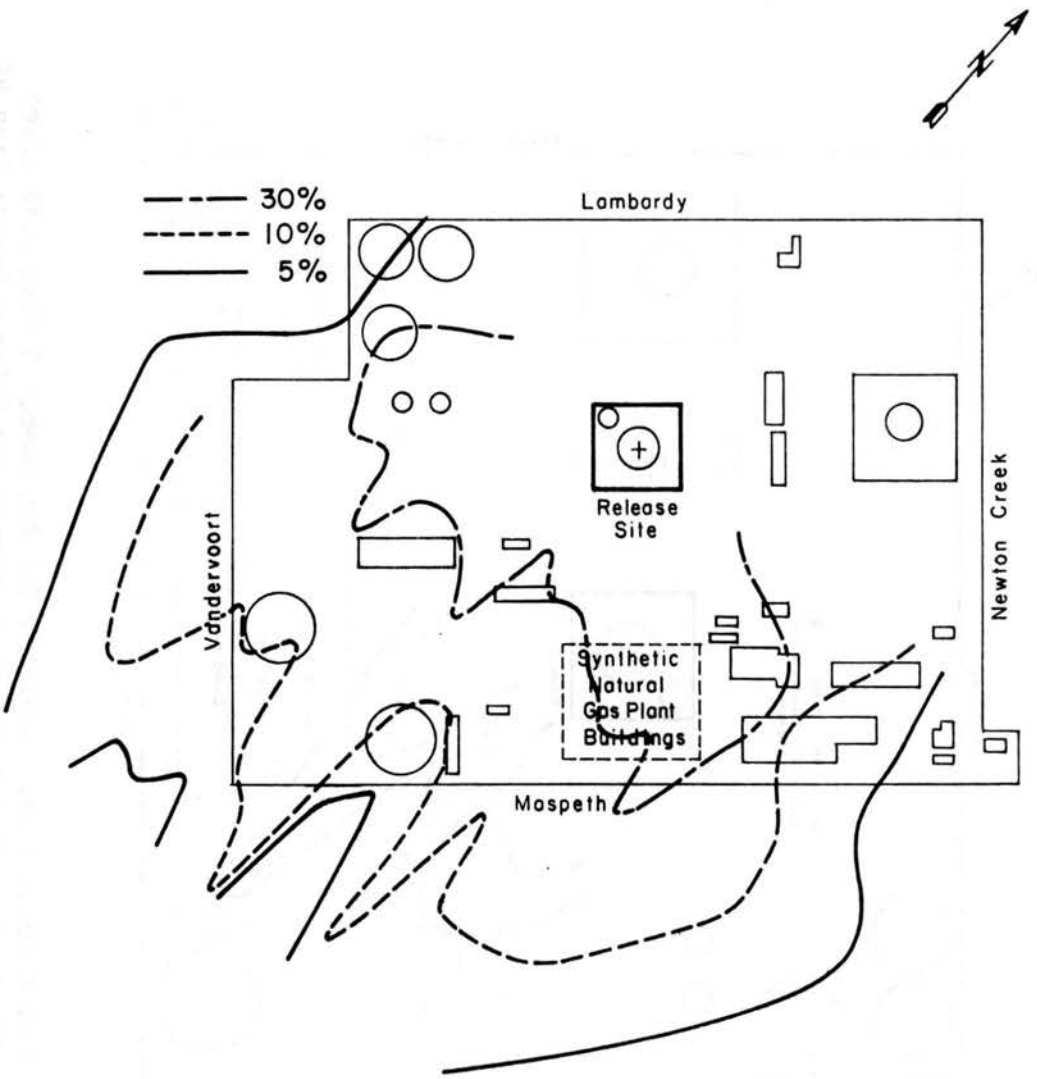


Figure 21. The Peak Concentration Isopleths for Run Number 2 With 2.23 m/sec Wind Speed, Wind Direction of 0°, Source Gas Release Description BB, and Neutral Flow Conditions

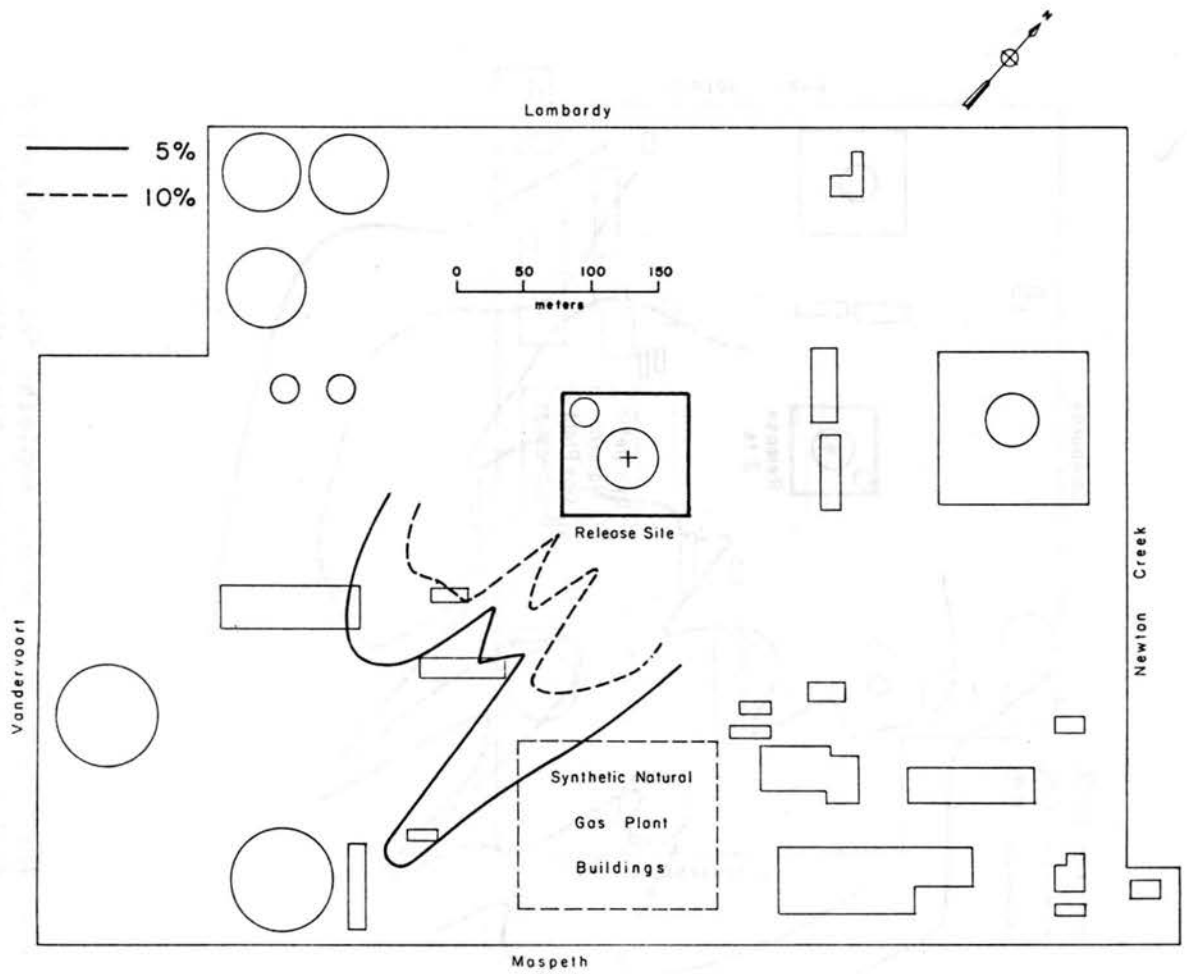


Figure 22. The Peak Concentration Isopleths for Run Number 5 With 5.49 m/sec Wind Speed, Wind Direction of 0°, Source Gas Release Description BB, and Neutral Flow Conditions

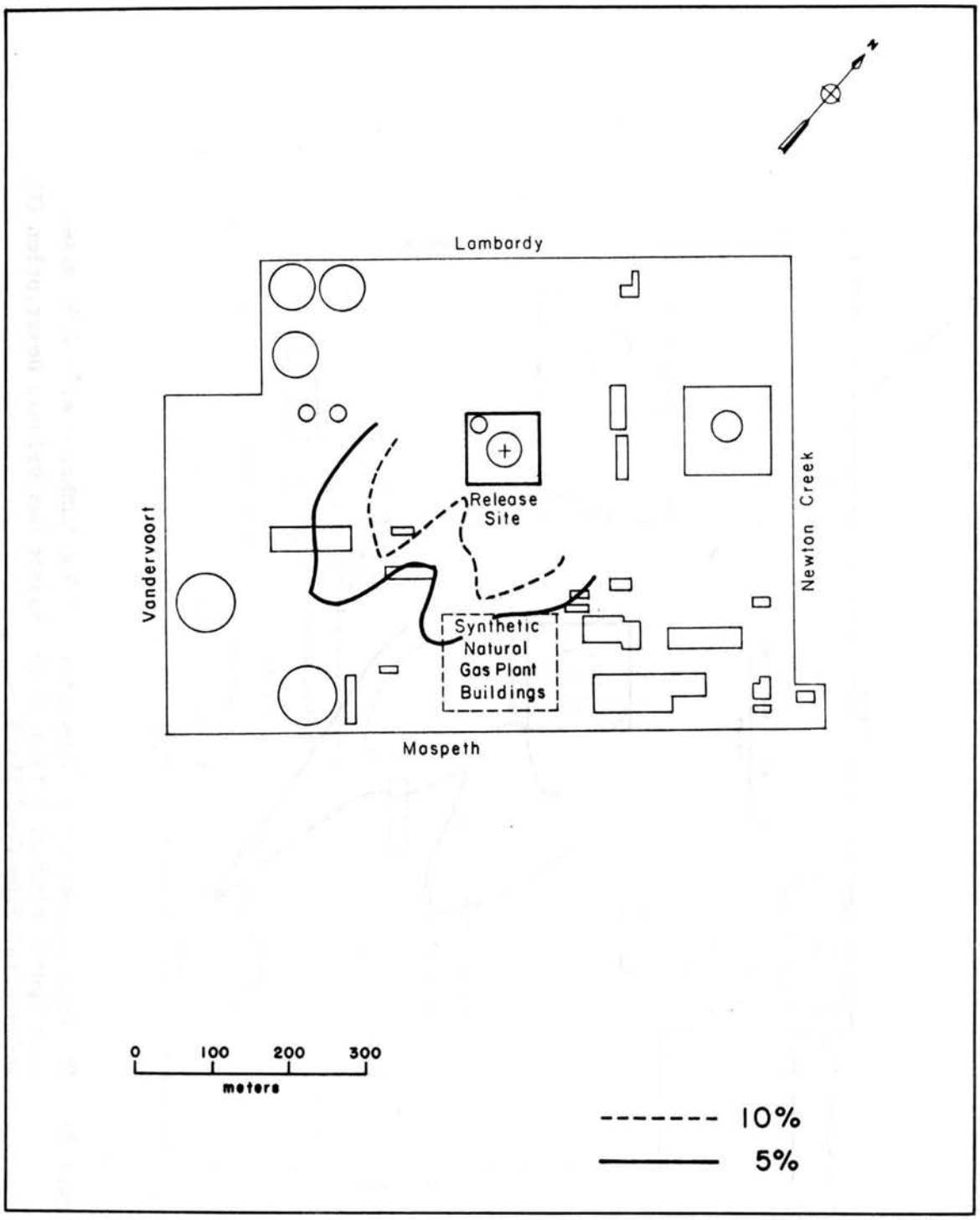


Figure 23. The Peak Concentration Isopleths for Run Number 3 With 2.23 m/sec Wind Speed, Wind Direction of 0°, Source Gas Release Description CC, and Neutral Flow Conditions

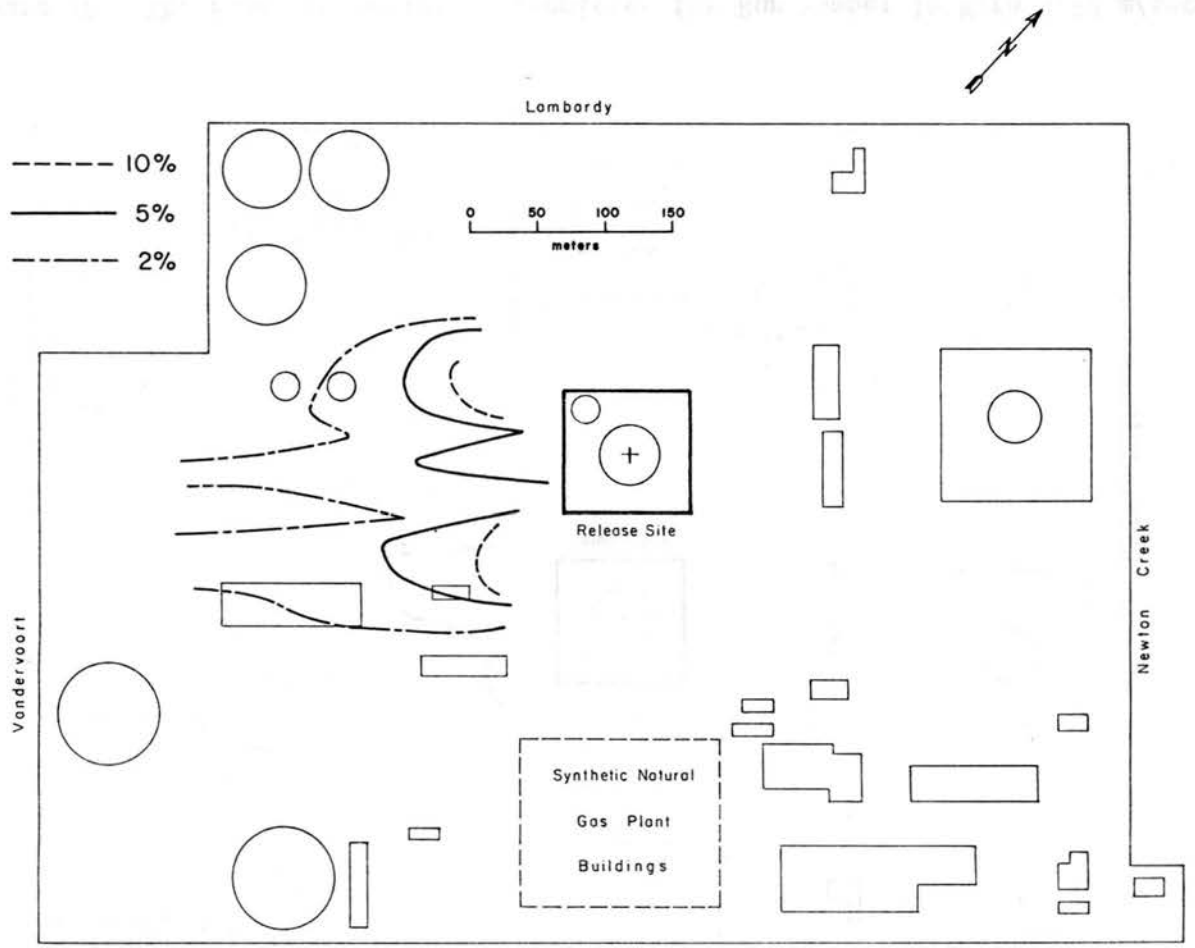


Figure 25. The Peak Concentration Isopleths for Run Number 13 With 5.49 m/sec Wind Speed, Wind Direction of 45°, Source Gas Release Description AA, and Neutral Flow Conditions

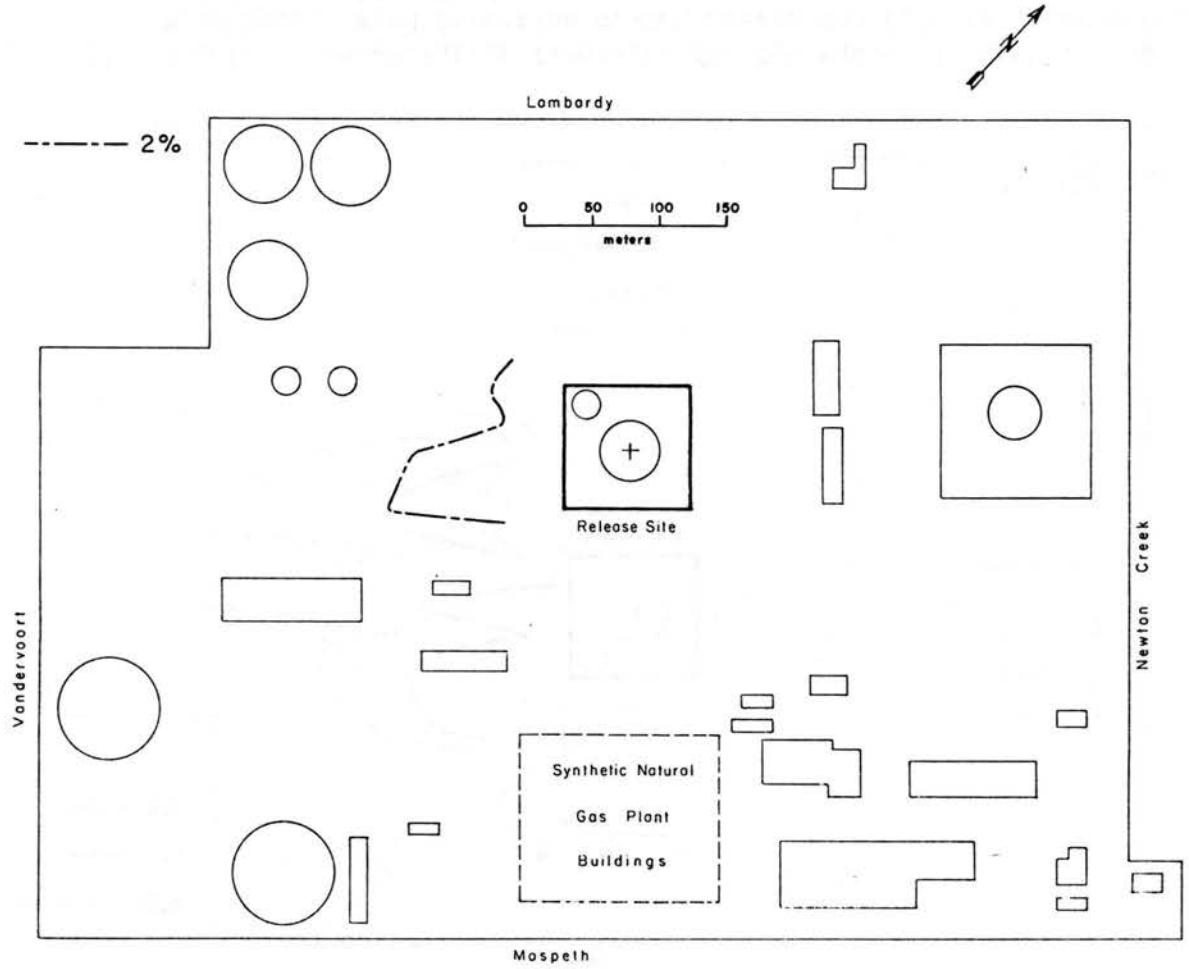


Figure 26. The Peak Concentration Isopleths for Run Number 16 With 8.93 m/sec Wind Speed, Wind Direction of 45°, Source Gas Release Description AA, and Neutral Flow Conditions

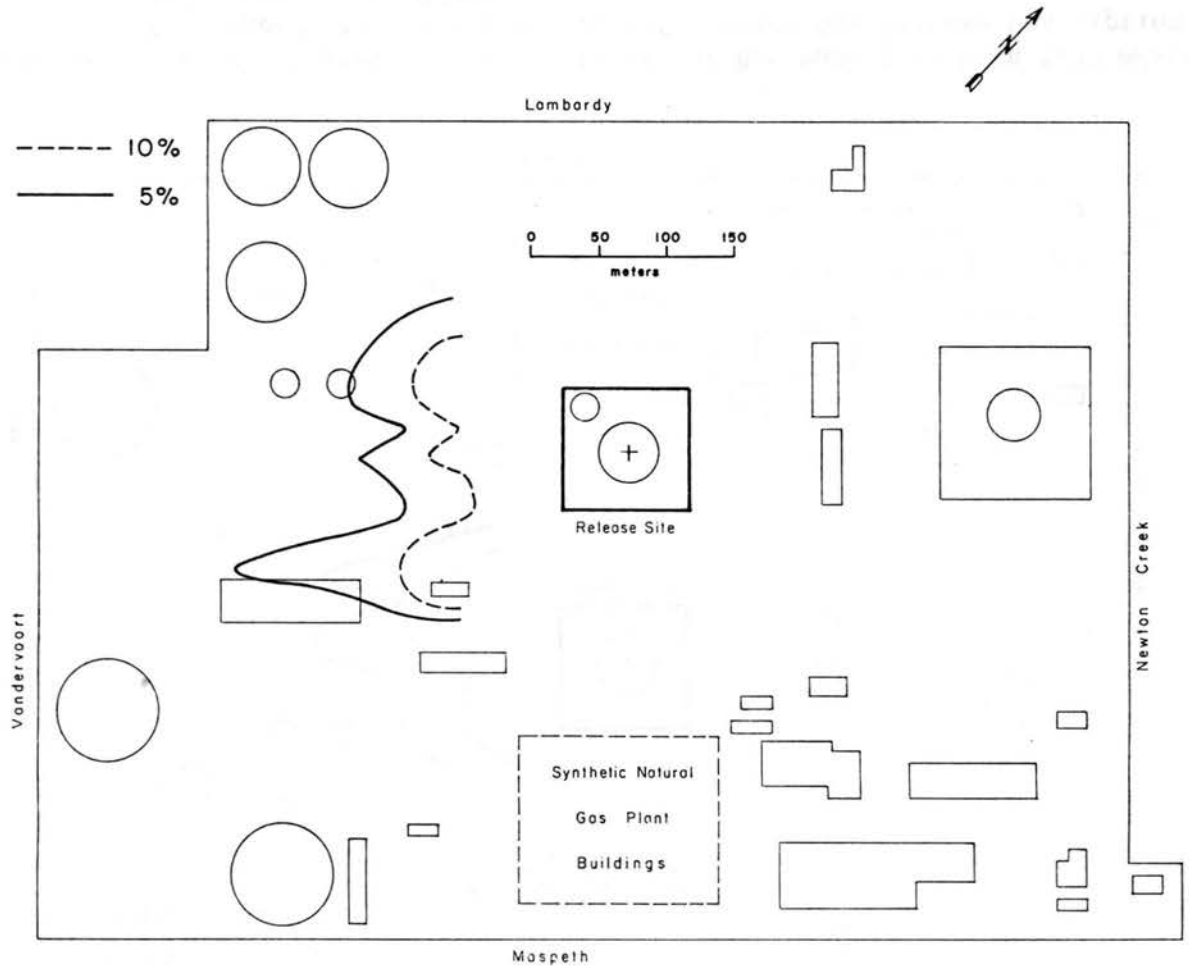


Figure 27. The Peak Concentration Isopleths for Run Number 14 With 5.49 m/sec Wind Speed, Wind Direction of 45°, Source Gas Release Description BB, and Neutral Flow Conditions

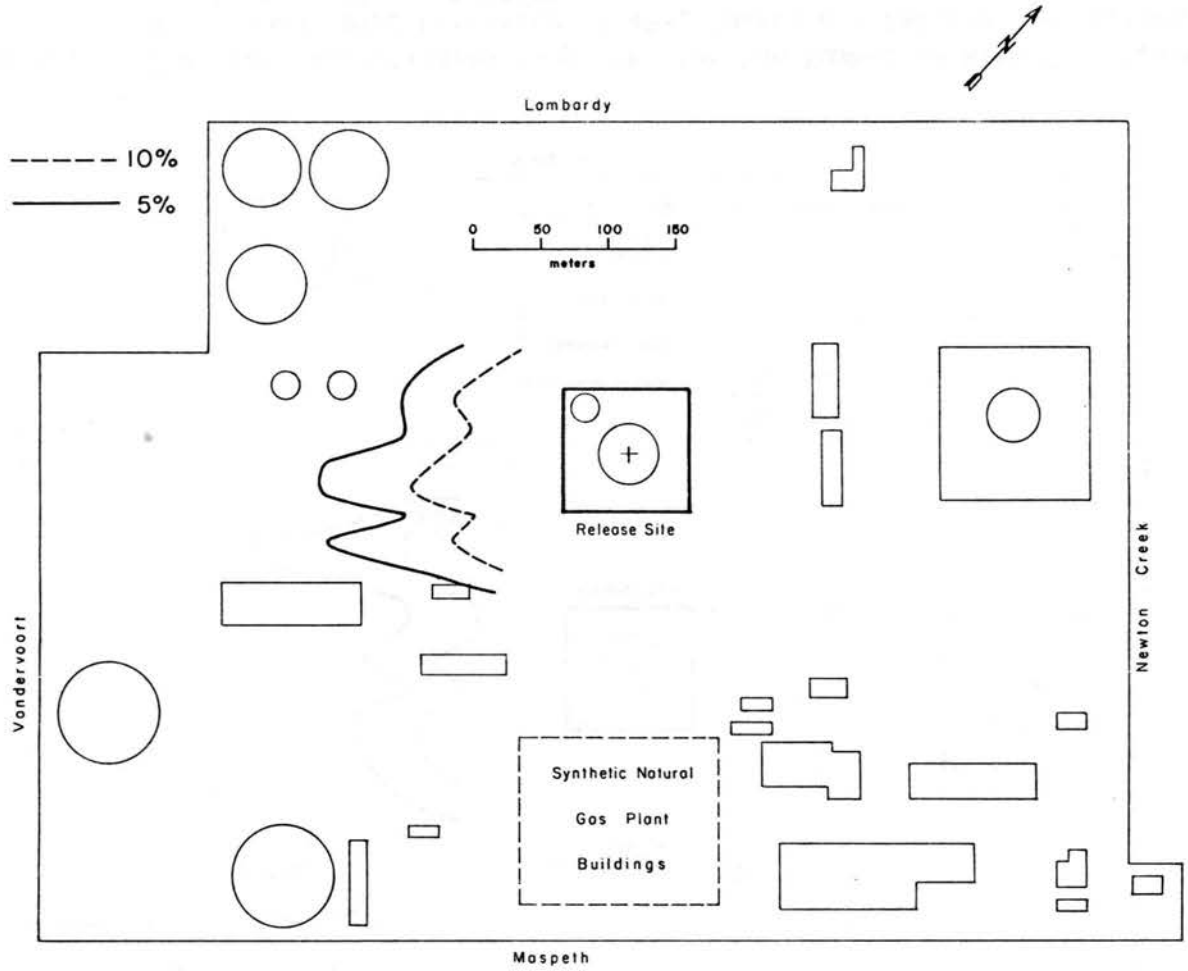


Figure 28. The Peak Concentration Isopleths for Run Number 17 With 8.93 m/sec Wind Speed, Wind Direction of 45°, Source Gas Release Description BB, and Neutral Flow Conditions

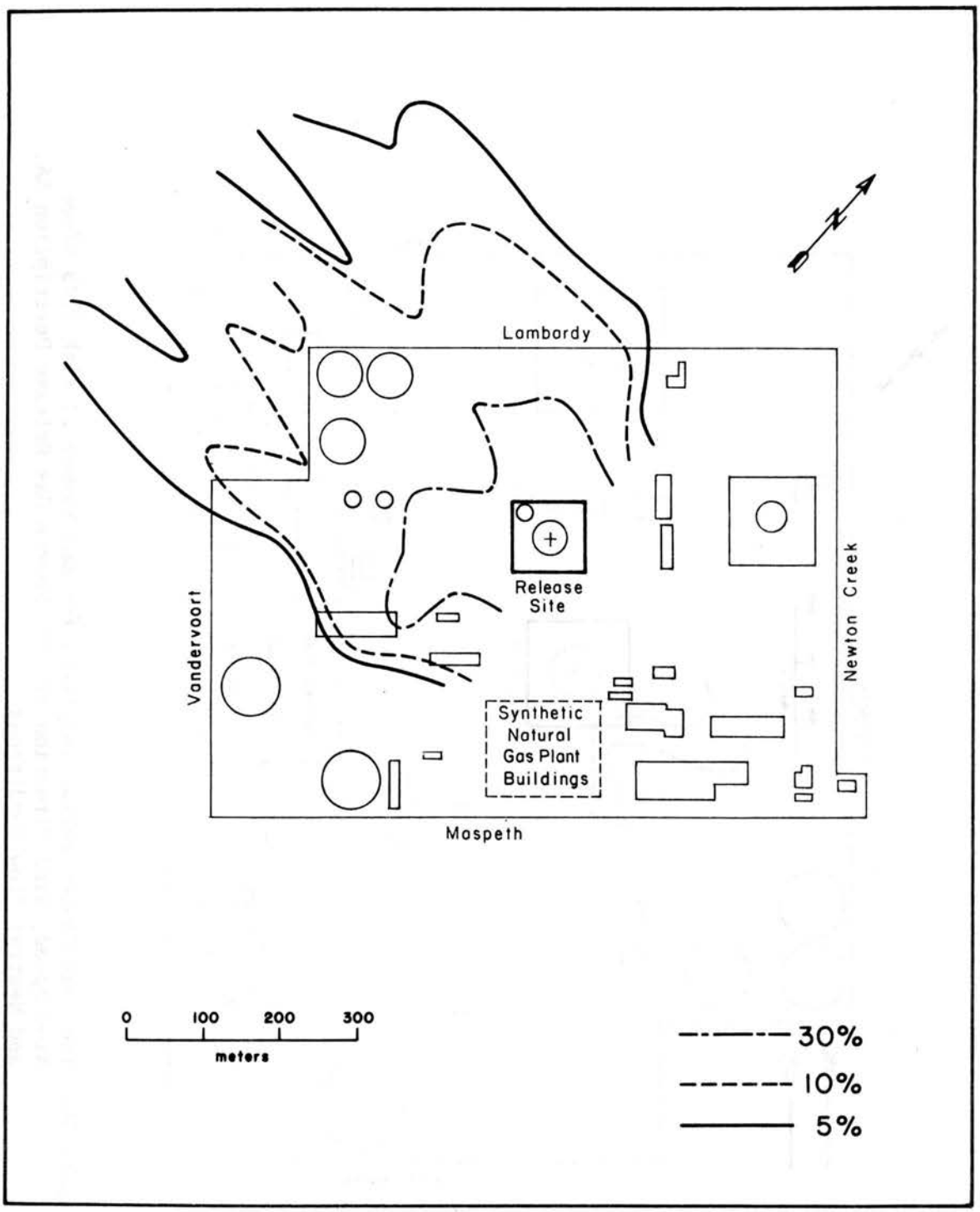


Figure 29. The Peak Concentration Isopleths for Run Number 19 With 2.23 m/sec Wind Speed, Wind Direction of 90°, Source Gas Release Description AA, and Neutral Flow Conditions

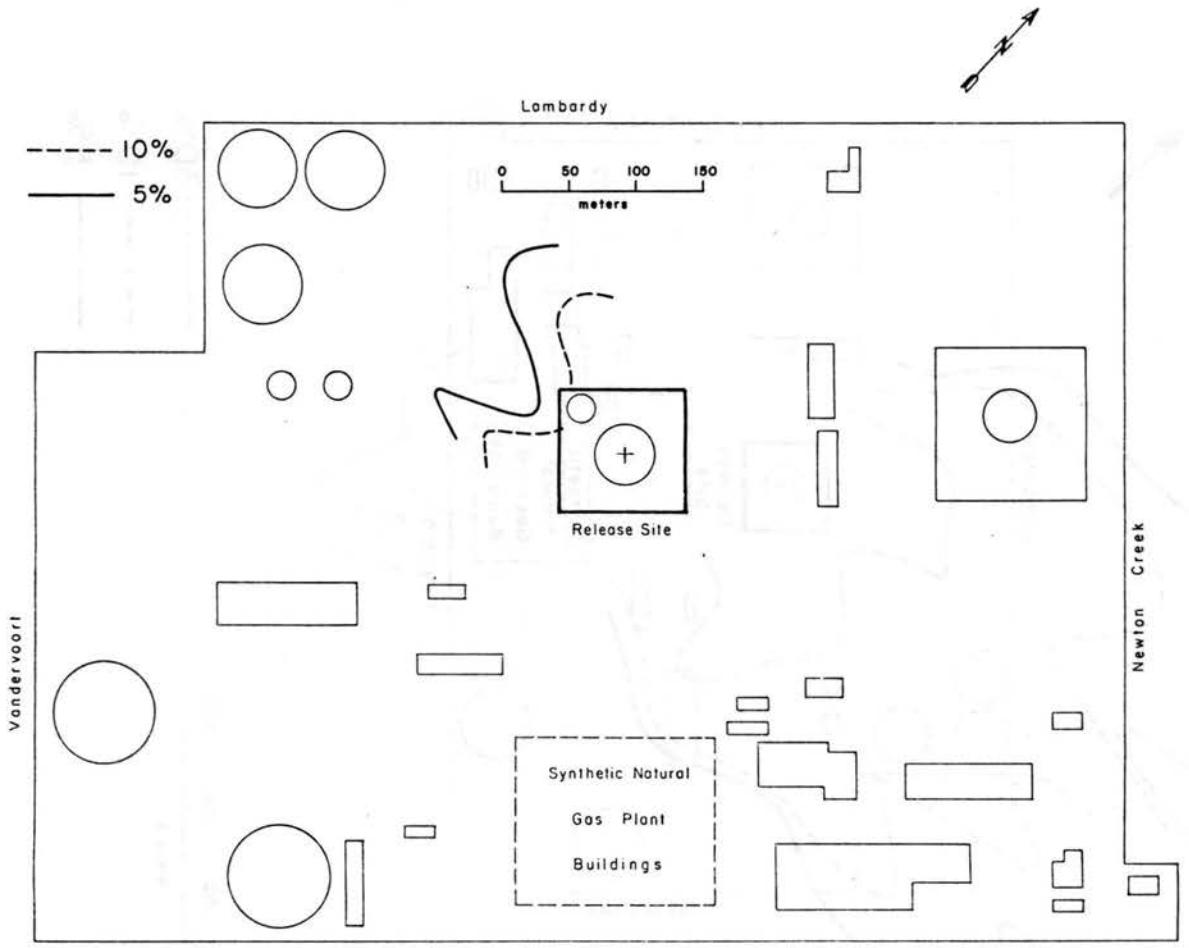


Figure 30. The Peak Concentration Isopleths for Run Number 22 With 5.49 m/sec Wind Speed, Wind Direction of 90°, Source Gas Release Description AA, and Neutral Flow Conditions

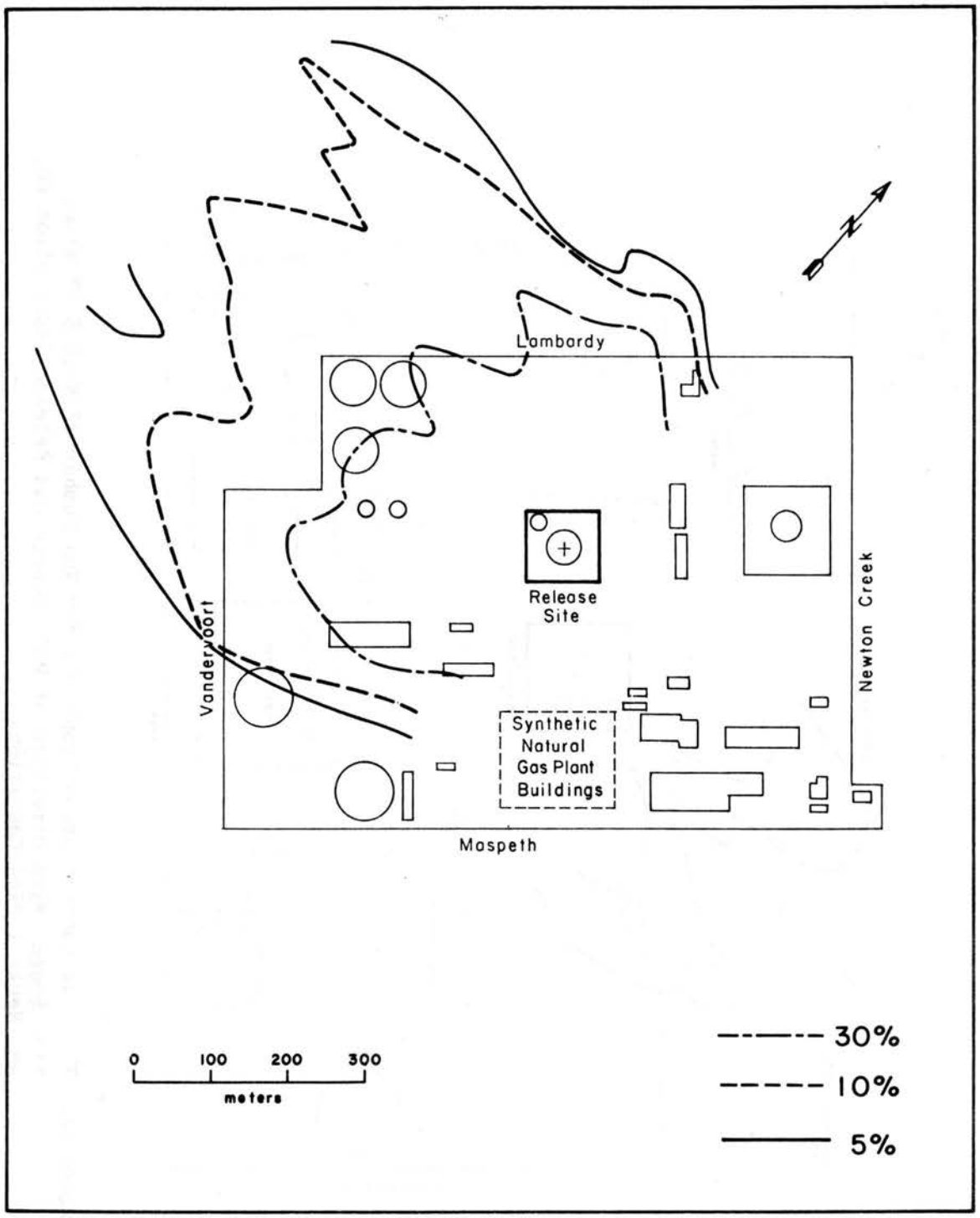


Figure 31. The Peak Concentration Isopleths for Run Number 20 With 2.23 m/sec Wind Speed, Wind Direction of 90°, Source Gas Release Description BB, and Neutral Flow Conditions

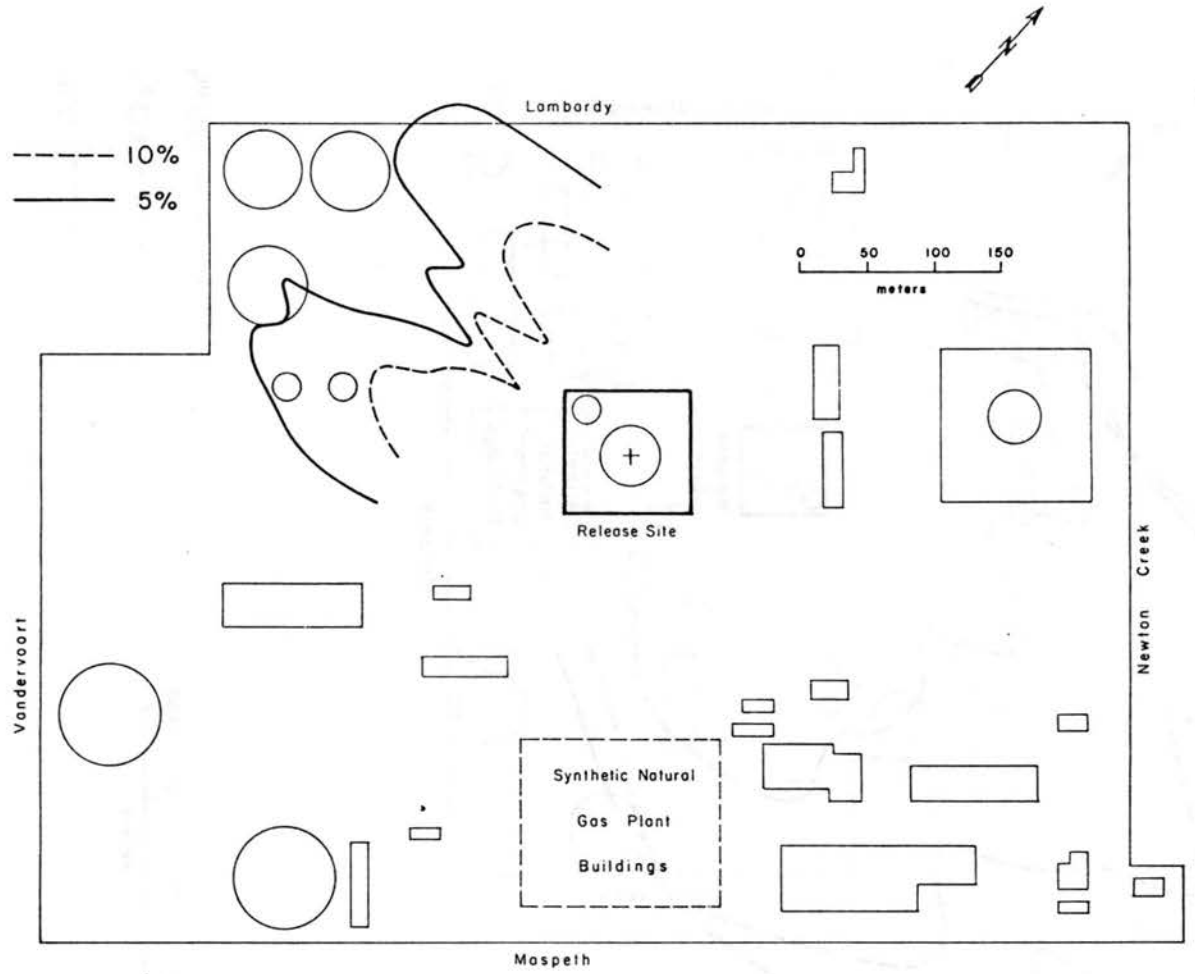


Figure 32. The Peak Concentration Isopleths for Run Number 23 With 5.49 m/sec Wind Speed, Wind Direction of 90°, Source Gas Release Description BB, and Neutral Flow Conditions

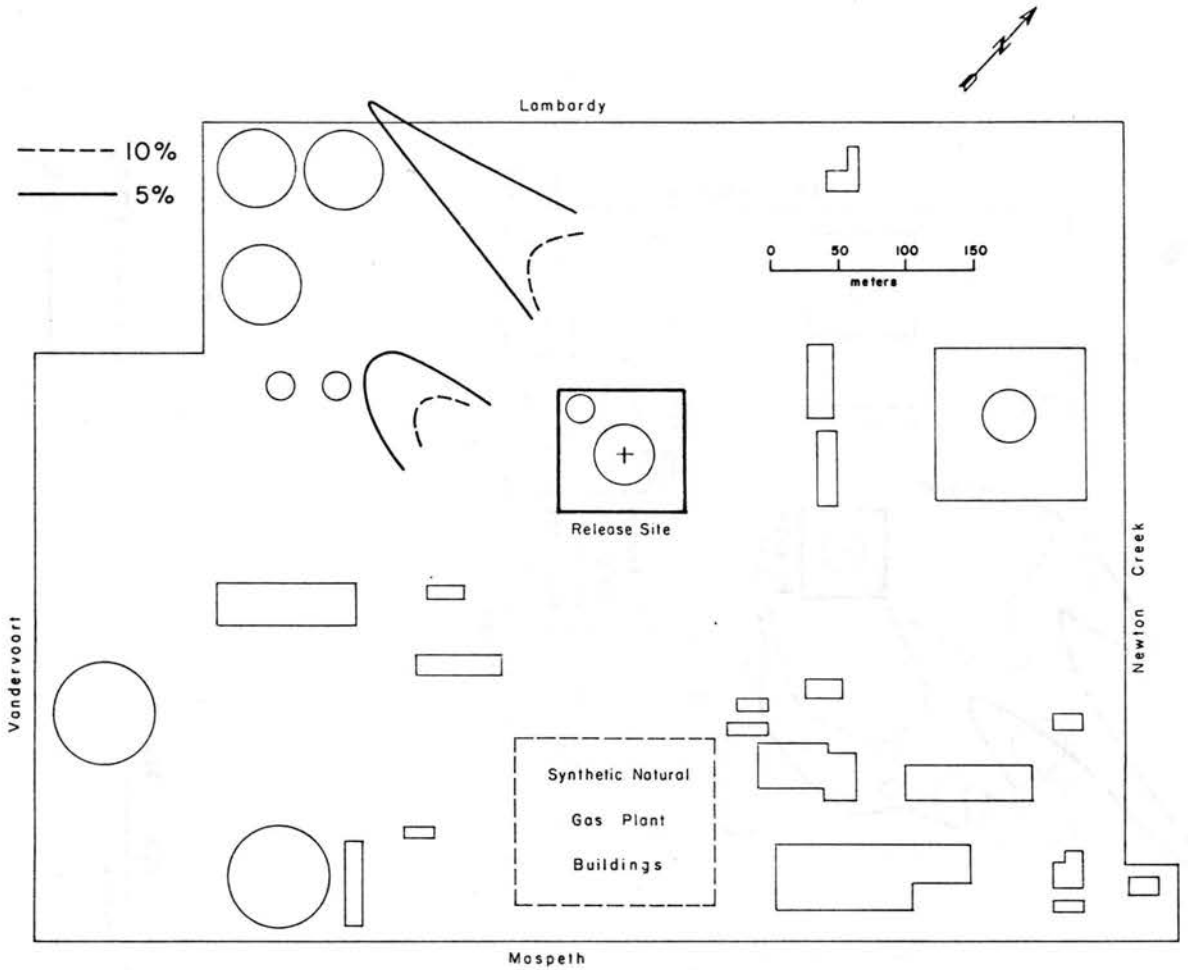


Figure 33. The Peak Concentration Isopleths for Run Number 26 With 8.93 m/sec Wind Speed, Wind Direction of 90°, Source Gas Release Description BB, and Neutral Flow Conditions

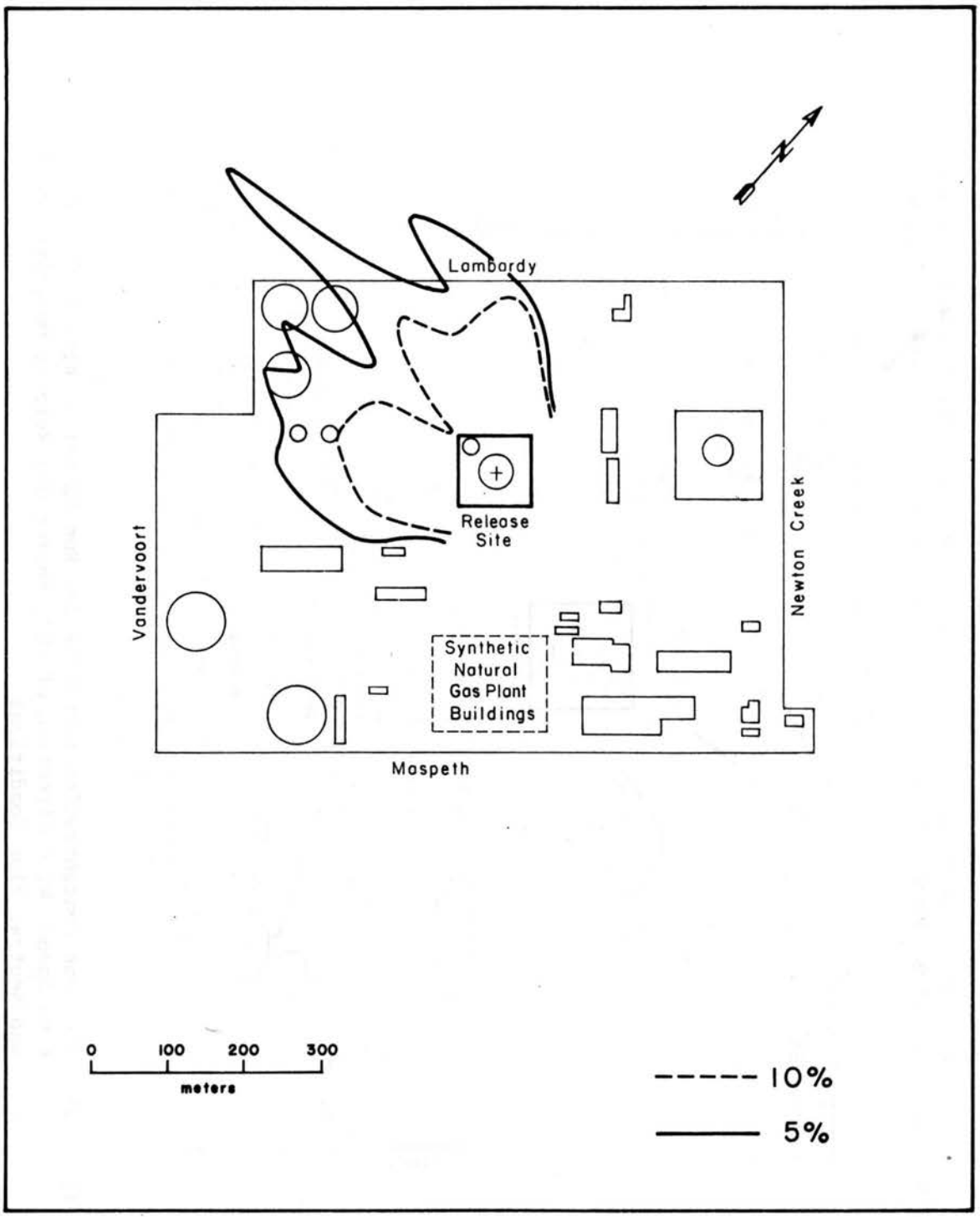


Figure 34. The Peak Concentration Isopleths for Run Number 21 With 2.23 m/sec Wind Speed, Wind Direction of 90°, Source Gas Release Description CC, and Neutral Flow Conditions

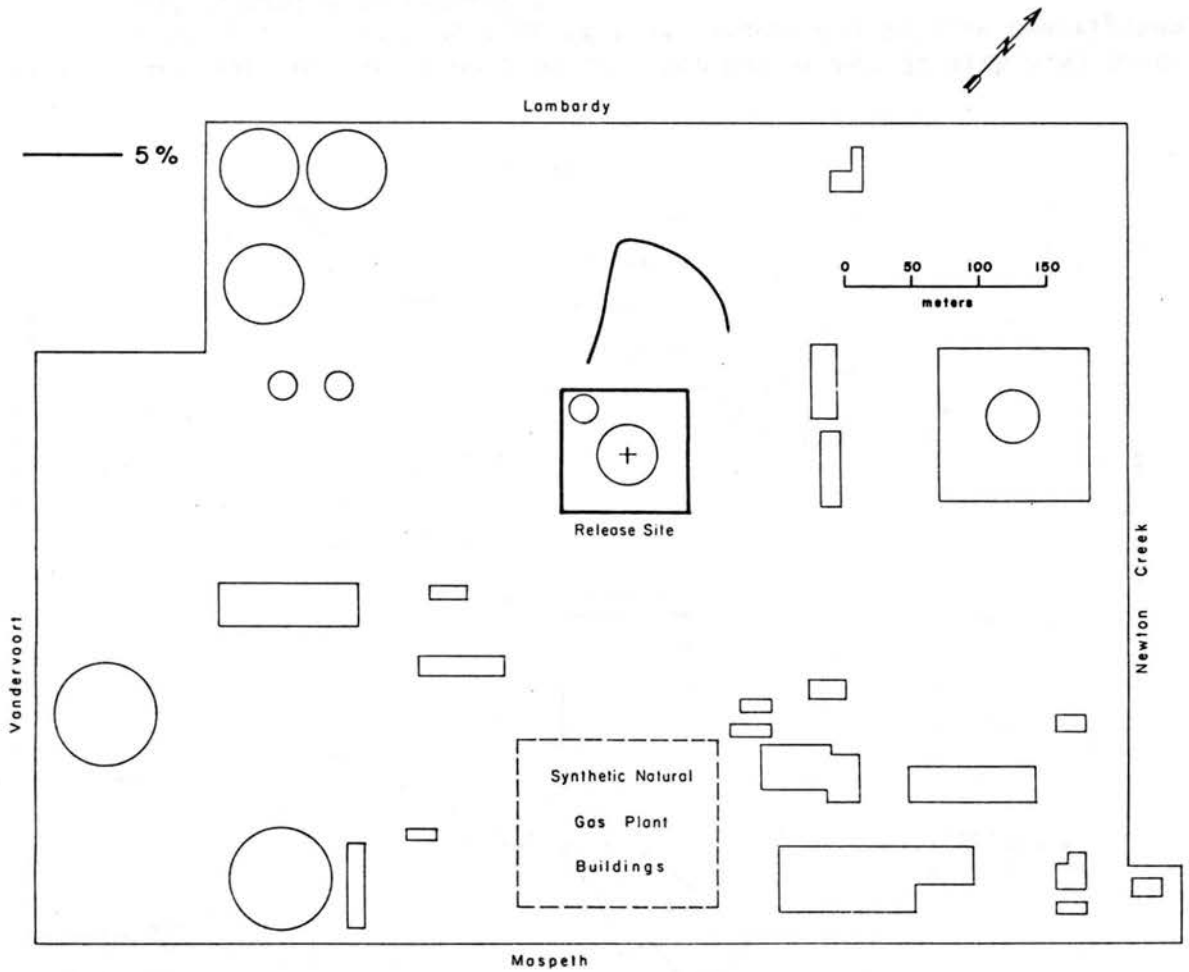


Figure 35. The Peak Concentration Isopleths for Run Number 31 With 5.49 m/sec Wind Speed, Wind Direction of 135°, Source Gas Release Description AA, and Neutral Flow Conditions

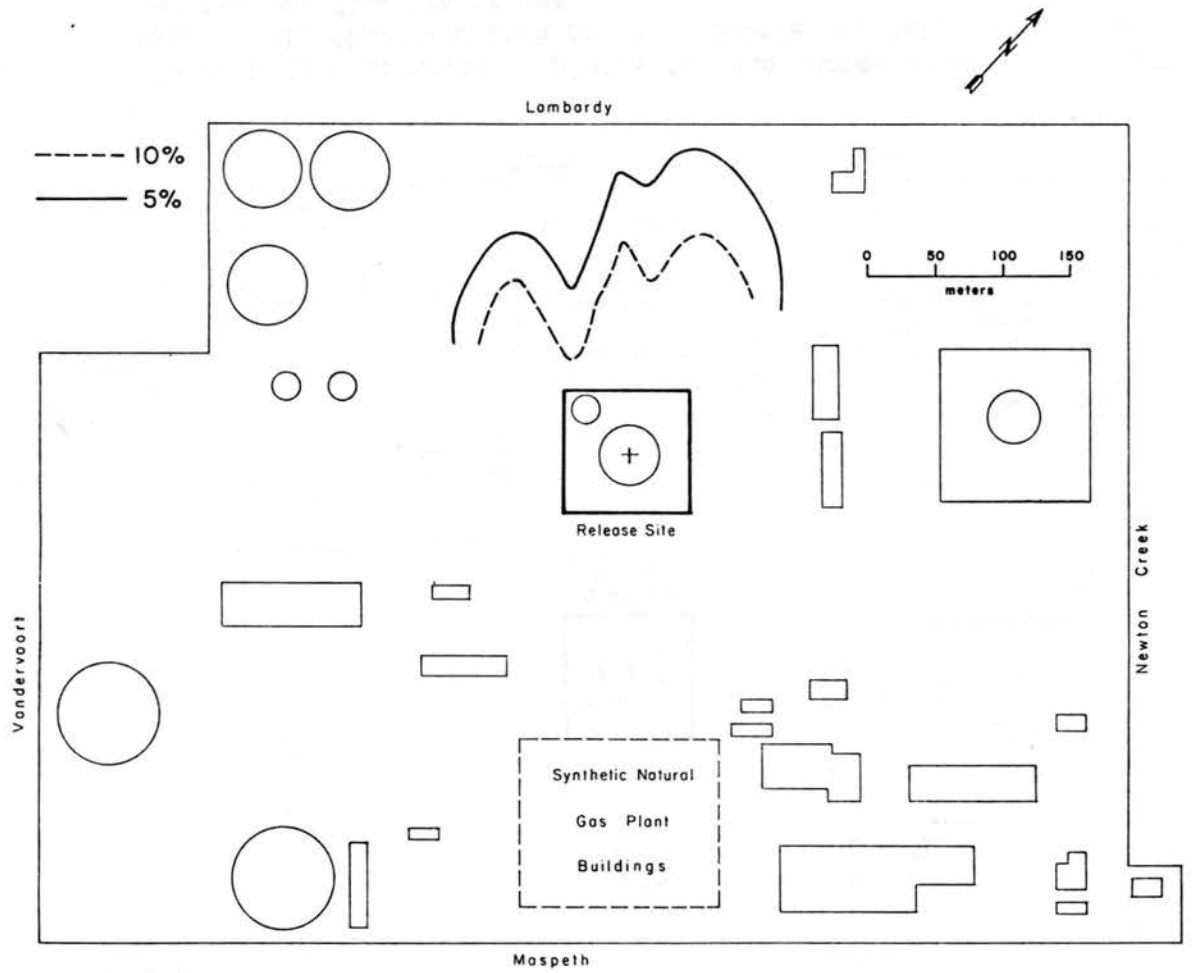


Figure 36. The Peak Concentration Isopleths for Run Number 32 With 5.49 m/sec Wind Speed, Wind Direction of 135°, Source Gas Release Description BB, and Neutral Flow Conditions

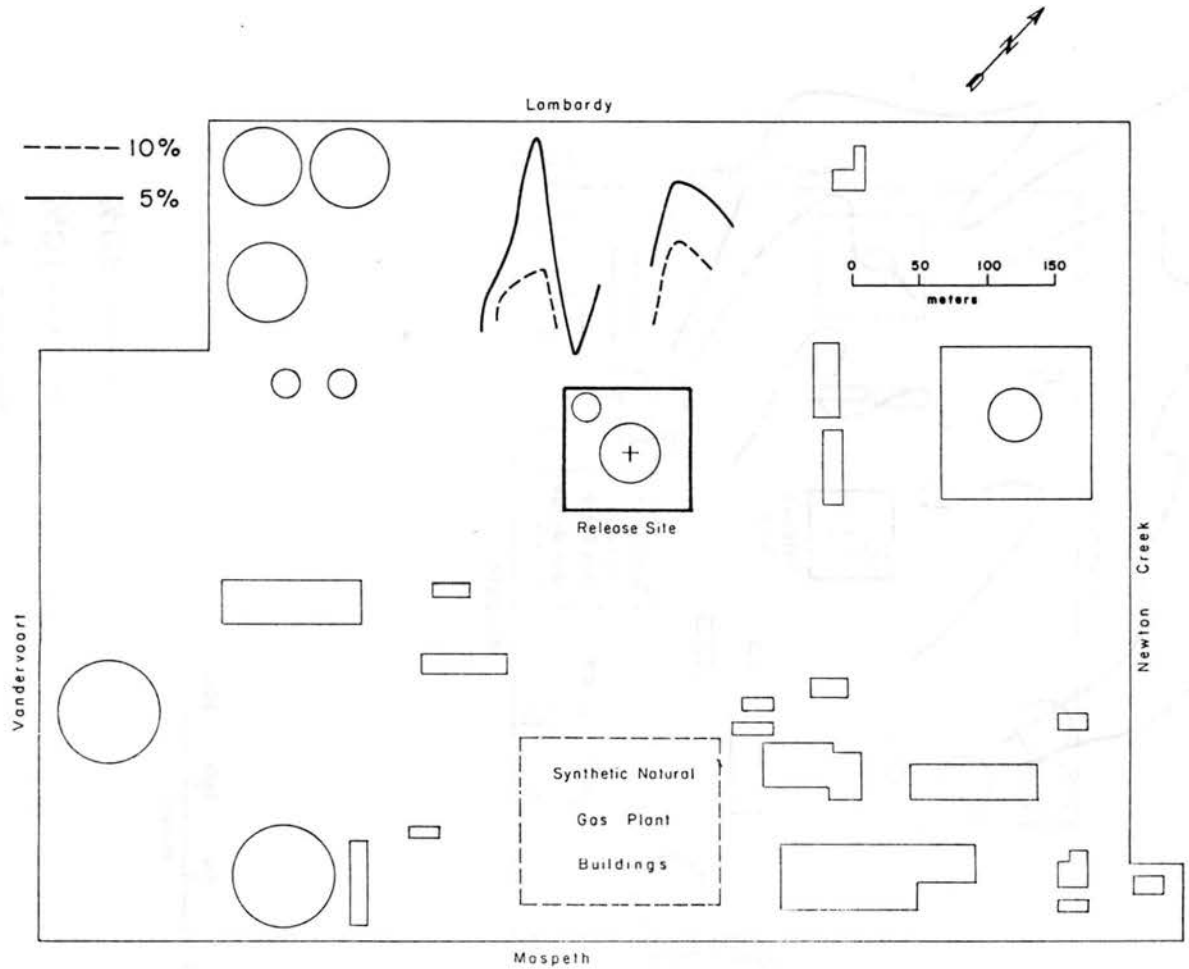


Figure 37. The Peak Concentration Isopleths for Run Number 35 With 8.93 m/sec Wind Speed, Wind Direction of 135°, Source Gas Release Description BB, and Neutral Flow Conditions

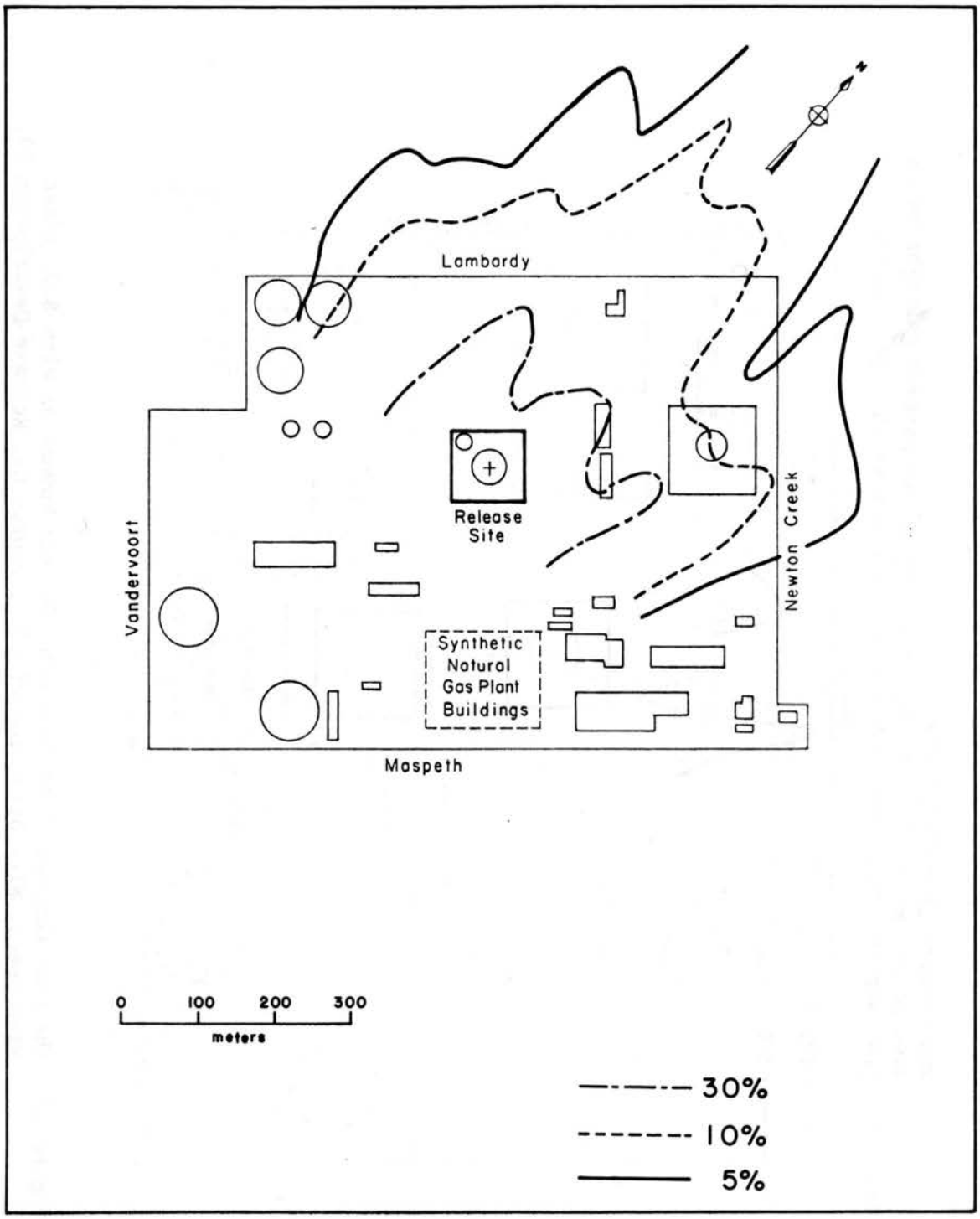


Figure 38. The Peak Concentration Isopleths for Run Number 37 With 2.23 m/sec Wind Speed, Wind Direction of 180°, Source Gas Release Description AA, and Neutral Flow Conditions

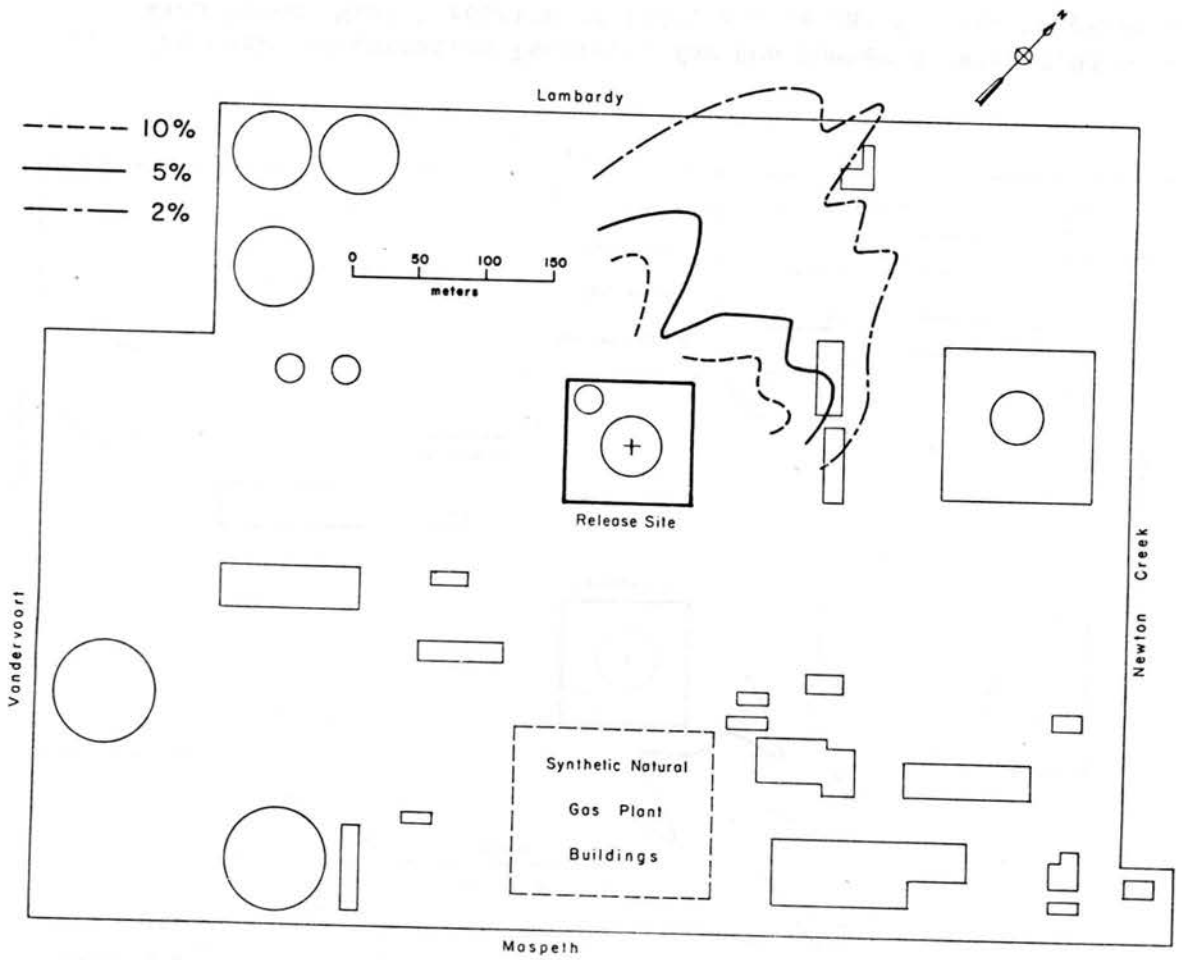


Figure 39. The Peak Concentration Isopleths for Run Number 40 With 5.49 m/sec Wind Speed, Wind Direction of 180°, Source Gas Release Description AA, and Neutral Flow Conditions

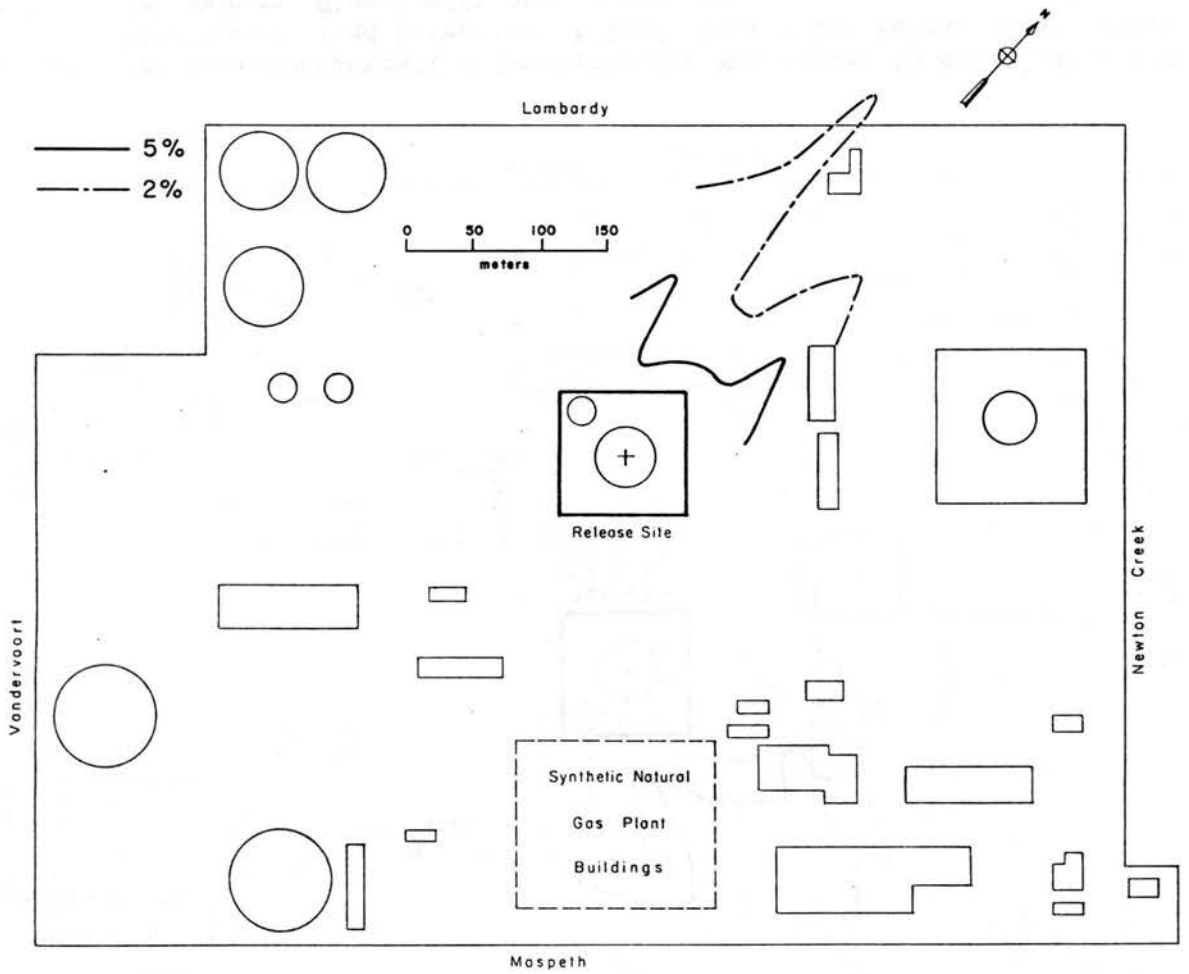


Figure 40. The Peak Concentration Isopleths for Run Number 43 With 8.93 m/sec Wind Speed, Wind Direction of 180°, Source Gas Release Description AA, and Neutral Flow Conditions

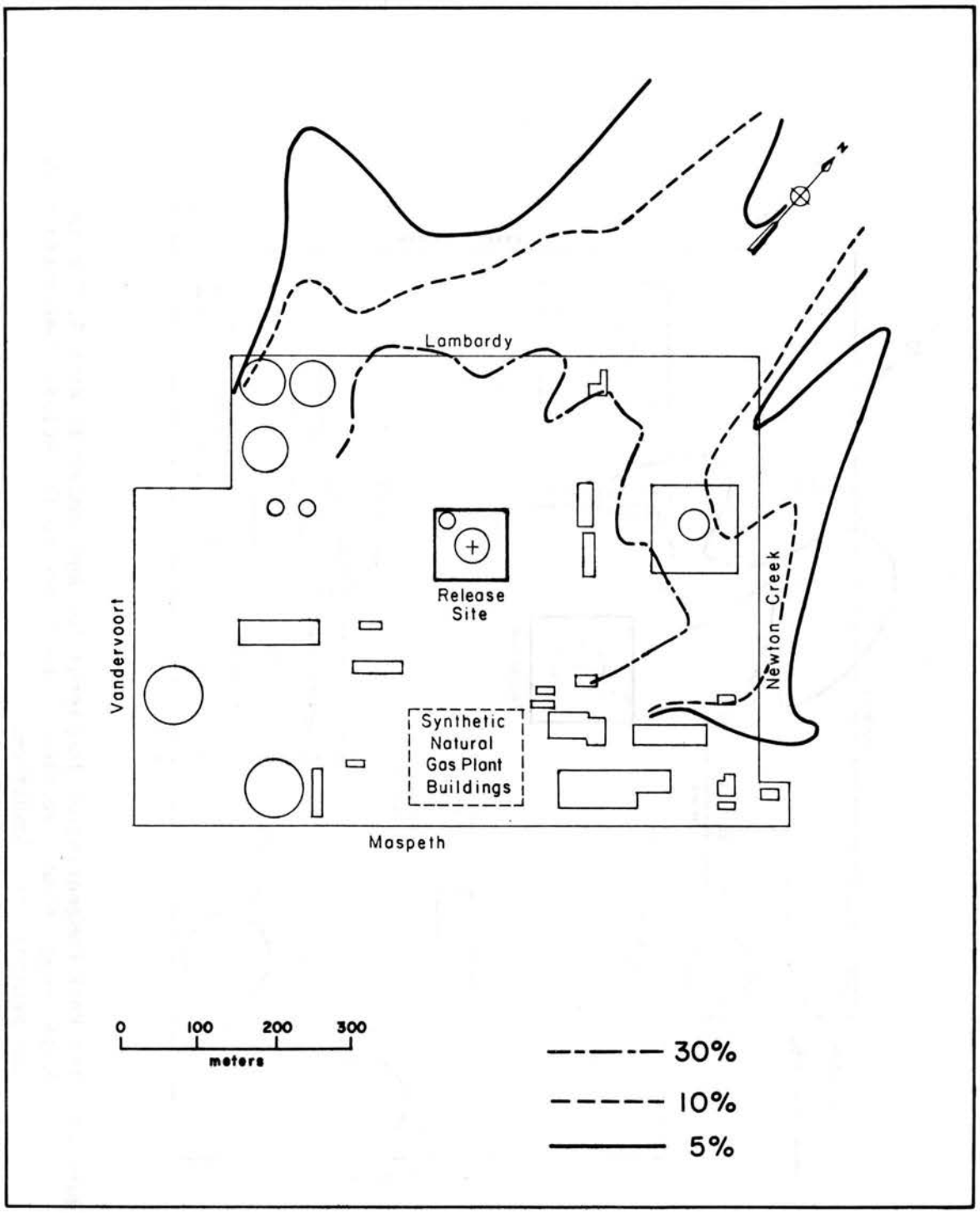


Figure 41. The Peak Concentration Isopleths for Run Number 38 With 2.23 m/sec Wind Speed, Wind Direction of 180°, Source Gas Release Description BB, and Neutral Flow Conditions

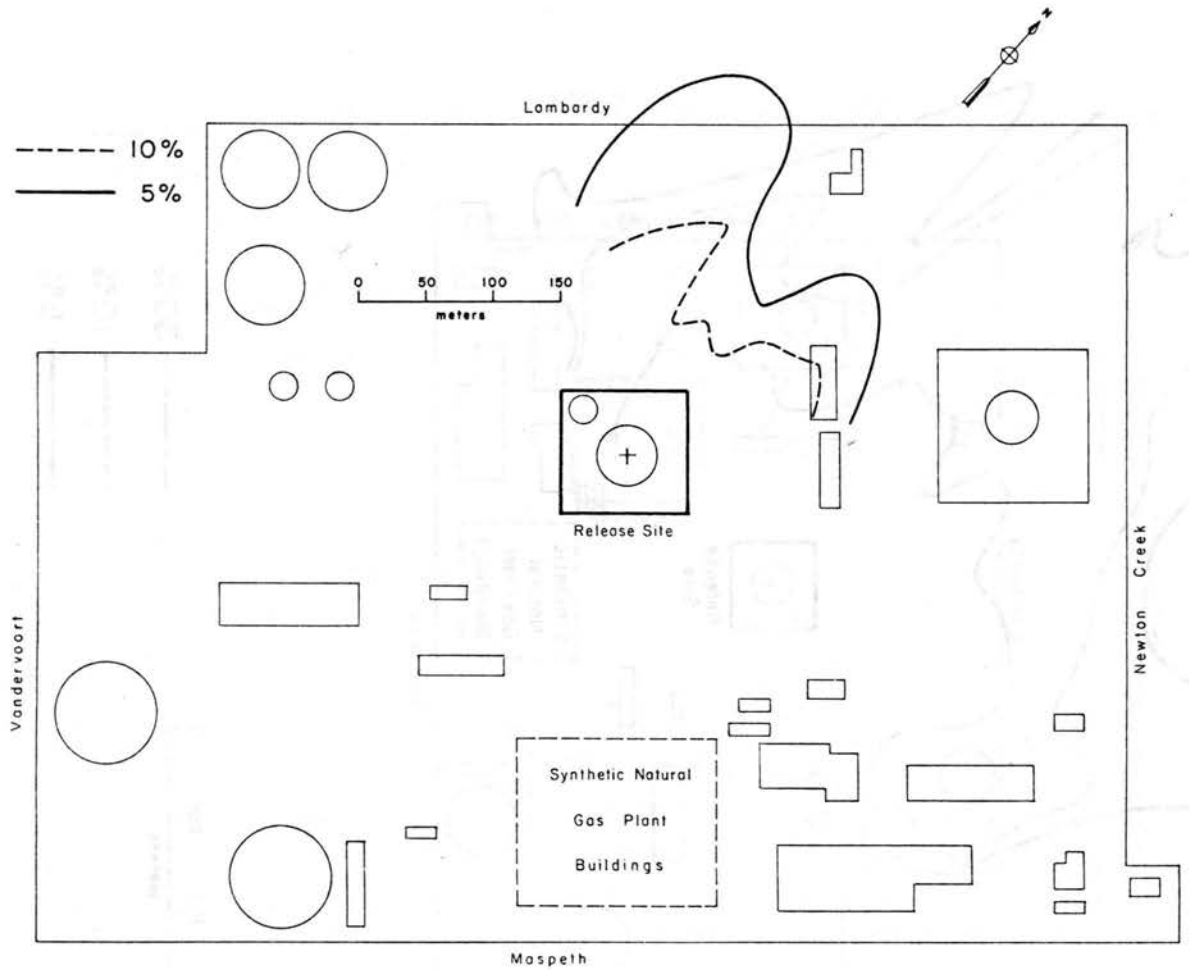


Figure 42. The Peak Concentration Isopleths for Run Number 41 With 5.49 m/sec Wind Speed, Wind Direction of 180°, Source Gas Release Description BB, and Neutral Flow Conditions

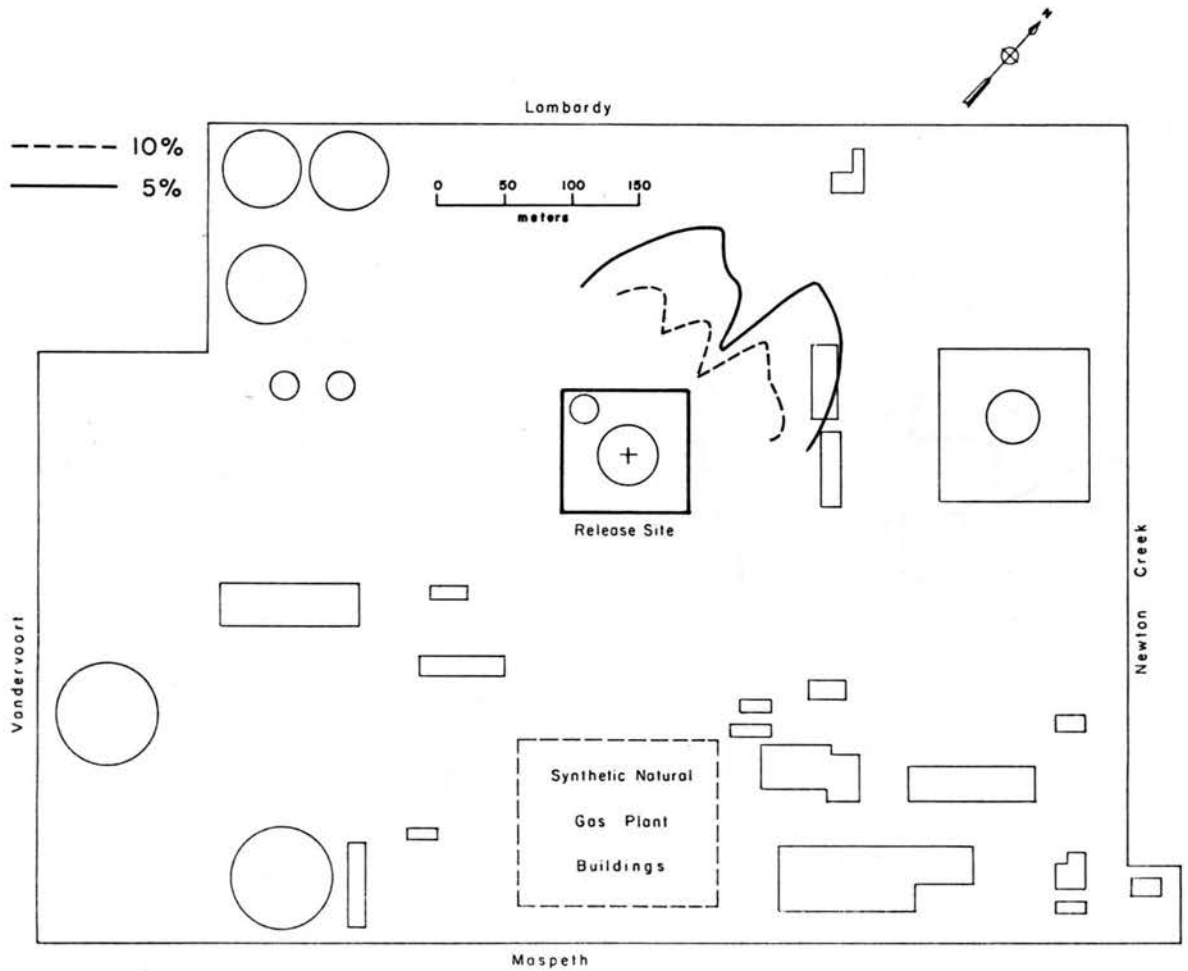


Figure 43. The Peak Concentration Isopleths for Run Number 44 With 8.93 m/sec Wind Speed, Wind Direction of 180°, Source Gas Release Description BB, and Neutral Flow Conditions

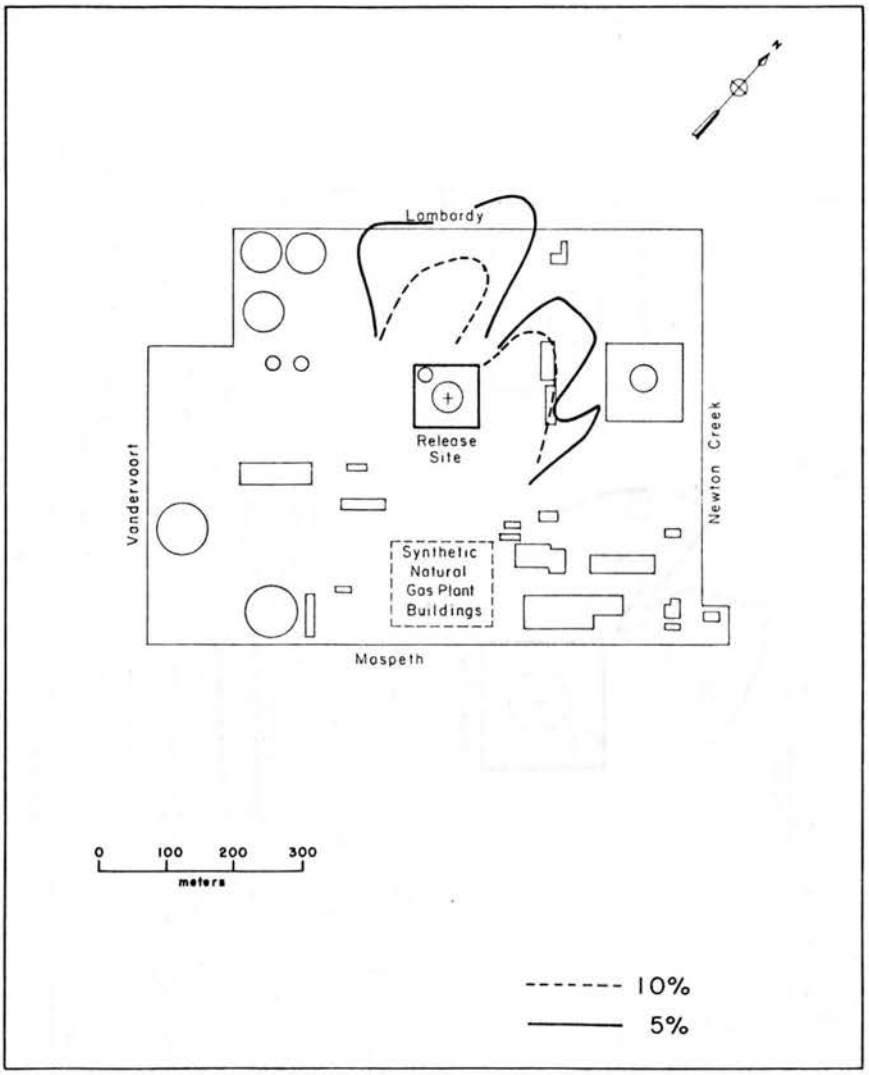


Figure 44. The Peak Concentration Isopleths for Run Number 39 With 2.23 m/sec Wind Speed, Wind Direction of 180°, Source Gas Release Description CC, and Neutral Flow Conditions

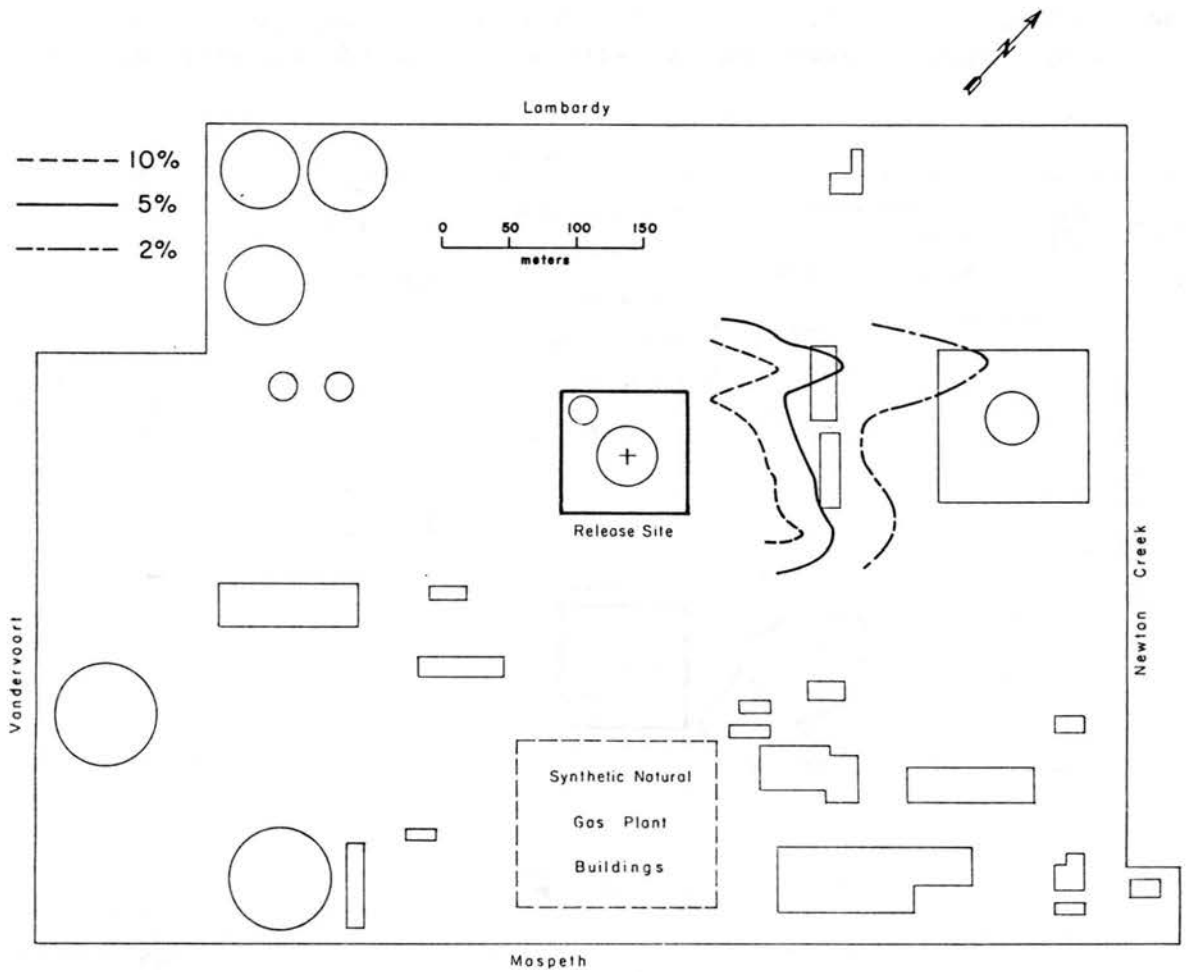


Figure 45. The Peak Concentration Isopleths for Run Number 49 With 5.49 m/sec Wind Speed, Wind Direction of 225°, Source Gas Release Description AA, and Neutral Flow Conditions

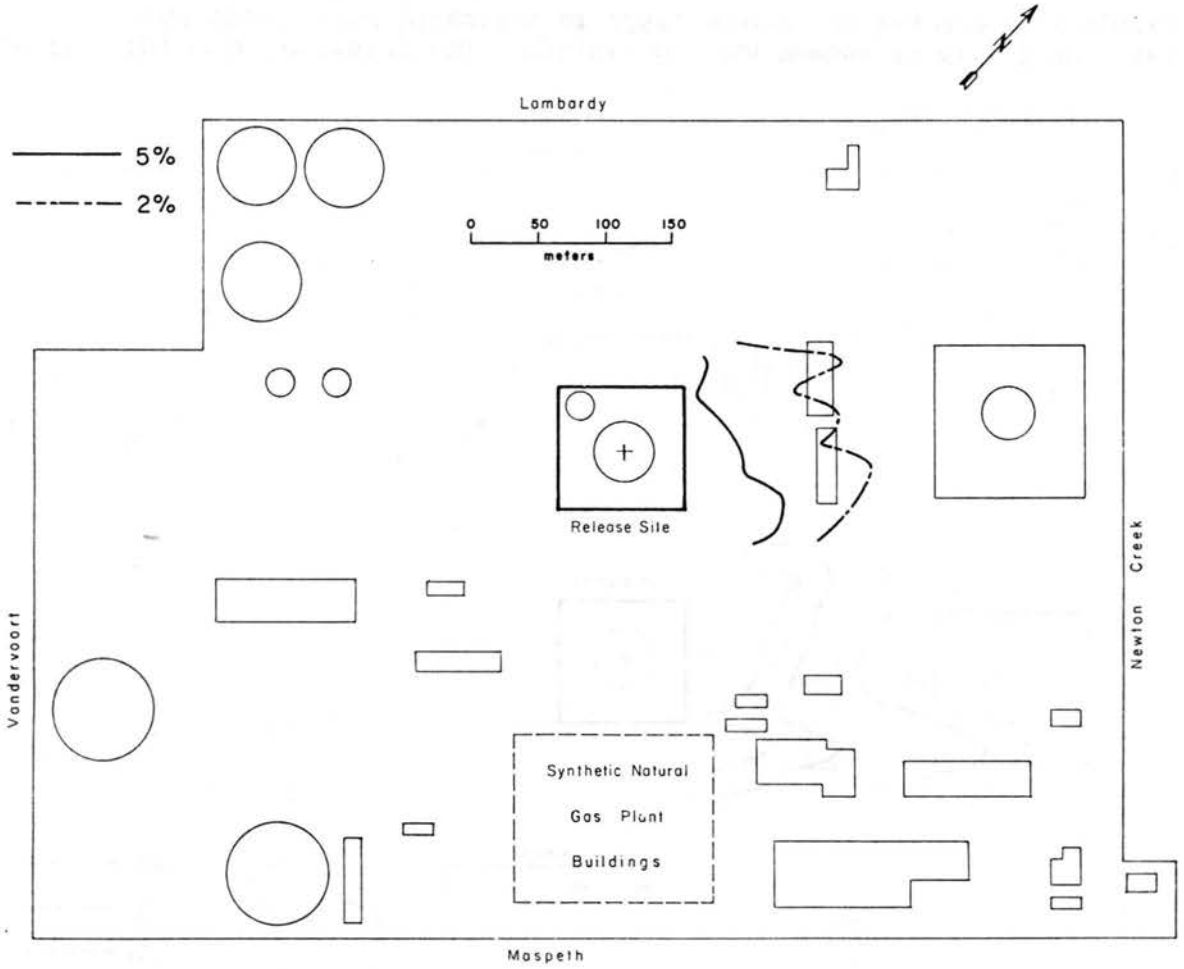


Figure 46. The Peak Concentration Isopleths for Run Number 52 With 8.93 m/sec Wind Speed, Wind Direction of 225°, Source Gas Release Description AA, and Neutral Flow Conditions

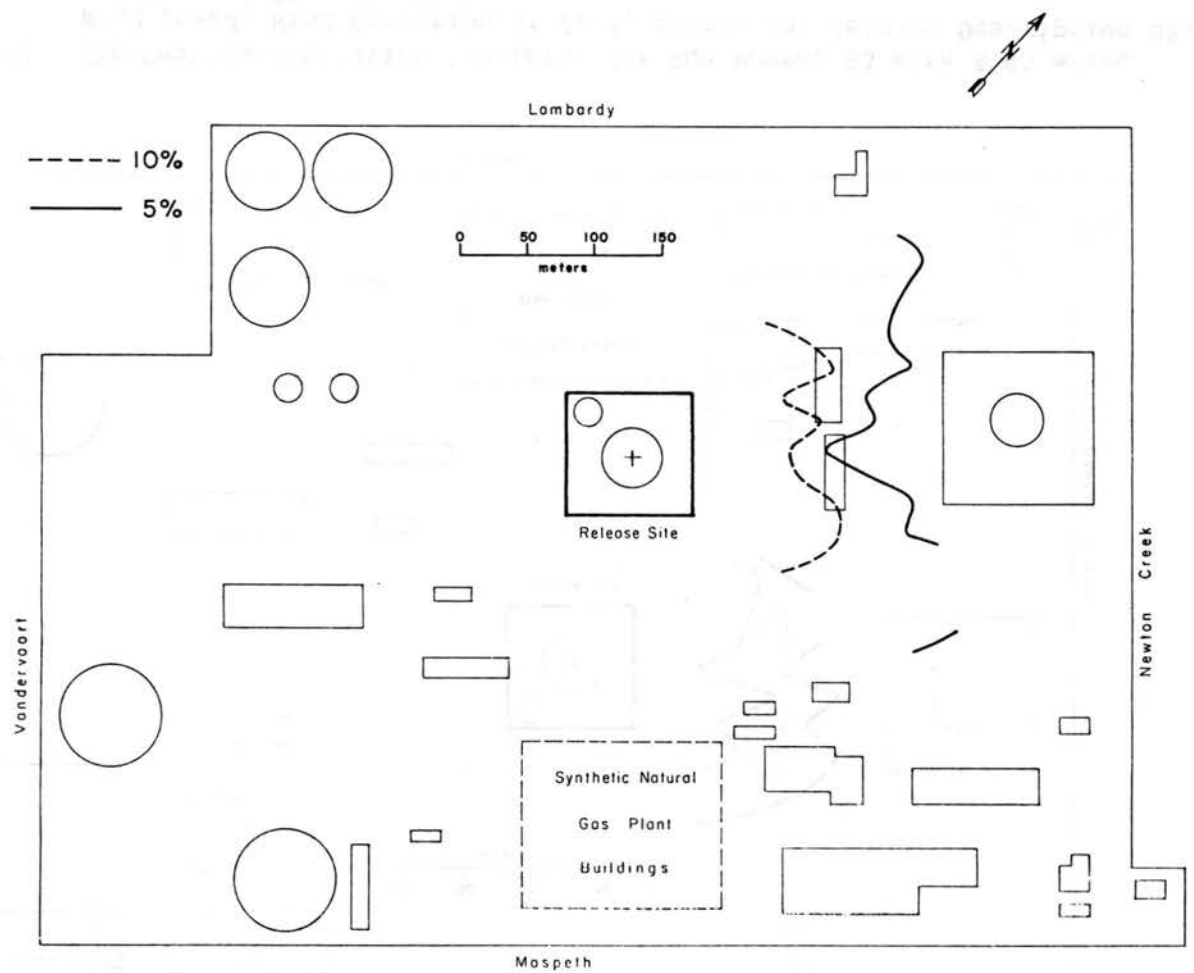


Figure 47. The Peak Concentration Isopleths for Run Number 50 With 5.49 m/sec Wind Speed, Wind Direction of 225°, Source Gas Release Description BB, and Neutral Flow Conditions

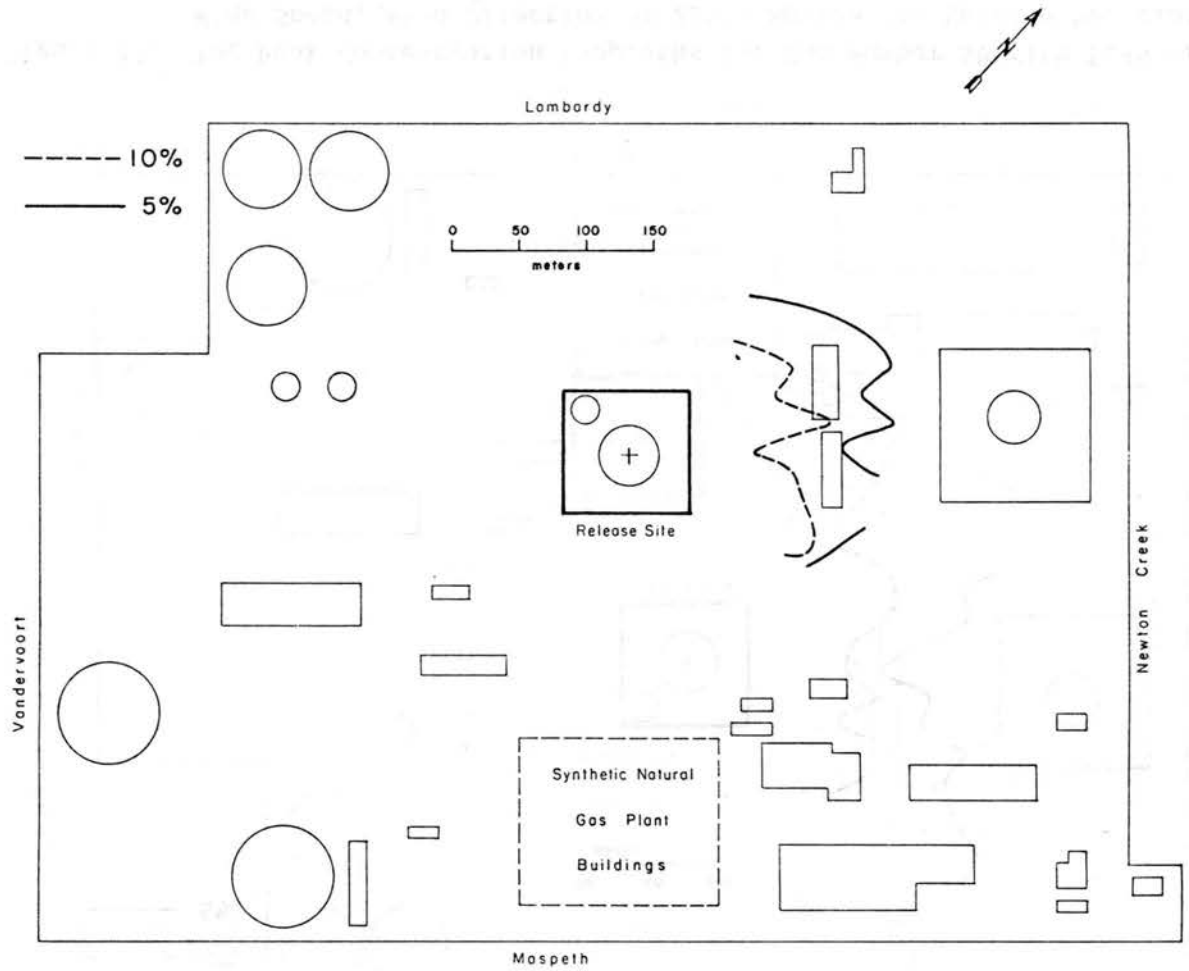


Figure 48. The Peak Concentration Isopleths for Run Number 53 With 8.93 m/sec Wind Speed, Wind Direction of 225°, Source Gas Release Description BB, and Neutral Flow Conditions

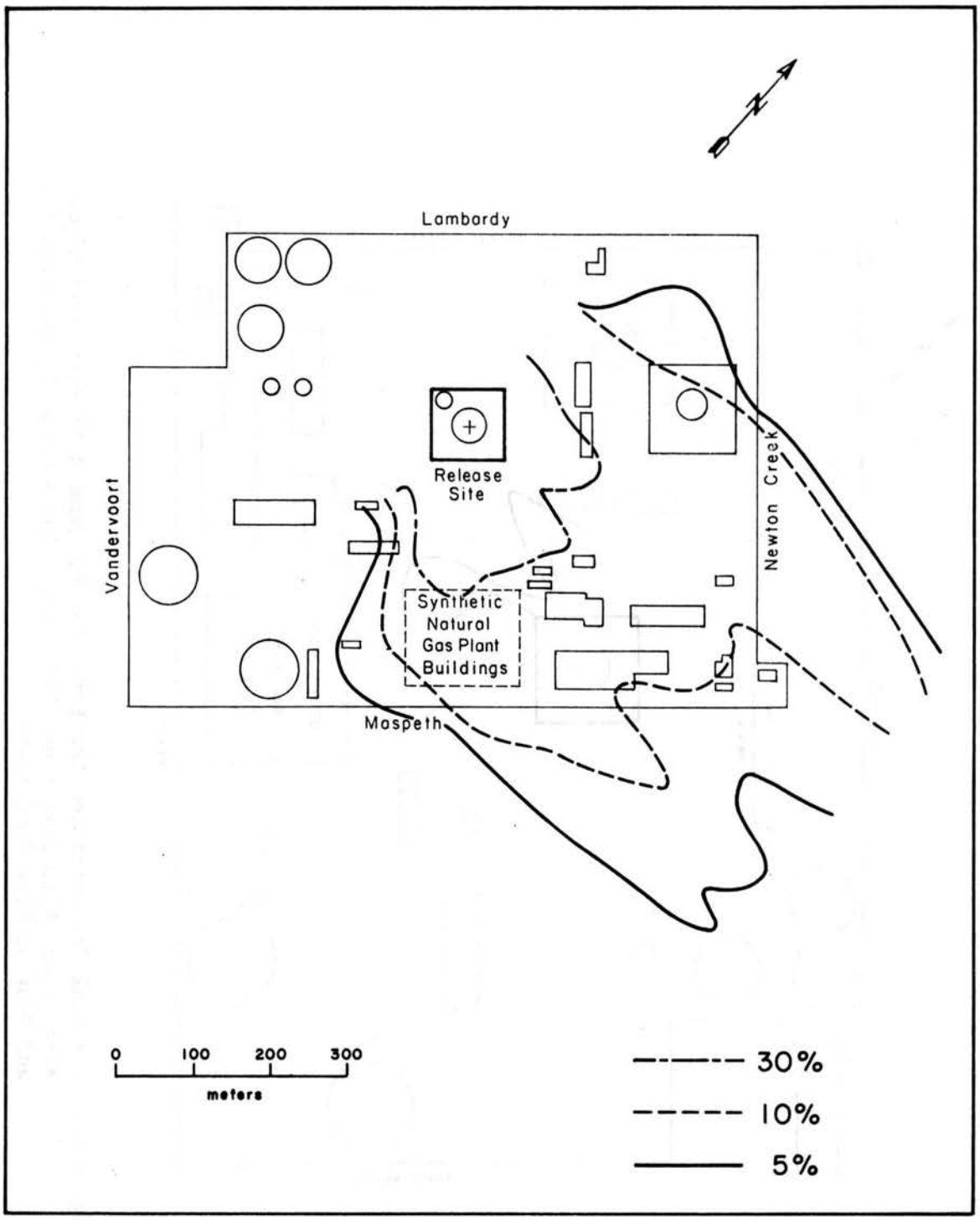


Figure 49. The Peak Concentration Isopleths for Run Number 55 With 2.23 m/sec Wind Speed, Wind Direction of 270°, Source Gas Release Description AA, and Neutral Flow Conditions

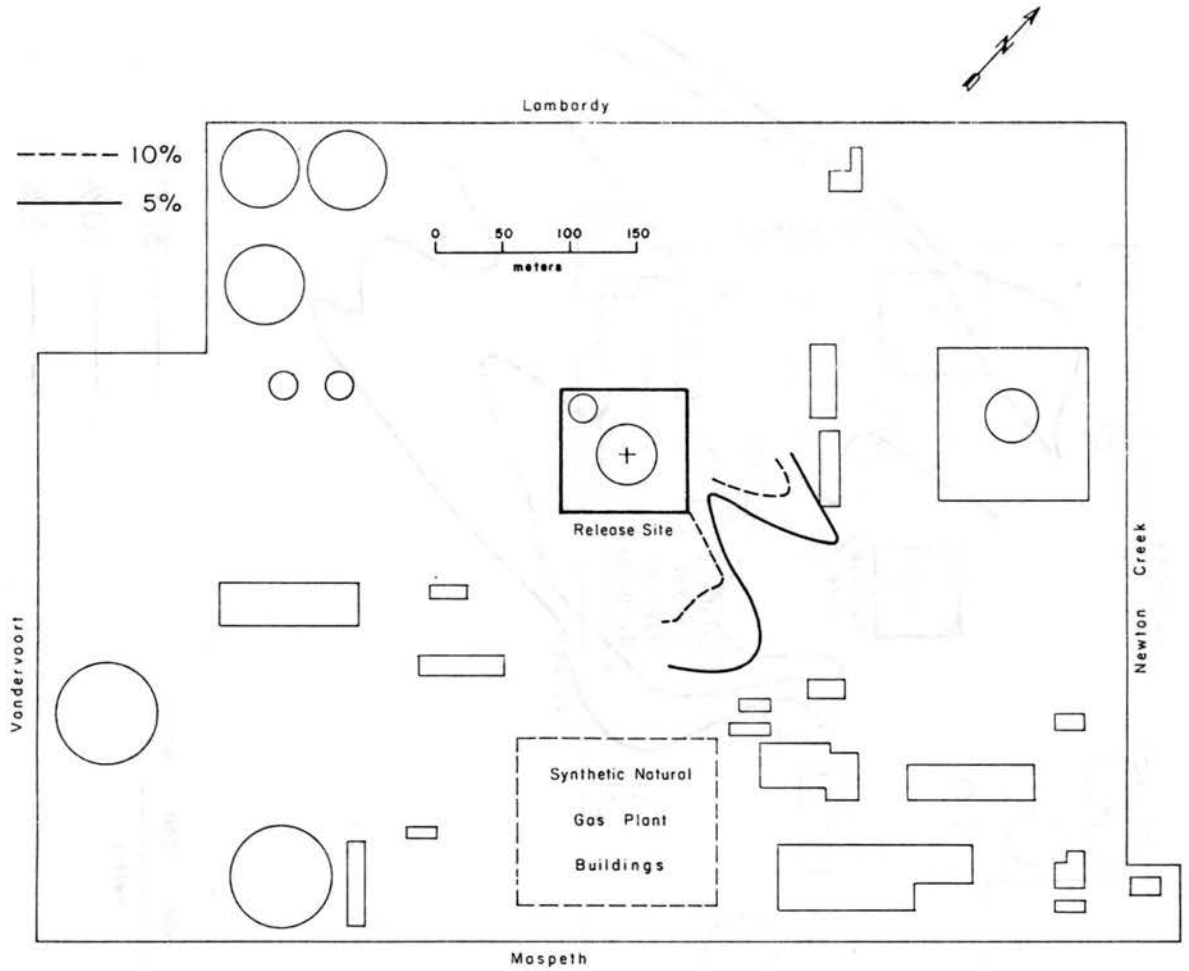


Figure 50. The Peak Concentration Isopleths for Run Number 58 With 5.49 m/sec Wind Speed, Wind Direction 270°, Source Gas Release Description AA, and Neutral Flow Conditions

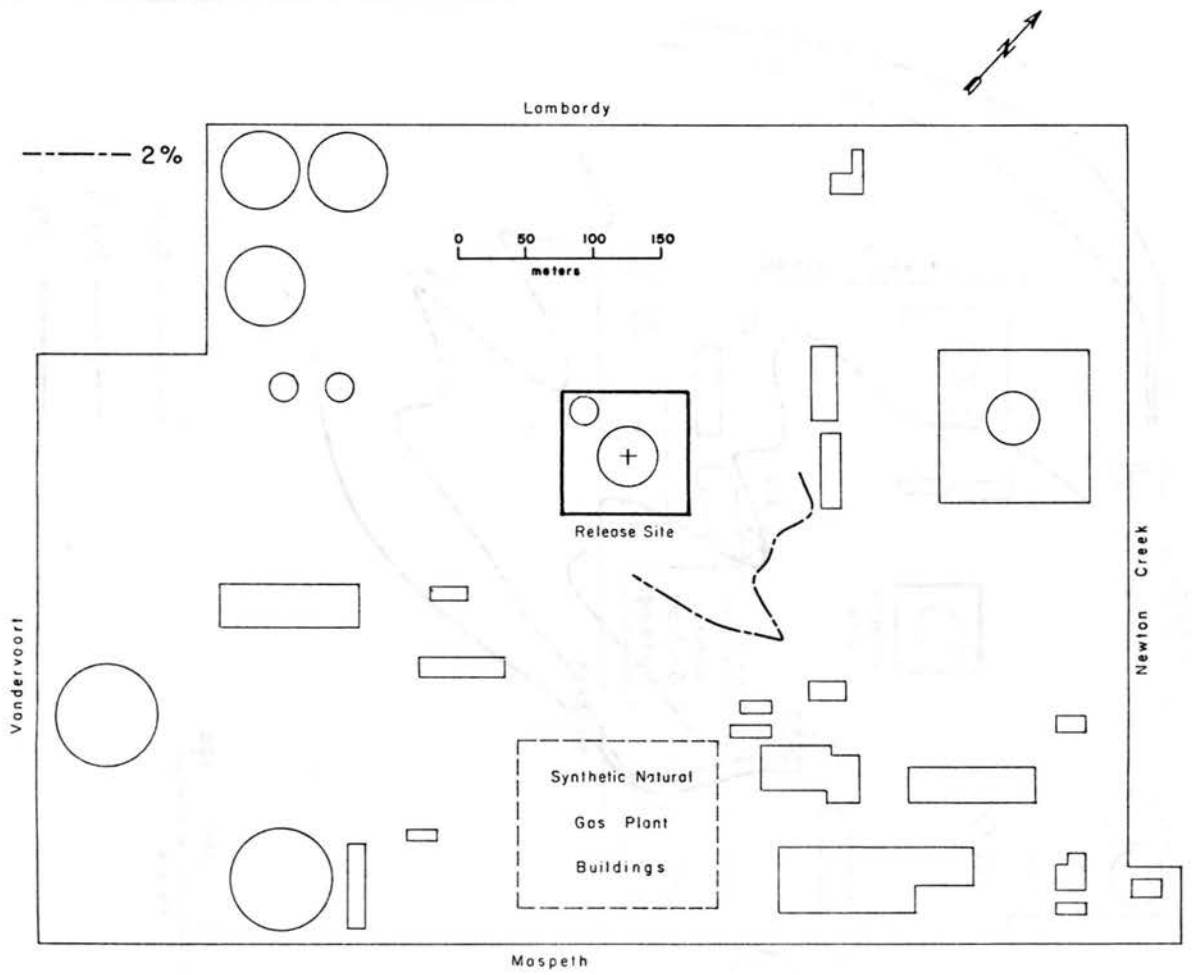


Figure 51. The Peak Concentration Isopleths for Run Number 61 With 8.93 m/sec Wind Speed, Wind Direction of 270°, Source Gas Release Description AA, and Neutral Flow Conditions

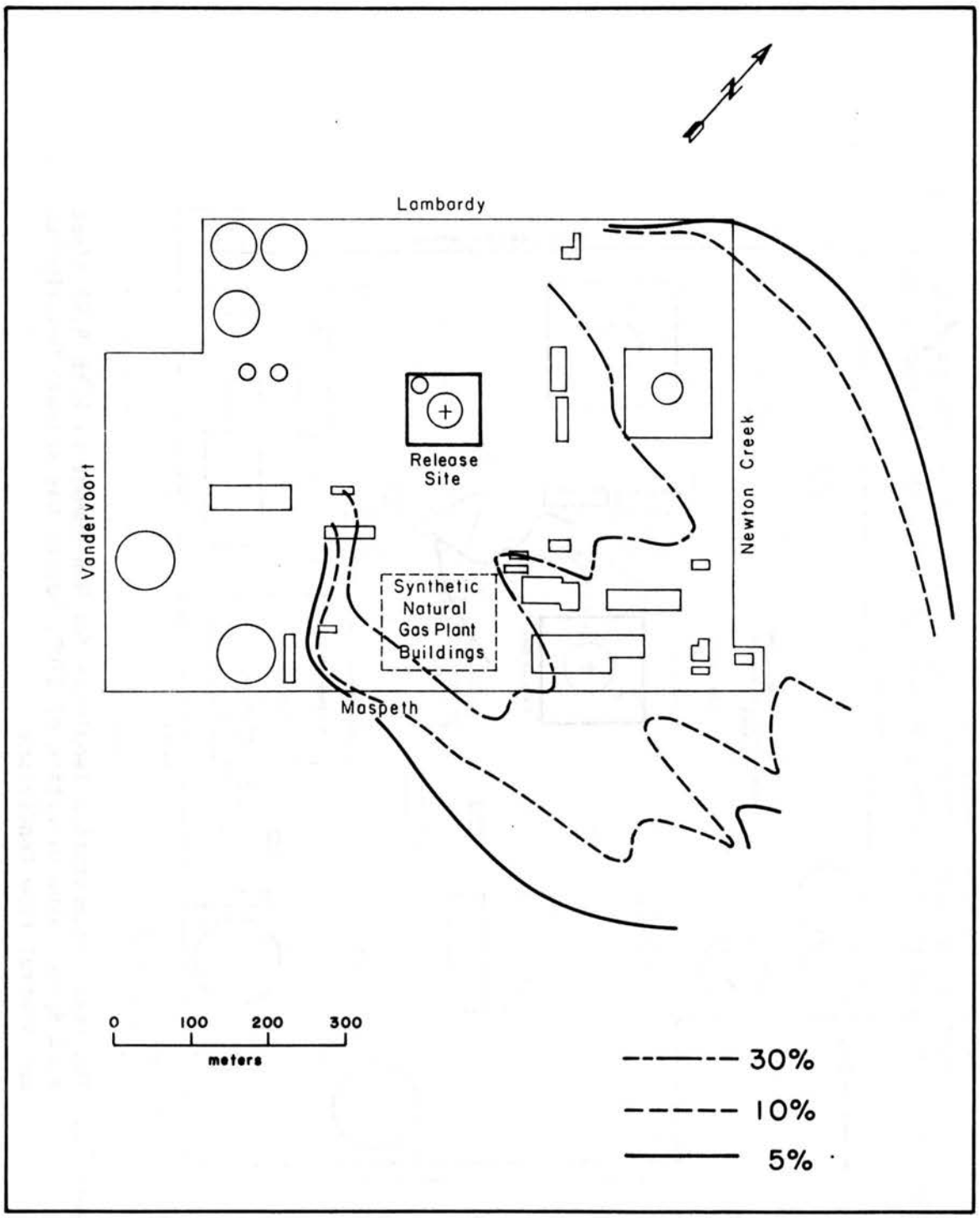


Figure 52. The Peak Concentration Isopleths for Run Number 56 With 2.23 m/sec Wind Speed, Wind Direction of 270°, Source Gas Release Description BB, and Neutral Flow Conditions

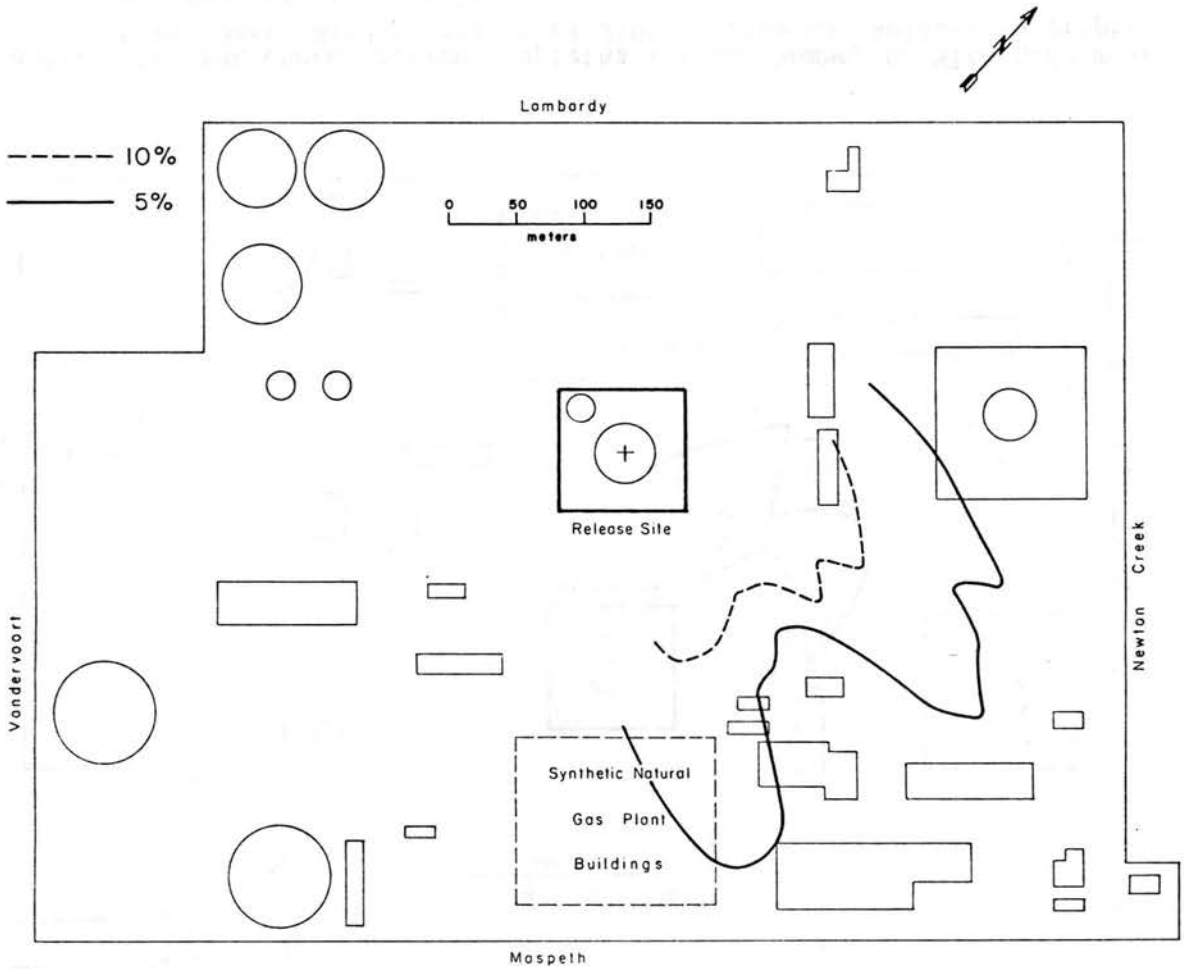


Figure 53. The Peak Concentration Isopleths for Run Number 59 With 5.49 m/sec Wind Speed, Wind Direction of 270°, Source Gas Release Description BB, and Neutral Flow Conditions

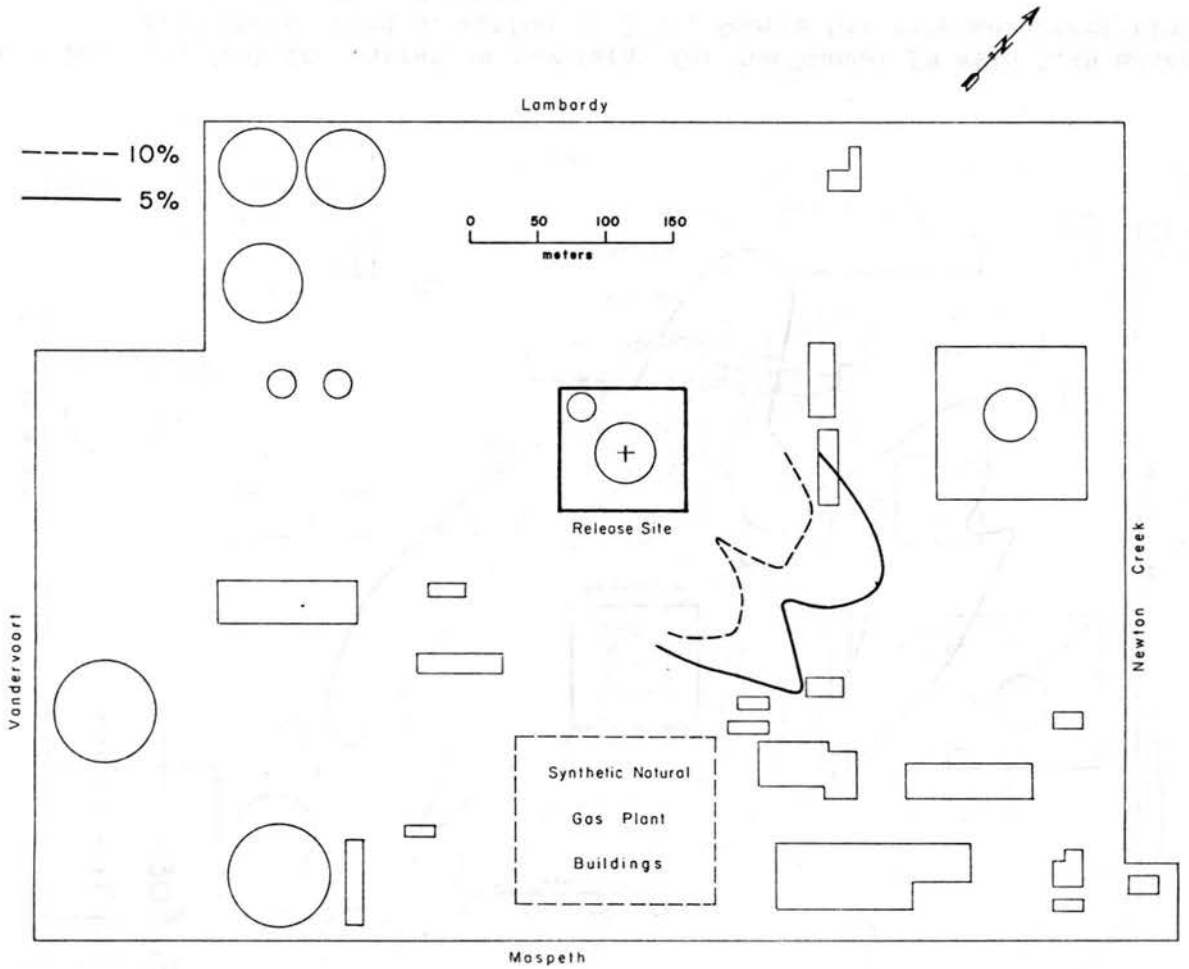


Figure 54. The Peak Concentration Isopleths for Run Number 62 With 8.93 m/sec Wind Speed, Wind Direction of 270°, Source Gas Release Description BB, and Neutral Flow Conditions

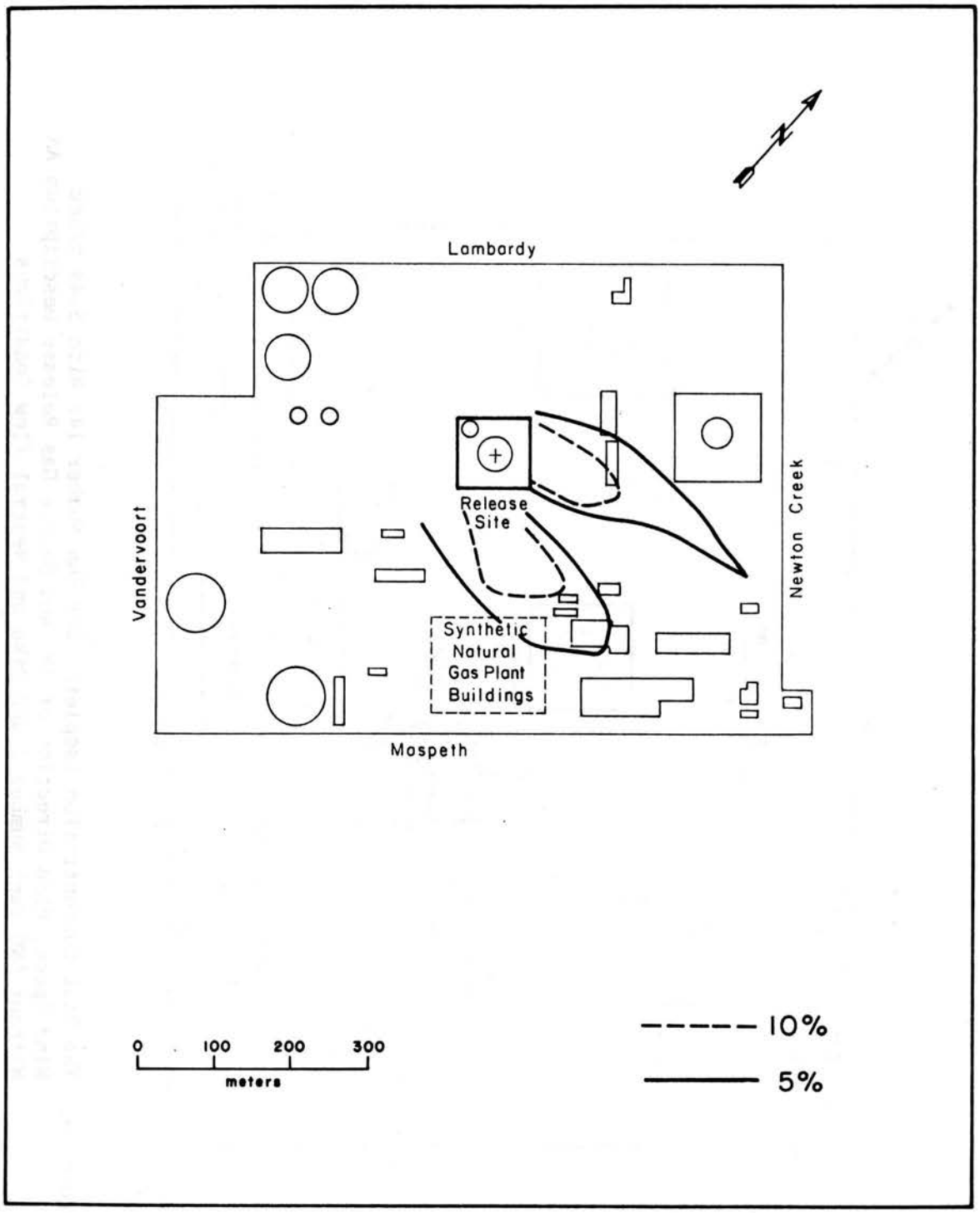


Figure 55. The Peak Concentration Isopleths for Run Number 57 With 2.23 m/sec Wind Speed, Wind Direction of 270°, Source Gas Release Description CC, and Neutral Flow Conditions

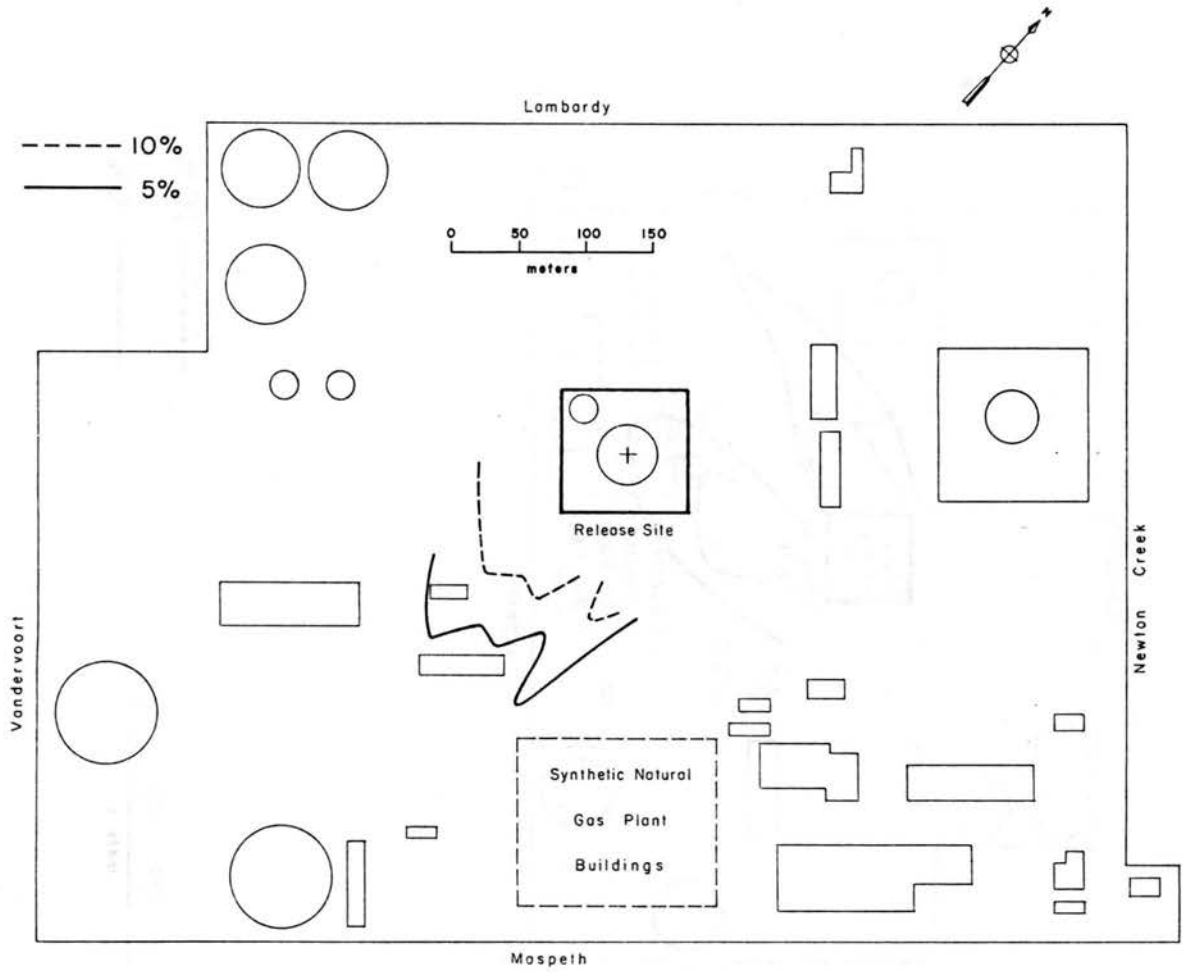


Figure 56. The Peak Concentration Isopleths for Run Number 145 With 5.49 m/sec Wind Speed, Wind Direction of 0°, and Source Gas Release Description AA Without LNG Tank Number 2 and Dike and Neutral Flow Conditions

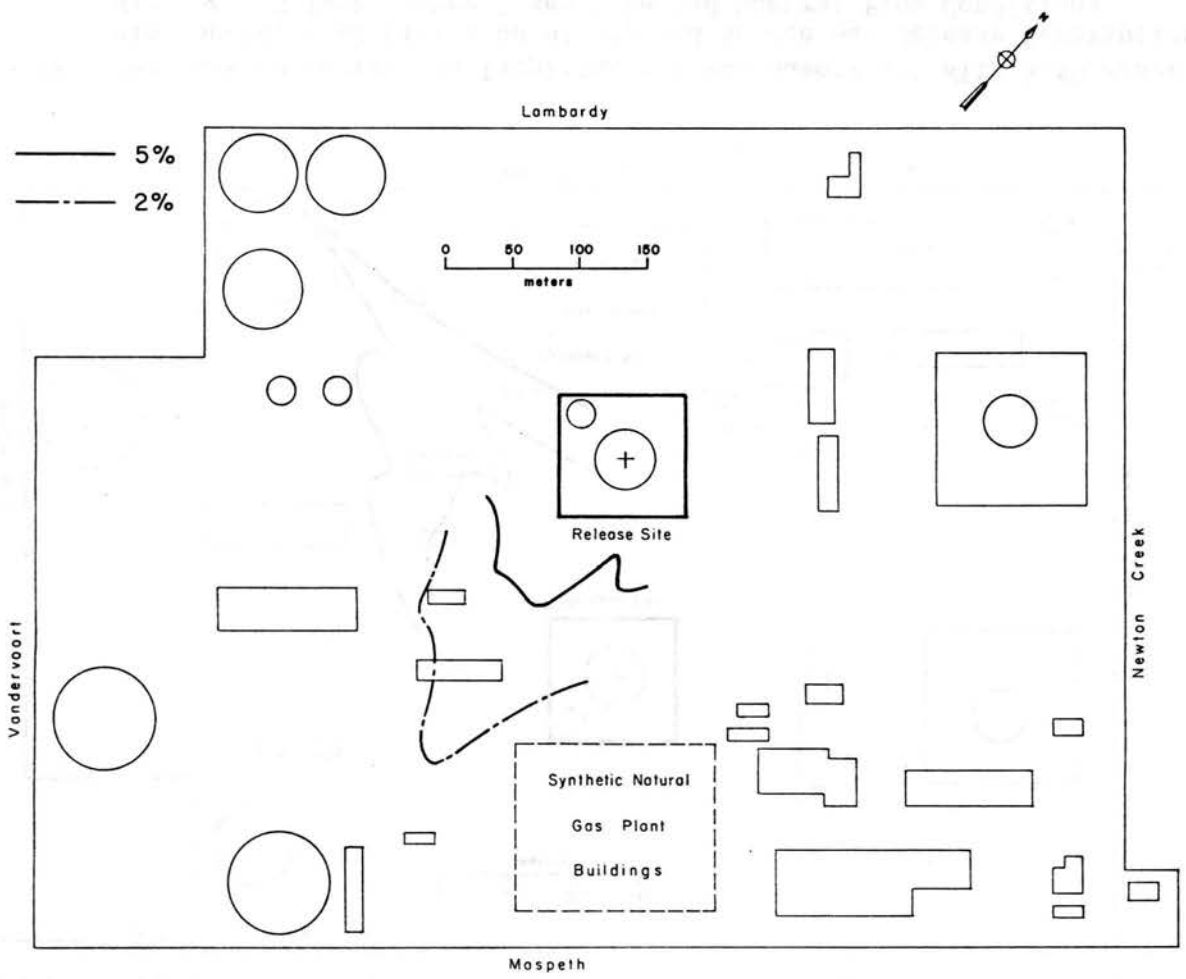


Figure 57. The Peak Concentration Isopleths for Run Number 148 With 8.93 m/sec Wind Speed, Wind Direction of 0°, and Source Gas Release Description AA Without LNG Tank Number 2 and Dike and Neutral Flow Conditions

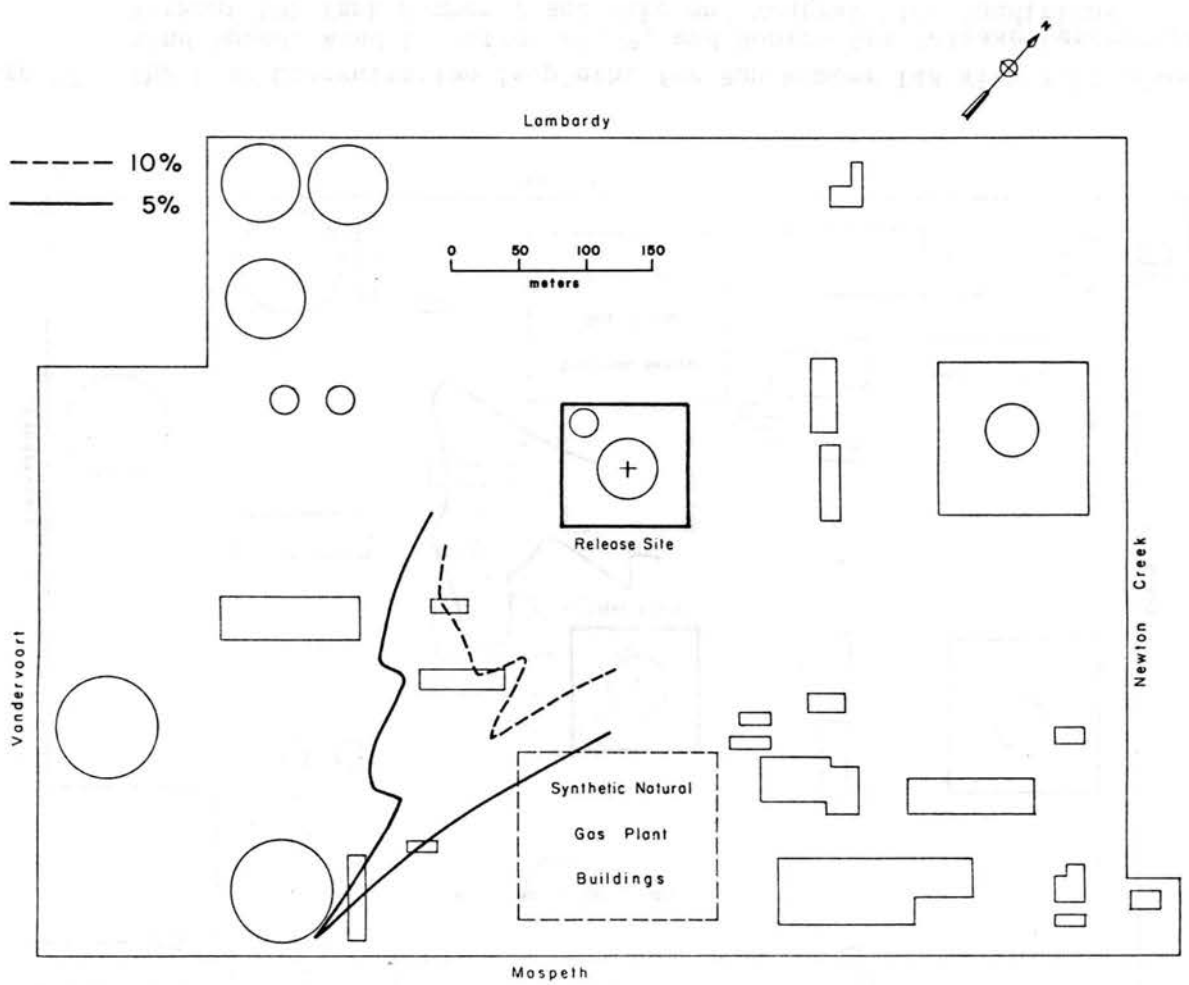


Figure 58. The Peak Concentration Isopleths for Run Number 146 With 5.49 m/sec Wind Speed, Wind Direction of 0°, and Source Gas Release Description BB Without LNG Tank Number 2 and Dike and Nuetral Flow Conditions

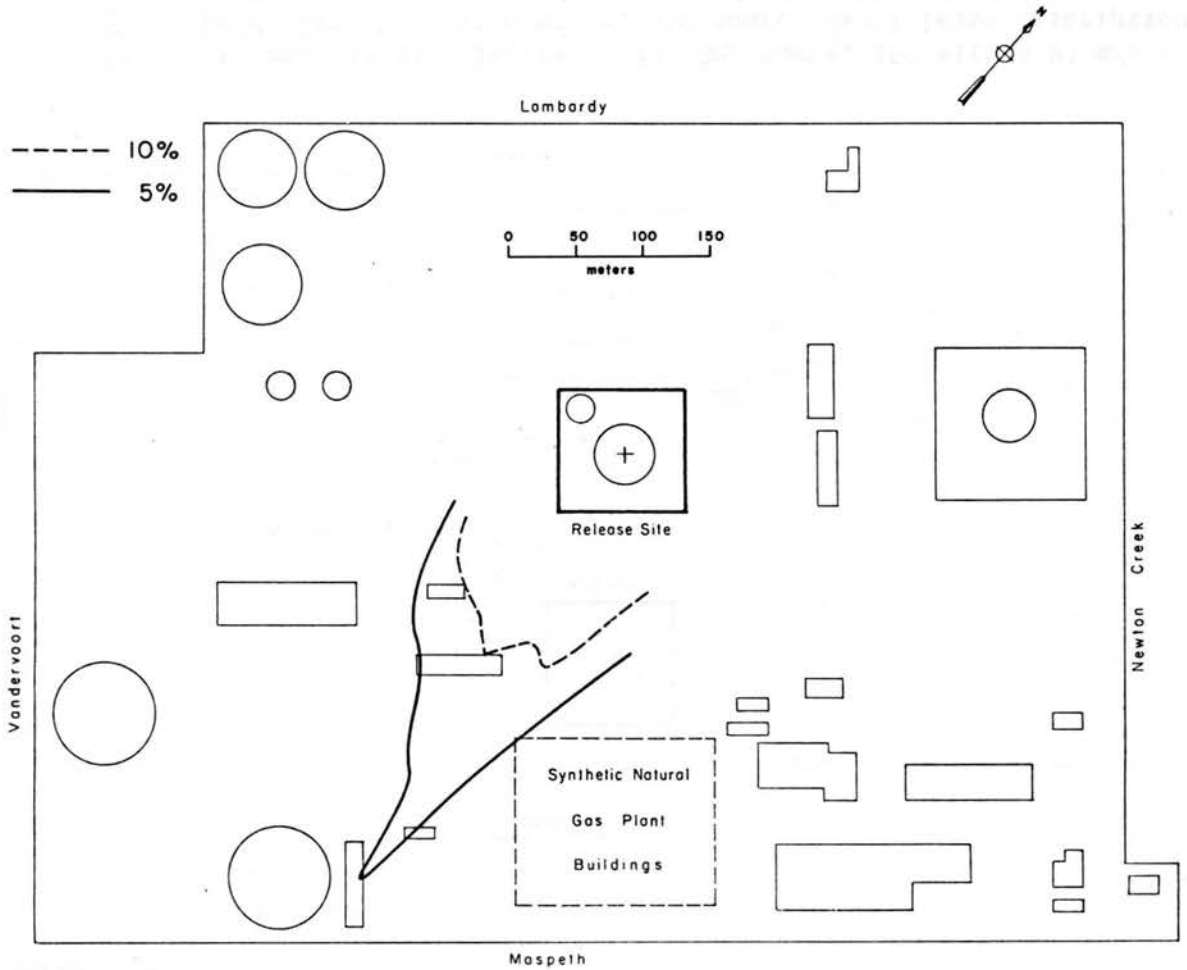


Figure 59. The Peak Concentration Isopleths for Run Number 149 With 8.93 m/sec Wind Speed, Wind Direction of 0°, and Source Gas Release Description BB Without LNG Tank Number 2 and Dike and Neutral Flow Conditions

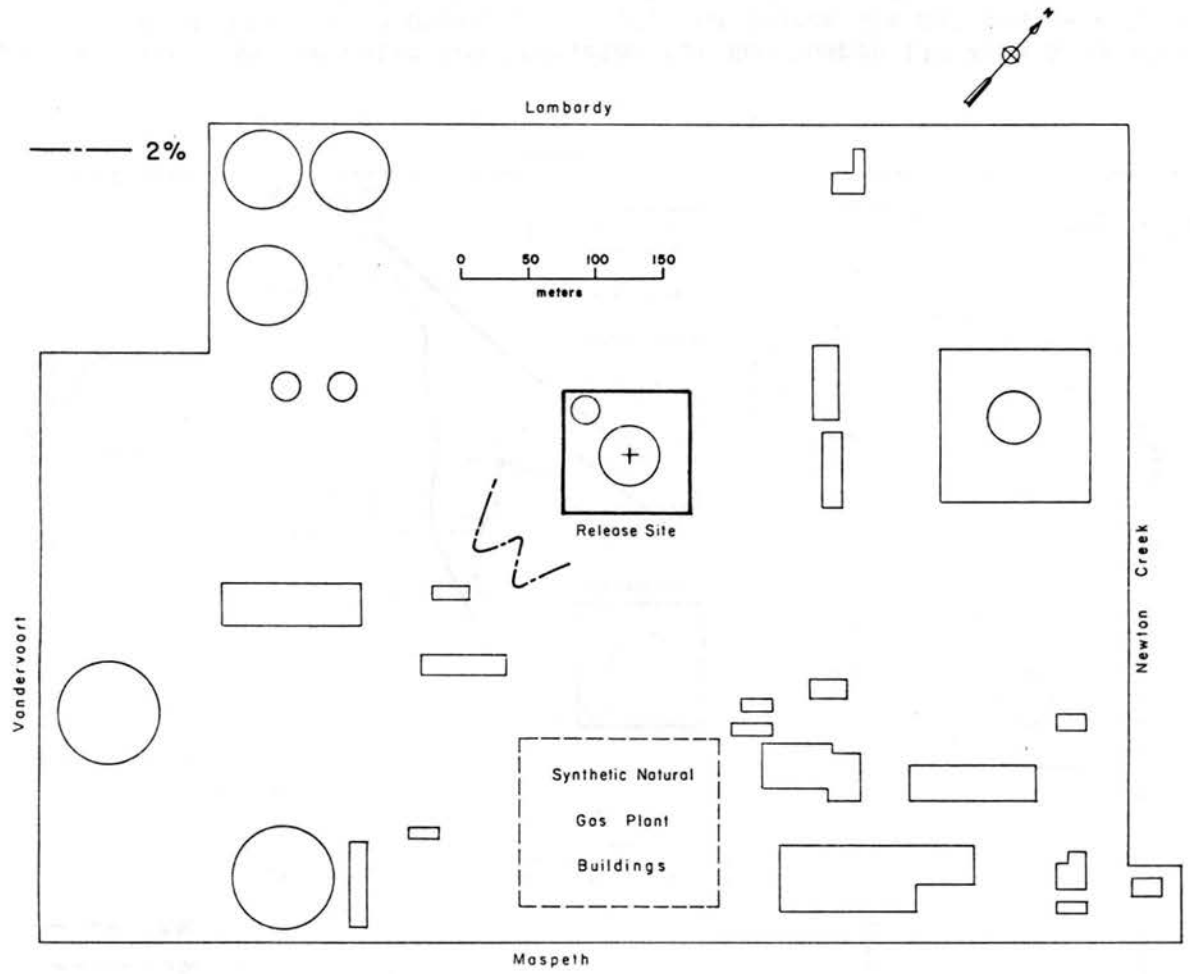


Figure 60. The Peak Concentration Isopleths for Run Number 150 With 8.93 m/sec Wind Speed, Wind Direction of 0°, and Source Gas Release Description CC Without LNG Tank Number 2 and Dike and Neutral Flow Conditions

APPENDIX A

THE CALCULATION OF MODEL SCALE FACTORS

APPENDIX A

THE CALCULATION OF MODEL SCALE FACTORS

As discussed previously in Section 2.3, the dominant scaling criteria for the simulation of LNG vapor cloud physics are the Froude number and volume flux ratios. By setting these parameters equal for model and prototype the following relationships for the BUGC model, length scale (L.S.) 1:400, and a model gas specific gravity, (S.G.) of 1.38 were derived:

$$U_m = \left(\frac{S.G._m - 1}{S.G._p - 1}\right)^{1/2} \left(\frac{1}{L.S.}\right)^{1/2} \qquad U_p = 0.042 \quad U_p,$$

$$Q_m = \left(\frac{S.G._m - 1}{S.G._p - 1}\right)^{1/2} \left(\frac{1}{L.S.}\right)^{2.5} \qquad Q_p = 2.598 \times 10^{-7} \; Q_p, \tag{A.1}$$

$$t_m = \left(\frac{S.G._p - 1}{S.G._m - 1}\right)^{1/2} \left(\frac{1}{L.S.}\right)^{1/2} \qquad t_p = 0.060 \; t_p,$$

$$L_m = \left(\frac{1}{L.S.}\right) L_p = 2.5 \times 10^{-3} \; L_p \; .$$

For lower wind speeds, i.e., 3 mph and 5 mph, the flux Froude number and momentum ratios were utilized. By setting these parameters equal for model and prototype the following relationships for BUGC model, length scale (L.S.) 1:400, and a model gas specific gravity (S.G.) of 4.18 were obtained:

$$U_m = \left(\frac{S.G._p}{S.G._m}\right)^{1/4} \left(\frac{S.G._m - 1}{S.G._p - 1}\right)^{1/2} \left(\frac{1}{L.S.}\right)^{1/2} U_p$$

$$= 0.094 \; U_p,$$

$$Q_m = \left(\frac{S.G._m - 1}{S.G._p - 1}\right)^{1/2} \left(\frac{S.G._p}{S.G._m}\right)^{3/4} \left(\frac{1}{L.S.}\right)^{2.5} Q_p \qquad \text{(A.2)}$$

$$= 3.57 \times 10^{-7} \; Q_p,$$

$$t_m = \left(\frac{S.G._m}{S.G._p}\right)^{1/4} \left(\frac{S.G._p - 1}{S.G._m - 1}\right)^{1/2} \left(\frac{1}{L.S.}\right)^{1/2} t_p$$

$$= 0.0266 \; t_p,$$

$$L_m = \frac{1}{L.S.} \cdot L_p = 2.5 \times 10^{-3} \; L_p$$

In addition to these scaling parameters governing the flow, the mole fraction measured in the model should be scaled to its prototype value. This scaling is required since the number of moles released in thermal plumes are different than the number of moles being released in an isothermal plume. The relationship is derived by Neff and Meroney (1979) and given by

$$\chi_p = \frac{\chi_m}{\chi_m + (1 - \chi_m)\left(\frac{T_p}{T_m}\right)_{boiloff}} \; . \qquad \text{(A.3)}$$

Prototype boiloff temperature is approximately 111°K and model release temperature is approximately 300°K, and hence,

$$\chi_p = \frac{\chi_m}{\chi_m + (1 - \chi_m)\ 0.37} \ . \qquad (A.4)$$

This equation was used to convert the modeled Argon run measurements to those that would be observed in the field.

For Freon runs not only the temperature but also volume flow rate of the plume is different as compared to the prototype releases. The following technique was developed to account for both of these corrections.

Assuming the adiabatic entrainment and

$$\left(\frac{V_1}{V_2}\right)_p \alpha \left(\frac{w}{U}\right)_p \quad \text{and} \left(\frac{V_1}{V_2}\right)_m \alpha \left(\frac{w}{U}\right)_m \ , \qquad (A.5)$$

where V_1 is the volume flow rate with vertical velocity w for the source gas

V_2 is the volume of air entrained with longitudinal velocity U.

Therefore dividing prototype and model relationship the following relationship is obtained:

$$\left(\frac{V_1}{V_2}\right)_p = \left(\frac{V_1}{V_2}\right)_m \left(\frac{w}{U}\right)_p \left(\frac{U}{w}\right)_m \qquad (A.6)$$

However, for flux Froude number and momentum scaling

$\left(\frac{w}{U}\right)_p\left(\frac{U}{w}\right)_m$ equals to $(S.G._p/S.G._m)^{-1/2}$ and hence,

$$\left(\frac{V_1}{V_2}\right)_p = \left(\frac{V_1}{V_2}\right)_m \left(\frac{S.G._p}{S.G._m}\right)^{-1/2} . \qquad (A.7)$$

For model and prototype case,

$$\chi_m = \frac{\left(\frac{V_1}{V_2}\right)_m}{\left(\frac{V_1}{V_2}\right)_m + 1} , \qquad (A.8)$$

$$\chi_p = \frac{\left(\frac{V_1}{V_2}\right)_p \left(\frac{T_2}{T_1}\right)_p}{\left(\frac{V_1}{V_2}\right)_p \left(\frac{T_2}{T_1}\right)_p + 1} , \qquad (A.9)$$

Where T_1 and T_2 are the source gas temperature and air temperature in absolute units respectively.

Substituting equations (A.7), (A.8) into equation (A.9), the following mole fractions relationship between model and prototype may be derived as:

$$\chi_p = \frac{\chi_m}{\chi_m + (1-\chi_m)\left(\frac{T_1}{T_2}\right)_p \left(\frac{S.G._p}{S.G._m}\right)^{1/2}} . \qquad (A.10)$$

The temperature T_1 and T_2 were assumed to be 111°K and 300°K respectively for prototype conditions. With the specific graviites of model and prototype source gases 4.18 and 1.55 respectively,

the equation (A.10) reduces to,

$$\chi_p = \frac{\chi_m}{\chi_m + (1 - \chi_m)0.225} , \qquad (A.11)$$

which used to convert the modeled Freon run measurements to those that would be observed in the field.

APPENDIX B

LNG SPILL CONCENTRATION DATA

FOR WIND SPEEDS OF 5.49 AND 8.93 m/sec (12.3 and 20 mph)

WITH ARGON AS A SOURCE GAS

MODEL CONDITIONS						PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A00400	3.4	126.3	142.3	147.7	.38	8.8	2140.	0.	2363.	0.	2442.	16.55
A00401	2.9	119.0	132.2	146.1	.44	7.4	2022.	0.	2196.	0.	2421.	19.37
A00402	2.0	121.6	132.1	145.2	.28	5.3	2194.	0.	2194.	0.	2217.	12.47
A00403	1.3	124.1	124.3	131.2	.14	3.4	0.	0.	2065.	0.	0.	6.24
A00404	1.3	136.3	136.4	136.6	.09	3.5	0.	0.	2266.	0.	0.	4.12
A00405	1.5	135.2	145.9	146.4	.14	4.0	0.	0.	2424.	0.	0.	6.25
A00406	2.1	120.3	136.1	147.1	.36	5.5	2257.	0.	2260.	0.	2366.	15.83
A00407	1.7	126.7	143.9	144.5	.31	4.5	0.	0.	2391.	0.	0.	13.66
B00400	1.1	142.3	142.3	142.3	.24	3.0	0.	0.	2363.	0.	0.	10.58
B00401	.6	0.0	135.9	0.0	.16	1.5	0.	0.	2257.	0.	0.	7.37
B00402	1.2	46.2	46.2	142.4	.27	3.1	0.	0.	768.	0.	0.	12.02
B00403	1.9	0	1	19.9	.32	5.0	0.	0.	1.	0.	0.	14.30
B00404	1.4	141.4	141.4	141.4	.29	3.7	0.	0.	2349.	0.	0.	12.84
B00405	.8	0.0	114.0	0.0	.07	2.2	0.	0.	1894.	0.	0.	3.33
B00406	1.2	142.4	142.4	142.4	.17	3.3	0.	0.	2365.	0.	0.	7.57
B00407	1.6	114.0	114.0	114.0	.39	4.3	0.	0.	1894.	0.	0.	17.41
C00400	.5	0.0	112.2	0.0	.06	1.5	0.	0.	1864.	0.	0.	2.78
C00401	.5	0.0	44.3	0.0	.04	1.3	0.	0.	735.	0.	0.	1.99
C00402	.8	0.0	45.5	0.0	.04	2.2	0.	0.	755.	0.	0.	1.91
C00403	.7	0.0	112.2	0.0	.03	1.9	0.	0.	1864.	0.	0.	1.31
C00404	.7	0.0	134.3	0.0	.05	1.8	0.	0.	2231.	0.	0.	2.24
C00405	1.3	140.6	140.6	141.7	.12	3.5	0.	0.	2336.	0.	0.	5.23
C00406	.7	0.0	147.1	0.0	.14	1.9	0.	0.	2443.	0.	0.	6.21
C00407	.9	0.0	112.3	0.0	.13	2.3	0.	0.	1865.	0.	0.	5.93

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A00500	7.5	6.0	7.5	47.5	.95	18.0	103.	117.	125.	207.	735.	40.20
A00501	6.8	7.2	11.6	51.3	.88	16.4	120.	191.	192.	194.	752.	38.06
A00502	7.5	4.2	6.3	50.7	.48	18.0	75.	103.	104.	105.	494.	20.95
A00503	2.4	8.2	29.7	51.6	.26	6.3	492.	0.	494.	0.	505.	11.50
A00504	4.7	5.6	6.2	23.8	.24	11.7	93.	0.	103.	0.	200.	10.43
A00505	2.5	5.8	13.7	28.5	.26	6.6	103.	0.	227.	0.	230.	11.39
A00506	5.8	5.2	9.2	45.5	.63	14.2	89.	0.	153.	0.	397.	27.23
A00507	5.5	5.7	7.9	26.4	.52	13.7	103.	0.	132.	0.	262.	22.31
B00500	.9	0.0	15.0	0.0	.15	2.5	0.	0.	249.	0.	0.	6.81
B00501	1.0	0.0	13.4	0.0	.14	2.5	0.	0.	222.	0.	0.	6.06
B00502	1.2	23.3	23.3	23.3	.17	3.2	0.	0.	387.	0.	0.	7.45
B00503	2.5	9.0	10.5	17.2	.26	6.4	174.	0.	174.	0.	252.	11.61
B00504	2.4	9.6	12.1	37.3	.25	6.3	190.	0.	201.	0.	252.	10.85
B00505	1.4	25.8	25.8	25.8	.18	3.7	0.	0.	429.	0.	0.	7.80
B00506	1.4	10.6	10.6	10.6	.15	3.7	0.	0.	176.	0.	0.	6.80
B00507	1.8	10.6	10.6	31.7	.24	4.6	0.	0.	176.	0.	0.	10.72
C00500	1.2	12.6	12.6	13.4	.04	3.1	0.	0.	209.	0.	0.	1.66
C00501	.9	0.0	12.0	0.0	.05	2.5	0.	0.	200.	0.	0.	2.14
C00502	1.0	17.8	17.8	19.2	.07	2.5	0.	0.	296.	0.	0.	2.91
C00503	1.3	10.7	13.1	13.6	.10	3.4	0.	0.	218.	0.	0.	4.25
C00504	1.5	9.6	11.8	14.0	.14	3.9	0.	0.	195.	0.	0.	6.10
C00505	1.7	10.7	12.5	18.7	.19	4.3	0.	0.	208.	0.	0.	8.59
C00506	1.6	10.6	11.0	16.5	.18	4.2	0.	0.	182.	0.	0.	7.78
C00507	1.4	11.0	12.3	20.4	.20	3.7	0.	0.	204.	0.	0.	8.83

	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A00600	.3	0.0	14.8	0.0	.03	.9	0.	0.	247.	0.	0.	1.36
A00601	.4	0.0	48.9	0.0	.04	1.1	0.	0.	812.	0.	0.	1.91
A00602	.4	0.0	31.4	0.0	.04	1.0	0.	0.	522.	0.	0.	1.74
A00603	.4	0.0	14.3	0.0	.03	1.0	0.	0.	238.	0.	0.	1.43
A00604	.2	0.0	16.7	0.0	.04	.5	0.	0.	278.	0.	0.	1.72
A00605	.3	0.0	1.1	0.0	.03	.8	0.	0.	19.	0.	0.	1.47
A00606	.6	0.0	14.3	0.0	.04	1.6	0.	0.	237.	0.	0.	1.74
A00607	.3	0.0	34.9	0.0	.03	.8	0.	0.	579.	0.	0.	1.29
B00600	.5	0.0	14.3	0.0	.02	1.3	0.	0.	237.	0.	0.	.96
B00601	.6	0.0	.0	0.0	.03	1.5	0.	0.	0.	0.	0.	1.51
B00602	.4	0.0	14.3	0.0	.06	1.0	0.	0.	238.	0.	0.	2.53
B00603	1.1	.1	.1	.2	.05	3.0	0.	0.	2.	0.	0.	2.17
B00604	.6	0.0	1.2	0.0	.04	1.5	0.	0.	19.	0.	0.	1.63
B00605	.9	0.0	18.9	0.0	.27	2.5	0.	0.	313.	0.	0.	12.19
B00606	.3	0.0	15.3	0.0	.01	.7	0.	0.	255.	0.	0.	.38
B00607	.8	0.0	2.1	0.0	.00	2.1	0.	0.	36.	0.	0.	.07
C00600	.6	0.0	14.2	0.0	.07	1.5	0.	0.	236.	0.	0.	3.10
C00601	.2	0.0	14.2	0.0	.02	.5	0.	0.	236.	0.	0.	.94
C00602	.4	0.0	14.2	0.0	.03	1.0	0.	0.	236.	0.	0.	1.35
C00603	.2	0.0	14.2	0.0	.02	.6	0.	0.	236.	0.	0.	.74
C00604	.4	0.0	15.2	0.0	.02	1.2	0.	0.	252.	0.	0.	.98
C00605	.5	0.0	15.1	0.0	.02	1.4	0.	0.	251.	0.	0.	.94
C00606	.7	0.0	2.0	0.0	.02	1.7	0.	0.	34.	0.	0.	1.00
C00607	.8	0.0	15.2	0.0	.03	2.1	0.	0.	252.	0.	0.	1.55

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A00700	.7	0.0	141.2	0.0	.07	1.8	0.	0.	2346.	0.	0.	2.97
A00701	.7	0.0	143.0	0.0	.06	1.9	0.	0.	2375.	0.	0.	2.60
A00702	.5	0.0	145.1	0.0	.10	1.4	0.	0.	2411.	0.	0.	4.41
A00703	.6	0.0	138.8	0.0	.11	1.6	0.	0.	2306.	0.	0.	4.99
A00704	.9	0.0	135.9	0.0	.18	2.3	0.	0.	2257.	0.	0.	8.19
A00705	.9	0.0	131.1	0.0	.19	2.3	0.	0.	2178.	0.	0.	8.60
A00706	.7	0.0	143.7	0.0	.13	1.8	0.	0.	2386.	0.	0.	5.68
A00707	.5	0.0	146.6	0.0	.05	1.4	0.	0.	2435.	0.	0.	2.44
B00700	.9	0.0	142.6	0.0	.09	2.5	0.	0.	2368.	0.	0.	3.99
B00701	.5	0.0	142.6	0.0	.09	1.4	0.	0.	2369.	0.	0.	4.01
B00702	.6	0.0	142.6	0.0	.04	1.7	0.	0.	2369.	0.	0.	1.64
B00703	.4	0.0	142.6	0.0	.03	1.1	0.	0.	2368.	0.	0.	1.53
B00704	.3	0.0	137.4	0.0	.05	.8	0.	0.	2283.	0.	0.	2.03
B00705	2.8	54.1	114.3	124.4	1.46	7.1	1428.	0.	1899.	0.	1991.	63.68
B00706	.4	0.0	46.4	0.0	.03	.9	0.	0.	771.	0.	0.	1.45
B00707	.3	0.0	142.6	0.0	.02	.8	0.	0.	2368.	0.	0.	.77
C00700	.2	0.0	139.2	0.0	.01	.5	0.	0.	2313.	0.	0.	.63
C00701	.3	0.0	142.1	0.0	.03	.7	0.	0.	2361.	0.	0.	1.31
C00702	.2	0.0	135.5	0.0	.04	.5	0.	0.	2251.	0.	0.	1.73
C00703	.3	0.0	142.1	0.0	.06	.8	0.	0.	2361.	0.	0.	2.51
C00704	.3	0.0	131.7	0.0	.10	.8	0.	0.	2187.	0.	0.	4.38
C00705	.5	0.0	36.4	0.0	.31	1.4	0.	0.	605.	0.	0.	13.77
C00706	.3	0.0	46.1	0.0	.07	.9	0.	0.	766.	0.	0.	3.36
C00707	.4	0.0	142.2	0.0	.13	1.1	0.	0.	2363.	0.	0.	5.69

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A00800 *												
A00801	3.0	3.3	4.7	12.1	.23	7.7	75.	0.	77.	0.	183.	10.12
A00802 *												
A00803	2.0	.1	.1	8.4	.17	5.3	1.	0.	1.	0.	2.	7.45
A00804	4.2	4.3	5.8	12.8	.22	10.6	77.	0.	96.	0.	103.	9.69
A00805	6.0	5.9	7.0	20.5	.27	14.6	99.	0.	117.	0.	238.	11.69
A00806	6.3	4.3	5.0	13.1	.23	15.4	73.	83.	83.	84.	214.	9.87
A00807	7.1	6.7	7.6	9.4	.12	17.1	113.	123.	126.	132.	140.	5.04
B00800	.9	0.0	7.5	0.0	.14	2.4	0.	0.	125.	0.	0.	6.32
B00801	1.0	13.1	13.1	13.3	.11	2.7	0.	0.	218.	0.	0.	4.94
B00802	1.0	0.0	13.5	0.0	.12	2.6	0.	0.	223.	0.	0.	5.50
B00803	2.6	6.9	8.6	10.6	.13	6.7	138.	0.	142.	0.	151.	5.94
B00804	2.2	8.0	8.9	9.9	.08	5.8	147.	0.	148.	0.	151.	3.71
B00805	.6	0.0	11.0	0.0	.05	1.7	0.	0.	183.	0.	0.	2.17
B00806	.6	0.0	9.8	0.0	.02	1.5	0.	0.	163.	0.	0.	1.01
B00807	.6	0.0	11.3	0.0	.04	1.7	0.	0.	187.	0.	0.	1.77
C00800	.9	0.0	9.0	0.0	.07	2.4	0.	0.	149.	0.	0.	3.19
C00801	.8	0.0	9.0	0.0	.05	2.1	0.	0.	150.	0.	0.	2.25
C00802	.8	0.0	15.5	0.0	.05	2.0	0.	0.	257.	0.	0.	2.28
C00803	1.9	8.3	9.0	10.0	.08	4.8	0.	0.	150.	0.	0.	3.56
C00804	1.0	0.0	7.7	0.0	.10	2.6	0.	0.	128.	0.	0.	4.35
C00805	1.8	8.7	9.0	12.0	.12	4.8	0.	0.	149.	0.	0.	5.55
C00806	1.6	6.6	10.0	10.0	.11	4.1	0.	0.	166.	0.	0.	5.02
C00807	1.8	8.8	9.0	9.0	.09	4.8	0.	0.	149.	0.	0.	4.20

*missing data

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A00900	.9	0.0	15.9	0.0	.09	2.4	0.	0.	264.	0.	0.	3.88
A00901	.4	0.0	16.1	0.0	.06	1.0	0.	0.	267.	0.	0.	2.73
A00902	.7	0.0	16.1	0.0	.07	1.8	0.	0.	267.	0.	0.	3.08
A00903	.6	0.0	38.3	0.0	.08	1.6	0.	0.	636.	0.	0.	3.56
A00904	.5	0.0	2.9	0.0	.04	1.5	0.	0.	48.	0.	0.	1.82
A00905	.7	0.0	2.9	0.0	.06	1.8	0.	0.	48.	0.	0.	2.83
A00906	.3	0.0	15.0	0.0	.04	.9	0.	0.	250.	0.	0.	1.66
A00907	.6	0.0	2.9	0.0	.07	1.6	0.	0.	48.	0.	0.	3.12
B00900	.2	0.0	13.9	0.0	.02	.6	0.	0.	231.	0.	0.	.71
B00901	.1	0.0	37.1	0.0	.01	.3	0.	0.	616.	0.	0.	.37
B00902	.2	0.0	56.2	0.0	.01	.5	0.	0.	933.	0.	0.	.45
B00903	.2	0.0	15.2	0.0	.00	.4	0.	0.	252.	0.	0.	.22
B00904	.4	0.0	1.0	0.0	.01	1.2	0.	0.	17.	0.	0.	.55
B00905	.6	0.0	1.1	0.0	.01	1.6	0.	0.	17.	0.	0.	.38
B00906	.3	0.0	15.1	0.0	.01	.7	0.	0.	250.	0.	0.	.38
B00907	.3	0.0	1.0	0.0	.01	.9	0.	0.	17.	0.	0.	.27
C00900	.8	0.0	14.0	0.0	.05	2.2	0.	0.	233.	0.	0.	2.04
C00901	.5	0.0	.9	0.0	.02	1.2	0.	0.	15.	0.	0.	.96
C00902	.7	0.0	.9	0.0	.04	2.0	0.	0.	15.	0.	0.	2.01
C00903	.4	0.0	14.1	0.0	.03	1.0	0.	0.	234.	0.	0.	1.55
C00904	.5	0.0	15.1	0.0	.03	1.3	0.	0.	250.	0.	0.	1.51
C00905	.5	0.0	15.1	0.0	.06	1.4	0.	0.	250.	0.	0.	2.52
C00906	.7	0.0	15.1	0.0	.05	2.0	0.	0.	250.	0.	0.	2.04
C00907	.4	0.0	14.0	0.0	.08	1.0	0.	0.	233.	0.	0.	3.49

MODEL CONDITIONS						PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A01300	4.7	45.2	143.5	148.8	.59	11.7	2060.	0.	2383.	0.	2401.	25.72
A01301	3.8	121.2	141.1	145.6	.58	9.7	2019.	0.	2343.	0.	2417.	25.49
A01302	1.3	128.9	129.2	130.0	.13	3.3	0.	0.	2146.	0.	0.	5.69
A01303	2.6	121.0	126.8	141.3	.16	6.8	2041.	0.	2106.	0.	2108.	7.00
A01304	1.2	148.3	148.4	148.5	.06	3.2	0.	0.	2465.	0.	0.	2.81
A01305	1.0	0.0	150.0	0.0	.09	2.6	0.	0.	2492.	0.	0.	4.17
A01306	3.5	123.9	133.9	148.3	.42	8.9	2167.	0.	2224.	0.	2300.	18.53
A01307	3.6	124.6	142.3	150.1	.56	9.3	2088.	0.	2363.	0.	2441.	24.44
B01300	1.1	141.8	141.8	141.8	.13	3.0	0.	0.	2356.	0.	0.	5.68
B01301	.7	0.0	138.3	0.0	.09	1.9	0.	0.	2297.	0.	0.	4.12
B01302	.5	0.0	156.3	0.0	.04	1.4	0.	0.	2596.	0.	0.	1.59
B01303	1.2	147.0	147.1	147.8	.16	3.1	0.	0.	2444.	0.	0.	6.98
B01304	1.0	147.1	147.1	147.1	.15	2.7	0.	0.	2444.	0.	0.	6.57
B01305	.7	0.0	148.4	0.0	.15	2.0	0.	0.	2466.	0.	0.	6.49
B01306	.7	0.0	147.2	0.0	.09	1.9	0.	0.	2445.	0.	0.	3.90
B01307	.7	0.0	150.7	0.0	.08	1.9	0.	0.	2504.	0.	0.	3.44
C01300	.8	0.0	143.6	0.0	.07	2.1	0.	0.	2386.	0.	0.	3.14
C01301	.4	0.0	143.6	0.0	.03	1.1	0.	0.	2386.	0.	0.	1.38
C01302	.6	0.0	116.3	0.0	.05	1.5	0.	0.	1931.	0.	0.	2.25
C01303	.6	0.0	149.9	0.0	.06	1.7	0.	0.	2490.	0.	0.	2.69
C01304	.5	0.0	149.4	0.0	.08	1.3	0.	0.	2482.	0.	0.	3.54
C01305	.5	0.0	152.3	0.0	.10	1.3	0.	0.	2530.	0.	0.	4.29
C01306	.6	0.0	150.4	0.0	.14	1.5	0.	0.	2499.	0.	0.	6.23
C01307	.6	0.0	146.3	0.0	.18	1.6	0.	0.	2429.	0.	0.	7.93

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A01400	9.0	5.5	8.2	50.1	.92	21.1	93.	121.	136.	157.	790.	39.23
A01401	8.5	4.5	6.5	46.7	.61	20.0	80.	101.	108.	120.	354.	26.21
A01402	4.3	12.1	13.5	22.6	.35	10.8	207.	0.	224.	0.	368.	15.39
A01403	6.3	4.2	6.9	15.0	.24	15.3	95.	114.	114.	115.	226.	10.65
A01404	3.9	6.2	7.6	20.8	.23	9.9	119.	0.	126.	0.	131.	10.05
A01405	3.6	10.0	22.1	28.5	.36	9.1	169.	0.	367.	0.	377.	15.72
A01406	6.3	6.4	7.5	48.3	.81	15.4	110.	125.	125.	126.	767.	34.93
A01407	6.6	8.5	14.0	39.0	.98	15.9	143.	228.	233.	246.	560.	41.32
B01400	1.0	18.3	18.3	18.4	.09	2.8	0.	0.	303.	0.	0.	3.96
B01401	1.0	0.0	15.4	0.0	.11	2.6	0.	0.	256.	0.	0.	4.82
B01402	.8	0.0	22.6	0.0	.10	2.1	0.	0.	376.	0.	0.	4.54
B01403	1.6	11.1	13.8	14.8	.20	4.2	0.	0.	229.	0.	0.	9.06
B01404	2.2	12.9	13.5	27.5	.22	5.8	222.	0.	224.	0.	228.	9.87
B01405	1.4	27.5	27.5	27.5	.21	3.7	0.	0.	457.	0.	0.	9.21
B01406	1.6	13.9	18.5	26.2	.25	4.1	0.	0.	307.	0.	0.	11.26
B01407	1.8	16.2	27.5	28.9	.19	4.8	0.	0.	457.	0.	0.	8.42
C01400	.8	0.0	16.7	0.0	.02	2.2	0.	0.	278.	0.	0.	1.07
C01401	1.7	11.3	13.9	17.6	.10	4.4	0.	0.	230.	0.	0.	4.56
C01402	.8	0.0	20.1	0.0	.07	2.3	0.	0.	334.	0.	0.	2.96
C01403	2.3	9.5	13.4	17.2	.19	5.9	181.	0.	222.	0.	269.	8.36
C01404	1.7	9.1	12.3	17.1	.15	4.5	0.	0.	204.	0.	0.	6.46
C01405	.9	0.0	12.3	0.0	.17	2.4	0.	0.	205.	0.	0.	7.61
C01406	.9	0.0	10.5	0.0	.16	2.5	0.	0.	174.	0.	0.	7.09
C01407	.5	0.0	13.7	0.0	.09	1.5	0.	0.	228.	0.	0.	4.20

MODEL CONDITIONS						PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A01500	.4	0.0	25.7	0.0	.02	1.1	0.	0.	427.	0.	0.	1.01
A01501	.2	0.0	25.4	0.0	.01	.4	0.	0.	423.	0.	0.	.61
A01502	.2	0.0	.7	0.0	.01	.4	0.	0.	12.	0.	0.	.33
A01503	.2	0.0	43.6	0.0	.02	.7	0.	0.	725.	0.	0.	1.04
A01504	.3	0.0	35.1	0.0	.05	.8	0.	0.	584.	0.	0.	2.08
A01505	.3	0.0	20.3	0.0	.05	.8	0.	0.	337.	0.	0.	2.06
A01506	.2	0.0	18.9	0.0	.05	.6	0.	0.	315.	0.	0.	2.32
A01507	.2	0.0	33.5	0.0	.04	.6	0.	0.	556.	0.	0.	1.59
B01500	.4	0.0	15.9	0.0	.03	1.0	0.	0.	264.	0.	0.	1.35
B01501	.3	0.0	15.9	0.0	.02	.8	0.	0.	264.	0.	0.	.77
B01502	.4	0.0	15.9	0.0	.02	1.1	0.	0.	265.	0.	0.	1.00
B01503	.3	0.0	15.9	0.0	.02	.8	0.	0.	264.	0.	0.	.90
B01504	.2	0.0	5.7	0.0	.02	.5	0.	0.	94.	0.	0.	.85
B01505	.2	0.0	2.7	0.0	.02	.5	0.	0.	45.	0.	0.	.89
B01506	.5	0.0	15.9	0.0	.02	1.2	0.	0.	264.	0.	0.	.75
B01507	.6	0.0	2.7	0.0	.01	1.5	0.	0.	45.	0.	0.	.30
C01500	.4	0.0	3.7	0.0	.05	1.0	0.	0.	62.	0.	0.	2.12
C01501	.1	0.0	2.9	0.0	.01	.3	0.	0.	48.	0.	0.	.62
C01502	.3	0.0	7.3	0.0	.02	.7	0.	0.	122.	0.	0.	.98
C01503	.1	0.0	2.5	0.0	.01	.4	0.	0.	42.	0.	0.	.34
C01504	.2	0.0	.1	0.0	.01	.5	0.	0.	2.	0.	0.	.47
C01505	.1	0.0	61.5	0.0	.00	.3	0.	0.	1022.	0.	0.	.19
C01506	.1	0.0	65.2	0.0	.01	.3	0.	0.	1084.	0.	0.	.37
C01507	.1	0.0	14.7	0.0	.00	.3	0.	0.	245.	0.	0.	.17

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A01600	.7	0.0	136.3	0.0	.13	1.8	0.	0.	2265.	0.	0.	5.93
A01601	.6	0.0	135.7	0.0	.12	1.7	0.	0.	2254.	0.	0.	5.16
A01602	.5	0.0	145.3	0.0	.11	1.2	0.	0.	2413.	0.	0.	4.78
A01603	.9	0.0	137.2	0.0	.15	2.5	0.	0.	2279.	0.	0.	6.84
A01604	1.3	137.8	139.5	139.5	.20	3.5	0.	0.	2317.	0.	0.	8.93
A01605	1.1	140.0	140.0	146.3	.18	2.9	0.	0.	2326.	0.	0.	8.06
A01606	.6	0.0	141.3	0.0	.09	1.6	0.	0.	2347.	0.	0.	4.06
A01607	.7	0.0	111.7	0.0	.07	1.9	0.	0.	1855.	0.	0.	3.18
B01600	.5	0.0	141.9	0.0	.11	1.4	0.	0.	2357.	0.	0.	4.87
B01601	.4	0.0	133.8	0.0	.07	1.0	0.	0.	2222.	0.	0.	3.03
B01602	.5	0.0	141.7	0.0	.08	1.4	0.	0.	2353.	0.	0.	3.50
B01603	.3	0.0	132.5	0.0	.05	.8	0.	0.	2201.	0.	0.	2.18
B01604	.2	0.0	111.2	0.0	.04	.6	0.	0.	1847.	0.	0.	1.95
B01605	.2	0.0	93.3	0.0	.08	.6	0.	0.	1549.	0.	0.	3.46
B01606	.2	0.0	92.3	0.0	.04	.4	0.	0.	1533.	0.	0.	1.96
B01607	.4	0.0	112.4	0.0	.06	1.0	0.	0.	1867.	0.	0.	2.51
C01600	.4	0.0	70.0	0.0	.14	1.2	0.	0.	1163.	0.	0.	6.36
C01601	.5	0.0	45.9	0.0	.07	1.3	0.	0.	762.	0.	0.	3.03
C01602	.8	0.0	45.9	0.0	.12	2.0	0.	0.	762.	0.	0.	5.40
C01603	.6	0.0	45.9	0.0	.09	1.7	0.	0.	762.	0.	0.	3.99
C01604	.4	0.0	112.6	0.0	.09	1.0	0.	0.	1871.	0.	0.	4.14
C01605	.5	0.0	112.7	0.0	.07	1.3	0.	0.	1871.	0.	0.	3.35
C01606	.3	0.0	143.9	0.0	.07	.7	0.	0.	2391.	0.	0.	3.16
C01607	.8	0.0	141.0	0.0	.11	2.1	0.	0.	2341.	0.	0.	5.11

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A01700	3.2	4.3	8.6	24.3	.27	8.3	79.	0.	142.	0.	144.	11.73
A01701	4.6	3.3	5.1	28.2	.39	11.5	59.	0.	85.	0.	324.	17.27
A01702	3.7	2.8	7.0	27.3	.27	9.4	78.	0.	117.	0.	155.	12.08
A01703	4.9	4.1	5.5	30.2	.34	12.2	69.	0.	92.	0.	192.	15.06
A01704	7.6	3.5	4.7	30.4	.34	18.3	65.	74.	78.	80.	205.	14.98
A01705	3.8	3.7	4.9	11.6	.20	9.7	76.	0.	81.	0.	120.	8.80
A01706	4.5	3.6	6.1	11.3	.26	11.4	65.	0.	101.	0.	147.	11.16
A01707	3.3	4.2	7.6	8.4	.08	8.5	72.	0.	126.	0.	135.	3.51
B01700	1.5	10.1	10.2	10.4	.10	4.0	0.	0.	169.	0.	0.	4.57
B01701	1.4	7.8	10.1	10.7	.12	3.7	0.	0.	168.	0.	0.	5.40
B01702	.7	0.0	15.9	0.0	.07	1.9	0.	0.	263.	0.	0.	3.34
B01703	1.5	6.9	7.1	8.0	.06	4.0	0.	0.	118.	0.	0.	2.45
B01704	.7	0.0	7.7	0.0	.03	2.0	0.	0.	128.	0.	0.	1.50
B01705	.5	0.0	9.9	0.0	.02	1.5	0.	0.	164.	0.	0.	.88
B01706	.3	0.0	24.9	0.0	.02	.7	0.	0.	414.	0.	0.	.76
B01707	.5	0.0	9.8	0.0	.02	1.4	0.	0.	163.	0.	0.	.68
C01700	.7	0.0	2.9	0.0	.01	1.7	0.	0.	48.	0.	0.	.46
C01701	.9	0.0	8.4	0.0	.02	2.3	0.	0.	140.	0.	0.	.98
C01702	.7	0.0	3.1	0.0	.03	1.9	0.	0.	51.	0.	0.	1.48
C01703	1.8	7.1	8.1	9.0	.11	4.7	0.	0.	134.	0.	0.	4.78
C01704	1.2	8.0	8.0	8.7	.14	3.1	0.	0.	133.	0.	0.	6.38
C01705	.7	0.0	9.9	0.0	.13	1.9	0.	0.	164.	0.	0.	5.84
C01706	.6	0.0	6.8	0.0	.12	1.5	0.	0.	112.	0.	0.	5.54
C01707	.7	0.0	15.3	0.0	.13	1.8	0.	0.	255.	0.	0.	5.96

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A01800	1.0	0.0	15.8	0.0	.05	2.6	0.	0.	262.	0.	0.	2.34
A01801	.5	0.0	15.8	0.0	.05	1.3	0.	0.	262.	0.	0.	2.31
A01802	.6	0.0	14.8	0.0	.07	1.7	0.	0.	246.	0.	0.	2.98
A01803	.7	0.0	14.7	0.0	.07	1.9	0.	0.	244.	0.	0.	3.28
A01804	.4	0.0	2.6	0.0	.07	1.1	0.	0.	44.	0.	0.	3.16
A01805	.5	0.0	2.6	0.0	.05	1.4	0.	0.	44.	0.	0.	2.42
A01806	.2	0.0	.0	0.0	.02	.4	0.	0.	0.	0.	0.	.86
A01807	.4	0.0	14.8	0.0	.04	1.1	0.	0.	245.	0.	0.	1.62
B01800	.3	0.0	15.9	0.0	.02	.8	0.	0.	263.	0.	0.	1.12
B01801	.4	0.0	2.1	0.0	.01	1.1	0.	0.	34.	0.	0.	.42
B01802	.1	0.0	57.0	0.0	.02	.3	0.	0.	947.	0.	0.	.87
B01803	.4	0.0	.0	0.0	.01	1.1	0.	0.	0.	0.	0.	.37
B01804	.2	0.0	2.1	0.0	.02	.6	0.	0.	34.	0.	0.	.70
B01805	.3	0.0	2.1	0.0	.01	.9	0.	0.	35.	0.	0.	.61
B01806	.2	0.0	.0	0.0	.01	.6	0.	0.	0.	0.	0.	.41
B01807	.1	0.0	2.1	0.0	.00	.3	0.	0.	34.	0.	0.	.17
C01800	.2	0.0	9.4	0.0	.02	.5	0.	0.	156.	0.	0.	.79
C01801	.1	0.0	50.2	0.0	.01	.3	0.	0.	834.	0.	0.	.65
C01802	.7	0.0	.9	0.0	.01	1.9	0.	0.	15.	0.	0.	.59
C01803	.1	0.0	2.0	0.0	.01	.2	0.	0.	33.	0.	0.	.38
C01804	.3	0.0	1.0	0.0	.01	.8	0.	0.	16.	0.	0.	.50
C01805	.2	0.0	1.0	0.0	.01	.6	0.	0.	16.	0.	0.	.31
C01806	.5	0.0	1.9	0.0	.02	1.3	0.	0.	32.	0.	0.	.79
C01807	.4	0.0	1.0	0.0	.01	1.2	0.	0.	16.	0.	0.	.34

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	PROTOTYPE CONDITIONS 5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A02200	3.2	125.6	136.4	147.2	.50	8.2	2186.	0.	2266.	0.	2359.	22.06
A02201	3.2	121.6	143.8	146.9	.47	8.2	2146.	0.	2388.	0.	2394.	20.81
A02202	2.3	140.6	142.0	155.2	.19	6.0	2360.	0.	2360.	0.	2360.	8.48
A02203	1.3	128.1	128.2	134.8	.22	3.4	0.	0.	2129.	0.	0.	9.70
A02204	.9	0.0	136.2	0.0	.16	2.5	0.	0.	2262.	0.	0.	7.06
A02205	1.1	126.9	137.3	137.7	.16	2.9	0.	0.	2281.	0.	0.	7.09
A02206	2.3	125.1	135.1	146.1	.25	6.0	2241.	0.	2244.	0.	2246.	11.03
A02207	1.4	135.4	137.7	141.1	.21	3.6	0.	0.	2287.	0.	0.	9.16
B02200	.3	0.0	146.8	0.0	.01	.8	0.	0.	2439.	0.	0.	.62
B02201	.4	0.0	131.1	0.0	.03	1.0	0.	0.	2177.	0.	0.	1.49
B02202	.3	0.0	150.6	0.0	.01	.7	0.	0.	2502.	0.	0.	.52
B02203	.5	0.0	139.6	0.0	.06	1.5	0.	0.	2319.	0.	0.	2.79
B02204	.7	0.0	140.5	0.0	.12	1.8	0.	0.	2333.	0.	0.	5.33
B02205	.6	0.0	140.5	0.0	.09	1.7	0.	0.	2333.	0.	0.	4.19
B02206	.8	0.0	136.3	0.0	.12	2.2	0.	0.	2264.	0.	0.	5.43
B02207	.5	0.0	139.2	0.0	.05	1.4	0.	0.	2312.	0.	0.	2.36
C02200	.3	0.0	49.2	0.0	.05	.7	0.	0.	818.	0.	0.	2.08
C02201	.3	0.0	46.2	0.0	.02	.7	0.	0.	768.	0.	0.	1.06
C02202	.2	0.0	51.0	0.0	.03	.5	0.	0.	848.	0.	0.	1.31
C02203	.4	0.0	46.3	0.0	.02	1.2	0.	0.	770.	0.	0.	1.02
C02204	1.1	142.5	142.5	142.5	.06	2.9	0.	0.	2367.	0.	0.	2.71
C02205	.7	0.0	143.8	0.0	.04	1.7	0.	0.	2389.	0.	0.	1.80
C02206	.8	0.0	136.1	0.0	.11	2.0	0.	0.	2260.	0.	0.	4.91
C02207	1.0	0.0	142.5	0.0	.09	2.6	0.	0.	2367.	0.	0.	3.90

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A02300	7.4	4.4	9.1	32.8	.84	17.7	83.	129.	152.	169.	468.	35.59
A02301	6.5	3.3	10.4	33.6	.61	15.8	79.	160.	173.	177.	459.	26.01
A02302	3.3	18.8	20.9	24.7	.30	8.3	323.	0.	347.	0.	392.	13.07
A02303	7.8	7.5	11.3	12.3	.25	18.7	126.	185.	188.	191.	204.	11.01
A02304	2.6	5.2	7.0	21.2	.14	6.6	115.	0.	117.	0.	120.	6.24
A02305	5.8	7.3	16.8	20.6	.21	14.2	132.	0.	279.	0.	290.	9.24
A02306	6.9	4.4	7.7	33.7	.56	16.7	78.	93.	128.	132.	241.	24.11
A02307	8.5	7.8	10.2	25.4	.64	20.0	131.	142.	170.	225.	349.	26.86
B02300	1.0	3.7	3.7	3.7	.14	2.7	0.	0.	61.	0.	0.	6.23
B02301	.7	0.0	15.4	0.0	.14	1.9	0.	0.	256.	0.	0.	6.10
B02302	.9	0.0	25.6	0.0	.13	2.4	0.	0.	425.	0.	0.	5.94
B02303	1.3	12.5	12.7	17.1	.21	3.4	0.	0.	210.	0.	0.	9.14
B02304	2.1	10.9	12.0	25.0	.22	5.4	200.	0.	200.	0.	200.	9.80
B02305	1.2	13.0	13.0	13.2	.10	3.2	0.	0.	217.	0.	0.	4.59
B02306	2.1	8.4	11.2	18.1	.13	5.5	186.	0.	186.	0.	187.	5.73
B02307	1.7	12.8	14.8	15.3	.10	4.5	0.	0.	246.	0.	0.	4.25
C02300	1.8	12.9	13.4	14.9	.08	4.8	0.	0.	223.	0.	0.	3.48
C02301	1.9	11.5	12.9	14.7	.07	4.9	0.	0.	214.	0.	0.	3.29
C02302	1.3	22.5	24.4	26.1	.11	3.4	0.	0.	406.	0.	0.	4.76
C02303	2.4	9.1	13.3	15.3	.20	6.4	163.	0.	220.	0.	230.	8.63
C02304	2.2	8.3	12.5	15.8	.23	5.7	164.	0.	207.	0.	241.	9.97
C02305	2.0	11.1	11.8	14.7	.13	5.3	197.	0.	197.	0.	201.	5.90
C02306	2.0	9.2	9.2	13.8	.16	5.3	153.	0.	153.	0.	153.	7.31
C02307	1.3	16.0	16.1	16.4	.11	3.4	0.	0.	268.	0.	0.	4.88

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A02400	.5	0.0	27.0	0.0	.04	1.2	0.	0.	448.	0.	0.	1.82
A02401	.3	0.0	15.9	0.0	.04	.8	0.	0.	263.	0.	0.	1.80
A02402	.3	0.0	29.6	0.0	.05	.9	0.	0.	492.	0.	0.	2.32
A02403	.3	0.0	21.7	0.0	.04	.9	0.	0.	361.	0.	0.	1.94
A02404	.5	0.0	21.9	0.0	.04	1.3	0.	0.	363.	0.	0.	1.86
A02405	.4	0.0	21.3	0.0	.05	1.0	0.	0.	355.	0.	0.	2.36
A02406	.4	0.0	24.3	0.0	.08	1.1	0.	0.	403.	0.	0.	3.62
A02407	.3	0.0	10.1	0.0	.07	.9	0.	0.	168.	0.	0.	3.18
B02400	.2	0.0	.2	0.0	.02	.6	0.	0.	3.	0.	0.	1.01
B02401	.2	0.0	.2	0.0	.03	.4	0.	0.	33.	0.	0.	1.16
B02402	.2	0.0	.2	0.0	.02	.5	0.	0.	3.	0.	0.	.80
B02403	.6	0.0	1.2	0.0	.01	1.5	0.	0.	20.	0.	0.	.32
B02404	.4	0.0	1.2	0.0	.01	1.1	0.	0.	20.	0.	0.	.65
B02405	.3	0.0	44.8	0.0	.04	.8	0.	0.	744.	0.	0.	1.81
B02406	.2	0.0	27.5	0.0	.01	.6	0.	0.	457.	0.	0.	.34
B02407	.3	0.0	1.2	0.0	.00	.9	0.	0.	20.	0.	0.	.10
C02400	.8	0.0	16.5	0.0	.02	2.1	0.	0.	275.	0.	0.	.87
C02401	.5	0.0	16.5	0.0	.00	1.3	0.	0.	275.	0.	0.	.21
C02402	.6	0.0	16.5	0.0	.01	1.7	0.	0.	275.	0.	0.	.54
C02403	.3	0.0	13.9	0.0	.00	.7	0.	0.	231.	0.	0.	.20
C02404	.2	0.0	3.0	0.0	.01	.5	0.	0.	50.	0.	0.	.41
C02405	.2	0.0	16.5	0.0	.00	.5	0.	0.	275.	0.	0.	.16
C02406	.4	0.0	16.5	0.0	.01	1.0	0.	0.	275.	0.	0.	.31
C02407	.3	0.0	4.3	0.0	.00	.9	0.	0.	72.	0.	0.	.16

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A02500	.6	0.0	120.2	0.0	.05	1.6	0.	0.	1997.	0.	0.	2.44
A02501	.8	0.0	124.0	0.0	.13	2.2	0.	0.	2060.	0.	0.	5.71
A02502	.4	0.0	137.5	0.0	.06	1.2	0.	0.	2283.	0.	0.	2.83
A02503	.6	0.0	127.1	0.0	.10	1.5	0.	0.	2112.	0.	0.	4.46
A02504	.7	0.0	8.6	0.0	.08	1.8	0.	0.	142.	0.	0.	3.59
A02505	1.3	36.9	36.9	64.8	.58	3.4	0.	0.	613.	0.	0.	25.62
A02506	.8	0.0	127.1	0.0	.13	2.1	0.	0.	2112.	0.	0.	6.03
A02507	.5	0.0	129.7	0.0	.06	1.2	0.	0.	2155.	0.	0.	2.57
B02500	.5	0.0	30.0	0.0	.08	1.2	0.	0.	499.	0.	0.	3.59
B02501	.3	0.0	134.8	0.0	.05	.7	0.	0.	2240.	0.	0.	2.19
B02502	.2	0.0	30.0	0.0	.01	.5	0.	0.	499.	0.	0.	.53
B02503	.5	0.0	55.4	0.0	.05	1.3	0.	0.	920.	0.	0.	2.10
B02504	.5	0.0	122.2	0.0	.03	1.5	0.	0.	2030.	0.	0.	1.23
B02505	.6	0.0	122.2	0.0	.04	1.5	0.	0.	2031.	0.	0.	1.98
B02506	.2	0.0	132.0	0.0	.03	.5	0.	0.	2193.	0.	0.	1.36
B02507	.5	0.0	122.2	0.0	.01	1.3	0.	0.	2030.	0.	0.	.46
C02500	.4	0.0	96.1	0.0	.10	1.0	0.	0.	1596.	0.	0.	4.41
C02501	.2	0.0	108.1	0.0	.03	.5	0.	0.	1795.	0.	0.	1.55
C02502	.3	0.0	115.6	0.0	.08	.7	0.	0.	1920.	0.	0.	3.60
C02503	.2	0.0	118.8	0.0	.04	.5	0.	0.	1973.	0.	0.	1.85
C02504	.4	0.0	113.4	0.0	.05	1.2	0.	0.	1884.	0.	0.	2.44
C02505*												
C02506	.3	0.0	48.9	0.0	.04	.7	0.	0.	813.	0.	0.	1.94
C02507	.5	0.0	147.1	0.0	.09	1.4	0.	0.	2444.	0.	0.	3.85

* missing data

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A02600	5.0	13.7	14.6	22.3	.22	12.4	230.	0.	243.	0.	258.	9.52
A02601	4.9	13.2	14.3	25.0	.23	12.1	231.	0.	237.	0.	292.	10.22
A02602	.8	0.0	28.4	0.0	.15	2.1	0.	0.	471.	0.	0.	6.89
A02603	1.6	17.9	18.2	24.7	.17	4.1	0.	0.	303.	0.	0.	7.71
A02604	1.2	18.9	18.9	18.9	.17	3.1	0.	0.	314.	0.	0.	7.52
A02605	1.4	17.6	23.0	23.4	.22	3.6	0.	0.	382.	0.	0.	9.69
A02606	4.1	13.6	15.1	26.2	.28	10.4	231.	0.	250.	0.	384.	12.50
A02607	5.6	16.3	17.8	25.0	.23	13.8	274.	0.	296.	0.	305.	10.19
B02600	1.6	11.4	12.4	12.4	.12	4.2	0.	0.	206.	0.	0.	5.25
B02601	.7	0.0	11.4	0.0	.10	1.8	0.	0.	189.	0.	0.	4.51
B02602	.7	0.0	44.4	0.0	.10	1.8	0.	0.	738.	0.	0.	4.60
B02603	.8	0.0	10.6	0.0	.15	2.0	0.	0.	176.	0.	0.	6.49
B02604	.8	0.0	11.4	0.0	.13	2.2	0.	0.	189.	0.	0.	5.89
B02605	1.0	0.0	11.4	0.0	.10	2.6	0.	0.	189.	0.	0.	4.61
B02606	1.1	9.0	9.0	9.1	.08	2.9	0.	0.	149.	0.	0.	3.65
B02607	1.2	11.4	11.4	11.4	.07	3.1	0.	0.	189.	0.	0.	3.06
C02600	.9	0.0	26.2	0.0	.04	2.4	0.	0.	434.	0.	0.	1.58
C02601	.4	0.0	26.2	0.0	.02	1.0	0.	0.	435.	0.	0.	.79
C02602	.7	0.0	.8	0.0	.03	2.0	0.	0.	13.	0.	0.	1.41
C02603	.7	0.0	9.0	0.0	.04	1.8	0.	0.	149.	0.	0.	1.68
C02604	1.6	6.6	7.2	8.4	.07	4.1	0.	0.	120.	0.	0.	3.29
C02605	2.3	9.9	10.9	11.4	.09	5.9	175.	0.	181.	0.	181.	3.99
C02606	1.0	0.0	7.4	0.0	.11	2.6	0.	0.	123.	0.	0.	5.09
C02607	.9	0.0	9.9	0.0	.14	2.4	0.	0.	164.	0.	0.	6.35

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A02700	.3	0.0	63.4	0.0	.03	.7	0.	0.	1052.	0.	0.	1.36
A02701	.2	0.0	10.9	0.0	.03	.6	0.	0.	181.	0.	0.	1.29
A02702	.3	0.0	63.4	0.0	.02	.7	0.	0.	1052.	0.	0.	1.11
A02703	.2	0.0	49.3	0.0	.04	.6	0.	0.	819.	0.	0.	1.57
A02704	.6	0.0	17.8	0.0	.03	1.5	0.	0.	296.	0.	0.	1.33
A02705	.5	0.0	16.8	0.0	.02	1.4	0.	0.	279.	0.	0.	.87
A02706	.2	0.0	44.2	0.0	.02	.6	0.	0.	734.	0.	0.	1.05
A02707	.5	0.0	16.8	0.0	.01	1.2	0.	0.	279.	0.	0.	.56
B02700	.5	0.0	17.7	0.0	.05	1.3	0.	0.	293.	0.	0.	2.45
B02701	.3	0.0	3.4	0.0	.04	.9	0.	0.	56.	0.	0.	1.74
B02702	.3	0.0	17.7	0.0	.04	.7	0.	0.	293.	0.	0.	1.95
B02703	.3	0.0	.7	0.0	.02	.9	0.	0.	12.	0.	0.	.80
B02704	.3	0.0	4.4	0.0	.02	1.4	0.	0.	73.	0.	0.	.87
B02705	.5	0.0	1.7	0.0	.02	1.4	0.	0.	28.	0.	0.	.74
B02706	.6	0.0	4.4	0.0	.01	1.6	0.	0.	73.	0.	0.	.44
B02707	.3	0.0	18.7	0.0	.00	.7	0.	0.	310.	0.	0.	.18
C02700	.2	0.0	51.1	0.0	.02	.6	0.	0.	849.	0.	0.	.95
C02701	.1	0.0	42.5	0.0	.01	.4	0.	0.	706.	0.	0.	.49
C02702	.2	0.0	42.5	0.0	.02	.5	0.	0.	706.	0.	0.	.97
C02703	.2	0.0	42.5	0.0	.00	.5	0.	0.	706.	0.	0.	.12
C02704	.7	0.0	1.9	0.0	.02	1.9	0.	0.	31.	0.	0.	.73
C02705	.5	0.0	14.1	0.0	.02	1.3	0.	0.	235.	0.	0.	.90
C02706	.6	0.0	42.5	0.0	.01	1.6	0.	0.	706.	0.	0.	.58
C02707	.7	0.0	14.1	0.0	.02	1.9	0.	0.	234.	0.	0.	.83

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A03100	2.1	123.9	144.9	147.9	.19	5.5	2406.	0.	2406.	0.	2407.	8.21
A03101	3.0	122.4	143.8	147.2	.41	7.6	2051.	0.	2389.	0.	2432.	17.97
A03102	.5	0.0	152.4	0.0	.04	1.4	0.	0.	2531.	0.	0.	1.89
A03103	3.0	126.8	137.4	149.4	.32	7.7	2122.	0.	2282.	0.	2300.	14.06
A03104	1.2	128.5	128.5	128.7	.10	3.2	0.	0.	2134.	0.	0.	4.35
A03105	.7	0.0	132.6	0.0	.10	1.8	0.	0.	2202.	0.	0.	4.63
A03106	.8	0.0	148.7	0.0	.12	2.2	0.	0.	2470.	0.	0.	5.14
A03107	1.4	148.5	148.6	149.0	.13	3.7	0.	0.	2468.	0.	0.	5.67
B03100	.8	0.0	19.8	0.0	.05	2.2	0.	0.	329.	0.	0.	2.05
B03101	.4	0.0	130.9	0.0	.05	1.1	0.	0.	2174.	0.	0.	2.39
B03102	.6	0.0	19.8	0.0	.02	1.6	0.	0.	330.	0.	0.	.80
B03103	.5	0.0	19.8	0.0	.06	1.2	0.	0.	329.	0.	0.	2.90
B03104	.5	0.0	113.0	0.0	.08	1.4	0.	0.	1876.	0.	0.	3.44
B03105	.4	0.0	45.1	0.0	.14	1.1	0.	0.	749.	0.	0.	6.46
B03106	.5	0.0	142.0	0.0	.09	1.3	0.	0.	2359.	0.	0.	4.01
B03107	.5	0.0	113.0	0.0	.05	1.4	0.	0.	1876.	0.	0.	2.16
C03100	.2	0.0	13.8	0.0	.03	.5	0.	0.	230.	0.	0.	1.47
C03101	.5	0.0	19.9	0.0	.02	1.5	0.	0.	331.	0.	0.	.84
C03102	.7	0.0	19.9	0.0	.02	1.9	0.	0.	331.	0.	0.	.92
C03103	.7	0.0	146.6	0.0	.02	1.9	0.	0.	2436.	0.	0.	.78
C03104	.9	0.0	142.6	0.0	.06	2.5	0.	0.	2369.	0.	0.	2.74
C03105	.7	0.0	150.9	0.0	.05	1.9	0.	0.	2507.	0.	0.	2.21
C03106	.5	0.0	144.2	0.0	.09	1.4	0.	0.	2395.	0.	0.	3.96
C03107	.7	0.0	142.6	0.0	.06	1.8	0.	0.	2369.	0.	0.	2.52

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A03200	8.1	4.8	5.6	36.7	.79	19.2	81.	89.	93.	125.	582.	33.37
A03201	6.5	3.3	5.7	38.9	.75	15.9	58.	93.	95.	97.	544.	32.14
A03202	4.3	19.2	24.2	46.8	.50	10.8	332.	0.	402.	0.	482.	21.61
A03203	8.2	4.4	4.6	31.1	.43	19.4	74.	75.	76.	79.	487.	18.80
A03204	3.9	5.3	5.5	26.0	.21	9.8	88.	0.	91.	0.	210.	9.49
A03205	2.0	8.8	8.9	9.7	.10	5.2	148.	0.	148.	0.	149.	4.54
A03206	3.0	4.8	5.3	27.0	.23	7.7	86.	0.	88.	0.	95.	10.26
A03207	5.3	7.4	10.5	32.6	.42	13.2	125.	0.	174.	0.	419.	18.20
B03200	1.0	25.0	25.0	25.0	.12	2.8	0.	0.	415.	0.	0.	5.25
B03201	.8	0.0	13.6	0.0	.10	2.0	0.	0.	225.	0.	0.	4.38
B03202	.7	0.0	25.0	0.0	.07	1.9	0.	0.	415.	0.	0.	3.03
B03203	.8	0.0	15.7	0.0	.11	2.2	0.	0.	261.	0.	0.	4.73
B03204	.5	0.0	16.1	0.0	.08	1.3	0.	0.	267.	0.	0.	3.62
B03205	.6	0.0	19.1	0.0	.08	1.6	0.	0.	317.	0.	0.	3.37
B03206	.7	0.0	14.1	0.0	.11	2.0	0.	0.	234.	0.	0.	4.80
B03207	.8	0.0	15.9	0.0	.10	2.0	0.	0.	263.	0.	0.	4.29
C03200	.8	0.0	5.1	0.0	.02	2.1	0.	0.	85.	0.	0.	.67
C03201	.4	0.0	27.5	0.0	.01	1.0	0.	0.	456.	0.	0.	.44
C03202	.6	0.0	5.1	0.0	.01	1.6	0.	0.	85.	0.	0.	.62
C03203	1.2	16.6	16.6	17.2	.02	3.1	0.	0.	276.	0.	0.	1.10
C03204	1.8	13.3	15.6	18.8	.09	4.7	0.	0.	260.	0.	0.	3.95
C03205	1.3	18.3	18.6	20.7	.09	3.5	0.	0.	309.	0.	0.	3.88
C03206	1.4	14.5	14.7	16.9	.11	3.6	0.	0.	245.	0.	0.	5.09
C03207	1.2	16.0	16.0	16.1	.12	3.2	0.	0.	266.	0.	0.	5.30

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A03300	.5	0.0	15.3	0.0	.04	1.4	0.	0.	255.	0.	0.	1.74
A03301	.3	0.0	15.4	0.0	.04	.8	0.	0.	255.	0.	0.	1.60
A03302	.4	0.0	15.4	0.0	.02	1.0	0.	0.	256.	0.	0.	1.10
A03303	.4	0.0	15.4	0.0	.04	1.1	0.	0.	255.	0.	0.	1.94
A03304	.3	0.0	16.4	0.0	.04	.9	0.	0.	272.	0.	0.	1.72
A03305	.3	0.0	15.4	0.0	.03	.8	0.	0.	256.	0.	0.	1.49
A03306	.2	0.0	45.1	0.0	.03	.6	0.	0.	750.	0.	0.	1.37
A03307	.4	0.0	3.2	0.0	.03	1.2	0.	0.	52.	0.	0.	1.21
B03300	.3	0.0	14.7	0.0	.02	.8	0.	0.	244.	0.	0.	.77
B03301	.2	0.0	14.7	0.0	.02	.6	0.	0.	245.	0.	0.	.70
B03302	.4	0.0	14.7	0.0	.01	1.0	0.	0.	245.	0.	0.	.43
B03303	.4	0.0	14.7	0.0	.02	1.0	0.	0.	244.	0.	0.	.95
B03304	.2	0.0	31.3	0.0	.02	.5	0.	0.	519.	0.	0.	1.03
B03305	.2	0.0	68.0	0.0	.03	.7	0.	0.	1129.	0.	0.	1.35
B03306	.1	0.0	8.5	0.0	.02	.3	0.	0.	141.	0.	0.	.80
B03307	.6	0.0	2.5	0.0	.01	1.7	0.	0.	41.	0.	0.	.56
C03300	.2	0.0	.6	0.0	.01	.5	0.	0.	11.	0.	0.	.66
C03301	.1	0.0	61.6	0.0	.01	.3	0.	0.	1024.	0.	0.	.35
C03302	.1	0.0	63.2	0.0	.01	.4	0.	0.	1049.	0.	0.	.37
C03303	.0	0.0	.1	0.0	.01	.1	0.	0.	1.	0.	0.	.56
C03304	.6	0.0	.8	0.0	.01	1.5	0.	0.	13.	0.	0.	.46
C03305	.3	0.0	15.0	0.0	.01	.9	0.	0.	249.	0.	0.	.47
C03306	.1	0.0	1.8	0.0	.00	.3	0.	0.	30.	0.	0.	.13
C03307	.6	0.0	.8	0.0	.00	1.5	0.	0.	13.	0.	0.	.09

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A03400	.4	0.0	143.4	0.0	.07	1.2	0.	0.	2382.	0.	0.	3.26
A03401	.7	0.0	129.9	0.0	.09	1.9	0.	0.	2158.	0.	0.	3.86
A03402	.7	0.0	145.1	0.0	.01	1.8	0.	0.	2411.	0.	0.	.60
A03403	.8	0.0	112.9	0.0	.18	2.0	0.	0.	1876.	0.	0.	8.02
A03404	.7	0.0	142.3	0.0	.09	1.8	0.	0.	2363.	0.	0.	4.22
A03405	.7	0.0	142.3	0.0	.06	1.9	0.	0.	2363.	0.	0.	2.51
A03406	.4	0.0	136.9	0.0	.06	1.1	0.	0.	2274.	0.	0.	2.47
A03407	.6	0.0	142.3	0.0	.06	1.6	0.	0.	2363.	0.	0.	2.52
B03400	.4	0.0	19.6	0.0	.13	1.0	0.	0.	326.	0.	0.	5.77
B03401	.5	0.0	115.4	0.0	.10	1.4	0.	0.	1917.	0.	0.	4.39
B03402	.6	0.0	115.4	0.0	.04	1.5	0.	0.	1917.	0.	0.	1.67
B03403	.5	0.0	44.9	0.0	.05	1.4	0.	0.	746.	0.	0.	2.19
B03404	.3	0.0	145.2	0.0	.03	.8	0.	0.	2412.	0.	0.	1.55
B03405	.3	0.0	142.1	0.0	.02	.9	0.	0.	2361.	0.	0.	.80
B03406	.5	0.0	113.8	0.0	.03	1.2	0.	0.	1890.	0.	0.	1.24
B03407	.5	0.0	44.9	0.0	.08	1.2	0.	0.	746.	0.	0.	3.73
C03400	.3	0.0	141.3	0.0	.06	.9	0.	0.	2347.	0.	0.	2.81
C03401	.3	0.0	142.4	0.0	.03	.9	0.	0.	2365.	0.	0.	1.38
C03402	.6	0.0	19.7	0.0	.04	1.5	0.	0.	328.	0.	0.	1.86
C03403	.5	0.0	19.7	0.0	.05	1.4	0.	0.	327.	0.	0.	2.06
C03404	.5	0.0	112.9	0.0	.06	1.5	0.	0.	1876.	0.	0.	2.51
C03405	.4	0.0	45.1	0.0	.02	1.0	0.	0.	749.	0.	0.	.91
C03406	.4	0.0	20.7	0.0	.05	1.0	0.	0.	344.	0.	0.	2.45
C03407	.5	0.0	112.9	0.0	.08	1.5	0.	0.	1876.	0.	0.	3.46

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A03500	5.2	3.8	6.8	14.2	.29	13.0	78.	0.	113.	0.	229.	12.56
A03501	7.9	3.3	4.7	14.1	.36	18.8	58.	77.	79.	90.	187.	15.53
A03502	2.4	21.1	25.3	25.3	.19	6.2	421.	0.	421.	0.	421.	8.40
A03503	4.8	6.2	7.3	11.4	.26	11.9	105.	0.	122.	0.	133.	11.57
A03504	1.9	4.9	5.1	12.2	.21	4.9	0.	0.	84.	0.	0.	9.50
A03505	1.0	0.0	9.4	0.0	.19	2.6	0.	0.	156.	0.	0.	8.30
A03506	4.7	5.1	5.4	8.2	.16	11.8	87.	0.	89.	0.	127.	7.05
A03507	4.5	7.3	9.1	10.4	.15	11.3	139.	0.	151.	0.	168.	6.45
B03500												
B03501	.5	0.0	8.1	0.0	.07	1.4	0.	0.	135.	0.	0.	3.08
B03502	.3	0.0	23.1	0.0	.05	.9	0.	0.	384.	0.	0.	2.05
B03503	1.6	.1	.1	.1	.08	4.3	0.	0.	1.	0.	0.	3.49
B03504	.6	0.0	10.4	0.0	.06	1.6	0.	0.	173.	0.	0.	2.76
B03505	.7	0.0	10.4	0.0	.04	1.9	0.	0.	173.	0.	0.	1.80
B03506	.7	0.0	8.7	0.0	.02	1.8	0.	0.	145.	0.	0.	1.04
B03507	.5	0.0	10.4	0.0	.01	1.3	0.	0.	173.	0.	0.	.35
C03500	.3	0.0	6.5	0.0	.01	.7	0.	0.	108.	0.	0.	.57
C03501	.2	0.0	44.9	0.0	.01	.6	0.	0.	746.	0.	0.	.36
C03502	.2	0.0	44.9	0.0	.00	.6	0.	0.	746.	0.	0.	.22
C03503	.5	0.0	13.6	0.0	.01	1.5	0.	0.	226.	0.	0.	.23
C03504	1.8	10.8	10.9	12.6	.03	4.7	0.	0.	181.	0.	0.	1.52
C03505	.9	0.0	13.6	0.0	.04	2.4	0.	0.	226.	0.	0.	1.78
C03506	.8	0.0	11.6	0.0	.07	2.2	0.	0.	193.	0.	0.	3.08
C03507	.5	0.0	13.2	0.0	.06	1.4	0.	0.	219.	0.	0.	2.76

MODEL CONDITIONS						PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A03600	.4	0.0	15.7	0.0	.02	1.2	0.	0.	260.	0.	0.	1.10
A03601	.2	0.0	14.6	0.0	.03	.6	0.	0.	243.	0.	0.	1.43
A03602	.2	0.0	1.6	0.0	.03	.6	0.	0.	27.	0.	0.	1.33
A03603	1.8	.1	.1	.1	.06	4.8	0.	0.	1.	0.	0.	2.78
A03604	.7	0.0	2.6	0.0	.06	1.8	0.	0.	44.	0.	0.	2.71
A03605	.2	0.0	17.6	0.0	.03	.6	0.	0.	293.	0.	0.	1.14
A03606	.5	0.0	15.8	0.0	.02	1.5	0.	0.	262.	0.	0.	.99
A03607	.1	0.0	.1	0.0	.01	.3	0.	0.	1.	0.	0.	.46
B03600	.2	0.0	.2	0.0	.03	.5	0.	0.	4.	0.	0.	1.47
B03601	.2	0.0	18.6	0.0	.02	.4	0.	0.	309.	0.	0.	.83
B03602	.2	0.0	18.6	0.0	.03	.5	0.	0.	309.	0.	0.	1.13
B03603	.2	0.0	43.5	0.0	.04	.5	0.	0.	723.	0.	0.	1.94
B03604	.2	0.0	47.4	0.0	.04	.5	0.	0.	788.	0.	0.	1.89
B03605	.2	0.0	71.1	0.0	.03	.5	0.	0.	1180.	0.	0.	1.46
B03606	.5	0.0	18.6	0.0	.02	1.3	0.	0.	309.	0.	0.	.94
B03607	.3	0.0	20.6	0.0	.02	.9	0.	0.	342.	0.	0.	1.10
C03600	.1	0.0	63.2	0.0	.00	.4	0.	0.	1050.	0.	0.	.20
C03601	.5	0.0	1.1	0.0	.01	1.3	0.	0.	17.	0.	0.	.31
C03602	.6	0.0	1.1	0.0	.01	1.7	0.	0.	17.	0.	0.	.53
C03603	.5	0.0	1.1	0.0	.02	1.2	0.	0.	17.	0.	0.	.70
C03604	.1	0.0	.7	0.0	.02	.4	0.	0.	11.	0.	0.	.70
C03605	.1	0.0	70.6	0.0	.00	.3	0.	0.	1173.	0.	0.	.05
C03606	.4	0.0	42.0	0.0	.02	1.0	0.	0.	697.	0.	0.	.79
C03607	.2	0.0	1.0	0.0	.03	.6	0.	0.	17.	0.	0.	1.38

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A04000	2.5	125.2	126.4	148.4	.36	6.4	2094.	0.	2099.	0.	2411.	16.09
A04001	2.5	119.8	138.0	147.2	.36	6.6	1996.	0.	2292.	0.	2305.	16.08
A04002	3.3	118.0	122.7	147.2	.22	8.4	2022.	0.	2034.	0.	2045.	9.85
A04003	2.2	119.2	147.7	148.2	.18	5.8	1998.	0.	2453.	0.	2455.	8.08
A04004	1.9	120.9	121.4	122.9	.16	4.9	0.	0.	2016.	0.	0.	6.90
A04005	1.4	122.8	124.0	140.6	.20	3.6	0.	0.	2061.	0.	2426.	9.07
A04006	2.0	122.1	146.1	149.3	.40	5.1	2035.	0.	2426.	0.	2456.	17.62
A04007	2.9	122.6	147.1	148.9	.42	7.4	2259.	0.	2444.	0.	2456.	18.62
B04000	.7	0.0	140.1	0.0	.14	1.8	0.	0.	2328.	0.	0.	6.10
B04001	.6	0.0	46.2	0.0	.14	1.6	0.	0.	767.	0.	0.	6.07
B04002	.8	0.0	137.1	0.0	.09	2.0	0.	0.	2277.	0.	0.	1.89
B04003	.8	0.0	142.3	0.0	.11	2.2	0.	0.	2363.	0.	0.	3.94
B04004	.8	0.0	139.6	0.0	.05	2.2	0.	0.	2319.	0.	0.	2.78
B04005	.8	0.0	139.7	0.0	.12	2.2	0.	0.	2321.	0.	0.	2.93
B04006	.7	0.0	144.0	0.0	.11	1.9	0.	0.	2392.	0.	0.	4.54
B04007	.5	0.0	149.8	0.0	.08	1.3	0.	0.	2488.	0.	0.	3.37
C04000	.5	0.0	145.2	0.0	.10	1.3	0.	0.	2413.	0.	0.	4.39
C04001	.7	0.0	145.2	0.0	.12	2.0	0.	0.	2412.	0.	0.	5.19
C04002	.8	0.0	128.1	0.0	.17	2.2	0.	0.	2128.	0.	0.	7.54
C04003	1.2	141.7	141.7	141.7	.19	3.2	0.	0.	2354.	0.	0.	8.26
C04004	.4	0.0	140.8	0.0	.04	2.1	0.	0.	2339.	0.	0.	8.86
C04005	.6	0.0	137.6	0.0	.13	1.0	0.	0.	2286.	0.	0.	5.61
C04006	.5	0.0	135.5	0.0	.06	1.7	0.	0.	2251.	0.	0.	5.48
C04007		0.0	140.8			1.2	0.	0.	2339.	0.		

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A04100	5.8	7.6	15.3	46.4	.85	14.3	138.	0.	253.	0.	549.	36.30
A04101	5.0	4.7	10.0	44.7	.70	12.3	81.	0.	166.	0.	621.	30.51
A04102	4.7	7.6	8.0	38.5	.35	11.8	128.	0.	133.	0.	533.	15.51
A04103	2.8	6.2	9.6	31.0	.31	7.2	110.	0.	160.	0.	187.	13.68
A04104	3.6	7.5	14.5	31.9	.27	9.1	239.	0.	241.	0.	257.	11.90
A04105	2.9	7.3	9.2	39.9	.38	7.5	130.	0.	153.	0.	515.	16.86
A04106	9.7	7.2	9.3	41.1	.77	22.5	124.	149.	155.	161.	585.	33.03
A04107	6.1	7.9	9.3	43.4	.83	14.8	134.	0.	155.	0.	592.	35.42
B04100	.7	0.0	12.3	0.0	.06	1.9	0.	0.	205.	0.	0.	2.82
B04101	.8	0.0	12.7	0.0	.08	2.1	0.	0.	210.	0.	0.	3.40
B04102	1.2	10.3	10.4	10.9	.08	3.1	0.	0.	173.	0.	0.	3.34
B04103	1.6	10.6	11.0	14.5	.13	4.3	0.	0.	182.	0.	0.	5.82
B04104	1.9	9.8	12.6	14.0	.12	5.0	210.	0.	210.	0.	212.	5.21
B04105	2.0	9.8	14.4	14.8	.13	5.3	238.	0.	239.	0.	240.	5.59
B04106	3.6	8.8	14.9	31.9	.38	9.1	161.	0.	248.	0.	286.	16.58
B04107	1.4	9.8	14.7	15.5	.10	3.6	0.	0.	244.	0.	0.	4.66
C04100	.6	0.0	16.5	0.0	.09	1.7	0.	0.	274.	0.	0.	3.96
C04101	1.1	13.1	13.1	16.2	.11	2.9	0.	0.	218.	0.	0.	5.06
C04102	1.4	12.9	15.1	17.9	.14	3.7	0.	0.	250.	0.	0.	6.15
C04103	1.6	12.0	15.2	30.5	.27	4.2	0.	0.	252.	0.	0.	12.10
C04104	1.1	17.4	17.4	20.6	.24	2.9	0.	0.	289.	0.	0.	10.81
C04105	1.2	14.0	14.2	20.3	.22	3.2	0.	0.	236.	0.	0.	9.67
C04106	1.4	12.3	20.6	25.7	.27	3.7	0.	0.	343.	0.	0.	12.03
C04107	1.1	10.6	10.6	10.6	.18	2.9	0.	0.	176.	0.	0.	7.99

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A04200	.4	0.0	14.7	0.0	.05	1.0	0.	0.	244.	0.	0.	2.10
A04201	.4	0.0	14.7	0.0	.07	1.1	0.	0.	245.	0.	0.	3.09
A04202	.4	0.0	14.7	0.0	.04	1.0	0.	0.	244.	0.	0.	1.98
A04203	.5	0.0	14.6	0.0	.04	1.3	0.	0.	243.	0.	0.	1.69
A04204	.2	0.0	24.7	0.0	.03	.6	0.	0.	411.	0.	0.	1.44
A04205	.2	0.0	59.5	0.0	.02	.6	0.	0.	989.	0.	0.	.96
A04206	.6	0.0	14.7	0.0	.06	1.5	0.	0.	244.	0.	0.	2.74
A04207	.5	0.0	15.7	0.0	.02	1.3	0.	0.	260.	0.	0.	.82
B04200	.6	0.0	1.6	0.0	.03	1.5	0.	0.	27.	0.	0.	1.38
B04201	.4	0.0	1.6	0.0	.03	1.2	0.	0.	27.	0.	0.	1.15
B04202	.4	0.0	1.6	0.0	.01	1.0	0.	0.	27.	0.	0.	.57
B04203	.6	0.0	1.6	0.0	.03	1.6	0.	0.	27.	0.	0.	1.38
B04204	.2	0.0	29.5	0.0	.02	.5	0.	0.	491.	0.	0.	1.09
B04205	.5	0.0	1.6	0.0	.01	1.4	0.	0.	27.	0.	0.	.59
B04206	.2	0.0	38.9	0.0	.02	.6	0.	0.	646.	0.	0.	.83
B04207	.3	0.0	2.6	0.0	.00	.8	0.	0.	43.	0.	0.	.08
C04200	.6	0.0	14.8	0.0	.01	1.5	0.	0.	246.	0.	0.	.38
C04201	.5	0.0	1.5	0.0	.01	1.2	0.	0.	25.	0.	0.	.45
C04202	.3	0.0	14.8	0.0	.01	.9	0.	0.	247.	0.	0.	.38
C04203	.5	0.0	1.6	0.0	.01	1.3	0.	0.	26.	0.	0.	.52
C04204	.2	0.0	30.3	0.0	.02	.4	0.	0.	503.	0.	0.	1.03
C04205	.3	0.0	41.4	0.0	.01	.9	0.	0.	688.	0.	0.	.58
C04206	.5	0.0	14.8	0.0	.02	1.3	0.	0.	247.	0.	0.	.78
C04207	.1	0.0	1.7	0.0	.00	.3	0.	0.	29.	0.	0.	.16

	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A04300	1.1	131.7	131.7	141.3	.26	2.9	0.	0.	2188.	0.	0.	11.69
A04301	2.2	127.2	131.3	138.2	.26	5.8	2182.	0.	2182.	0.	2187.	11.54
A04302	1.3	137.9	137.9	138.1	.18	3.4	0.	0.	2291.	0.	0.	8.06
A04303	1.1	132.4	132.4	132.5	.16	2.8	0.	0.	2200.	0.	0.	7.33
A04304	1.0	0.0	131.2	0.0	.12	2.5	0.	0.	2179.	0.	0.	5.27
A04305	1.2	139.8	139.9	140.1	.12	3.2	0.	0.	2324.	0.	0.	5.16
A04306	2.0	132.2	140.0	142.9	.23	5.3	2325.	0.	2325.	0.	2327.	10.01
A04307	.8	0.0	143.1	0.0	.10	2.2	0.	0.	2377.	0.	0.	4.52
B04300	.2	0.0	.4	0.0	.03	.5	0.	0.	6.	0.	0.	1.27
B04301	.3	0.0	145.0	0.0	.06	.7	0.	0.	2409.	0.	0.	2.63
B04302	.8	0.0	144.0	0.0	.03	2.2	0.	0.	2392.	0.	0.	1.47
B04303	.6	0.0	144.1	0.0	.06	1.6	0.	0.	2393.	0.	0.	2.62
B04304	.7	0.0	144.5	0.0	.05	1.9	0.	0.	2406.	0.	0.	2.33
B04305	.4	0.0	144.7	0.0	.08	1.0	0.	0.	2403.	0.	0.	3.42
B04306	.5	0.0	141.9	0.0	.07	1.4	0.	0.	2357.	0.	0.	3.02
B04307	.4	0.0	45.9	0.0	.04	1.0	0.	0.	762.	0.	0.	1.79
C04300	.1	0.0	43.5	0.0	.04	.4	0.	0.	722.	0.	0.	1.67
C04301	.2	0.0	137.0	0.0	.03	.6	0.	0.	2276.	0.	0.	1.48
C04302	.4	0.0	138.1	0.0	.02	1.2	0.	0.	2293.	0.	0.	.98
C04303	.5	0.0	138.2	0.0	.05	1.2	0.	0.	2295.	0.	0.	2.09
C04304	.5	0.0	142.4	0.0	.05	1.2	0.	0.	2366.	0.	0.	2.06
C04305	.4	0.0	139.5	0.0	.06	1.2	0.	0.	2317.	0.	0.	2.80
C04306	.5	0.0	148.7	0.0	.07	1.4	0.	0.	2469.	0.	0.	3.26
C04307	.5	0.0	144.9	0.0	.04	1.3	0.	0.	2407.	0.	0.	1.85

	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A04400	3.2	3.4	5.3	25.6	.32	8.2	85.	0.	89.	0.	415.	14.22
A04401	3.5	3.2	5.3	41.8	.38	9.0	78.	0.	87.	0.	285.	16.77
A04402	4.6	4.6	4.9	17.1	.23	11.6	76.	0.	82.	0.	250.	10.10
A04403	1.5	5.0	5.7	25.0	.25	3.9	0.	0.	94.	0.	0.	11.19
A04404	3.4	3.6	6.8	18.1	.24	8.6	107.	0.	113.	0.	121.	10.60
A04405	2.5	6.4	7.0	26.2	.25	6.5	110.	0.	117.	0.	120.	10.99
A04406	3.3	4.8	6.6	26.1	.32	8.5	83.	0.	110.	0.	362.	13.91
A04407	2.7	5.2	5.5	15.7	.19	7.0	89.	0.	91.	0.	144.	8.37
B04400	.3	0.0	5.6	0.0	.06	.8	0.	0.	94.	0.	0.	2.57
B04401	.4	0.0	14.1	0.0	.08	1.0	0.	0.	234.	0.	0.	3.36
B04402	1.0	0.0	6.8	0.0	.07	2.6	0.	0.	113.	0.	0.	3.35
B04403	.9	0.0	6.8	0.0	.10	2.5	0.	0.	112.	0.	0.	3.25
B04404	.8	0.0	10.3	0.0	.06	2.2	0.	0.	171.	0.	0.	2.84
B04405	1.7	6.6	7.0	7.3	.05	4.4	0.	0.	116.	0.	0.	2.33
B04406	1.6	6.8	6.8	7.5	.06	4.1	0.	0.	114.	0.	0.	2.54
B04407	.9	0.0	7.5	0.0	.03	2.3	0.	0.	125.	0.	0.	1.31
C04400	.2	0.0	17.1	0.0	.01	.4	0.	0.	284.	0.	0.	.58
C04401	.3	0.0	15.5	0.0	.02	.9	0.	0.	258.	0.	0.	.96
C04402	.4	0.0	8.2	0.0	.03	1.0	0.	0.	136.	0.	0.	1.36
C04403	.7	0.0	6.3	0.0	.09	1.9	0.	0.	104.	0.	0.	1.09
C04404	1.1	6.0	6.0	6.1	.12	3.0	0.	0.	100.	0.	0.	4.26
C04405	1.0	0.0	8.2	0.0	.14	2.6	0.	0.	136.	0.	0.	5.36
C04406	1.1	12.6	12.6	12.8	.16	2.9	0.	0.	210.	0.	0.	7.00
C04407	1.0	0.0	9.1	0.0	.12	2.6	0.	0.	151.	0.	0.	5.19

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A04500	.2	0.0	26.1	0.0	.04	.6	0.	0.	434.	0.	0.	1.67
A04501	.4	0.0	2.3	0.0	.04	1.1	0.	0.	38.	0.	0.	1.99
A04502	.3	0.0	2.5	0.0	.05	.9	0.	0.	42.	0.	0.	2.14
A04503	.3	0.0	14.2	0.0	.10	.9	0.	0.	236.	0.	0.	4.51
A04504	.4	0.0	18.3	0.0	.04	1.0	0.	0.	304.	0.	0.	1.79
A04505	.3	0.0	18.3	0.0	.03	.8	0.	0.	304.	0.	0.	1.13
A04506	.4	0.0	14.7	0.0	.02	1.2	0.	0.	244.	0.	0.	1.11
A04507	.3	0.0	2.5	0.0	.01	.9	0.	0.	41.	0.	0.	.50
B04500	.1	0.0	19.8	0.0	.01	.3	0.	0.	328.	0.	0.	.55
B04501	.1	0.0	2.9	0.0	.01	.4	0.	0.	48.	0.	0.	.53
B04502	.1	0.0	25.3	0.0	.01	.3	0.	0.	420.	0.	0.	.37
B04503	.1	0.0	19.6	0.0	.01	.3	0.	0.	325.	0.	0.	.24
B04504	.1	0.0	2.5	0.0	.01	.3	0.	0.	42.	0.	0.	.35
B04505	.3	0.0	2.5	0.0	.00	.9	0.	0.	42.	0.	0.	.15
B04506	.4	0.0	15.7	0.0	.01	1.0	0.	0.	260.	0.	0.	.37
B04507	.4	0.0	2.5	0.0	.00	1.0	0.	0.	41.	0.	0.	.01
C04500	.6	0.0	1.5	0.0	.03	1.5	0.	0.	26.	0.	0.	1.18
C04501	.4	0.0	1.6	0.0	.02	1.2	0.	0.	26.	0.	0.	.81
C04502	.3	0.0	1.6	0.0	.01	.9	0.	0.	26.	0.	0.	.66
C04503	.7	0.0	1.5	0.0	.05	1.9	0.	0.	26.	0.	0.	2.10
C04504	.1	0.0	1.5	0.0	.03	.4	0.	0.	25.	0.	0.	1.34
C04505	.2	0.0	46.1	0.0	.03	.5	0.	0.	765.	0.	0.	1.48
C04506	.2	0.0	38.8	0.0	.04	.6	0.	0.	645.	0.	0.	1.87
C04507	.5	0.0	2.5	0.0	.04	1.3	0.	0.	42.	0.	0.	1.66

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A04900	4.5	133.9	140.7	149.5	.27	11.4	2259.	0.	2338.	0.	2344.	11.93
A04901	3.0	122.7	135.4	147.9	.36	7.7	2241.	0.	2248.	0.	2452.	15.75
A04902	2.9	122.1	140.6	147.0	.28	7.4	2029.	0.	2336.	0.	2396.	12.51
A04903	2.4	121.6	140.6	146.9	.28	6.2	2188.	0.	2336.	0.	2347.	12.34
A04904	2.0	122.0	127.8	138.4	.23	5.3	2123.	0.	2123.	0.	2123.	10.09
A04905	1.8	133.2	139.6	140.0	.16	4.7	0.	0.	2319.	0.	0.	7.16
A04906	3.4	134.0	139.6	141.7	.17	8.7	2299.	0.	2319.	0.	2327.	7.70
A04907	1.9	138.6	140.3	140.8	.13	5.0	2330.	0.	2330.	0.	2332.	5.97
B04900	.4	0.0	124.5	0.0	.17	1.0	0.	0.	2069.	0.	0.	2.49
B04901	.4	0.0	132.9	0.0	.11	1.2	0.	0.	2208.	0.	0.	4.97
B04902	.8	0.0	142.2	0.0	.07	2.2	0.	0.	2362.	0.	0.	4.17
B04903	1.1	131.9	131.9	131.9	.14	2.9	0.	0.	2191.	0.	0.	3.13
B04904	.8	0.0	131.9	0.0	.08	2.1	0.	0.	2191.	0.	0.	3.13
B04905	.7	0.0	141.2	0.0	.05	1.8	0.	0.	2346.	0.	0.	2.79
B04906	.7	0.0	141.2	0.0	.04	1.9	0.	0.	2346.	0.	0.	2.27
B04907	.6	0.0	141.3	0.0	.02	1.6	0.	0.	2346.	0.	0.	1.95
C04900	.2	0.0	101.6	0.0	.10	.6	0.	0.	1688.	0.	0.	4.68
C04901	.7	0.0	113.3	0.0	.16	1.9	0.	0.	1881.	0.	0.	6.95
C04902	.4	0.0	113.3	0.0	.02	1.2	0.	0.	1881.	0.	0.	1.07
C04903	.8	0.0	131.8	0.0	.11	2.2	0.	0.	2190.	0.	0.	4.82
C04904	1.2	140.6	140.6	143.1	.10	3.2	0.	0.	2335.	0.	0.	4.50
C04905	.5	0.0	135.8	0.0	.08	1.4	0.	0.	2256.	0.	0.	3.74
C04906	.5	0.0	139.5	0.0	.08	1.4	0.	0.	2317.	0.	0.	3.75
C04907	.4	0.0	148.0	0.0	.04	1.1	0.	0.	2458.	0.	0.	1.94

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK COND. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S.
A05000	7.1	3.9	5.8	40.6	.70	17.1	69.	94.	96.	112.	659.	29.81
A05001	7.3	3.8	6.3	45.6	.69	17.6	66.	94.	105.	111.	642.	29.83
A05002	4.1	5.5	10.7	38.1	.36	10.4	91.	0.	177.	0.	365.	15.88
A05003	3.5	3.3	5.6	38.2	.42	9.0	66.	0.	92.	0.	385.	18.51
A05004	7.0	3.1	3.7	40.0	.39	17.0	54.	60.	61.	63.	138.	17.07
A05005	3.5	3.7	3.8	39.5	.35	8.9	62.	0.	63.	0.	304.	15.55
A05006	7.1	3.7	5.0	38.5	.58	17.1	66.	73.	84.	88.	626.	25.00
A05007	5.1	4.7	5.5	23.7	.43	12.6	80.	0.	91.	0.	184.	18.69
B05000	.5	0.0	10.7	0.0	.12							
B05001	1.1	24.0	24.0	24.1	.17	1.3	0.	0.	178.	0.	0.	5.54
B05002	1.3	13.0	13.0	13.1	.12	2.8	0.	0.	399.	0.	0.	7.59
B05003	1.7	6.6	12.4	15.1	.17	3.5	0.	0.	216.	0.	0.	5.28
B05004	1.5	9.1	12.1	12.4	.12	4.5	0.	0.	206.	0.	0.	7.48
B05005	.9	0.0	10.2	0.0	.08	3.9	0.	0.	201.	0.	0.	5.56
B05006	1.6	8.0	11.7	13.6	.10	2.3	0.	0.	169.	0.	0.	3.45
B05007	1.9	9.6	9.8	12.6	.10	4.1	0.	0.	194.	0.	0.	4.51
						5.0	163.	0.	163.	0.	164.	4.62
C05000	.8	0.0	12.6	0.0	.05							
C05001	2.4	10.9	11.8	12.7	.08	2.0	0.	0.	210.	0.	0.	2.18
C05002	3.1	7.3	9.3	12.4	.15	6.3	191.	0.	197.	0.	209.	3.71
C05003	3.2	7.1	9.5	16.8	.22	7.9	135.	0.	154.	0.	201.	6.71
C05004	2.6	6.4	10.5	14.9	.20	8.3	122.	0.	157.	0.	203.	9.63
C05005	1.5	11.3	12.8	13.6	.13	6.8	172.	0.	174.	0.	201.	8.97
C05006	1.6	11.2	11.6	12.4	.16	4.0	0.	0.	213.	0.	0.	5.99
C05007	.9	0.0	9.5	0.0	.10	4.2	0.	0.	193.	0.	0.	7.12
						2.3	0.	0.	158.	0.	0.	4.59

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A05100	.4	0.0	15.7	0.0	.04	1.0	0.	0.	260.	0.	0.	1.57
A05101	.4	0.0	24.7	0.0	.05	1.0	0.	0.	398.	0.	0.	2.38
A05102	.4	0.0	23.4	0.0	.04	1.0	0.	0.	389.	0.	0.	1.97
A05103	.2	0.0	15.7	0.0	.03	.5	0.	0.	261.	0.	0.	1.15
A05104	.3	0.0	16.2	0.0	.02	.6	0.	0.	269.	0.	0.	.84
A05105	.4	0.0	15.7	0.0	.01	.8	0.	0.	260.	0.	0.	.61
A05106	.4	0.0	15.6	0.0	.01	1.0	0.	0.	260.	0.	0.	.45
A05107	.4	0.0	15.6	0.0	.01	1.0	0.	0.	260.	0.	0.	.25
B05100	.1	0.0	6.5	0.0	.01	.3	0.	0.	108.	0.	0.	.63
B05101	.1	0.0	.1	0.0	.02	.3	0.	0.	2.	0.	0.	.38
B05102	.1	0.0	2.2	0.0	.01	.3	0.	0.	37.	0.	0.	.96
B05103	.2	0.0	8.5	0.0	.02	.5	0.	0.	141.	0.	0.	.69
B05104	.4	0.0	.7	0.0	.01	1.2	0.	0.	12.	0.	0.	.93
B05105	.4	0.0	43.8	0.0	.01	1.0	0.	0.	727.	0.	0.	.36
B05106	.4	0.0	1.7	0.0	.01	1.1	0.	0.	28.	0.	0.	.36
B05107	.4	0.0	1.7	0.0	.02	1.2	0.	0.	28.	0.	0.	.69
C05100	.1	0.0	.7	0.0	.02	.2	0.	0.	12.	0.	0.	1.00
C05101	.2	0.0	10.5	0.0	.04	.6	0.	0.	175.	0.	0.	1.08
C05102	.2	0.0	15.8	0.0	.02	.5	0.	0.	263.	0.	0.	.57
C05103	.2	0.0	8.8	0.0	.02	.4	0.	0.	147.	0.	0.	1.01
C05104	.4	0.0	1.8	0.0	.02	1.1	0.	0.	29.	0.	0.	1.07
C05105	.2	0.0	8.7	0.0	.02	.5	0.	0.	145.	0.	0.	.70
C05106	.2	0.0	18.8	0.0	.03	.6	0.	0.	313.	0.	0.	1.19
C05107	.4	0.0	1.7	0.0	.02	1.0	0.	0.	29.	0.	0.	.85

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A05200	1.5	128.4	141.9	143.6	.23	4.0	0.	0.	2357.	0.	0.	10.12
A05201	1.8	118.6	141.9	144.5	.35	4.7	0.	0.	2357.	0.	0.	15.48
A05202	1.3	141.4	141.5	143.6	.22	3.4	0.	0.	2351.	0.	0.	9.75
A05203	1.1	141.9	141.9	145.4	.24	2.8	0.	0.	2357.	0.	0.	10.67
A05204	1.1	138.7	138.7	139.2	.19	2.8	0.	0.	2304.	0.	0.	8.41
A05205	.8	0.0	138.8	0.0	.08	2.1	0.	0.	2306.	0.	0.	3.67
A05206	1.0	136.4	136.4	136.5	.09	2.7	0.	0.	2266.	0.	0.	3.97
A05207	.3	0.0	127.7	0.0	.03	.8	0.	0.	2122.	0.	0.	1.42
B05200	.4	0.0	141.8	0.0	.06	1.0	0.	0.	2356.	0.	0.	2.69
B05201	.5	0.0	145.6	0.0	.12	1.4	0.	0.	2419.	0.	0.	5.29
B05202	.4	0.0	131.5	0.0	.13	1.1	0.	0.	2184.	0.	0.	5.77
B05203	.6	0.0	140.6	0.0	.17	1.5	0.	0.	2336.	0.	0.	7.82
B05204	.5	0.0	135.8	0.0	.11	1.4	0.	0.	2256.	0.	0.	4.71
B05205	.4	0.0	136.9	0.0	.07	1.2	0.	0.	2275.	0.	0.	3.20
B05206	.6	0.0	20.7	0.0	.06	1.6	0.	0.	343.	0.	0.	2.54
B05207	.3	0.0	19.7	0.0	.04	.9	0.	0.	327.	0.	0.	1.63
C05200	.1	0.0	16.6	0.0	.03	.3	0.	0.	276.	0.	0.	1.20
C05201	.2	0.0	15.0	0.0	.04	.4	0.	0.	249.	0.	0.	1.75
C05202	.2	0.0	28.4	0.0	.02	.5	0.	0.	472.	0.	0.	.81
C05203	.2	0.0	23.6	0.0	.01	.5	0.	0.	392.	0.	0.	.58
C05204	.3	0.0	141.0	0.0	.01	.7	0.	0.	2342.	0.	0.	.29
C05205	.3	0.0	28.4	0.0	.01	.7	0.	0.	472.	0.	0.	.41
C05206	.4	0.0	28.4	0.0	.02	1.1	0.	0.	472.	0.	0.	.87
C05207	.6	0.0	141.0	0.0	.03	1.6	0.	0.	2342.	0.	0.	1.30

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A05300	5.4	8.0	9.1	19.5	.27	13.3	135.	0.	151.	0.	208.	11.51
A05301	4.2	7.5	11.4	23.9	.37	10.5	125.	0.	190.	0.	305.	16.09
A05302	4.2	6.9	8.5	25.6	.39	10.6	118.	0.	140.	0.	292.	17.24
A05303	2.7	7.0	9.5	30.2	.35	7.0	144.	0.	158.	0.	280.	15.24
A05304	7.5	7.0	8.1	16.0	.32	18.0	117.	133.	135.	141.	242.	13.78
A05305	3.4	7.3	8.9	14.7	.20	8.8	125.	0.	148.	0.	158.	9.04
A05306	4.0	7.1	9.5	17.7	.26	10.1	129.	0.	158.	0.	212.	11.29
A05307	2.9	8.1	10.2	14.0	.20	7.5	152.	0.	169.	0.	229.	8.79
B05300	1.2	12.0	12.0	12.0	.12	3.2	0.	0.	199.	0.	0.	5.49
B05301	1.3	12.0	12.0	12.0	.15	3.6	0.	0.	199.	0.	0.	6.80
B05302	1.3	7.8	7.9	12.0	.16	3.4	0.	0.	132.	0.	0.	7.34
B05303	1.6	8.9	10.2	13.0	.23	4.2	0.	0.	169.	0.	0.	10.22
B05304	1.6	8.8	9.0	13.8	.16	4.2	0.	0.	149.	0.	0.	7.33
B05305	1.0	0.0	9.5	0.0	.12	2.5	0.	0.	159.	0.	0.	5.50
B05306	1.2	10.1	11.5	11.8	.11	3.2	0.	0.	191.	0.	0.	4.92
B05307	.4	0.0	4.9	0.0	.02	1.2	0.	0.	81.	0.	0.	1.04
C05300	.5	0.0	1.9	0.0	.01	1.2	0.	0.	32.	0.	0.	.27
C05301	.6	0.0	1.9	0.0	.01	1.6	0.	0.	32.	0.	0.	.35
C05302	.2	0.0	10.0	0.0	.01	.5	0.	0.	167.	0.	0.	.66
C05303	.3	0.0	10.0	0.0	.01	.7	0.	0.	166.	0.	0.	.30
C05304	.4	0.0	9.4	0.0	.01	1.0	0.	0.	156.	0.	0.	.48
C05305	1.0	0.0	10.0	0.0	.03	2.5	0.	0.	166.	0.	0.	1.36
C05306	2.5	6.8	7.1	9.0	.10	6.5	116.	0.	119.	0.	138.	4.52
C05307	1.3	6.6	6.7	7.0	.08	3.4	0.	0.	112.	0.	0.	3.71

	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A05400	.2	0.0	33.4	0.0	.02	.6	0.	0.	555.	0.	0.	.97
A05401	.3	0.0	34.8	0.00	.03	.7	0.	0.	579.	0.	0.	1.28
A05402	.3	0.0	52.9	0.00	.03	.7	0.	0.	879.	0.	0.	1.56
A05403	.3	0.0	28.7	0.0	.05	.9	0.	0.	476.	0.	0.	2.17
A05404	.2	0.0	58.1	0.00	.04	.6	0.	0.	965.	0.	0.	1.70
A05405	.2	0.0	16.6	0.00	.03	.6	0.	0.	276.	0.	0.	1.56
A05406	.5	0.0	44.4	0.00	.03	1.3	0.	0.	738.	0.	0.	1.32
A05407	.4	0.0	4.3	0.0	.02	1.1	0.	0.	72.	0.	0.	.75
B05400	.3	0.0	35.3	0.0	.07	.8	0.	0.	586.	0.	0.	3.27
B05401	.2	0.0	57.5	0.00	.05	.5	0.	0.	955.	0.	0.	2.38
B05402	.3	0.0	1.6	0.00	.04	.7	0.	0.	26.	0.	0.	1.99
B05403	.7	0.0	14.7	0.00	.02	1.8	0.	0.	245.	0.	0.	1.09
B05404	.2	0.0	14.7	0.00	.01	.5	0.	0.	244.	0.	0.	.46
B05405	.5	0.0	14.7	0.00	.01	1.4	0.	0.	244.	0.	0.	.29
B05406	.3	0.0	1.5	0.00	.01	.9	0.	0.	25.	0.	0.	.48
B05407	.2	0.0	.5	0.0	.00	.6	0.	0.	8.	0.	0.	.02
C05400	.1	0.0	64.4	0.0	.01	.2	0.	0.	1070.	0.	0.	.26
C05401	.7	0.0	41.9	0.00	.02	1.8	0.	0.	696.	0.	0.	.72
C05402	.1	0.0	20.0	0.00	.02	.3	0.	0.	332.	0.	0.	.76
C05403	.8	0.0	41.9	0.00	.03	2.2	0.	0.	696.	0.	0.	1.17
C05404	.2	0.0	41.9	0.00	.02	.6	0.	0.	695.	0.	0.	.72
C05405	.3	0.0	44.6	0.00	.02	.8	0.	0.	740.	0.	0.	.83
C05406	.2	0.0	25.3	0.00	.02	.5	0.	0.	421.	0.	0.	1.09
C05407	.2	0.0	14.2	0.0	.03	.4	0.	0.	236.	0.	0.	1.20

	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A05800	3.3	134.1	139.2	146.0	.35	8.4	2268.	0.	2312.	0.	2380.	15.43
A05801	3.3	125.2	136.4	149.5	.54	8.5	2236.	0.	2267.	0.	2415.	23.77
A05802	3.3	121.4	128.8	147.4	.38	8.4	2124.	0.	2140.	0.	2408.	16.62
A05803	1.4	126.9	145.9	146.7	.23	3.8	0.	0.	2423.	0.	0.	10.44
A05804	1.0	130.9	130.9	131.0	.15	2.8	0.	0.	2175.	0.	0.	6.73
A05805	2.0	139.2	141.0	141.4	.19	5.3	2343.	0.	2343.	0.	2344.	8.41
A05806	3.3	125.0	141.0	144.5	.31	8.5	2158.	0.	2342.	0.	2345.	13.52
A05807	1.7	136.9	142.3	144.5	.20	4.4	0.	0.	2364.	0.	0.	8.90
B05800	.4	0.0	20.8	0.0	.09	1.1	0.	0.	346.	0.	0.	3.88
B05801	.5	0.0	143.2	0.0	.10	1.4	0.	0.	2379.	0.	0.	4.43
B05802	.6	0.0	143.2	0.0	.10	1.6	0.	0.	2378.	0.	0.	4.62
B05803	.7	0.0	129.7	0.0	.13	1.9	0.	0.	2155.	0.	0.	5.65
B05804	.6	0.0	143.6	0.0	.09	1.5	0.	0.	2383.	0.	0.	4.11
B05805	.5	0.0	146.8	0.0	.05	1.3	0.	0.	2438.	0.	0.	2.22
B05806	.4	0.0	.5	0.0	.02	1.1	0.	0.	9.	0.	0.	1.11
B05807	.4	0.0	145.6	0.0	.01	1.2	0.	0.	2418.	0.	0.	.64
C05800	.6	0.0	20.9	0.0	.04	1.5	0.	0.	347.	0.	0.	1.91
C05801	.6	0.0	146.7	0.0	.03	1.7	0.	0.	2438.	0.	0.	1.55
C05802	1.2	145.1	145.2	145.2	.02	3.3	0.	0.	2411.	0.	0.	1.05
C05803	1.3	145.0	145.2	145.3	.04	3.5	0.	0.	2412.	0.	0.	1.97
C05804	1.2	144.7	144.9	145.1	.05	3.2	0.	0.	2407.	0.	0.	2.30
C05805	.9	0.0	145.2	0.0	.04	2.3	0.	0.	2413.	0.	0.	1.58
C05806	.9	0.0	145.3	0.0	.05	2.5	0.	0.	2413.	0.	0.	2.32
C05807	.5	0.0	140.5	0.0	.06	1.3	0.	0.	2333.	0.	0.	2.84

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A05900	8.1	3.9	7.0	32.3	.84	19.2	68.	83.	117.	148.	324.	35.37
A05901	6.9	3.2	5.4	45.9	.74	16.7	57.	77.	90.	162.	356.	31.56
A05902	5.3	2.6	4.7	39.6	.41	13.3	46.	0.	78.	0.	336.	17.73
A05903	5.6	2.9	5.5	21.0	.30	13.7	60.	0.	91.	0.	128.	13.28
A05904	7.3	4.9	5.9	38.7	.36	17.6	85.	96.	97.	107.	266.	15.84
A05905	5.2	3.7	5.8	23.8	.36	13.0	84.	0.	96.	0.	135.	15.90
A05906	7.8	3.0	5.5	41.8	.68	18.7	56.	84.	92.	119.	353.	28.86
A05907	5.9	3.8	6.2	22.2	.45	14.6	71.	0.	103.	0.	347.	19.27
B05900	.9	0.0	12.7	0.0	.14	2.3	0.	0.	211.	0.	0.	6.31
B05901	2.3	7.9	11.0	13.6	.20	5.9	178.	0.	183.	0.	191.	9.01
B05902	2.3	7.6	10.4	11.4	.20	6.1	168.	0.	172.	0.	185.	8.75
B05903	2.3	7.3	9.5	14.4	.27	6.0	152.	0.	158.	0.	209.	11.74
B05904	2.1	7.4	9.2	14.8	.19	5.5	125.	0.	154.	0.	157.	8.46
B05905	1.5	9.6	10.4	11.8	.10	4.0	0.	0.	172.	0.	0.	4.42
B05906	2.5	9.9	10.4	16.2	.15	6.6	169.	0.	173.	0.	201.	6.59
B05907	.4	0.0	3.6	0.0	.01	1.0	0.	0.	59.	0.	0.	.63
C05900	2.6	9.0	11.2	16.1	.13	6.7	163.	0.	186.	0.	222.	5.73
C05901	2.7	7.6	9.4	17.7	.14	7.0	150.	0.	157.	0.	164.	6.01
C05902	2.0	8.0	9.0	16.5	.12	5.2	150.	0.	150.	0.	159.	5.14
C05903	1.2	9.9	11.0	18.2	.15	3.2	0.	0.	183.	0.	0.	6.61
C05904	.8	0.0	7.8	0.0	.09	2.2	0.	0.	130.	0.	0.	4.19
C05905	.7	0.0	42.0	0.0	.07	1.8	0.	0.	698.	0.	0.	3.10
C05906	.8	0.0	42.0	0.0	.12	2.0	0.	0.	697.	0.	0.	5.48
C05907	.5	0.0	10.5	0.0	.09	1.4	0.	0.	175.	0.	0.	4.11

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A06000	.2	0.0	26.2	0.0	.02	.5	0.	0.	434.	0.	0.	1.03
A06001	.9	0.0	14.1	0.0	.06	2.3	0.	0.	235.	0.	0.	2.57
A06002	.4	0.0	14.1	0.0	.06	1.1	0.	0.	235.	0.	0.	2.91
A06003	.6	0.0	14.1	0.0	.06	1.6	0.	0.	235.	0.	0.	2.74
A06004	.2	0.0	22.8	0.0	.04	.7	0.	0.	378.	0.	0.	1.98
A06005	.2	0.0	28.3	0.0	.04	.6	0.	0.	470.	0.	0.	1.87
A06006	.4	0.0	1.8	0.0	.03	1.0	0.	0.	30.	0.	0.	1.47
A06007	.3	0.0	41.8	0.0	.03	.8	0.	0.	694.	0.	0.	1.42
B06000	.2	0.0	1.4	0.0	.01	.6	0.	0.	23.	0.	0.	.32
B06001	.2	0.0	1.4	0.0	.01	.5	0.	0.	23.	0.	0.	.58
B06002	.1	0.0	1.4	0.0	.01	.3	0.	0.	23.	0.	0.	.59
B06003	.2	0.0	1.4	0.0	.01	.6	0.	0.	23.	0.	0.	.61
B06004	.2	0.0	14.6	0.0	.02	.5	0.	0.	242.	0.	0.	.70
B06005	.3	0.0	42.2	0.0	.03	.7	0.	0.	701.	0.	0.	1.35
B06006	.2	0.0	1.4	0.0	.02	.6	0.	0.	23.	0.	0.	1.10
B06007	.4	0.0	15.6	0.0	.04	1.2	0.	0.	259.	0.	0.	1.57
C06000	.1	0.0	59.2	0.0	.01	.3	0.	0.	983.	0.	0.	.51
C06001	.2	0.0	10.1	0.0	.02	.5	0.	0.	167.	0.	0.	1.07
C06002	.2	0.0	55.5	0.0	.03	.5	0.	0.	922.	0.	0.	1.31
C06003	.4	0.0	2.2	0.0	.05	1.2	0.	0.	37.	0.	0.	2.20
C06004	.2	0.0	53.7	0.0	.03	.5	0.	0.	891.	0.	0.	1.13
C06005	.6	0.0	2.3	0.0	.03	1.6	0.	0.	38.	0.	0.	1.31
C06006	.2	0.0	20.9	0.0	.03	.6	0.	0.	348.	0.	0.	1.47
C06007	.2	0.0	14.4	0.0	.03	.6	0.	0.	240.	0	0.	1.41

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A06100	.6	0.0	138.0	0.0	.09	1.6	0.	0.	2292.	0.	0.	3.98
A06101	.8	0.0	126.5	0.0	.16	2.2	0.	0.	2102.	0.	0.	7.09
A06102	1.2	140.5	143.1	143.1	.14	3.2	0.	0.	2376.	0.	0.	6.28
A06103	.8	0.0	141.8	0.0	.12	2.2	0.	0.	2356.	0.	0.	5.29
A06104	.8	0.0	131.8	0.0	.13	2.1	0.	0.	2189.	0.	0.	5.69
A06105	.7	0.0	131.9	0.0	.08	2.0	0.	0.	2191.	0.	0.	3.47
A06106	.8	0.0	132.2	0.0	.10	2.1	0.	0.	2196.	0.	0.	4.48
A06107	.5	0.0	138.1	0.0	.04	1.4	0.	0.	2295.	0.	0.	1.65
B06100	.2	0.0	131.3	0.0	.06	.6	0.	0.	2181.	0.	0.	2.51
B06101	.3	0.0	140.4	0.0	.07	.8	0.	0.	2332.	0.	0.	3.12
B06102	.3	0.0	120.9	0.0	.04	.7	0.	0.	2009.	0.	0.	1.82
B06103	.4	0.0	143.8	0.0	.05	1.1	0.	0.	2389.	0.	0.	2.41
B06104	.4	0.0	140.7	0.0	.02	1.1	0.	0.	2337.	0.	0.	1.00
B06105	.1	0.0	78.8	0.0	.01	.4	0.	0.	1309.	0.	0.	.67
B06106	.2	0.0	88.0	0.0	.01	.5	0.	0.	1462.	0.	0.	.40
B06107	.4	0.0	140.7	0.0	.01	1.1	0.	0.	2336.	0.	0.	.32
C06100	.3	0.0	9.7	0.0	.01	.7	0.	0.	162.	0.	0.	.34
C06101	.3	0.0	9.9	0.0	.01	.7	0.	0.	164.	0.	0.	.42
C06102	.2	0.0	137.0	0.0	.01	.4	0.	0.	2276.	0.	0.	.29
C06103	.3	0.0	.0	0.0	.01	.8	0.	0.	0.	0.	0.	.65
C06104	.5	0.0	54.7	0.0	.03	1.2	0.	0.	909.	0.	0.	1.14
C06105	.4	0.0	55.8	0.0	.04	1.2	0.	0.	926.	0.	0.	1.81
C06106	.5	0.0	124.2	0.0	.05	1.4	0.	0.	2064.	0.	0.	2.22
C06107	.5	0.0	123.2	0.0	.04	1.2	0.	0.	2047.	0.	0.	1.97

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A06200	5.3	3.1	4.9	11.9	.28	13.2	53.	0.	81.	0.	127.	12.18
A06201	6.2	2.9	4.8	25.1	.38	15.2	53.	80.	80.	81.	150.	16.36
A06202	5.5	2.8	4.9	24.8	.31	13.7	53.	0.	81.	0.	151.	13.54
A06203	2.8	5.0	5.4	25.1	.25	7.2	89.	0.	90.	0.	113.	10.95
A06204	6.7	5.6	8.1	14.0	.31	16.2	94.	133.	134.	134.	150.	13.59
A06205	5.2	2.9	4.7	9.6	.23	12.9	57.	0.	78.	0.	102.	9.97
A06206	4.8	5.6	7.8	12.5	.26	12.1	96.	0.	130.	0.	147.	11.55
A06207	2.9	7.7	7.9	8.9	.06	7.6	129.	0.	131.	0.	147.	2.76
B06200	1.0	0.0	11.5	0.0	.12	2.7	0.	0.	191.	0.	0.	5.15
B06201	.8	0.0	10.6	0.0	.16	2.2	0.	0.	175.	0.	0.	6.94
B06202	1.1	9.1	9.1	9.1	.12	2.9	0.	0.	151.	0.	0.	5.53
B06203	1.3	9.6	9.6	10.3	.17	3.3	0.	0.	159.	0.	0.	7.41
B06204	1.3	7.2	8.2	9.4	.08	3.5	0.	0.	136.	0.	0.	3.34
B06205	1.0	0.0	9.8	0.0	.03	2.5	0.	0.	163.	0.	0.	1.22
B06206	.5	0.0	5.4	0.0	.02	1.4	0.	0.	90.	0.	0.	.78
B06207	.4	0.0	4.4	0.0	.00	1.1	0.	0.	73.	0.	0.	.21
C06200	.1	0.0	4.5	0.0	.00	.3	0.	0.	75.	0.	0.	.04
C06201	.7	0.0	6.0	0.0	.01	1.8	0.	0.	99.	0.	0.	.60
C06202	1.1	5.5	5.5	5.6	.02	2.9	0.	0.	92.	0.	0.	.79
C06203	1.0	0.0	5.7	0.0	.05	2.5	0.	0.	94.	0.	0.	2.32
C06204	1.5	5.3	5.4	5.4	.08	4.0	0.	0.	89.	0.	0.	3.60
C06205	.8	0.0	5.4	0.0	.10	2.1	0.	0.	90.	0.	0.	4.37
C06206	1.3	5.3	5.3	5.4	.12	3.4	0.	0.	89.	0.	0.	5.17
C06207	.9	0.0	8.9	0.0	.11	2.4	0.	0.	148.	0.	0.	4.77

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S
A06300	.2	0.0	13.8	0.0	.03	.4	0.	0.	230.	0.	0.	1.28
A06301	.3	0.0	13.6	0.0	.06	.8	0.	0.	225.	0.	0.	2.61
A06302	.3	0.0	17.6	0.0	.06	.8	0.	0.	292.	0.	0.	2.62
A06303	.3	0.0	44.3	0.0	.08	.9	0.	0.	736.	0.	0.	3.47
A06304	.4	0.0	4.9	0.0	.06	1.1	0.	0.	82.	0.	0.	2.64
A06305	.5	0.0	4.9	0.0	.04	1.3	0.	0.	82.	0.	0.	1.66
A06306	.3	0.0	17.1	0.0	.03	.8	0.	0.	284.	0.	0.	1.49
A06307	.3	0.0	4.9	0.0	.02	.9	0.	0.	82.	0.	0.	.98
B06300	.2	0.0	10.8	0.0	.04	.4	0.	0.	180.	0.	0.	1.52
B06301	.3	0.0	16.6	0.0	.06	.7	0.	0.	276.	0.	0.	2.65
B06302	.1	0.0	13.2	0.0	.03	.4	0.	0.	219.	0.	0.	1.23
B06303	.2	0.0	13.8	0.0	.05	.6	0.	0.	228.	0.	0.	2.38
B06304	.3	0.0	1.1	0.0	.03	.9	0.	0.	19.	0.	0.	1.35
B06305	.1	0.0	15.2	0.0	.02	.4	0.	0.	253.	0.	0.	1.07
B06306	.1	0.0	53.0	0.0	.02	.4	0.	0.	881.	0.	0.	1.11
B06307	.3	0.0	15.3	0.0	.02	.8	0.	0.	254.	0.	0.	1.05
C06300	.1	0.0	30.6	0.0	.02	.3	0.	0.	509.	0.	0.	.90
C06301	.2	0.0	32.0	0.0	.02	.4	0.	0.	532.	0.	0.	1.09
C06302	.1	0.0	54.2	0.0	.01	.3	0.	0.	901.	0.	0.	.67
C06303	.2	0.0	51.8	0.0	.03	.5	0.	0.	861.	0.	0.	1.17
C06304	.5	0.0	2.4	0.0	.03	1.3	0.	0.	40.	0.	0.	1.18
C06305	.2	0.0	39.9	0.0	.03	.5	0.	0.	663.	0.	0.	1.47
C06306	.2	0.0	15.1	0.0	.04	.5	0.	0.	251.	0.	0.	1.82
C06307	.4	0.0	42.1	0.0	.03	1.0	0.	0.	700.	0.	0.	1.28

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S
A06700	5.5	126.6	132.0	149.3	.71	13.5	2110.	0.	2193.	0.	2470.	30.72
A06701	5.3	118.5	131.6	148.1	.89	13.2	2094.	0.	2186.	0.	2459.	38.30
A06702	3.1	117.9	129.8	146.2	.47	8.1	2014.	0.	2157.	0.	2415.	20.91
A06703	3.1	122.3	128.9	140.4	.34	7.9	2138.	0.	2142.	0.	2147.	15.29
A06704	2.0	126.8	134.0	141.7	.22	5.3	2227.	0.	2227.	0.	2227.	9.80
A06705	3.1	132.4	139.7	142.7	.26	7.9	2320.	0.	2321.	0.	2324.	11.69
A06706	3.6	121.0	139.7	148.1	.48	9.2	2185.	0.	2320.	0.	2406.	20.93
A06707	2.5	126.7	145.1	147.7	.31	6.5	2322.	0.	2411.	0.	2421.	13.54
B06700	1.9	70.1	89.4	93.5	.60	4.9	0.	0.	1485.	0.	0.	26.36
B06701	3.5	70.1	80.1	93.6	.90	8.8	1164.	0.	1331.	0.	1554.	38.83
B06702*												
B06703	2.0	61.4	67.2	70.1	.49	5.2	1023.	0.	1116.	0.	1124.	21.66
B06704	6.5	61.4	70.0	93.5	2.03	15.8	1019.	1019.	1163.	1164.	1553.	83.88
B06705	3.2	20.2	61.4	61.4	.95	8.2	599.	0.	1019.	0.	1020.	41.27
B06706*												
B06707	2.3	30.6	61.2	61.4	.66	5.9	876.	0.	1017.	0.	1019.	28.80

*missing data

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A06800	5.4	5.9	8.5	45.3	.68	13.5	101.	0.	141.	0.	491.	29.04
A06801	6.7	5.0	8.3	43.6	.88	16.3	83.	135.	137.	141.	420.	37.51
A06802	6.5	4.5	6.2	46.7	.45	15.9	90.	103.	103.	104.	458.	19.57
A06803	2.3	5.1	11.2	28.0	.26	6.0	185.	0.	186.	0.	187.	11.40
A06804	4.1	4.8	6.8	28.5	.24	10.5	102.	0.	113.	0.	362.	10.76
A06805	4.5	5.3	7.4	26.1	.32	11.4	91.	0.	124.	0.	197.	14.19
A06806	5.9	5.2	6.4	44.4	.62	14.4	88.	0.	106.	0.	447.	26.74
A06807	5.5	5.7	6.8	27.2	.38	13.6	96.	0.	113.	0.	215.	16.41
B06800	1.8	11.4	11.6	16.3	.11	4.6	0.	0.	193.	0.	0.	5.03
B06801	.8	0.0	13.0	0.0	.12	2.3	0.	0.	217.	0.	0.	5.22
B06802	1.2	16.1	16.1	16.1	.13	3.1	0.	0.	267.	0.	0.	5.62
B06803	1.1	12.5	15.3	16.4	.19	2.8	0.	0.	254.	0.	0.	8.47
B06804	3.1	7.6	10.7	18.2	.23	7.9	142.	0.	178.	0.	182.	10.00
B06805	2.9	8.8	10.6	12.8	.14	7.5	154.	0.	175.	0.	202.	6.19
B06806	2.9	9.0	11.2	14.8	.15	7.5	155.	0.	185.	0.	194.	6.44
B06807	1.6	10.5	10.7	14.3	.10	4.1	0.	0.	178.	0.	0.	4.46

MODEL CONDITIONS						PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A06900	.2	0.0	21.4	0.0	.04	.6	0.	0.	355.	0.	0.	1.88
A06901	.4	0.0	44.6	0.0	.06	1.0	0.	0.	741.	0.	0.	2.81
A06902	.4	0.0	28.8	0.0	.08	1.0	0.	0.	479.	0.	0.	3.41
A06903	.5	0.0	34.6	0.0	.11	1.2	0.	0.	575.	0.	0.	5.03
A06904	.4	0.0	28.4	0.0	.06	1.0	0.	0.	471.	0.	0.	2.65
A06905	.6	0.0	18.3	0.0	.04	1.5	0.	0.	304.	0.	0.	1.87
A06906	.3	0.0	25.5	0.0	.03	.8	0.	0.	424.	0.	0.	1.15
A06907	.3	0.0	5.2	0.0	.01	.7	0.	0.	86.	0.	0.	.31
B06900	.1	0.0	60.5	0.0	.02	.4	0.	0.	1005.	0.	0.	.89
B06901	.4	0.0	.3	0.0	.02	1.0	0.	0.	6.	0.	0.	1.09
B06902	.2	0.0	21.1	0.0	.03	.7	0.	0.	351.	0.	0.	1.25
B06903	.4	0.0	.3	0.0	.06	1.1	0.	0.	6.	0.	0.	2.76
B06904	.3	0.0	1.3	0.0	.03	.9	0.	0.	22.	0.	0.	1.15
B06905	.2	0.0	8.7	0.0	.03	.5	0.	0.	145.	0.	0.	1.54
B06906	.4	0.0	15.5	0.0	.04	1.0	0.	0.	257.	0.	0.	1.79
B06907	.3	0.0	1.3	0.0	.05	.7	0.	0.	22.	0.	0.	2.37

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S
A07000	.6	0.0	144.1	0.0	.04	1.6	0.	0.	2394.	0.	0.	1.73
A07001	1.9	131.4	143.3	143.7	.23	5.1	2380.	0.	2380.	0.	2381.	10.43
A07002	1.7	131.9	142.8	148.6	.26	4.4	0.	0.	2371.	0.	0.	11.59
A07003	1.5	135.4	139.5	139.9	.31	4.0	0.	0.	2317.	0.	0.	13.85
A07004	1.1	137.4	137.4	137.4	.22	2.9	0.	0.	2283.	0.	0.	10.01
A07005	.7	0.0	138.2	0.0	.12	1.8	0.	0.	2296.	0.	0.	5.24
A07006	1.0	0.0	138.6	0.0	.10	2.7	0.	0.	2302.	0.	0.	4.42
A07007	1.0	140.3	140.3	140.3	.05	2.7	0.	0.	2330.	0.	0.	2.18
B07000	.8	0.0	141.6	0.0	.13	2.1	0.	0.	2353.	0.	0.	5.95
B07001	.8	0.0	141.7	0.0	.13	2.2	0.	0.	2353.	0.	0.	6.01
B07002	.7	0.0	141.6	0.0	.11	2.0	0.	0.	2353.	0.	0.	4.95
B07003	.5	0.0	141.4	0.0	.07	1.2	0.	0.	2349.	0.	0.	3.16
B07004	.5	0.0	138.8	0.0	.04	1.3	0.	0.	2305.	0.	0.	1.92
B07005	.3	0.0	139.2	0.0	.02	.9	0.	0.	2312.	0.	0.	.95
B07006	.5	0.0	144.7	0.0	.02	1.2	0.	0.	2404.	0.	0.	.81
B07007	.4	0.0	20.1	0.0	.01	1.0	0.	0.	334.	0.	0.	.28

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A07100	6.0	4.6	5.3	12.2	.17	14.7	79.	0.	89.	0.	103.	7.37
A07101	7.7	2.0	5.0	29.6	.48	18.3	37.	67.	82.	86.	199.	20.32
A07102	7.7	1.8	5.4	35.6	.41	18.4	30.	89.	89.	208.	258.	17.60
A07103	4.1	3.6	8.8	25.5	.36	10.2	71.	0.	146.	0.	222.	15.80
A07104	3.8	4.2	5.8	28.3	.26	9.7	93.	0.	96.	0.	168.	11.49
A07105	2.9	4.6	5.8	11.1	.22	7.5	92.	0.	96.	0.	126.	9.72
A07106	5.3	3.2	5.6	21.2	.34	13.1	58.	0.	92.	0.	148.	14.78
A07107	3.4	3.5	7.3	9.0	.19	8.8	68.	0.	121.	0.	146.	8.38
B07100	.7	0.0	8.5	0.0	.11	1.9	0.	0.	140.	0.	0.	4.90
B07101	1.2	7.0	7.1	8.8	.14	3.3	0.	0.	117.	0.	0.	6.35
B07102	2.4	6.1	6.3	7.5	.15	6.3	104.	0.	105.	0.	105.	6.57
B07103	1.5	5.0	5.7	7.7	.15	3.9	0.	0.	94.	0.	0.	6.46
B07104	3.1	4.6	5.1	11.5	.12	8.0	77.	0.	85.	0.	91.	5.23
B07105	.8	0.0	6.4	0.0	.03	2.2	0.	0.	107.	0.	0.	1.44
B07106	.7	0.0	6.8	0.0	.03	1.8	0.	0.	114.	0.	0.	1.30
B07107	.6	0.0	6.9	0.0	.01	1.5	0.	0.	115.	0.	0.	.59

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A07200	.3	0.0	1.4	0.0	.00	.8	0.	0.	43.	0.	0.	.08
A07201	.6	0.0	14.3	0.0	.03	1.6	0.	0.	238.	0.	0.	1.28
A07202	.6	0.0	14.5	0.0	.05	1.6	0.	0.	241.	0.	0.	2.24
A07203	.6	0.0	7.2	0.0	.09	1.5	0.	0.	119.	0.	0.	3.83
A07204	.4	0.0	2.5	0.0	.06	1.0	0.	0.	41.	0.	0.	2.86
A07205	.3	0.0	1.5	0.0	.04	.8	0.	0.	24.	0.	0.	1.72
A07206	.5	0.0	21.7	0.0	.03	1.2	0.	0.	360.	0.	0.	1.39
A07207	.5	0.0	14.5	0.0	.01	1.2	0.	0.	240.	0	0.	.59
B07200	.3	0.0	14.9	0.0	.03	.9	0.	0.	247.	0.	0.	1.43
B07201	.6	0.0	1.7	0.0	.04	1.7	0.	0.	29.	0.	0.	1.76
B07202	.4	0.0	14.9	0.0	.03	1.1	0.	0.	248.	0.	0.	1.47
B07203	.5	0.0	1.7	0.0	.03	1.3	0.	0.	28.	0.	0.	1.29
B07204	.2	0.0	20.9	0.0	.02	.4	0.	0.	348.	0.	0.	.80
B07205	.5	0.0	1.7	0.0	.02	1.2	0.	0.	28.	0.	0.	.82
B07206	.6	0.0	1.7	0.0	.02	1.7	0.	0.	28.	0.	0.	.68
B07207	.4	0.0	42.4	0.0	.02	1.0	0.	0.	704.	0.	0.	.92

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A14500	2.7	134.9	136.4	143.1	.27	7.0	2247.	0.	2266.	0.	2336.	11.69
A14501	3.9	124.4	134.3	145.4	.44	9.8	2068.	0.	2230.	0.	2374.	19.29
A14502	5.0	120.1	133.5	144.8	.43	12.4	2056.	0.	2217.	0.	2365.	18.51
A14503	3.9	117.9	132.2	146.7	.69	9.8	2044.	0.	2197.	0.	2413.	29.71
A14504	4.2	119.6	130.9	148.3	.66	10.5	2010.	0.	2174.	0.	2426.	28.72
A14505	2.0	122.0	137.9	143.6	.44	5.2	2290.	0.	2290.	0.	2292.	19.27
A14506	3.5	118.6	142.6	146.2	.82	8.9	2074.	0.	2368.	0.	2423.	35.73
A14507	1.8	119.9	135.1	146.4	.45	4.8	0.	0.	2244.	0.	0.	19.95
B14500	.7	0.0	148.1	0.0	.09	1.9	0.	0.	2459.	0.	0.	3.89
B14501	1.8	147.3	148.2	151.7	.22	4.6	0.	0.	2461.	0.	0.	9.75
B14502	1.7	141.1	141.6	148.4	.15	4.3	0.	0.	2352.	0.	0.	6.89
B14503	1.7	138.3	141.1	151.4	.25	4.4	0.	0.	2344.	0.	0.	11.28
B14504	1.0	0.0	140.4	0.0	.09	2.6	0.	0.	2332.	0.	0.	3.90
B14505	.4	0.0	114.7	0.0	.03	1.1	0.	0.	1905.	0.	0.	1.13
B14506	.6	0.0	114.7	0.0	.03	1.5	0.	0.	1905.	0.	0.	1.51
B14507	.3	0.0	122.2	0.0	.03	.9	0.	0.	2031.	0.	0.	1.39
C14500	.2	0.0	19.0	0.0	.03	.7	0.	0.	315.	0.	0.	1.44
C14501	.5	0.0	113.3	0.0	.02	1.3	0.	0.	1882.	0.	0.	.91
C14502	.3	0.0	113.3	0.0	.03	.7	0.	0.	1882.	0.	0.	1.29
C14503	.6	0.0	113.3	0.0	.07	1.5	0.	0.	1882.	0.	0.	3.31
C14504	.4	0.0	134.8	0.0	.07	1.0	0.	0.	2239.	0.	0.	3.07
C14505	.6	0.0	136.2	0.0	.12	1.6	0.	0.	2263.	0.	0.	5.52
C14506	1.0	0.0	141.6	0.0	.17	2.6	0.	0.	2353.	0.	0.	7.40
C14507	1.1	141.6	141.6	141.6	.21	2.9	0.	0.	2353.	0.	0.	9.51

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A14600	4.8	4.8	8.8	27.5	.53	12.0	83.	0.	146.	0.	280.	22.87
A14601	8.1	4.6	6.0	40.3	.87	19.3	79.	92.	100.	152.	667.	36.75
A14602	10.0	3.7	5.0	43.5	.98	23.2	66.	82.	83.	188.	651.	41.38
A14603	7.5	3.3	5.3	46.7	1.40	17.9	64.	84.	88.	151.	657.	59.22
A14604	8.2	3.4	7.1	45.6	1.26	19.4	65.	72.	118.	133.	715.	53.64
A14605	5.5	4.0	5.7	43.4	.80	13.5	78.	0.	95.	0.	493.	34.38
A14606	7.8	4.3	6.2	46.6	1.18	18.7	77.	97.	103.	134.	620.	50.08
A14607	5.0	5.6	6.9	44.1	.71	12.5	96.	0.	115.	0.	488.	30.70
B14600	2.1	9.0	12.0	35.9	.36	5.5	189.	0.	199.	0.	215.	16.00
B14601	2.3	7.0	7.8	33.2	.37	6.0	127.	0.	129.	0.	143.	16.31
B14602	2.2	6.2	13.4	32.3	.27	5.6	219.	0.	222.	0.	232.	11.90
B14603	3.1	7.5	10.0	31.8	.45	8.0	132.	0.	166.	0.	302.	19.77
B14604	2.0	7.9	10.2	27.2	.25	5.2	169.	0.	169.	0.	170.	10.91
B14605	.8	0.0	10.2	0.0	.12	2.3	0.	0.	170.	0.	0.	5.41
B14606	1.4	8.1	8.1	28.6	.23	3.7	0.	0.	134.	0.	0.	10.21
B14607	1.6	9.8	10.2	12.1	.19	4.2	0.	0.	169.	0.	0	8.38
C14600	.6	0.0	25.2	0.0	.01	1.6	0.	0.	419.	0.	0.	.58
C14601	.4	0.0	11.7	0.0	.01	1.0	0.	0.	194.	0.	0.	.51
C14602	.4	0.0	12.4	0.0	.01	1.1	0.	0.	207.	0.	0.	.42
C14603	.4	0.0	12.3	0.0	.02	1.0	0.	0.	204.	0.	0.	.92
C14604	.8	0.0	11.2	0.0	.10	2.1	0.	0.	186.	0.	0.	4.64
C14605	1.1	10.0	10.0	10.0	.09	3.7	0.	0.	166.	0.	0.	4.01
C14606	1.4	10.0	10.6	12.6	.16	3.7	0.	0.	176.	0.	0.	7.21
C14607	1.3	10.0	10.5	13.6	.20	3.3	0.	0.	174.	0.	0.	9.11

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A]4700	.1	0.0	64.4	0.0	.01	.3	0.	0.	1070.	0.	0.	.40
A]4701	.3	0.0	39.2	0.0	.03	.8	0.	0.	652.	0.	0.	1.50
A]4702	.5	0.0	29.2	0.0	.06	1.3	0.	0.	485.	0.	0.	2.78
A]4703	.5	0.0	14.6	0.0	.09	1.3	0.	0.	242.	0.	0.	3.88
A]4704	.5	0.0	32.4	0.0	.11	1.4	0.	0.	538.	0.	0.	5.14
A]4705	.3	0.0	18.6	0.0	.07	.8	0.	0.	309.	0.	0.	3.355
A]4706	.4	0.0	19.9	0.0	.09	1.1	0.	0.	331.	0.	0.	4.25
A]4707	.4	0.0	14.8	0.0	.08	1.0	0.	0.	246.	0.	0.	3.51
B14700	.7	0.0	13.7	0.0	.04	1.8	0.	0.	228.	0.	0.	1.67
B14701	.4	0.0	13.7	0.0	.04	1.0	0.	0.	228.	0.	0.	1.783
B14702	.3	0.0	13.8	0.0	.04	.9	0.	0.	228.	0.	0.	1.883
B14703	.5	0.0	1.5	0.0	.05	1.4	0.	0.	26.	0.	0.	2.41
B14704	.2	0.0	13.7	0.0	.04	.4	0.	0.	227.	0.	0.	1.61
B14705	.3	0.0	1.5	0.0	.02	.8	0.	0.	26.	0.	0.	.833
B14706	.3	0.0	27.8	0.0	.02	.7	0.	0.	461.	0.	0.	.765
B14707	.1	0.0	1.5	0.0	.00	.3	0.	0.	26.	0.	0.	.15
C14700	.1	0.0	12.1	0.0	.01	.3	0.	0.	201.	0.	0.	.32
C14701	.2	0.0	15.2	0.0	.01	.4	0.	0.	253.	0.	0.	.604
C14702	.1	0.0	15.4	0.0	.01	.3	0.	0.	255.	0.	0.	.443
C14703	.5	0.0	.0	0.0	.01	1.2	0.	0.	0.	0.	0.	.233
C14704	.1	0.0	63.1	0.0	.02	.3	0.	0.	1048.	0.	0.	1.09
C14705	.5	0.0	15.1	0.0	.01	1.4	0.	0.	251.	0.	0.	.317
C14706	.2	0.0	35.0	0.0	.01	.5	0.	0.	582.	0.	0.	.677
C14707	.4	0.0	15.1	0.0	.02	1.1	0.	0.	250.	0.	0.	.67

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A14800	1.0	0.0	134.7	0.0	.17	2.6	0.	0.	2237.	0.	0.	7.66
A14801	1.5	136.8	137.1	145.2	.27	3.9	0.	0.	2277.	0.	0.	12.16
A14802	2.1	119.7	142.6	142.7	.27	5.5	2277.	0.	2368.	0.	2369.	11.84
A14803	2.0	124.7	136.1	146.1	.36	5.3	2261.	0.	2261.	0.	2262.	15.77
A14804	2.1	128.0	133.6	143.7	.32	5.5	2210.	0.	2219.	0.	2378.	14.17
A14805	1.2	129.1	129.1	133.4	.17	3.3	0.	0.	2145.	0.	0.	7.66
A14806	1.2	121.7	122.4	137.7	.26	3.3	0.	0.	2033.	0.	0.	11.62
A14807	.9	0.0	141.5	0.0	.11	2.3	0.	0.	2350.	0.	0.	4.99
B14800	.5	0.0	145.0	0.0	.12	1.4	0.	0.	2408.	0.	0.	5.52
B14801	.7	0.0	135.2	0.0	.14	1.9	0.	0.	2245.	0.	0.	6.44
B14802	.7	0.0	134.8	0.0	.20	2.0	0.	0.	2239.	0.	0.	9.07
B14803	.6	0.0	134.5	0.0	.18	1.6	0.	0.	2234.	0.	0.	8.14
B14804	.6	0.0	145.7	0.0	.07	1.5	0.	0.	2420.	0.	0.	3.34
B14805	.3	0.0	46.4	0.0	.07	.8	0.	0.	772.	0.	0.	3.36
B14806	.3	0.0	46.4	0.0	.04	.8	0.	0.	771.	0.	0.	1.99
B14807	.2	0.0	146.8	0.0	.05	.7	0.	0.	2438.	0.	0.	2.31
C14800	.2	0.0	95.4	0.0	.04	.6	0.	0.	1585.	0.	0.	1.69
C14801	.2	0.0	121.5	0.0	.05	.6	0.	0.	2018.	0.	0.	2.23
C14802	.2	0.0	96.4	0.0	.04	.5	0.	0.	1601.	0.	0.	1.67
C14803	.5	0.0	96.2	0.0	.10	1.5	0.	0.	1598.	0.	0.	4.60
C14804	.3	0.0	100.7	0.0	.04	.8	0.	0.	1673.	0.	0.	1.58
C14805	.2	0.0	135.5	0.0	.04	.5	0.	0.	2250.	0.	0.	1.92
C14806	.5	0.0	146.9	0.0	.05	1.2	0.	0.	2440.	0.	0.	2.24
C14807	.4	0.0	95.9	0.0	.07	1.0	0	0.	1594.	0.	0.	3.08

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A14900	3.2	7.3	9.3	26.8	.23	8.2	149.	0.	155.	0.	172.	10.34
A14901	5.7	5.3	8.7	29.3	.46	14.1	114.	0.	145.	0.	227.	19.82
A14902	7.3	5.2	7.7	36.0	.53	17.5	93.	124.	127.	150.	491.	22.96
A14903	7.4	2.8	5.5	39.7	.80	17.9	48.	77.	92.	117.	355.	34.20
A14904	8.4	5.4	7.8	35.3	.58	19.9	90.	126.	129.	134.	318.	24.94
A14905	5.1	6.3	7.5	16.4	.30	12.6	106.	0.	124.	0.	245.	13.22
A14906	5.0	3.0	4.6	25.1	.47	12.4	65.	0.	77.	0.	221.	20.54
A14907	2.7	3.8	6.0	14.0	.25	7.0	76.	0.	100.	0.	207.	10.90
B14900	1.4	7.4	10.2	11.0	.18	3.7	0.	0.	169.	0.	0.	8.18
B14901	1.9	7.3	7.8	9.9	.16	5.0	130.	0.	130.	0.	132.	7.27
B14902	2.1	4.9	7.4	11.4	.14	5.4	122.	0.	123.	0.	126.	6.08
B14903	2.5	5.3	7.3	13.6	.23	6.5	118.	0.	121.	0.	145.	9.94
B14904	1.6	8.1	9.1	10.9	.11	4.3	0.	0.	152.	0.	0.	4.93
B14905	.6	0.0	7.6	0.0	.06	1.5	0.	0.	126.	0.	0.	2.78
B14906	.9	0.0	15.1	0.0	.08	2.4	0.	0.	250.	0.	0.	3.57
B14907	.8	0.0	15.5	0.0	.07	2.1	0.	0.	258.	0.	0.	3.10
C14900	.5	0.0	2.1	0.0	.01	1.4	0.	0.	35.	0.	0.	.61
C14901	.6	0.0	1.9	0.0	.02	1.5	0.	0.	32.	0.	0.	.81
C14902	.3	0.0	2.1	0.0	.03	.9	0.	0.	35.	0.	0.	1.28
C14903	.6	0.0	1.9	0.0	.03	1.7	0.	0.	32.	0.	0.	1.13
C14904	.3	0.0	13.8	0.0	.02	.8	0.	0.	229.	0.	0.	1.04
C14905	.5	0.0	2.1	0.0	.04	1.3	0.	0.	35.	0.	0.	1.64
C14906	.9	0.0	13.1	0.0	.10	2.4	0.	0.	218.	0.	0.	4.38
C14907	1.1	13.4	13.4	14.2	.13	2.8	0.	0.	227	0	0.	5.71

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
A15000	.4	0.0	2.8	0.0	.04	1.2	0.	0.	47.	0.	0.	1.61
A15001	.8	0.0	40.8	0.0	.07	2.1	0.	0.	678.	0.	0.	3.18
A15002	.5	0.0	40.9	0.0	.04	1.3	0.	0.	679.	0.	0.	1.71
A15003	.8	0.0	40.8	0.0	.06	2.2	0.	0.	678.	0.	0.	2.74
A15004	.2	0.0	15.1	0.0	.04	.7	0.	0.	250.	0.	0.	1.86
A15005	.3	0.0	59.8	0.0	.03	.7	0.	0.	993.	0.	0.	1.31
A15006	.4	0.0	16.0	0.0	.05	1.0	0.	0.	265.	0.	0.	2.28
A15007	.2	0.0	15.0	0.0	.02	.6	0.	0.	249.	0.	0.	.81
B15000	.2	0.0	15.9	0.0	.04	.6	0.	0.	263.	0.	0.	1.71
B15001	.2	0.0	66.4	0.0	.01	.5	0.	0.	1102.	0.	0.	.66
B15002	.2	0.0	9.5	0.0	.01	.4	0.	0.	159.	0.	0.	.62
B15003	.5	0.0	42.0	0.0	.02	1.3	0.	0.	697.	0.	0.	.94
B15004	.2	0.0	26.3	0.0	.01	.4	0.	0.	436.	0.	0.	.64
B15005	.2	0.0	42.0	0.0	.01	.6	0.	0.	697.	0.	0.	.67
B15006	.3	0.0	14.5	0.0	.01	.7	0.	0.	242.	0.	0.	.55
B15007	.1	0.0	42.0	0.0	.01	.4	0.	0.	697.	0.	0.	.32
C15000	.6	0.0	1.2	0.0	.00	1.5	0.	0.	19.	0.	0.	.18
C15001	.6	0.0	1.2	0.0	.01	1.6	0.	0.	20.	0.	0.	.50
C15002	.2	0.0	1.2	0.0	.01	.6	0.	0.	20.	0.	0.	.41
C15003	.5	0.0	1.2	0.0	.00	1.3	0.	0.	20.	0.	0.	.18
C15004	.1	0.0	.1	0.0	.01	.2	0.	0.	2.	0.	0.	.48
C15005	.1	0.0	15.4	0.0	.01	.4	0.	0.	256.	0.	0.	.27
C15006	.5	0.0	1.2	0.0	.01	1.2	0.	0.	20.	0.	0.	.50
C15007	.1	0.0	1.2	0.0	.01	.2	0.	0.	20.	0.	0.	.30

APPENDIX C

LNG SPILL CONCENTRATION DATA

FOR WIND SPEEDS OF 2.23 m/sec (5 mph)

WITH FREON AS A SOURCE GAS

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
G00100	6.3	78.6	168.6	189.1	.53	23.1	5740.	5743.	6329.	7015.	7095.	80.98
G00101	9.7	114.3	181.0	195.0	2.77	32.4	4593.	5728.	6792.	7052.	7317.	389.3
G00102	10.0	22.2	180.7	197.3	2.96	33.0	832.	5561.	6783.	6993.	7398.	428.0
G00103	14.5	56.7	173.1	203.1	6.06	43.0	2127.	5534.	6498.	7123.	7624.	788.2
G00104	12.1	101.1	173.9	200.4	4.54	37.9	4174.	5557.	6525.	7099.	7517.	601.0
G00105	10.5	104.9	177.1	204.8	4.30	34.3	4335.	5693.	6645.	7280.	7597.	568.9
G00106	7.5	117.5	184.0	203.9	3.00	26.5	5613.	5697.	6906.	7122.	7654.	423.0
G00107	10.0	150.0	184.2	202.6	3.61	33.1	5630.	5692.	6913.	7267.	7600.	484.2
H00100	3.2	156.5	173.5	194.8	1.07	12.8	5876.	0.	6513.	0.	7297.	165.8
H00101	3.9	153.6	172.4	191.0	1.13	15.2	5777.	6470.	6470.	6568.	7161.	171.2
H00102	4.1	152.8	183.4	191.1	1.19	16.0	5738.	6482.	6881.	6885.	7172.	180.4
H00103	7.7	22.8	156.2	194.6	2.44	26.9	855.	5686.	5861.	7036.	7305.	340.3
H00104	8.2	141.4	169.8	197.2	2.73	28.4	5607.	5641.	6373.	7007.	7302.	377.7
H00105	11.7	114.0	163.2	199.4	4.58	37.0	4291.	5680.	6127.	7214.	7478.	591.7
H00106	12.4	95.9	167.7	197.2	4.65	38.6	3634.	5552.	6293.	7080.	7282.	619.5
H00107	17.6	86.6	167.5	213.8	5.71	48.6	3250.	5548.	6288.	7122.	7407.	723.3
I00100	5.4	156.6	171.7	204.9	1.71	20.2	5882.	6215.	6443.	7212.	7576.	251.9
I00101	2.0	170.7	179.0	195.7	.44	8.1	6409.	0.	6717.	0.	7344.	72.25
I00102	1.3	177.6	179.3	193.0	.51	5.7	6727.	0.	6727.	0.	6729.	84.19
I00103	.4	0.0	2.6	0.0	.11	1.9	0.	0.	98.	0.	0.	18.12
I00104	.3	0.0	178.8	0.0	.02	1.5	0.	0.	6711.	0.	0.	2.58
I00105	.4	0.0	178.9	0.0	.05	1.8	0.	0.	6712.	0.	0.	7.50
I00106	.6	0.0	178.8	0.0	.08	2.7	0.	0.	6711.	0.	0.	12.79
I00107	.6	0.0	178.8	0.0	.06	2.8	0.	0.	6711.	0.	0.	10.18
J00100	.6	0.0	179.9	0.0	.15	2.8	0.	0.	6753.	0.	0.	24.49
J00101	.6	0.0	179.9	0.0	.14	2.7	0.	0.	6753.	0.	0.	23.44
J00102	1.0	0.0	180.0	0.0	.31	4.2	0.	0.	6754.	0.	0.	51.56
J00103	1.4	179.9	179.9	180.0	.72	5.8	6753.	0.	6753.	0.	6754.	118.9
J00104	.2	0.0	179.9	0.0	.04	.9	0.	0.	6752.	0.	0.	6.92
J00105	.4	0.0	179.9	0.0	.14	1.9	0.	0.	6753.	0.	0.	22.84
J00106	.6	0.0	179.9	0.0	.19	2.8	0.	0.	6752.	0.	0.	31.94
J00107	2.1	183.0	185.4	188.3	.17	8.5	6874.	0.	6958.	0.	7045.	28.17

	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
K00100	2.8	155.3	181.7	194.3	.76	11.3	6053.	0.	6819.	0.	7274.	118.7
K00101	4.3	154.5	177.3	195.1	1.11	16.7	5811.	6529.	6655.	6916.	7267.	168.5
K00102	4.0	152.8	167.3	194.8	1.23	15.7	5733.	6279.	6279.	6390.	7311.	186.9
K00103	3.9	56.9	186.5	196.1	.83	15.4	5885.	6999.	6999.	7000.	7360.	129.0
K00104	3.7	150.5	179.2	196.7	1.32	14.7	5651.	0.	6724.	0.	7377.	203.0
K00105	4.3	154.1	175.8	205.5	1.73	16.5	5789.	6451.	6598.	6960.	7699.	262.4
K00106	4.1	56.9	170.8	201.6	1.70	15.9	5698.	6039.	6409.	6907.	7556.	258.7
K00107	5.2	152.8	178.7	204.5	1.87	19.5	5741.	6021.	6708.	7096.	7646.	277.6
L00100	2.6	163.8	174.4	191.8	.60	10.7	6111.	0.	6482.	0.	7118.	93.93
L00101	3.6	156.9	173.2	199.6	1.05	14.2	5851.	0.	6440.	0.	7391.	161.1
L00102	3.4	154.4	166.0	199.4	1.13	13.5	5747.	0.	6173.	0.	7366.	172.0
L00103	4.0	153.9	181.4	198.9	1.39	15.5	5720.	6255.	6743.	6769.	7394.	208.4
L00104	3.8	152.7	167.3	196.1	1.18	14.8	5682.	0.	6221.	0.	7271.	180.4
L00105	3.6	157.2	174.8	199.7	1.29	14.3	5855.	0.	6497.	0.	7387.	196.5
L00106	3.9	154.0	178.6	194.9	1.25	15.3	5731.	6639.	6639.	6685.	7240.	190.2
L00107	6.0	154.6	179.4	195.9	1.57	22.1	5758.	5893.	6671.	7014.	7257.	230.6
M00100	1.8	165.8	189.7	201.8	.35	7.5	6374.	0.	7120.	0.	7573.	57.33
M00101 *												
M00102 *												
M00103 *												
M00104	1.1	187.4	198.2	198.3	.09	4.8	0.	0.	7368.	0.	0.	15.34
M00105	.7	0.0	192.8	0.0	.06	3.0	0.	0.	7170.	0.	0.	9.13
M00106 *												
M00107	.4	0.0	30.5	0.0	.03	1.6	0.	0.	1134.	0.	0.	5.14

*missing data

	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
N00100	.7	0.0	179.0	0.0	.06	2.9	0.	0.	6654.	0.	0.	9.29
N00101	.6	0.0	179.0	0.0	.07	2.5	0.	0.	6654.	0.	0.	11.59
N00102	1.0	179.0	179.0	179.0	.14	4.3	0.	0.	6655.	0.	0.	23.37
N00103	1.7	179.0	179.0	179.0	.15	7.1	6654.	0.	6654.	0.	6655.	25.06
N00104	1.0	0.0	187.4	0.0	.10	4.2	0.	0.	6969.	0.	0.	17.08
N00105	1.2	181.4	187.6	193.9	.13	5.1	6976.	0.	6976.	0.	7206.	21.43
N00106	2.3	168.8	190.4	196.4	.52	9.5	6372.	0.	7080.	0.	7203	81.27
N00107	3.9	164.0	185.4	199.6	1.02	15.4	6109.	6892.	6892.	7041.	7397.	154.9
P00100	.5	0.0	21.4	0.0	.04	2.1	0.	0.	797.	0.	0.	7.38
P00101	.4	0.0	157.0	0.0	.02	2.0	0.	0.	5839.	0.	0.	3.06
P00102	.8	0.0	155.5	0.0	.08	3.4	0.	0.	5780.	0.	0.	13.40
P00103	1.6	21.5	148.0	164.4	.31	6.8	798.	0.	5501.	0.	6113.	49.32
P00104	1.6	130.8	135.7	165.0	.46	6.6	4923.	0.	5047.	0.	6014.	73.16
P00105	2.1	128.9	151.7	169.5	.80	8.7	4883.	0.	5640.	0.	6284.	127.0
P00106	1.8	125.1	155.5	169.6	.83	7.6	4653.	0.	5782.	0.	6244.	131.6
P00107	2.5	126.0	150.5	173.6	1.08	10.3	4700.	0.	5596.	0.	6376	169.8
Q00100	1.5	172.6	191.1	193.7	.34	6.2	6421.	0.	7105.	0.	7167.	54.16
Q00101	1.3	172.8	191.9	192.8	.37	5.5	6643.	0.	7135.	0.	7145.	59.92
Q00102	.6	0.0	175.0	0.0	.12	2.6	0.	0.	6505.	0.	0.	20.16
Q00103	.8	0.0	144.1	0.0	.06	3.5	0.	0.	5357.	0.	0.	10.16
Q00104	.6	0.0	187.6	0.0	.03	2.7	0.	0.	6975.	0.	0.	5.40
Q00105	1.7	161.1	173.8	194.0	.45	7.0	6037.	0.	6461.	0.	7210.	71.88
Q00106	1.9	159.7	178.7	196.4	.62	7.9	6022.	0.	6642.	0.	7255.	97.98
Q00107	2.4	164.8	168.1	196.5	.21	10.0	6236.	0.	6251.	0.	7301.	32.78

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
E00200	20.6	.3	3.9	53.5	4.87	53.6	13.	14.	145.	1782.	2005.	582.2
E00201	22.4	.6	3.8	49.5	4.56	56.3	22.	23.	143.	1542.	1849.	533.9
E00202	8.2	1.5	2.8	39.7	1.53	28.5	55.	57.	106.	1238.	1490.	219.0
E00203	8.4	3.6	9.0	42.4	1.01	28.8	136.	178.	337.	1287.	1591.	147.2
E00204 *												
E00205	4.5	6.8	15.5	44.3	.81	17.3	257.	383.	582.	782.	1661.	123.4
E00206	5.6	5.8	11.4	39.3	1.05	20.8	220.	340.	429.	725.	1468.	156.7
E00207	3.5	6.8	11.0	35.5	.56	14.0	258.	0.	413.	0.	1299.	87.73
F00200	1.5	9.5	9.5	21.3	.07	6.5	357.	0.	357.	0.	798.	11.09
F00201	5.8	9.5	9.5	21.2	.02	21.6	357.	357.	357.	358.	359.	2.90
F00202 *												
F00203 *												
F00204	7.0	2.3	7.2	47.8	1.16	24.9	87.	89.	270.	356.	1624.	177.4
F00205	24.1	3.6	9.5	9.5	.54	58.6	135.	139.	357.	358.	358.	68.60
F00206	38.7	.9	9.5	21.1	1.09	73.7	36.	37.	356.	357.	792.	125.7
F00207	41.4	.1	3.8	9.5	2.43	75.8	5.	7.	144.	357.	357.	211.5
G00200	10.6	1.1	4.7	47.0	1.45	34.5	42.	62.	176.	1396.	1762.	204.8
G00201	19.1	.2	3.5	51.3	4.25	51.1	7.	20.	130.	1731.	1873.	531.2
G00202	13.0	.0	4.6	52.1	3.15	40.0	1.	5.	172.	1616.	1949.	424.5
G00203	26.3	.2	3.4	58.1	5.78	61.3	9.	10.	126.	1760.	2179.	668.8
G00204	24.6	.3	3.6	58.1	4.98	59.2	11.	13.	136.	1578.	2174.	593.1
G00205	23.6	3.1	6.1	62.0	5.02	57.8	115.	124.	229.	1718.	2251.	601.3
G00206	17.9	1.8	4.5	58.6	3.60	49.1	69.	79.	169.	1494.	2139.	464.1
G00207	25.4	2.1	4.6	58.7	4.90	60.3	80.	86.	173.	1655.	2198.	579.2

*missing data

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
H00200	9.5	5.9	7.5	49.4	1.80	31.8	220.	225.	282.	926.	1827.	257.7
H00201	13.1	4.7	7.2	45.2	2.13	40.0	178.	182.	272.	1039.	1678.	292.2
H00202	11.8	3.9	6.2	44.5	1.96	37.4	149.	162.	232.	926.	1655.	272.9
H00203	19.2	3.3	6.1	49.0	3.32	51.4	124.	127.	228.	1521.	1838.	419.6
H00204	19.3	2.3	5.2	49.4	3.42	51.5	85.	97.	196.	1436.	1826.	431.1
H00205	21.5	4.3	7.7	56.8	4.94	54.9	162.	168.	290.	1674.	2104.	585.0
H00206	23.5	2.0	4.4	52.3	4.49	57.7	74.	78.	166.	1512.	1949.	541.8
H00207	34.9	1.7	4.4	51.1	5.89	70.4	63.	66.	164.	1746.	1914.	649.2
I00200	11.2	3.8	7.3	54.1	2.84	36.0	144.	148.	276.	1497.	2018.	383.4
I00201	2.7	4.9	16.6	42.0	.67	10.8	188.	0.	623.	0.	1538.	106.0
I00202	1.6	9.5	10.5	39.0	.23	6.8	394.	0.	394.	0.	1370.	38.18
I00203	2.4	10.5	29.7	41.3	.42	9.9	393.	0.	1116.	0.	1551.	66.66
I00204	1.3	16.4	17.0	23.1	.20	5.4	624.	0.	640.	0.	745.	32.88
I00205	1.0	22.6	22.6	23.3	.10	4.5	0.	0.	848.	0.	0.	16.01
I00206	1.2	1.3	1.3	1.4	.04	4.9	0.	0.	51.	0.	0.	5.91
I00207	1.1	18.7	18.7	18.8	.05	4.5	0.	0.	702.	0.	0.	7.99
J00200	.7	0.0	42.0	0.0	.00	3.2	0.	0.	1575.	0.	0.	.38
J00201	.2	0.0	42.0	0.0	.02	1.1	0.	0.	1576.	0.	0.	3.02
J00202	.9	0.0	42.0	0.0	.01	3.7	0.	0.	1576.	0.	0.	1.98
J00203	.1	0.0	64.9	0.0	.02	.6	0.	0.	2436.	0.	0.	3.13
J00204	.1	0.0	42.0	0.0	.01	.5	0.	0.	1575.	0.	0.	.97
J00205	.8	0.0	28.4	0.0	.03	3.5	0.	0.	1064.	0.	0.	4.82
J00206	.8	0.0	18.9	0.0	.02	3.4	0.	0.	711.	0.	0.	4.09
J00207	4.9	6.8	7.0	30.6	.70	18.7	256.	259.	261.	558.	1124.	105.0

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
K00200	5.3	5.6	13.5	49.2	1.19	20.0	216.	301.	506.	829.	1755.	178.9
K00201	5.1	5.0	17.1	47.9	1.32	19.2	188.	218.	642.	780.	1789.	198.5
K00202	5.8	2.8	10.5	55.6	1.73	21.5	106.	165.	395.	1583.	1900.	255.4
K00203	5.5	3.5	11.9	52.9	1.59	20.6	133.	298.	448.	1583.	1985.	236.6
K00204	7.3	2.6	6.9	50.1	1.76	26.0	100.	136.	258.	958.	1796.	257.5
K00205	8.5	5.6	10.3	61.3	2.25	29.1	211.	251.	386.	1237.	2261.	322.2
K00206	7.8	4.0	6.8	56.4	2.10	27.4	153.	179.	254.	1582.	2106.	303.3
K00207	10.3	4.5	7.9	56.5	2.61	33.8	169.	220.	297.	1503.	2106.	360.5
L00200	5.5	6.3	12.1	48.6	1.44	20.7	237.	270.	451.	920.	1649.	210.9
L00201	7.0	5.2	10.5	57.0	1.89	25.1	198.	219.	389.	1250.	1933.	269.7
L00202	6.9	4.5	7.5	59.0	1.95	24.9	168.	193.	279.	1110.	2143.	280.2
L00203	9.1	3.8	6.6	57.5	2.38	30.7	142.	170.	246.	1323.	2136.	331.9
L00204	5.9	3.4	7.8	54.6	1.57	21.9	129.	173.	291.	907.	1877.	232.0
L00205	5.6	7.8	13.3	57.6	1.70	20.8	293.	356.	496.	1039.	2053.	249.1
L00206	6.8	3.6	8.0	53.5	1.77	24.4	132.	193.	299.	835.	1961.	257.1
L00207	9.3	3.9	9.2	52.1	2.24	31.2	145.	198.	342.	1455.	1936.	313.0
M00200	3.0	7.8	15.3	50.0	.60	11.9	292.	0.	567.	0.	1791.	94.43
M00201	5.4	7.6	11.9	54.9	1.47	20.2	283.	353.	444.	978.	1972.	217.3
M00202	5.1	7.3	11.0	47.9	1.34	19.1	285.	312.	408.	760.	1765.	199.0
M00203	5.1	9.0	16.7	47.4	1.22	19.2	333.	405.	620.	776.	1745.	180.9
M00204	2.1	10.9	19.9	43.9	.43	8.8	449.	0.	740.	0.	1591.	68.20
M00205*												
M00206	1.7	18.1	20.2	40.1	.28	7.0	698.	0.	749.	0.	1489.	44.38
M00207	1.7	28.9	34.6	36.4	.12	7.3	1217.	0.	1288.	0.	1352.	19.84

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
N00200 *						1.4	0.	0.	637.	0.	0.	7.48
N00201	.3	0.0	17.1	0.0	.05	3.7	0.	0.	583.	0.	0.	12.60
N00202	.9	0.0	15.7	0.0	.08	5.7	509.	0.	509.	0.	569.	23.26
N00203	1.3	13.7	13.7	15.3	.14	10.4	410.	0.	614.	0.	1306.	41.91
N00204	2.5	10.9	16.5	35.2	.26	11.0	491.	0.	699.	0.	1484.	62.70
N00205	2.7	13.1	18.8	40.0	.40	15.5	330.	540.	540.	558.	1712.	153.00
N00206	4.0	8.9	14.5	46.3	1.01	25.1	262.	305.	513.	1308.	1774.	266.6
N00207	7.0	7.0	13.8	52.4	1.87							
P00200	1.4	23.7	25.6	26.6	.12	6.0	921.	0.	952.	0.	981.	20.34
P00201	1.2	12.0	12.0	12.6	.06	5.1	446.	0.	446.	0.	446.	9.07
P00202	1.8	12.0	12.0	35.5	.18	7.7	446.	0.	446.	0.	1320.	29.16
P00203	3.2	2.7	11.8	51.2	.38	12.8	99.	0.	438.	0.	1902.	60.92
P00204	2.3	10.5	22.5	55.9	.64	9.4	414.	0.	836.	0.	1345.	100.57
P00205	3.0	12.8	24.9	57.7	.90	12.0	482.	0.	925.	0.	2136.	139.7
P00206	2.9	8.6	16.2	58.7	1.04	11.8	331.	0.	601.	0.	2094.	161.1
P00207 *												
Q00200	2.9	11.1	19.2	50.1	.67	11.7	420.	0.	713.	0.	1862.	104.8
Q00201	2.8	8.8	22.6	54.3	.73	11.5	336.	0.	840.	0.	1689.	114.7
Q00202	1.9	11.1	18.3	45.0	.54	8.1	480.	0.	682.	0.	1672.	86.58
Q00203	2.4	9.6	15.6	62.0	.35	9.8	384.	0.	581.	0.	2139.	56.27
Q00204	1.8	14.6	16.2	20.3	.18	7.7	546.	0.	601.	0.	754.	28.72
Q00205	2.7	11.0	17.5	47.1	.57	11.1	413.	0.	649.	0.	1742.	89.33
Q00206	3.1	3.2	12.3	46.5	.90	12.6	119.	0.	459.	0.	1679.	139.1
Q00207	4.0	7.2	13.2	41.8	.51	15.7	272.	385.	490.	499.	1553.	77.31

*missing data

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
G00300	1.7	8.9	10.0	11.5	.13	7.3	373.	0.	377.	0.	413.	22.16
G00301	2.6	6.8	7.8	14.7	.27	10.7	258.	0.	291.	0.	545.	43.40
G00302	2.7	4.9	5.4	33.3	.40	11.1	196.	0.	203.	0.	990.	64.56
G00303	4.5	5.8	7.1	40.4	.45	17.2	217.	263.	265.	270.	1515.	71.68
G00304	2.1	7.3	7.7	23.3	.27	8.6	274.	0.	290.	0.	529.	43.90
G00305	1.2	11.4	11.5	18.7	.13	5.3	430.	0.	430.	0.	686.	21.67
G00306	.7	0.0	10.4	0.0	.04	3.0	0.	0.	391.	0.	0.	6.60
G00307	.5	0.0	10.9	0.0	.01	2.1	0.	0.	410.	0.	0.	1.45
H00300	.1	0.0	.2	0.0	.02	.6	0.	0.	7.	0.	0.	3.66
H00301	.2	0.0	7.5	0.0	.01	.7	0.	0.	280.	0.	0.	1.46
H00302	.3	0.0	70.0	0.0	.04	1.3	0.	0.	2629.	0.	0.	7.27
H00303	.4	0.0	6.3	0.0	.02	1.8	0.	0.	236.	0.	0.	3.91
H00304	1.6	7.6	7.9	8.7	.05	6.9	286.	0.	295.	0.	311.	8.08
H00305	3.0	6.3	8.8	25.3	.24	12.0	240.	0.	332.	0.	434.	38.53
H00306	4.6	3.5	4.6	41.2	.49	17.7	132.	150.	173.	244.	866.	77.84
H00307	6.7	3.1	5.8	21.9	.48	24.1	115.	131.	219.	262.	820.	74.00
I00300	.2	0.0	51.0	0.0	.02	1.0	0.	0.	1913.	0.	0.	3.58
I00301	.2	0.0	47.3	0.0	.03	.9	0.	0.	1774.	0.	0.	5.41
I00302	.3	0.0	36.1	0.0	.04	1.2	0.	0.	1354.	0.	0.	7.03
I00303	.3	0.0	5.3	0.0	.08	1.4	0.	0.	199.	0.	0.	13.42
I00304	.1	0.0	.6	0.0	.01	.4	0.	0.	21.	0.	0.	.91
I00305	.2	0.0	26.0	0.0	.02	.8	0.	0.	974.	0.	0.	2.86
I00306	.3	0.0	26.5	0.0	.03	1.1	0.	0.	996.	0.	0.	4.80
I00307 *												

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
J00300	.6	0.0	1.3	0.0	.02	2.8	0.	0.	51.	0.	0.	2.67
J00301	.7	0.0	1.3	0.0	.03	2.9	0.	0.	51.	0.	0.	4.98
J00302 *												
J00303 *												
J00304	.2	0.0	1.3	0.0	.01	1.0	0.	0.	51.	0.	0.	1.65
J00305	.5	0.0	1.3	0.0	.00	2.2	0.	0.	51.	0.	0.	.76
J00306	.6	0.0	1.3	0.0	.02	2.7	0.	0.	51.	0.	0.	3.59
J00307	.2	0.0	69.8	0.0	.00	.7	0.	0.	2619.	0.	0.	.73
K00300	.9	0.0	10.3	0.0	.04	3.8	0.	0.	386.	0.	0.	6.62
K00301	.5	0.0	10.2	0.0	.03	2.2	0.	0.	384.	0.	0.	4.66
K00302	1.1	10.4	10.4	18.4	.11	4.7	0.	0.	389.	0.	0.	17.33
K00303	1.1	10.8	18.3	18.4	.23	4.7	0.	0.	688.	0.	0.	37.52
K00304	.6	0.0	8.7	0.0	.07	2.5	0.	0.	328.	0.	0.	12.02
K00305	.7	0.0	11.5	0.0	.09	2.9	0.	0.	433.	0.	0.	15.19
K00306	.9	0.0	17.3	0.0	.06	4.0	0.	0.	649.	0.	0.	9.63
K00307	.2	0.0	18.3	0.0	.03	.9	0.	0.	687.	0.	0.	4.54
L00300	.1	0.0	59.4	0.0	.01	.5	0.	0.	2207.	0.	0.	1.55
L00301	.1	0.0	.0	0.0	.01	.6	0.	0.	1.	0.	0.	1.66
L00302	.3	0.0	9.6	0.0	.03	1.4	0.	0.	356.	0.	0.	4.36
L00303	.4	0.0	.2	0.0	.03	1.7	0.	0.	8.	0.	0.	5.08
L00304	1.0	7.2	7.2	14.0	.11	4.4	0.	0.	269.	0.	0.	17.15
L00305	1.1	12.8	12.8	18.4	.19	4.7	0.	0.	476.	0.	0.	31.30
L00306	1.5	8.0	8.5	12.8	.17	6.5	308.	0.	316.	0.	453.	27.70
L00307	1.7	1.0	9.4	10.7	.14	7.1	330.	0.	349.	0.	389.	22.88

*missing data

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
M00300	.6	0.0	1.2	0.0	.06	2.4	0.	0.	45.	0.	0.	9.41
M00301	.5	0.0	1.2	0.0	.02	2.0	0.	0.	46.	0.	0.	2.86
M00302	.8	0.0	1.3	0.0	.03	3.5	0.	0.	46.	0.	0.	5.62
M00303 *												
M00304	.2	0.0	1.2	0.0	.01	.9	0.	0.	45.	0.	0.	1.32
M00305	.6	0.0	1.2	0.0	.01	2.6	0.	0.	45.	0.	0.	.99
M00306	.2	0.0	40.6	0.0	.01	1.0	0.	0.	1509.	0.	0.	1.94
M00307	.1	0.0	30.1	0.0	.00	.6	0.	0.	1118.	0.	0.	.06
N00300	.2	0.0	.8	0.0	.01	.7	0.	0.	28.	0.	0.	.89
N00301	.2	0.0	.0	0.0	.02	.7	0.	0.	1.	0.	0.	2.85
N00302	.5	0.0	54.4	0.0	.09	2.0	0.	0.	2021.	0.	0.	14.94
N00303	.7	0.0	16.8	0.0	.18	3.0	0.	0.	624.	0.	0.	28.78
N00304	.1	0.0	56.4	0.0	.03	.4	0.	0.	2097.	0.	0.	5.43
N00305	.3	0.0	33.3	0.0	.06	1.4	0.	0.	1236.	0.	0.	10.52
N00306	.5	0.0	16.7	0.0	.05	2.1	0.	0.	623.	0.	0.	7.98
N00307	.1	0.0	.0	0.0	.01	.4	0.	0.	1.	0.	0.	2.11
P00300	.3	0.0	13.2	0.0	.03	1.1	0.	0.	489.	0.	0.	5.25
P00301	.2	0.0	41.8	0.0	.02	.8	0.	0.	1554.	0.	0.	3.94
P00302	.4	0.0	3.7	0.0	.06	1.7	0.	0.	138.	0.	0.	10.24
P00303	.8	0.0	41.8	0.0	.09	3.5	0.	0.	1554.	0.	0.	15.46
P00304	.2	0.0	12.1	0.0	.03	.7	0.	0.	450.	0.	0.	4.34
P00305	.4	0.0	41.8	0.0	.04	1.9	0.	0.	1554.	0.	0.	6.62
P00306	.5	0.0	41.8	0.0	.05	2.1	0.	0.	1554.	0.	0.	8.34
P00307	.4	0.0	21.8	0.0	.08	1.7	0.	0.	809.	0.	0.	12.34

*missing data

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
Q00300	.2	0.0	58.2	0.0	.01	1.0	0.	0.	2163.	0.	0.	2.25
Q00301	.2	0.0	29.5	0.0	.01	.8	0.	0.	1096.	0.	0.	1.67
Q00302	.5	0.0	27.5	0.0	.06	2.2	0.	0.	1021.	0.	0.	9.46
Q00303	.5	0.0	30.3	0.0	.03	2.2	0.	0.	1128.	0.	0.	5.36
Q00304	.1	0.0	34.8	0.0	.03	.6	0.	0.	1292.	0.	0.	5.26
Q00305	.2	0.0	13.3	0.0	.04	1.0	0.	0.	493.	0.	0.	7.11
Q00306	.5	0.0	14.3	0.0	.09	2.4	0.	0.	533.	0.	0.	14.62
Q00307	.3	0.0	29.2	0.0	.03	1.3	0.	0.	1087.	0.	0.	5.42

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
E01900	15.0	148.1	159.3	190.2	4.87	43.9	5557.	5561.	5979.	7064.	7132.	584.1
E01901	7.8	148.5	164.2	189.0	2.48	27.4	5572.	5581.	6162.	6942.	7086.	353.1
E01902	4.3	152.7	168.5	187.9	1.16	16.7	5732.	5885.	6325.	6789.	7050.	181.9
E01903	3.8	157.5	178.3	191.4	1.08	15.0	5913.	0.	6693.	0.	7142.	170.5
E01904	1.6	166.9	168.1	186.7	.35	6.7	6293.	0.	6307.	0.	6924.	57.75
E01905	.2	0.0	15.9	0.0	.14	1.1	0.	0.	597.	0.	0.	22.47
E01906	.7	0.0	179.6	0.0	.11	3.0	0.	0.	6740.	0.	0.	17.57
E01907	.1	0.0	60.6	0.0	.06	.6	0.	0.	2274.	0.	0.	10.28
F01900	.6	0.0	180.6	0.0	.01	2.5	0.	0.	6776.	0.	0.	1.85
F01901 *												
F01902	.6	0.0	180.6	0.0	.02	2.6	0.	0.	6776.	0.	0.	2.62
F01903	.8	0.0	180.4	0.0	.01	3.6	0.	0.	6769.	0.	0.	1.46
F01904 *												
F01905	2.0	180.6	181.0	183.0	.06	8.3	6776.	0.	6793.	0.	6865.	9.36
F01906	6.7	154.4	175.7	183.4	.80	24.1	5795.	6103.	6592.	6777.	6875.	118.7
F01907	12.8	148.8	172.7	187.2	3.22	39.5	5584.	5622.	6482.	6946.	7021.	407.2
G01900	7.7	82.6	183.4	194.8	1.04	27.0	3100.	6042.	6881.	7000.	7311.	154.0
G01901	10.1	80.9	181.3	191.4	3.22	33.2	3038.	5651.	6803.	7070.	7182.	445.1
G01902	14.8	99.6	181.6	211.1	5.29	43.6	3768.	5592.	6816.	7152.	7277.	658.4
G01903	15.5	95.6	172.3	195.8	5.82	44.8	4134.	5587.	6466.	7137.	7348.	710.0
G01904	10.4	143.5	172.2	197.9	3.59	34.0	5390.	5612.	6462.	7096.	7390.	478.1
G01905	9.2	154.0	180.6	201.6	3.06	31.0	5781.	5873.	6777.	7279.	7554.	413.8
G01906	8.2	151.5	172.8	193.9	2.61	28.3	5688.	5795.	6483.	7157.	7266.	357.5
G01907	6.1	154.0	175.5	193.9	1.88	22.3	5790.	5879.	6585.	7100.	7268.	270.3

*missing data

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
H01900	1.9	168.5	169.0	184.8	.11	8.1	6330.	0.	6341.	0.	6927.	18.02
H01901	3.1	158.7	166.7	187.1	.48	12.4	5990.	0.	6255.	0.	7018.	75.51
H01902	5.0	156.2	166.2	187.8	1.18	19.0	5864.	5991.	6235.	6930.	7027.	173.6
H01903	8.3	149.9	176.4	189.3	2.36	28.7	5626.	5689.	6621.	7008.	7102.	323.3
H01904	8.9	148.0	180.3	194.5	2.64	30.3	5555.	5611.	6767.	6950.	7295.	361.8
H01905	11.8	151.6	185.4	199.1	4.21	37.3	5691.	5724.	6958.	7249.	7445.	528.1
H01906	15.2	90.7	169.2	194.9	5.37	44.3	3417.	5558.	6351.	7111.	7310.	659.6
H01907	9.4	95.2	170.0	192.2	2.98	31.5	5578.	5639.	6380.	7041.	7207.	404.8
J01900	.1	0.0	6.5	0.0	.00	.4	0.	0.	245.	0.	0.	.15
J01901	.2	0.0	180.5	0.0	.00	.8	0.	0.	6774.	0.	0.	.45
J01902	.1	0.0	24.3	0.0	.00	.6	0.	0.	911.	0.	0.	.43
J01903	.4	0.0	180.7	0.0	.01	1.8	0.	0.	6779.	0.	0.	1.52
J01904	.4	0.0	23.2	0.0	.01	1.7	0.	0.	870.	0.	0.	1.67
J01905	.4	0.0	23.2	0.0	.03	1.8	0.	0.	871.	0.	0.	5.10
J01906	.6	0.0	23.2	0.0	.01	2.7	0.	0.	870.	0.	0.	1.18
J01907*												
K01900*												
K01901*												
K01904*												
K01905	3.8	23.4	180.2	195.6	3.24	15.1	876.	6761.	6761.	6849.	7334.	505.3
K01906	4.7	20.4	178.1	194.4	1.18	18.0	5902.	6570.	6683.	6879.	7293.	179.0
K01907	1.0	182.6	182.8	182.8	.24	4.5	0.	0.	6861.	0.	0.	39.66

*missing data

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
L01900	1.8	165.8	171.5	194.4	.52	7.6	6240.	0.	6435.	0.	7225.	83.66
L01901	2.9	156.2	168.2	198.0	1.15	11.6	5866.	0.	6312.	0.	7351.	180.5
L01902	4.4	155.4	172.9	201.9	1.71	16.9	5830.	6263.	6490.	7016.	7577.	258.7
L01903	3.4	152.5	164.8	202.3	.93	13.6	5723.	0.	6186.	0.	7517.	146.3
L01904	3.6	152.5	167.5	202.4	1.35	14.2	5723.	0.	6285.	0.	7376.	207.6
L01905	4.3	156.2	177.5	204.8	1.58	16.6	5866.	6422.	6662.	6676.	7680.	242.4
L01906	6.2	151.8	170.5	204.1	2.78	22.7	5714.	5847.	6393.	7276.	7652.	403.0
L01907	5.7	152.6	183.1	203.1	2.32	21.2	5734.	5908.	6872.	7253.	7492.	337.4
M01900	.6	0.0	205.2	0.0	.02	2.7	0.	0.	7700.	0.	0.	2.56
M01901	.4	0.0	11.0	0.0	.00	1.6	0.	0.	411.	0.	0.	.36
M01902	1.0	204.3	204.3	204.3	.03	4.3	0.	0.	7666.	0.	0.	4.61
M01903	1.1	201.2	201.2	210.8	.18	4.8	0.	0.	7549.	0.	0.	29.58
M01904	.2	0.0	203.4	0.0	.03	.9	0.	0.	7634.	0.	0.	4.74
M01905	.4	0.0	205.2	0.0	.03	1.7	0.	0.	7702.	0.	0.	4.43
M01906	.9	0.0	205.2	0.0	.06	4.0	0.	0.	7701.	0.	0.	10.49
M01907	.3	0.0	3.8	0.0	.03	1.2	0.	0.	143.	0.	0.	5.53
N01900	.2	0.0	144.3	0.0	.01	.8	0.	0.	5417.	0.	0.	2.12
N01901	.2	0.0	30.2	0.0	.01	.9	0.	0.	1134.	0.	0.	.86
N01902	.2	0.0	231.4	0.0	.00	.9	0.	0.	8684.	0.	0.	.20
N01903	.2	0.0	148.6	0.0	.04	.8	0.	0.	5578.	0.	0.	6.01
N01904	.0	0.0	203.3	0.0	.00	.0	0.	0.	7630.	0.	0.	.10
N01905	.2	0.0	144.3	0.0	.01	.9	0.	0.	5417.	0.	0.	1.81
N01906	.7	0.0	144.3	0.0	.01	3.1	0.	0.	5416.	0.	0.	2.39
N01907	.4	0.0	183.7	0.0	.01	1.6	0.	0.	6895.	0.	0.	2.36

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
P01900	2.3	162.0	180.1	202.1	.72	9.4	6136.	0.	6758.	0.	7578.	115.0
P01901	2.2	108.3	189.9	205.2	1.66	8.9	6133.	0.	7128.	0.	7661.	266.9
P01902	2.6	164.4	188.1	206.8	1.18	10.8	6168.	0.	7057.	0.	7664.	188.3
P01903	2.1	162.7	181.2	197.2	.68	8.9	6275.	0.	6799.	0.	7401.	110.3
P01904	1.3	179.5	184.8	193.5	.39	5.7	6929.	0.	6933.	0.	7035.	63.67
P01905	1.9	144.5	188.4	204.5	.59	7.8	6475.	0.	7069.	0.	7501.	95.70
P01906	2.1	163.8	187.0	200.9	.70	8.7	6199.	0.	7017.	0.	7530.	113.4
P01907	2.2	164.1	185.6	202.1	.68	9.0	6220.	0.	6965.	0.	7565.	108.2
Q01900	1.7	173.7	188.3	197.6	.38	7.1	6604.	0.	7065.	0.	7392.	62.01
Q01901	1.3	174.3	181.5	190.9	.23	5.4	6810.	0.	6810.	0.	7103.	37.60
Q01902	1.7	162.3	165.7	199.4	.40	7.0	6091.	0.	6218.	0.	7483.	64.13
Q01903 *												
Q01904	1.6	163.5	190.9	194.9	.62	6.6	6323.	0.	7165.	0.	7166.	100.3
Q01905	1.0	0.0	215.8	0.0	.30	4.2	0.	0.	8099.	0.	0.	48.98
Q01906	4.1	97.2	186.9	221.6	2.73	16.0	4439.	6233.	7012.	7121.	8315.	423.9
Q01907	3.7	138.4	185.6	216.2	2.06	14.5	5216.	0.	6965	0.	7920.	321.5

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
E02000	33.5	2.6	6.1	51.0	6.70	69.2	98.	101.	229.	1859.	1908.	727.4
E02001	21.9	1.6	4.4	43.8	3.09	55.5	60.	60.	165.	1619.	1641.	380.7
E02002	14.3	.0	5.2	34.5	1.51	42.5	1.	113.	196.	765.	1294.	203.3
E02003	14.1	3.6	6.4	34.2	1.84	42.1	136.	140.	241.	835.	1220.	239.2
E02004	6.5	4.3	6.6	26.7	.79	23.7	164.	194.	246.	652.	985.	117.5
E02005	3.6	10.9	11.4	24.0	.33	14.4	410.	0.	430.	0.	885.	51.05
E02006	1.8	10.4	10.7	18.2	.12	7.4	390.	0.	403.	0.	682.	18.45
E02007	.1	0.0	44.7	0.0	.02	.6	0.	0.	1676.	0.	0.	3.19
F02000	.2	0.0	11.9	0.0	.05	.9	0.	0.	446.	0.	0.	8.44
F02001	.2	0.0	11.6	0.0	.01	.9	0.	0.	437.	0.	0.	2.41
F02002	3.6	7.4	8.2	15.4	.13	14.2	279.	0.	306.	0.	386.	20.46
F02003	8.2	7.1	9.4	21.5	.48	28.4	265.	309.	354.	445.	783.	70.44
F02004	8.8	3.2	6.0	22.3	.62	30.1	121.	123.	225.	322.	836.	90.75
F02005	12.2	6.2	9.6	26.9	1.35	38.2	231.	239.	360.	882.	990.	179.7
F02006	23.4	1.8	4.3	40.2	2.49	57.6	69.	71.	162.	845.	935.	289.4
F02007	33.8	1.0	3.4	41.6	4.31	69.4	39.	39.	127.	1538.	1557.	481.4
G02000	17.6	1.8	5.0	48.0	3.69	48.6	69.	72.	187.	1719.	1800.	471.1
G02001	20.7	.8	3.7	54.5	4.68	53.7	30.	39.	140.	1658.	1810.	563.6
G02002	26.9	1.3	4.0	50.3	6.49	62.1	48.	51.	149.	1703.	1863.	710.8
G02003	29.6	1.7	4.8	60.5	6.93	65.2	65.	70.	180.	1755.	2271.	750.2
G02004	19.9	1.3	4.4	50.0	4.19	52.6	51.	66.	167.	1610.	1871.	518.3
G02005	18.5	6.1	9.2	53.6	3.97	50.3	228.	236.	345.	1804.	2005.	493.8
G02006	18.2	3.2	6.2	47.4	3.57	49.7	119.	130.	232.	1637.	1779.	450.2
G02007	12.9	3.8	6.6	48.9	2.71	39.7	144.	149.	246.	1594.	1824.	362.4

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
H02000	8.4	5.9	8.2	31.8	.97	29.0	221.	240.	306.	710.	1188.	141.6
H02001	11.5	5.9	8.1	52.6	1.58	36.5	223.	229.	305.	946.	1947.	224.8
H02002	17.4	2.9	5.6	51.3	2.75	48.3	109.	112.	208.	1762.	1921.	362.2
H02003	25.7	2.2	5.1	51.3	4.34	60.6	83.	84.	191.	1839.	1921.	524.3
H02004	23.9	1.3	4.4	54.5	4.04	58.3	51.	54.	165.	1789.	1998.	504.6
H02005	26.8	5.0	8.1	60.8	5.95	62.0	188.	194.	305.	2078.	2274.	689.3
H02006	25.3	1.1	4.5	58.0	6.52	60.1	39.	46.	170.	1903.	2119.	737.5
H02007	15.5	3.1	5.4	53.1	4.31	44.8	118.	121.	204.	1917.	1992.	540.5
J02000	.6	0.0	11.7	0.0	.01	2.4	0.	0.	439.	0.	0.	1.81
J02001	.5	0.0	14.0	0.0	.00	2.4	0.	0.	525.	0.	0.	.40
J02002	1.1	11.8	11.8	11.8	.05	4.8	0.	0.	442.	0.	0.	7.64
J02003	1.5	11.7	11.7	11.8	.05	6.2	441.	0.	441.	0.	442.	8.48
J02004	.4	0.0	11.7	0.0	.03	1.8	0.	0.	440.	0.	0.	4.94
J02005	.5	0.0	22.5	0.0	.03	2.1	0.	0.	843.	0.	0.	4.52
J02006	2.0	9.4	10.5	26.1	.25	8.4	355.	0.	394.	0.	975.	39.70
J02007	4.2	6.6	9.4	33.1	.71	16.3	249.	287.	352.	440.	1234.	108.3
K02000	7.7	5.1	15.2	45.8	2.04	27.1	195.	267.	571.	1348.	1667.	285.4
K02001	8.7	3.3	10.6	45.8	2.34	29.9	128.	205.	398.	1511.	1713.	324.3
K02002	10.6	3.9	10.7	51.8	2.99	34.5	147.	156.	403.	1599.	1913.	401.9
K02003	11.5	4.1	6.7	54.9	3.02	36.7	154.	169.	252.	1588.	1984.	405.4
K02004	8.4	4.1	7.8	51.6	2.32	28.9	162.	181.	294.	1387.	1854.	325.0
K02005	8.3	8.9	12.5	58.0	2.43	28.6	334.	344.	470.	1605.	2136.	340.6
K02006	10.5	5.3	7.6	57.5	2.74	34.2	200.	208.	286.	1526.	2132.	375.3
K02007	8.4	5.4	9.6	56.0	2.41	28.9	208.	225.	362.	1527.	2077.	339.5

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
L02000	2.7	8.4	23.3	43.5	.70	10.9	316.	0.	873.	0.	1606.	109.0
L02001	6.3	5.3	9.8	48.5	1.43	23.1	199.	229.	366.	874.	1609.	209.6
L02002	8.7	5.1	8.5	50.9	2.02	29.9	197.	226.	318.	1117.	1765	284.9
L02003 *												
L02004 *												
L02005	8.1	7.7	9.6	57.4	1.67	28.0	290.	326.	361.	978.	1982.	244.8
L02006	13.8	4.2	7.1	56.2	3.25	41.5	158.	168.	265.	1605.	2034.	426.7
L02007	11.7	4.4	8.8	51.5	2.82	37.0	170.	207.	331.	1582.	1917.	379.4
M02000	5.3	7.2	17.7	53.6	1.79	20.1	272.	366.	663.	1226.	2225.	264.7
M02001	3.9	7.2	23.1	54.1	1.18	15.2	270.	868.	868.	1013.	2022.	179.5
M02002	2.6	10.8	24.3	48.9	.37	10.6	405.	0.	911.	0.	1830.	58.99
M02003	3.1	10.6	24.6	51.1	.45	12.6	397.	0.	922.	0.	1631.	70.78
M02004	.7	0.0	16.5	0.0	.05	3.0	0.	0.	618.	0.	0.	8.05
M02005	.4	0.0	33.7	0.0	.03	1.7	0.	0.	1264.	0.	0.	5.54
M02006	.6	0.0	30.3	0.0	.05	2.5	0.	0.	1136.	0.	0.	8.18
M02007	.4	0.0	30.6	0.0	.02	1.6	0.	0.	1148.	0.	0.	4.02
N02000	.2	0.0	12.4	0.0	.02	1.0	0.	0.	465.	0.	0.	2.99
N02001	.1	0.0	71.3	0.0	.01	.6	0.	0.	2678	0.	0.	.89
N02002	.6	0.0	12.4	0.0	.01	2.8	0.	0.	465.	0.	0.	1.19
N02003	.5	0.0	31.7	0.0	.02	2.3	0.	0.	1189.	0.	0.	2.78
N02004	.1	0.0	12.4	0.0	.01	.5	0.	0.	464.	0.	0.	1.57
N02005	.6	0.0	12.4	0.0	.01	2.7	0.	0.	465.	0.	0.	.91
N02006	.8	0.0	12.4	0.0	.01	3.5	0.	0.	464.	0.	0.	1.82
N02007	.4	0.0	12.4	0.0	.03	1.8	0.	0.	465.	0.	0.	5.48

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
P02000	3.5	10.0	18.8	59.8	1.07	13.7	387.	0.	706.	0.	2239.	165.1
P02001	3.2	10.0	22.4	56.0	1.18	12.9	389.	0.	842.	0.	2071.	182.5
P02002	3.2	10.7	16.8	55.2	1.13	12.9	400.	0.	630.	0.	1975.	174.6
P02003	2.7	8.7	28.0	52.6	.68	11.0	325.	0.	1049.	0.	1768.	107.5
P02004	2.0	6.4	12.7	51.2	.60	8.3	373.	0.	476.	0.	1698.	95.12
P02005	2.2	13.1	27.8	62.3	.63	8.9	524.	0.	1043.	0.	1724.	100.4
P02006	2.8	8.7	23.5	57.2	.88	11.4	327.	0.	880.	0.	2142.	138.5
P02007	2.9	9.9	17.1	60.7	.87	11.6	372.	0.	642.	0.	2103	136.7
Q02000	2.3	15.5	24.3	53.0	.55	9.3	583.	0.	914.	0.	1943.	87.37
Q02001	3.6	8.5	21.6	62.0	1.30	14.1	346.	0.	812.	0.	2317.	200.3
Q02002	3.2	9.7	19.9	60.2	1.09	12.9	363.	0.	748.	0.	1990.	169.6
Q02003	3.2	9.7	16.8	65.7	.96	12.8	365.	0.	632.	0.	2221.	149.3
Q02004	2.5	9.8	20.7	58.0	.86	10.0	384.	0.	778.	0.	2085.	135.0
Q02005	*											
Q02006	4.0	7.1	24.2	58.5	1.19	15.7	276.	849.	910.	911.	2065.	183.1
Q02007	4.2	7.2	25.7	59.9	1.48	16.2	278.	517.	966.	1174.	2130	223.5

*missing data

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
E02100	6.3	4.7	5.7	9.6	.22	22.9	177.	185.	215.	299.	354.	32.19
E02101	.4	0.0	2.0	0.0	.03	1.8	0.	0.	75.	0.	0.	4.92
E02102	.5	0.0	2.0	0.0	.05	2.1	0.	0.	75.	0.	0.	7.75
E02103	.7	0.0	2.0	0.0	.05	3.2	0.	0.	75.	0.	0.	8.90
E02104	.2	0.0	2.0	0.0	.01	.7	0.	0.	74.	0.	0.	.92
E02105	.5	0.0	2.0	0.0	.03	2.1	0.	0.	74.	0.	0.	4.44
E02106	.3	0.0	1.0	0.0	.04	1.5	0.	0.	36.	0.	0.	6.84
E02107	.1	0.0	49.9	0.0	.01	.5	0.	0.	1873.	0.	0.	2.07
F02100	.2	0.0	45.2	0.0	.01	.9	0.	0.	1695.	0.	0.	2.31
F02101	.1	0.0	31.7	0.0	.02	.6	0.	0.	1191.	0.	0.	3.54
F02102	.3	0.0	55.2	0.0	.05	1.3	0.	0.	2077.	0.	0.	7.59
F02103	.3	0.0	45.2	0.0	.02	1.3	0.	0.	1695.	0.	0.	4.12
F02104	.1	0.0	.2	0.0	.01	.4	0.	0.	1.	0.	0.	1.16
F02105	.1	0.0	9.2	0.0	.01	.6	0.	0.	344.	0.	0.	1.85
F02106	.1	0.0	.4	0.0	.03	.6	0.	0.	16.	0.	0.	5.75
F02107	3.2	4.6	5.0	5.4	.04	12.7	172.	0.	186.	0	200.	7.06
G02100	1.8	9.2	9.4	17.2	.10	7.5	348.	0.	351.	0.	640.	16.31
G02101	4.1	3.2	4.7	38.3	.32	16.1	124.	169.	175.	186.	926.	50.51
G02102	6.1	3.5	4.9	34.7	.70	22.3	132.	153.	185.	300.	1283.	107.8
G02103	4.5	3.9	5.2	49.6	.73	17.5	147.	184.	194.	301.	1501.	112.9
G02104	2.6	6.6	10.4	20.1	.31	10.5	255.	0.	389.	0.	665.	49.23
G02105	1.9	9.4	11.3	17.0	.12	7.9	364.	0.	422.	0.	489.	19.81
G02106	.2	0.0	4.0	0.0	.02	1.0	0.	0.	150.	0.	0.	3.50
G02107	.1	0.0	.1	0.0	.01	.3	0.	0.	4.	0.	0.	1.15

FILE NAME		MODEL CONDITIONS					PROTOTYPE CONDITIONS						
		PEAK CONC. (%)	1% ARR TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (%-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (%-S)
H02100		.2	0.0	19.8	0.0	.03	1.0	0.	0.	745.	0.	0.	5.07
H02101		.1	0.0	.3	0.0	.03	.6	0.	0.	13.	0.	0.	5.52
H02102		.3	0.0	62.6	0.0	.03	1.3	0.	0.	2351.	0.	0.	5.51
H02103		3.0	5.4	5.6	9.6	.13	12.1	204.	0.	211.	0.	362.	19.95
H02104		4.5	3.2	4.0	10.2	.22	17.5	119.	140.	152.	199.	382.	33.74
H02105		8.3	6.4	8.3	23.9	.63	28.7	241.	265.	310.	506.	867.	91.20
H02106		10.4	2.4	5.2	23.2	.89	34.0	93.	106.	196.	439.	865.	125.1
H02107		7.4	2.9	6.0	20.2	.49	26.3	115.	167.	226.	373.	516.	72.11
J02100		.5	0.0	3.7	0.0	.01	2.3	0.	0.	140.	0.	0.	1.69
J02101		.7	0.0	38.9	0.0	.01	3.0	0.	0.	1459.	0.	0.	1.29
J02102	*												
J02103	*												
J02104		.4	0.0	38.9	0.0	.00	1.9	0.	0.	1459.	0.	0.	.34
J02105		.3	0.0	38.9	0.0	.01	1.4	0.	0.	1459.	0.	0.	1.06
J02106	*												
J02107		.1	0.0	.0	0.0	.00	.4	0.	0.	1.	0.	0.	.22
K02100	*												
K02101	*												
K02102		1.3	13.4	15.1	17.4	.21	5.5	565.	0.	565.	0.	605.	33.61
K02103		1.5	13.0	13.7	18.1	.22	6.3	488.	0.	515.	0.	678.	36.40
K02104		1.1	10.1	11.7	14.9	.17	4.8	0.	0.	439.	0.	0.	27.62
K02105		1.1	18.9	18.9	20.5	.15	4.5	0.	0.	710.	0.	0.	23.72
K02106		1.0	0.0	11.3	0.0	.15	4.2	0.	0.	422.	0.	0.	24.36
K02107		.6	0.0	12.3	0.0	.04	2.4	0.	0.	462.	0.	0.	7.31

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
L02100	.3	0.0	57.5	0.0	.02	1.2	0.	0.	2159.	0.	0.	3.19
L02101	.4	0.0	20.6	0.0	.04	1.6	0.	0.	774.	0.	0.	6.76
L02102	1.0	17.3	17.3	18.4	.12	4.4	0.	0.	651.	0.	0.	20.27
L02103	1.3	16.2	16.4	19.5	.13	5.5	614.	0.	614.	0.	617.	20.64
L02104	.7	0.0	11.3	0.0	.06	3.0	0.	0.	426.	0.	0.	13.00
L02105	1.3	12.9	14.0	17.5	.15	5.5	524.	0.	524.	0.	534.	24.77
L02106	1.8	8.2	9.1	18.1	.23	7.6	315.	0.	342.	0.	650.	37.35
L02107	1.5	9.6	9.7	14.4	.13	6.2	360.	0.	365.	0.	435.	20.69
M02100	.3	0.0	6.5	0.0	.04	1.1	0.	0.	244.	0.	0.	7.16
M02101	.6	0.0	41.6	0.0	.21	2.7	0.	0.	1561.	0.	0.	34.97
M02102	.5	0.0	17.1	0.0	.02	2.3	0.	0.	643.	0.	0.	3.21
M02103	.5	0.0	28.4	0.0	.03	2.3	0.	0.	1066.	0.	0.	5.19
M02104	.1	0.0	68.2	0.0	.02	.7	0.	0.	2559.	0.	0.	2.61
M02105	.4	0.0	17.1	0.0	.01	1.5	0.	0.	642.	0.	0.	.94
M02106	.4	0.0	28.4	0.0	.01	1.7	0.	0.	1065.	0.	0.	.93
M02107	.2	0.0	69.6	0.0	.01	.8	0.	0.	2611.	0.	0.	1.03
N02100	.2	0.0	41.7	0.0	.01	1.0	0.	0.	1567.	0.	0.	1.92
N02101	.2	0.0	41.8	0.0	.01	1.1	0.	0.	1567.	0.	0.	1.92
N02102	.4	0.0	41.8	0.0	.03	1.8	0.	0.	1568.	0.	0.	4.18
N02103	.5	0.0	16.8	0.0	.02	2.2	0.	0.	630.	0.	0.	2.64
N02104	.2	0.0	9.8	0.0	.02	.7	0.	0.	367.	0.	0.	2.73
N02105	.3	0.0	16.8	0.0	.02	1.2	0.	0.	630.	0.	0.	2.74
N02106	.7	0.0	41.7	0.0	.04	3.2	0.	0.	1567.	0.	0.	6.07
N02107	.1	0.0	20.4	0.0	.01	.5	0.	0.	765.	0.	0.	1.12

FILE NAME		MODEL CONDITIONS					PROTOTYPE CONDITIONS						
		PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
P02100		.7	0.0	1.8	0.0	.01	2.9	0.	0.	69.	0.	0.	1.51
P02101		.8	0.0	24.3	0.0	.02	3.5	0.	0.	912	0.	0.	4.02
P02102	*												
P02103	*												
P02104		.5	0.0	59.3	0.0	.02	2.1	0.	0.	2227.	0.	0.	2.57
P02105		.7	0.0	5.1	0.0	.05	3.2	0.	0.	191.	0.	0.	7.69
P02106		.8	0.0	70.7	0.0	.04	3.3	0.	0.	2654.	0.	0.	6.99
P02107		.6	0.0	45.4	0.0	.03	2.5	0.	0.	1704.	0.	0.	4.84
Q02100		.3	0.0	39.5	0.0	.02	1.3	0.	0.	1484.	0.	0.	2.96
Q02101		.4	0.0	40.1	0.0	.05	1.7	0.	0.	1505.	0.	0.	8.36
Q02102		.7	0.0	39.5	0.0	.11	3.1	0.	0.	1482.	0.	0.	18.23
Q02103		.9	0.0	39.6	0.0	.09	3.8	0.	0.	1485.	0	0.	14.17
Q02104		.4	0.0	19.4	0.0	.03	1.6	0.	0.	729.	0.	0.	5.56
Q02105		.3	0.0	39.6	0.0	.01	1.1	0.	0.	1485.	0.	0.	1.77
Q02106	*												
Q02107		.5	0.0	13.4	0.0	.05	2.3	0.	0.	503.	0.	0.	8.95

*missing data

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
E03700	13.4	65.2	162.1	231.0	5.93	40.8	2449.	5513.	6081.	7289.	8515.	792.8
E03701	10.8	107.2	163.5	201.8	3.54	35.0	4027.	5541.	6137.	7159.	7300.	466.5
E03702	9.3	148.3	162.3	191.7	2.12	31.4	5566.	5713.	6091.	7016.	7173.	296.7
E03703	6.1	56.6	162.6	189.4	1.12	22.4	2126.	5895.	6101.	6755.	7108.	166.2
E03704	3.5	157.5	161.5	189.7	.52	14.0	5912.	0.	6061.	0.	7090.	82.08
E03705	2.8	163.5	166.2	182.7	.26	11.5	6142.	0.	6239.	0.	6795.	41.72
E03706	1.9	56.8	164.2	170.5	.14	7.8	6150.	0.	6161.	0.	6387.	23.22
E03707	.6	0.0	164.6	0.0	.02	2.7	0.	0.	6177.	0.	0.	3.40
F03700	.5	0.0	23.4	0.0	.04	2.3	0.	0.	879.	0.	0.	7.31
F03701	.6	0.0	23.4	0.0	.02	2.8	0.	0.	879.	0.	0.	3.05
F03702	2.1	23.4	184.3	184.8	.12	8.6	880.	0.	6915.	0.	6933.	19.10
F03703	3.2	23.4	182.5	185.8	.37	12.9	879.	0.	6848.	0.	6928.	57.95
F03704	4.5	154.2	180.9	184.8	.61	17.4	5789.	6720.	6789.	6817.	6934.	95.06
F03705	8.2	153.2	183.7	197.5	2.32	28.5	5750.	5845.	6895.	7134.	7393.	324.6
F03706	12.5	148.3	178.3	196.4	3.92	38.9	5566.	5575.	6690.	7127.	7353.	499.9
F03707	18.4	145.6	179.0	194.9	5.83	50.0	5466.	5467.	6716.	7153.	7310.	675.6
G03700	9.8	139.1	183.8	198.1	2.81	32.5	5222.	5794.	6896.	7151.	7401.	386.6
G03701	7.3	125.6	168.7	194.9	2.29	26.0	5159.	5894.	6332.	7078.	7313.	330.3
G03702	12.5	89.3	168.1	202.4	4.42	38.8	3618.	5567.	6309.	7205.	7595.	602.9
G03703	13.1	77.5	170.2	202.7	5.23	40.1	2909.	5603.	6388.	7167.	7532.	697.8
G03704	8.6	127.1	167.6	201.2	3.19	29.5	5568.	5645.	6291.	7116.	7532.	451.4
G03705	7.7	131.6	174.1	206.5	3.01	27.0	5744.	5858.	6532.	7354.	7710.	419.6
G03706	6.8	152.3	171.1	203.3	2.49	24.5	5717.	5813.	6420.	7290.	7626.	351.9
G03707	4.8	154.3	170.3	199.8	1.50	18.1	5793.	6272.	6389.	7164.	7475.	223.0

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
H03700	8.1	.0	.0	197.0	1.02	28.1	1.	1.	1.	6765.	7385.	156.1
H03701	5.1	154.1	176.2	197.4	1.51	19.3	5785.	6194.	6611.	7083.	7391.	224.1
H03702	7.1	151.6	176.2	197.8	2.15	25.3	5688.	5959.	6613.	7197.	7422.	307.9
H03703	13.4	118.8	176.0	198.8	3.92	40.8	4457.	5679.	6603.	7333.	7457.	508.9
H03704	4.8	148.0	176.5	198.8	1.42	18.4	5557.	6559.	6622.	6856.	7423.	217.9
H03705	6.9	117.1	165.6	199.2	2.02	24.8	5122.	5715.	6215.	6904.	7471.	302.3
H03706	13.5	64.9	165.0	203.7	5.32	40.9	3074.	5565.	6193.	7184.	7633.	695.3
H03707	12.9	64.1	164.4	201.9	5.53	39.8	2407.	5571.	6168.	7195.	7568.	732.9
I03700	3.5	159.9	175.7	198.6	.82	13.9	6011.	0.	6592.	0.	7429.	128.0
I03701	1.8	162.5	177.2	194.3	.50	7.4	6183.	0.	6650.	0.	7248.	80.96
I03702	1.6	57.5	180.9	196.5	.43	6.8	6618.	0.	6788.	0.	7376.	70.22
I03703	1.8	57.4	179.5	185.6	.57	7.4	2156.	0.	6736.	0.	6964.	92.47
I03704	.9	0.0	177.8	0.0	.09	3.7	0.	0.	6671.	0.	0.	14.17
I03705	.5	0.0	181.6	0.0	.12	2.2	0.	0.	6816.	0.	0.	20.11
I03706	.4	0.0	181.6	0.0	.10	1.6	0.	0.	6814.	0.	0.	17.23
I03707	.2	0.0	173.1	0.0	.06	1.0	0.	0.	6496.	0	0	10.61
J03700	.2	0.0	144.9	0.0	.03	.9	0.	0.	5437.	0.	0.	4.60
J03701	.1	0.0	169.4	0.0	.03	.5	0.	0.	6357.	0.	0.	5.05
J03702	.6	0.0	144.9	0.0	.01	2.6	0.	0.	5438.	0.	0.	1.31
J03703	.3	0.0	.1	0.0	.01	1.4	0.	0.	3.	0.	0.	1.99
J03704	.1	0.0	.3	0.0	.00	.3	0.	0.	11.	0.	0.	.36
J03705	.1	0.0	56.6	0.0	.00	.5	0.	0.	2124.	0.	0.	.23
J03706	.8	0.0	144.9	0.0	.03	3.3	0.	0.	5437.	0.	0.	4.77
J03707	1.9	163.9	188.1	192.9	.22	7.7	6302.	0.	7057.	0.	7214.	35.56

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
K03700	4.6	155.3	186.4	200.5	1.61	17.5	5830.	6141.	6994.	7128.	7495.	239.9
K03701	4.3	143.7	179.3	208.2	1.52	16.6	5842.	6522.	6729.	7117.	7754.	229.6
K03702	5.4	143.9	180.4	210.0	2.10	20.3	5398.	6145.	6770.	7188.	7881.	312.8
K03703	3.9	143.7	187.9	209.1	1.38	15.3	5391.	6425.	7053.	7054.	7569.	211.4
K03704	3.5	155.0	179.7	207.1	1.56	14.0	5825.	0.	6744.	0.	7689.	239.7
K03705	3.7	162.2	185.2	215.0	1.40	14.5	6095.	0.	6950.	0.	7964.	217.2
K03706	2.6	157.2	180.4	207.7	1.10	10.6	6012.	0.	6771.	0.	7776.	173.0
K03707	1.9	163.9	175.8	201.3	.65	7.7	6169.	0	6596.	0.	7452.	104.7
L03700	2.1	163.5	179.3	192.1	.38	8.6	6142.	0.	6727.	0.	7203.	61.73
L03701 *												
L03702	1.4	143.2	143.2	143.3	.09	6.0	5375.	0.	5375.	0.	5376.	14.96
L03703	1.6	143.0	143.0	185.7	.19	6.9	5366.	0.	5366.	0.	6679.	30.60
L03704	2.1	159.2	174.8	190.0	.54	8.5	5978.	0.	6559.	0.	7130.	87.00
L03705	3.4	157.1	175.6	199.2	1.09	13.5	5898.	0.	6590.	0.	7453.	168.7
L03706	4.8	153.3	182.3	196.7	1.43	18.2	5809.	6485.	6841.	7004.	7380.	219.6
L03707	5.5	151.0	181.4	194.2	1.48	20.6	5691.	6340.	6809.	6956.	7282.	223.0
M03700	1.9	159.6	178.9	201.7	.53	7.8	6009.	0.	6714.	0.	7334.	84.44
M03701	1.1	159.1	159.1	159.2	.13	4.8	0.	0.	5972.	0.	0.	21.90
M03702	1.3	159.8	165.3	195.3	.51	5.4	6204.	0.	6204.	0.	6288.	83.02
M03703 *												
M03704	1.1	168.9	181.8	195.0	.25	4.8	0.	0.	6823.	0.	0.	40.62
M03705	.7	0.0	196.7	0.0	.17	3.2	0.	0.	7381.	0.	0.	27.30
M03706	.7	0.0	22.8	0.0	.08	2.9	0.	0.	855.	0.	0.	12.95
M03707	.2	0.0	179.6	0.0	.09	.8	0.	0.	6741.	0.	0.	14.86

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
N03700	.2	0.0	71.5	0.0	.14	1.1	0.	0.	2683.	0.	0.	22.75
N03701	.3	0.0	190.7	0.0	.17	1.4	0.	0.	7156.	0.	0.	28.73
N03702	.5	0.0	110.9	0.0	.27	2.2	0.	0.	4161.	0.	0.	44.60
N03703	.6	0.0	115.5	0.0	.07	2.7	0.	0.	4333.	0.	0.	11.53
N03704	1.0	0.0	176.9	0.0	.06	4.1	0.	0.	6637.	0.	0.	10.42
N03705	1.8	171.9	179.7	198.3	.34	7.5	6604.	0.	6743.	0.	7130.	54.31
N03706	2.1	165.4	175.7	194.9	.50	8.6	6335.	0.	6592.	0.	7308.	79.98
N03707	2.1	165.3	174.3	197.8	.63	8.6	6232.	0.	6542.	0.	7375.	99.52
P03700	2.3	161.4	184.3	206.9	.83	9.6	6071.	0.	6915.	0.	7745.	131.1
P03701	2.3	158.5	180.1	203.4	.71	9.6	5975.	0.	6760.	0.	7531.	111.8
P03702	2.9	23.8	178.7	212.5	1.06	11.7	891.	0.	6708.	0.	7906.	165.2
P03703	2.2	23.6	174.6	206.1	.64	9.2	885.	0.	6554.	0.	7477.	102.7
P03704	1.1	168.7	169.1	182.1	.32	4.8	0.	0.	6345.	0.	0.	52.47
P03705	1.3	178.4	184.3	191.0	.34	5.4	6916.	0.	6916.	0.	6924.	56.15
P03706	1.3	174.7	176.6	196.6	.23	5.5	6558.	0.	6627.	0.	6631.	38.67
P03707	.3	0.0	191.1	0.0	.08	1.5	0.	0.	7173.	0.	0.	14.09
Q03700	.8	0.0	195.7	0.0	.17	3.4	0.	0.	7344.	0.	0.	28.76
Q03701	1.0	187.9	187.9	188.1	.17	4.4	0.	0.	7053.	0.	0.	27.57
Q03702	1.2	181.9	181.9	187.7	.26	5.0	0.	0.	6825.	0.	0.	42.08
Q03703 *												
Q03704	1.2	171.5	187.5	196.2	.40	5.3	7038.	0.	7038.	0.	7062.	64.72
Q03705	1.9	169.2	193.7	204.2	.68	8.1	6497.	0.	7269.	0.	7581.	108.1
Q03706	2.4	160.2	188.0	206.5	.84	9.8	6147.	0.	7055.	0.	7635.	132.0
Q03707	2.5	163.4	190.0	202.7	.80	10.3	6192.	0.	7130.	0.	7601.	126.4

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
E03800	29.9	.8	4.9	68.3	5.96	65.5	29.	32.	182.	1921.	2559.	696.4
E03801	19.8	.9	4.4	56.8	4.56	52.3	36.	36.	167.	1689.	2130.	560.7
E03802	15.5	1.5	4.6	53.1	3.40	44.9	55.	57.	171.	1278.	1984.	435.2
E03803	11.1	2.4	5.5	33.8	1.96	35.7	92.	95.	206.	1006.	1255.	260.1
E03804	7.2	3.4	9.3	33.4	1.21	25.5	127.	155.	351.	811.	1248.	172.5
E03805	6.5	7.5	13.1	36.8	1.18	23.7	281.	303.	491.	896.	1375.	169.4
E03806	5.3	6.5	12.1	34.4	.94	19.8	246.	395.	456.	892.	1214.	139.2
E03807	2.8	7.7	11.7	29.9	.25	11.4	293.	0.	439.	0.	1115.	39.31
F03800	.5	0.0	14.5	0.0	.02	2.3	0.	0.	544.	0.	0.	2.95
F03801	4.2	9.4	11.3	30.9	.46	16.2	353.	404.	425.	465.	1155.	71.87
F03802	7.3	7.2	10.4	37.2	.98	25.9	270.	282.	389.	924.	1362.	145.9
F03803	11.4	6.4	8.7	38.4	1.63	36.4	239.	247.	326.	1009.	1442.	224.1
F03804	8.9	4.9	7.7	36.3	1.43	30.2	186.	199.	289.	914.	1331.	202.8
F03805	15.4	6.8	10.6	50.3	3.35	44.8	258.	264.	398.	1672.	1868.	423.3
F03806	24.9	3.4	7.0	48.0	4.96	59.6	129.	131.	262.	1617.	1800.	567.3
F03807	27.5	2.7	6.9	49.7	6.41	62.7	102.	103.	261.	1768.	1866.	688.6
G03800	16.5	2.0	5.7	54.5	3.90	46.8	75.	93.	215.	1576.	2041.	494.5
G03801	13.5	1.2	6.2	54.2	3.39	41.0	46.	54.	233.	1590.	2026.	446.1
G03802	24.7	.7	5.2	55.4	4.73	59.3	25.	33.	121.	1565.	2078.	576.1
G03803	22.6	1.2	5.7	59.6	4.90	56.4	45.	54.	102.	1582.	2238.	591.1
G03804	16.9	1.1	3.5	57.2	3.44	47.5	45.	55.	131.	1477.	1961.	452.8
G03805	18.5	4.5	7.0	60.3	3.74	50.1	173.	188.	263.	1677.	2179.	480.1
G03806	18.9	2.5	5.5	54.7	3.52	50.8	95.	115.	208.	1588.	2051.	451.1
G03807	11.4	3.0	4.5	52.5	2.15	36.4	114.	118.	169.	1318.	1966.	302.7

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
H03800	8.3	4.8	8.0	39.5	1.69	28.7	180.	187.	300.	1051.	1421.	239.1
H03801	10.5	3.5	6.0	48.6	2.16	34.4	130.	150.	224.	1243.	1810.	295.0
H03802	13.1	2.6	4.7	50.1	2.83	40.1	98.	105.	175.	1300.	1868.	375.0
H03803	19.6	2.0	8.1	53.1	4.79	52.0	77.	90.	305.	1582.	1992.	564.6
H03804	10.8	1.2	3.1	48.7	1.93	35.0	45.	54.	115.	1175.	1789.	275.9
H03805	13.9	3.7	5.7	54.2	1.58	41.9	138.	147.	214.	1344.	1917.	227.7
H03806	27.7	.8	4.2	57.3	5.66	63.1	31.	35.	157.	1739.	2045.	646.1
H03807	23.3	.4	3.4	56.5	5.39	57.4	16.	22.	126.	1695.	2077.	630.7
I03800	4.5	6.0	20.8	42.6	.92	17.5	232.	431.	782.	806.	1585.	140.9
I03801	2.6	6.9	11.3	39.4	.60	10.7	264.	0.	424.	0.	1477.	93.25
I03802	2.8	10.0	11.4	39.5	.59	11.2	374.	0.	428.	0.	1482.	91.98
I03803	2.9	9.9	14.5	39.6	.50	11.9	372.	0.	543.	0.	1485.	78.66
I03804	1.4	12.4	15.2	29.5	.24	6.1	470.	0.	571.	0.	1043.	38.55
I03805	.6	0.0	18.0	0.0	.04	2.7	0.	0.	677.	0.	0.	6.66
I03806	1.0	0.0	11.5	0.0	.02	4.2	0.	0.	430.	0.	0.	2.72
I03807	.5	0.0	16.2	0.0	.04	2.4	0.	0.	608.	0.	0.	7.07
J03800	.4	0.0	11.7	0.0	.01	1.9	0.	0.	439.	0.	0.	1.65
J03801	.4	0.0	11.7	0.0	.03	2.0	0.	0.	439.	0.	0.	5.33
J03802	1.2	11.7	11.7	11.7	.06	5.0	0.	0.	439.	0.	0.	9.99
J03803	1.0	0.0	11.7	0.0	.08	4.2	0.	0.	439.	0.	0.	12.96
J03804	1.5	12.7	13.0	14.1	.09	6.4	479.	0.	486.	0.	503.	14.11
J03805	3.5	11.6	15.7	23.2	.28	13.7	439.	0.	590.	0.	863.	43.38
J03806	6.4	7.1	11.7	23.8	.62	23.4	266.	319.	438.	692.	892.	92.74
J03807	6.5	6.1	10.0	32.7	.91	23.5	227.	250.	374.	680.	1223.	132.4

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
K03800	9.1	4.0	9.4	54.1	2.31	30.8	151.	178.	354.	1392.	1996.	326.0
K03801	6.8	3.9	8.8	56.1	2.00	24.6	149.	242.	329.	1240.	2084.	290.8
K03802	9.0	2.7	8.7	59.0	2.55	30.4	101.	186.	326.	1436.	2105.	357.9
K03803	7.8	2.7	8.1	57.0	1.81	27.4	101.	184.	302.	1412.	2141.	267.4
K03804	4.7	3.9	8.8	57.7	1.40	18.1	146.	275.	331.	699.	2083.	214.6
K03805	4.1	10.5	20.2	62.8	1.42	15.8	403.	579.	758.	942.	2326.	216.2
K03806	3.0	2.7	11.7	55.7	.94	12.0	216.	0.	441.	0.	2086.	147.5
K03807	2.3	5.9	13.6	51.6	.65	9.6	270.	0.	510.	0.	1916.	103.7
L03800	4.0	9.8	13.7	47.0	.70	15.6	369.	505.	512.	562.	1754.	108.0
L03801	1.9	11.2	15.3	26.3	.22	7.8	570.	0.	574.	0.	812.	35.93
L03802	2.1	13.4	26.5	44.3	.38	8.6	521.	0.	993.	0.	1629.	61.18
L03803	2.3	6.2	6.6	29.9	.12	9.7	248.	0.	249.	0.	984.	19.27
L03804	3.4	4.0	20.9	50.1	.91	13.5	151.	0.	786.	0.	1809.	141.9
L03805	5.8	6.9	9.3	53.9	1.70	21.4	261.	300.	351.	1150.	2007.	251.0
L03806	7.9	4.3	7.8	51.6	2.06	27.5	179.	218.	291.	1226.	1927.	293.5
L03807	7.3	4.2	12.0	49.7	2.02	26.0	159.	220.	449.	1182.	1862.	288.0
M03800	*											
M03801	1.2	14.4	14.5	26.6	.13	5.0	0.	0.	543.	0.	0.	20.94
M03802	1.2	14.6	34.2	35.0	.22	5.1	1284.	0.	1284.	0.	1314.	35.68
M03803	*											
M03804	*											
M03805	*											
M03806	*											
M03807	1.3	23.7	27.2	28.9	.13	5.4	1009.	0.	1022.	0.	1022.	21.52

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
N03800	.3	0.0	30.4	0.0	.02	1.5	0.	0.	1141.	0.	0.	3.38
N03801 *												
N03802 *												
N03803 *												
N03804	1.7	11.6	14.1	29.8	.30	7.1	457.	0.	530.	0.	1112.	47.50
N03805 *												
N03806 *												
N03807 *												
P03800	3.3	9.3	23.3	51.1	.95	13.1	350.	0.	876.	0.	1826.	147.5
P03801	3.2	10.0	19.7	51.5	.84	12.8	386.	0.	740.	0.	1855.	131.5
P03802	4.0	9.9	15.0	54.4	1.28	15.7	372.	562.	562.	675.	2042.	194.2
P03803	3.7	8.9	13.9	52.6	1.04	14.6	335.	0.	520.	0.	1975.	160.5
P03804	1.4	11.4	18.3	39.9	.34	6.1	481.	0.	687.	0.	1468.	55.60
P03805	2.0	16.5	31.8	46.7	.35	8.3	620.	0.	1193.	0.	1713.	57.22
P03806	1.8	14.3	31.8	36.8	.17	7.6	539.	0.	1192.	0.	1235.	27.45
P03807	.5	0.0	39.7	0.0	.05	2.3	0.	0.	1488.	0.	0.	8.81
Q03800	1.0	27.2	27.2	27.5	.21	4.4	0.	0.	1021.	0.	0.	34.95
Q03801 *	1.5	16.9	18.9	37.2	.28	6.3	654.	0.	710.	0.	1365.	45.81
Q03802 *												
Q03803 *												
Q03804	2.2	9.8	16.8	48.4	.71	9.2	390.	0.	631.	0.	1716.	112.3
Q03805	3.7	11.7	20.3	60.6	1.24	14.6	446.	0.	762.	0.	2243.	189.6
Q03806	4.0	8.1	14.4	56.5	1.35	15.8	330.	520.	539.	949.	2110.	205.0
Q03807	3.8	8.3	13.0	56.4	1.30	15.0	324.	0.	488.	0.	2115.	197.1

*missing data

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
E03900	8.8	3.1	4.4	68.8	1.17	29.9	116.	119.	165.	348.	2264.	175.1
E03901	4.3	4.1	5.3	14.1	.25	16.8	156.	190.	200.	230.	365.	39.33
E03902	.6	0.0	2.1	0.0	.12	2.7	0.	0.	78.	0.	0.	20.55
E03903	.9	0.0	1.9	0.0	.10	3.8	0.	0.	70.	0.	0.	17.14
E03904	.1	0.0	40.2	0.0	.00	.4	0.	0.	1508.	0.	0.	.81
E03905	.2	0.0	63.7	0.0	.02	.7	0.	0.	2389.	0.	0.	2.63
E03906	.3	0.0	59.5	0.0	.04	1.2	0.	0.	2233.	0.	0.	6.46
E03907	.2	0.0	63.1	0.0	.04	.9	0.	0.	2367.	0.	0.	5.93
F03900	.2	0.0	18.2	0.0	.01	.7	0.	0.	681.	0.	0.	1.99
F03901	.1	0.0	10.6	0.0	.01	.6	0.	0.	398.	0.	0.	2.05
F03902	1.9	.9	.9	.9	.02	7.7	34.	0.	34.	0.	35.	3.41
F03903	2.9	.9	.9	.9	.10	11.6	34.	0.	34.	0.	34.	16.66
F03904	1.1	6.5	6.5	6.6	.04	4.6	0.	0.	243.	0.	0.	6.22
F03905	4.0	6.5	7.9	14.1	.26	15.6	246.	289.	296.	337.	497.	39.32
F03906	9.0	2.4	4.4	12.6	.50	30.5	91.	104.	165.	330.	473.	69.96
F03907	13.4	1.2	3.3	12.6	.92	40.8	43.	46.	124.	442.	470.	118.5
G03900	.9	0.0	17.5	0.0	.16	3.9	0.	0.	657.	0.	0.	25.69
G03901	1.8	6.9	20.9	21.9	.17	7.4	263.	0.	785.	0.	786.	27.54
G03902	5.0	2.5	9.5	45.2	.60	19.1	92.	255.	355.	382.	1698.	92.29
G03903	5.2	7.2	8.8	45.2	.68	19.7	271.	306.	328.	468.	1244.	104.6
G03904	2.8	7.5	9.5	20.1	.34	11.2	288.	0.	358.	0.	740.	54.60
G03905	2.2	11.9	13.2	21.3	.25	9.0	462.	0.	496.	0.	698.	41.10
G03906	1.9	11.1	12.3	45.2	.14	8.0	421.	0.	462.	0.	567.	22.56
G03907	1.2	12.5	12.6	12.9	.07	5.1	473.	0.	473.	0.	474.	11.11

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
H03900	.1	0.0	65.7	0.0	.01	.5	0.	0.	2467.	0.	0.	1.93
H03901	.0	0.0	34.7	0.0	.00	.1	0.	0.	1303.	0.	0.	.70
H03902	.3	0.0	62.8	0.0	.01	1.5	0.	0.	2355.	0.	0.	1.34
H03903	1.4	10.7	10.7	11.2	.03	5.8	400.	0.	400.	0.	418.	5.63
H03904	.8	0.0	8.6	0.0	.04	3.4	0.	0.	322.	0.	0.	6.42
H03905	2.6	6.5	8.6	14.0	.12	10.6	246.	0.	321.	0.	520.	18.64
H03906	5.6	3.3	5.2	23.3	.48	20.8	125.	140.	194.	252.	596.	73.72
H03907	5.2	3.1	4.5	22.0	.54	19.6	116.	134.	168.	284.	826.	82.69
I03900	.4	0.0	18.1	0.0	.02	1.8	0.	0.	679.	0.	0.	3.78
I03901	.5	0.0	17.9	0.0	.03	2.2	0.	0.	671.	0.	0.	4.20
I03902	1.0	0.0	18.1	0.0	.05	4.2	0.	0.	680.	0.	0.	8.75
I03903 *												
I03904	.2	0.0	18.1	0.0	.02	1.1	0.	0.	678.	0.	0.	3.16
I03905	.7	0.0	18.1	0.0	.02	2.9	0.	0.	679.	0.	0.	2.62
I03906	.6	0.0	18.1	0.0	.01	2.5	0.	0.	678.	0.	0.	1.25
I03907	.1	0.0	69.2	0.0	.01	.5	0.	0.	2597.	0.	0.	2.22
J03900	.2	0.0	7.7	0.0	.01	.8	0.	0.	287.	0.	0.	1.15
J03901	.2	0.0	17.7	0.0	.02	1.0	0.	0.	666.	0.	0.	3.78
J03902	.6	0.0	1.5	0.0	.04	2.5	0.	0.	56.	0.	0.	7.15
J03903	.8	0.0	1.5	0.0	.09	3.6	0.	0.	56.	0.	0.	15.07
J03904	.1	0.0	1.4	0.0	.00	.4	0.	0.	54.	0.	0.	.73
J03905	.3	0.0	1.5	0.0	.00	1.2	0.	0.	55.	0.	0.	.34
J03906	1.0	1.4	1.4	1.5	.02	4.3	0.	0.	54.	0.	0.	3.47
J03907	.1	0.0	17.7	0.0	.01	.6	0.	0.	664.	0.	0.	1.89

*missing data

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
K03900	.5	0.0	11.4	0.0	.04	2.3	0.	0.	430.	0.	0.	7.28
K03901	.6	0.0	12.7	0.0	.04	2.5	0.	0.	476.	0.	0.	6.14
K03902	1.2	11.3	11.3	12.5	.08	5.1	425.	0.	425.	0.	458.	12.51
K03903	1.3	10.1	10.1	17.3	.14	5.5	379.	0.	379.	0.	649.	22.68
K03904	1.2	16.3	16.3	16.3	.14	5.0	611.	0.	611.	0.	611.	22.55
K03905	.8	0.0	28.9	0.0	.16	3.5	0.	0.	1083.	0.	0.	25.51
K03906	.6	0.0	17.3	0.0	.03	2.4	0.	0.	648.	0.	0.	4.48
K03907	.6	0.0	16.3	0.0	.01	2.6	0.	0.	610.	0.	0.	1.87
L03900	.2	0.0	3.3	0.0	.05	.9	0.	0.	124.	0.	0.	7.80
L03901	.2	0.0	.1	0.0	.03	.7	0.	0.	3.	0.	0.	4.95
L03902	.5	0.0	6.1	0.0	.04	2.2	0.	0.	230.	0.	0.	7.06
L03903	.6	0.0	10.2	0.0	.04	2.8	0.	0.	383.	0.	0.	5.93
L03904	.5	0.0	7.8	0.0	.04	2.1	0.	0.	291.	0.	0.	6.28
L03905	.9	0.0	16.2	0.0	.08	3.8	0.	0.	607.	0.	0.	13.84
L03906	.7	0.0	13.4	0.0	.07	3.2	0.	0.	503.	0.	0.	11.81
L03907	.8	0.0	7.7	0.0	.08	3.6	0.	0.	288.	0.	0.	13.30
M03900	.3	0.0	15.7	0.0	.01	1.2	0.	0.	590.	0.	0.	1.50
M03901	.2	0.0	42.1	0.0	.01	.8	0.	0.	1581.	0.	0.	1.45
M03902	.3	0.0	2.7	0.0	.01	1.3	0.	0.	103.	0.	0.	1.97
M03903	.6	0.0	63.7	0.0	.05	2.5	0.	0.	2389.	0.	0.	7.89
M03904	.1	0.0	29.4	0.0	.00	.4	0.	0.	1102.	0.	0.	.79
M03905	.2	0.0	47.1	0.0	.02	.9	0.	0.	1768.	0.	0.	3.62
M03906	.2	0.0	.0	0.0	.03	.8	0.	0.	1.	0.	0.	4.55
M03907	.6	0.0	42.5	0.0	.02	2.7	0.	0.	1595.	0.	0.	4.13

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
N03900	.3	0.0	18.0	0.0	.02	1.3	0.	0.	676.	0.	0.	3.67
N03901	.3	0.0	18.0	0.0	.08	1.5	0.	0.	674.	0.	0.	12.76
N03902	.7	0.0	50.5	0.0	.21	3.2	0.	0.	1894.	0.	0.	33.99
N03903	1.1	48.7	48.7	49.1	.21	4.5	0.	0.	1828.	0.	0.	34.34
N03904	.2	0.0	55.1	0.0	.04	.8	0.	0.	2066.	0.	0.	6.50
N03905	.2	0.0	59.3	0.0	.04	.8	0.	0.	2226.	0.	0.	7.18
N03906	.6	0.0	.7	0.0	.06	2.6	0.	0.	28.	0.	0.	9.68
N03907	.2	0.0	52.3	0.0	.02	.8	0.	0.	1962.	0.	0.	3.68
P03900	.4	0.0	12.7	0.0	.04	1.8	0.	0.	478.	0.	0.	5.87
P03901	.4	0.0	13.0	0.0	.03	1.8	0.	0.	489.	0.	0.	4.81
P03902	.4	0.0	1.9	0.0	.02	1.9	0.	0.	72.	0.	0.	3.40
P03903	.8	0.0	1.9	0.0	.04	3.5	0.	0.	72.	0.	0.	6.28
P03904	.4	0.0	15.0	0.0	.03	1.7	0.	0.	564.	0.	0.	4.81
P03905	.3	0.0	21.2	0.0	.03	1.2	0.	0.	797.	0.	0.	5.78
P03906 *												
P03907	.3	0.0	17.8	0.0	.05	1.1	0.	0.	667.	0.	0.	8.30
Q03900 *												
Q03901	.4	0.0	43.2	0.0	.02	1.9	0.	0.	1621.	0.	0.	2.83
Q03902 *												
Q03903 *												
Q03904	.2	0.0	16.9	0.0	.03	1.0	0.	0.	635.	0.	0.	4.25
Q03905	.4	0.0	16.9	0.0	.05	1.9	0.	0.	636.	0.	0.	8.02
Q03906 *												
Q03907	.4	0.0	16.9	0.0	.03	1.6	0.	0.	634.	0.	0.	5.78

*missing data

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
E05500	14.8	148.3	159.6	189.4	4.11	43.6	5572.	5580.	5990.	7021.	7109.	500.2
E05501	8.9	152.8	179.9	187.9	2.06	30.4	5734.	5737.	6752.	6991.	7049.	283.8
E05502	6.9	156.1	181.4	185.6	1.12	24.8	6135.	6138.	6808.	6914.	6965.	159.8
E05503	4.1	165.4	174.9	185.9	.39	16.1	6207.	6563.	6563.	6603.	6977.	61.01
E05504	.8	0.0	183.8	0.0	.02	3.6	0.	0.	6896.	0.	0.	3.72
E05505	.2	0.0	148.2	0.0	.06	.7	0.	0.	5562.	0.	0.	9.27
E05506	.8	0.0	56.0	0.0	.12	3.6	0.	0.	2102.	0.	0.	20.53
E05507	.2	0.0	128.4	0.0	.12	1.0	0.	0.	4818.	0.	0.	20.12
F05500	.3	0.0	143.7	0.0	.05	1.3	0.	0.	5391.	0.	0.	8.12
F05501	.1	0.0	213.4	0.0	.01	.6	0.	0.	8007.	0.	0.	1.24
F05502	.7	0.0	204.8	0.0	.07	2.9	0.	0.	7687.	0.	0.	12.17
F05503	.5	0.0	203.9	0.0	.03	2.3	0.	0.	7654.	0.	0.	4.18
F05504	.2	0.0	204.9	0.0	.02	.8	0.	0.	7691.	0.	0.	3.40
F05505	2.1	170.7	171.0	178.5	.11	8.9	6405.	0.	6417.	0.	6635.	17.81
F05506	8.6	160.3	180.5	182.7	.74	29.6	6014.	6207.	6775.	6816.	6857.	103.3
F05507	13.0	109.4	170.7	215.3	4.32	39.8	4687.	5549.	6407.	6932.	8075.	551.6
G05500	9.1	146.5	181.0	192.0	1.29	30.8	5498.	5808.	6792.	6909.	7125.	181.0
G05501	11.6	132.4	174.2	191.0	3.66	36.8	4985.	5557.	6537.	6998.	7167.	477.7
G05502	12.2	128.4	173.1	196.5	4.21	38.2	4820.	5515.	6497.	6984.	7376.	547.7
G05503	8.0	134.6	174.0	200.1	2.52	27.9	5050.	5583.	6531.	7004.	7481.	356.7
G05504	5.1	147.4	169.0	193.9	1.53	19.2	5534.	5783.	6343.	6792.	7252.	226.4
G05505	4.4	152.6	179.5	190.8	1.17	17.0	5731.	6102.	6737.	6758.	7131.	176.6
G05506	2.5	157.6	173.4	185.0	.34	10.4	5920.	0.	6507.	0.	6939.	53.73
G05507	1.6	163.6	179.5	186.3	.18	6.8	6728.	0.	6736.	0.	6982.	29.83

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
H05500	2.6	156.2	164.2	190.2	.47	10.5	5898.	0.	6162.	0.	7132.	74.33
H05501	3.4	152.8	156.3	188.7	.69	13.4	5734.	0.	5866.	0.	7082.	107.0
H05502	5.3	150.3	162.4	188.5	.56	20.0	5677.	5984.	6094.	6864.	7066.	87.12
H05503	9.3	147.8	176.1	196.0	2.88	31.2	5548.	5593.	6608.	7005.	7150.	391.2
H05504	11.2	135.9	178.5	196.6	3.89	35.9	5121.	5535.	6699.	7035.	7346.	514.9
H05505	13.5	75.4	179.3	199.1	5.44	40.9	5264.	5635.	6727.	7219.	7461.	686.2
H05506	19.2	62.5	173.3	195.7	7.39	51.3	2359.	5503.	6505.	7153.	7329.	880.0
H05507	14.3	64.3	163.2	193.8	5.48	42.6	2417.	5566.	6126.	7146.	7266.	707.1
I05500	1.9	166.5	177.6	192.1	.39	7.9	6256.	0.	6664.	0.	7206.	62.19
I05501	1.3	176.8	177.9	182.4	.08	5.6	6675.	0.	6675.	0.	6829.	13.71
I05502	1.0	0.0	23.2	0.0	.31	4.1	0.	0.	872.	0.	0.	51.03
I05503	*											
I05504	.3	0.0	23.2	0.0	.05	1.3	0.	0.	872.	0.	0.	9.05
I05505	.5	0.0	23.3	0.0	.08	2.2	0.	0.	873.	0.	0.	12.55
I05506	.7	0.0	142.1	0.0	.06	3.1	0.	0.	5334.	0.	0.	9.50
I05507	.2	0.0	23.2	0.0	.05	1.0	0.	0.	872.	0.	0.	8.88
J05500	.1	0.0	184.3	0.0	.03	.7	0.	0.	6915.	0.	0.	4.17
J05501	.2	0.0	23.8	0.0	.04	1.0	0.	0.	891.	0.	0.	6.93
J05502	.7	0.0	178.6	0.0	.20	3.0	0.	0.	6703.	0.	0.	33.71
J05503	.4	0.0	124.5	0.0	.09	1.8	0.	0.	4672.	0.	0.	14.69
J05504	.1	0.0	160.2	0.0	.05	.4	0.	0.	6011.	0.	0.	8.66
J05505	.3	0.0	178.6	0.0	.07	1.5	0.	0.	6702.	0.	0.	11.40
J05506	1.4	178.6	178.6	178.6	.07	5.9	6701.	0.	6701.	0.	6702.	12.06
J05507	2.4	174.2	179.8	188.9	.26	9.8	6540.	0.	6746.	0.	6910.	41.70

*missing data

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
K05500	4.8	154.2	170.2	195.5	1.42	18.4	5804.	6208.	6387.	7067.	7329.	211.4
K05501	5.5	151.6	171.9	194.6	1.72	20.4	5716.	5970.	6451.	7062.	7291.	251.4
K05502	5.7	150.3	172.6	192.4	1.88	21.2	5642.	5876.	6477.	7091.	7220.	272.9
K05503	6.2	150.5	176.5	194.8	2.19	22.8	5646.	5891.	6624.	7208.	7311.	317.3
K05504	3.6	152.6	178.0	195.7	1.18	14.2	5733.	0.	6681.	0.	7316.	180.6
K05505	3.2	158.5	182.4	200.7	1.01	12.8	5955.	0.	6844.	0.	7493.	155.3
K05506	2.9	156.4	179.9	198.2	.76	11.8	5937.	0.	6749.	0.	7357.	120.1
K05507	2.7	167.5	180.9	193.6	.34	10.8	6287.	0.	6790.	0.	7253.	54.16
L05500	2.7	164.8	177.0	200.0	.79	11.0	6219.	0.	6643.	0.	7442.	123.4
L05501	3.7	155.6	173.0	195.6	1.07	14.5	5841.	0.	6493.	0.	7339.	162.9
L05502	6.3	55.0	182.2	194.8	1.75	22.9	2065.	5845.	6839.	7088.	7300.	255.2
L05503	7.3	23.2	172.3	200.9	2.57	25.8	869.	5704.	6467.	7233.	7539.	360.3
L05504	4.4	148.9	179.7	197.6	1.28	16.8	5590.	6328.	6743.	6867.	7367.	195.3
L05505	4.9	151.9	179.4	204.7	1.94	18.6	5723.	6033.	6731.	7010.	7627.	292.8
L05506	4.4	149.0	177.0	194.4	1.37	17.1	5593.	6621.	6643.	6817.	7295.	210.7
L05507	6.8	147.9	176.1	197.4	2.03	24.4	5559.	6052.	6609.	7089.	7338.	298.9
M05500	.5	0.0	22.8	0.0	.05	2.4	0.	0.	856.	0.	0.	8.31
M05501	.9	0.0	181.0	0.0	.26	4.0	0.	0.	6792.	0.	0.	43.49
M05502 *												
M05503 *												
M05504	.4	0.0	170.0	0.0	.06	1.6	0.	0.	6379.	0.	0.	9.99
M05505	.3	0.0	152.1	0.0	.19	1.3	0.	0.	5710.	0.	0.	30.73
M05506	.7	0.0	143.2	0.0	.15	3.1	0.	0.	5374.	0.	0.	25.59
M05507	.2	0.0	178.2	0.0	.25	1.0	0.	0.	6689.	0.	0.	40.79

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
N05500	.2	0.0	56.7	0.0	.05	1.0	0.	0.	2127.	0.	0.	7.66
N05501	.4	0.0	56.7	0.0	.08	1.8	0.	0.	2127.	0.	0.	12.82
N05502	.6	0.0	56.7	0.0	.09	2.6	0.	0.	2127.	0.	0.	14.65
N05503	.9	0.0	56.7	0.0	.10	3.7	0.	0.	2127.	0.	0.	16.25
N05504	.4	0.0	23.2	0.0	.01	1.9	0.	0.	870.	0.	0.	1.12
N05505	.5	0.0	192.0	0.0	.11	2.2	0.	0.	7207.	0.	0.	18.81
N05506	.8	0.0	189.1	0.0	.13	3.4	0.	0.	7096.	0.	0.	21.15
N05507	1.0	0.0	186.1	0.0	.16	4.2	0.	0.	6984.	0.	0.	25.62
P05500	2.3	165.5	179.7	196.4	.61	9.4	6238.	0.	6745.	0.	7370.	96.42
P05501	2.1	160.2	179.2	198.5	.62	8.8	6061.	0.	6724.	0.	7442.	98.57
P05502	3.7	161.3	183.2	200.7	1.08	14.6	6099.	0.	6877.	0.	7531.	166.1
P05503	4.0	160.9	184.4	200.7	1.20	15.7	6053.	6745.	6918.	6959.	7531.	183.1
P05504	2.8	158.0	184.3	199.8	.88	11.5	5960.	0.	6917.	0.	7489.	138.7
P05505	2.8	161.2	187.6	204.8	.91	11.3	6073.	0.	7039.	0.	7637.	142.6
P05506 *												
P05507 *												
Q05500	1.7	164.4	181.1	190.9	.43	7.3	6214.	0.	6798.	0.	7025.	69.48
Q05501	1.7	161.9	163.9	198.0	.54	7.2	6093.	0.	6150.	0.	7095.	86.87
Q05502	2.2	162.7	180.0	201.9	.70	9.0	6176.	0.	6755.	0.	7577.	111.8
Q05503	2.8	156.9	179.9	201.6	.96	11.2	5889.	0.	6752.	0.	7468.	150.1
Q05504	1.7	159.9	177.5	195.5	.59	7.2	6043.	0.	6663.	0.	7317.	94.50
Q05505	1.7	164.5	182.8	199.5	.56	7.0	6637.	0.	6860.	0.	7389.	89.92
Q05506	2.3	160.4	185.6	197.1	.76	9.3	6040.	0.	6965.	0.	7388.	119.9
Q05507	2.3	164.7	188.2	199.2	.71	9.6	6213.	0.	7062.	0.	7414.	111.9

*missing data

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS					
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
E05600	31.4	.9	3.8	42.1	4.89	67.0	36.	37.	144.	1415.	1577.	540.6
E05601	21.7	1.0	3.6	38.3	2.89	55.1	38.	39.	133.	1350.	1433.	350.1
E05602	14.9	1.7	4.6	25.5	1.94	43.8	66.	66.	171.	919.	956.	247.7
E05603	12.1	2.7	4.8	23.3	1.20	38.1	100.	102.	180.	672.	875.	162.37
E05604	7.5	3.1	4.9	19.9	.69	26.6	117.	124.	185.	535.	743.	100.37
E05605	5.3	7.5	8.5	23.6	.47	19.9	282.	294.	319.	394.	868.	70.67
E05606	4.4	5.8	7.0	20.0	.20	17.0	216.	242.	262.	275.	742.	30.60
E05607	1.0	10.6	10.6	10.6	.03	4.5	0.	0.	398.	0.	0.	4.63
F05600	.4	0.0	33.7	0.0	.03	1.7	0.	0.	1263.	0.	0.	4.97
F05601	.3	0.0	1.5	0.0	.00	1.4	0.	0.	57.	0.	0.	.35
F05602 *												
F05603	1.5	8.4	8.5	13.9	.06	6.3	320.	0.	320.	0.	322.	10.44
F05604	2.8	6.5	7.9	17.5	.17	11.4	247.	0.	296.	0.	626.	27.34
F05605	11.9	5.9	8.1	27.2	1.23	37.5	220.	226.	303.	908.	1013.	167.6
F05606	26.4	1.9	4.1	31.3	2.57	61.5	73.	74.	153.	824.	1173.	290.6
F05607	27.4	1.3	4.9	70.7	4.72	62.6	47.	48.	185.	1357.	2653.	552.4
G05600	21.1	2.2	7.3	37.7	3.58	54.3	83.	86.	275.	1320.	1415.	416.8
G05601	25.9	1.9	5.6	48.5	4.84	60.9	71.	94.	209.	1471.	1680.	549.9
G05602	25.5	1.7	3.9	52.7	5.16	60.4	65.	71.	146.	1699.	1864.	595.9
G05603	16.1	2.4	4.9	57.8	2.63	46.1	93.	103.	185.	1532.	2168.	362.52
G05604	12.1	2.2	4.5	45.1	2.00	37.9	83.	86.	168.	1080.	1692.	279.22
G05605	9.5	6.0	9.2	48.1	1.58	31.8	227.	237.	346.	840.	1788.	229.2
G05606	4.7	4.1	5.7	43.7	.62	17.9	154.	178.	212.	220.	1640.	96.58
G05607	3.9	6.5	9.9	34.6	.43	15.2	279.	370.	370.	372.	1294.	67.57

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
H05600	8.0	5.3	7.1	38.7	1.04	27.8	200.	227.	266.	857.	1451.	153.8
H05601	10.7	3.5	5.7	37.6	1.26	34.7	133.	162.	212.	917.	1408.	181.8
H05602	12.0	2.8	5.2	44.9	.80	37.7	106.	110.	197.	771.	1684.	118.4
H05603	19.6	4.4	7.1	55.8	3.37	52.0	167.	169.	268.	1762.	2042.	432.9
H05604	26.7	1.0	4.0	54.4	4.43	61.8	37.	49.	152.	1547.	1988.	532.0
H05605	27.3	3.9	7.0	57.2	5.81	62.5	147.	153.	264.	1742.	2146.	657.8
H05606	32.9	.6	3.9	55.6	7.44	68.6	24.	26.	146.	1789.	2065.	773.4
H05607 *												
I05600	4.6	9.4	20.2	43.6	.80	17.7	356.	557.	757.	890.	1468.	120.6
I05601	4.4	9.2	20.3	29.0	.66	17.1	347.	638.	761.	847.	1081.	99.24
I05602	3.7	10.7	19.6	28.9	.41	14.6	401.	0.	737.	0.	1063.	63.56
I05603	3.9	17.0	20.5	62.8	.25	15.2	639.	768.	768.	768.	2357.	39.48
I05604	1.5	21.5	22.9	24.4	.08	6.3	809.	0.	859.	0.	912.	13.68
I05605	.7	0.0	26.4	0.0	.05	3.0	0.	0.	990.	0.	0.	7.97
I05606	.6	0.0	1.1	0.0	.03	2.4	0.	0.	42.	0.	0.	4.33
I05607	.4	0.0	37.9	0.0	.03	1.8	0.	0.	1421.	0.	0.	4.82
J05600	.8	0.0	45.9	0.0	.03	3.3	0.	0.	1721.	0.	0.	4.38
J05601	.7	0.0	43.2	0.0	.01	2.9	0.	0.	1622.	0.	0.	1.20
J05602	1.4	45.9	45.9	45.9	.05	5.8	1721.	0.	1721.	0.	1722.	7.82
J05603	1.6	45.9	45.9	45.9	.04	6.8	1721.	0.	1721.	0.	1722.	7.33
J05604	.3	0.0	43.5	0.0	.01	1.3	0.	0.	1631.	0.	0.	2.10
J05605	.9	0.0	18.3	0.0	.06	3.8	0.	0.	688.	0.	0.	10.28
J05606	2.6	9.4	17.4	27.1	.29	10.6	351.	0.	652.	0.	1017.	45.87
J05607	8.0	6.6	7.2	31.0	.96	27.9	247.	250.	269.	848.	1161.	139.3

*missing data

FILE NAME	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
K05600	8.7	5.3	10.3	49.2	2.18	29.7	198.	229.	386.	1424.	1826.	301.8
K05601	10.5	4.0	6.9	43.0	2.37	34.2	151.	168.	258.	1401.	1614.	320.3
K05602	9.9	2.9	6.7	50.4	2.57	32.9	113.	137.	250.	1442.	1799.	349.1
K05603	10.0	3.9	10.1	50.9	2.81	33.0	148.	173.	378.	1503.	1858.	378.3
K05604	5.9	4.3	9.6	50.1	1.74	21.7	162.	198.	360.	1144.	1755.	252.5
K05605	5.1	8.0	13.9	53.2	1.60	19.3	303.	374.	520.	1296.	1940.	234.7
K05606	5.3	5.6	15.7	52.4	1.48	19.9	226.	348.	590.	1235.	1934.	219.5
K05607	4.8	7.6	18.0	45.6	.89	18.2	285.	590.	674.	1204.	1532.	135.5
L05600	6.6	7.7	11.3	51.4	1.45	23.8	295.	343.	425.	844.	1861.	214.9
L05601	9.7	5.9	9.7	48.3	1.78	32.3	220.	226.	365.	934.	1760.	251.9
L05602	13.6	.0	7.1	46.7	2.50	41.2	1.	183.	267.	1457.	1752.	334.2
L05603	16.8	3.9	6.5	61.5	3.40	47.3	147.	153.	244.	1661.	2138.	439.7
L05604	11.0	3.0	5.5	50.4	1.64	35.5	114.	135.	207.	1173.	1888.	240.7
L05605	3.4	6.4	13.8	49.0	.91	13.5	241.	0.	516.	0.	1836.	142.3
L05606	5.8	3.2	12.0	49.2	1.35	21.4	121.	249.	450.	726.	1818.	202.9
L05607	10.2	3.0	7.8	49.5	2.34	33.6	112.	170.	293.	1173.	1835.	322.3
M05600	1.4	19.2	25.6	27.6	.18	5.8	733.	0.	962.	0.	1014.	30.22
M05601	2.4	12.9	21.1	29.6	.42	9.7	492.	0.	792.	0.	1089.	67.52
M05602	3.0	11.4	18.6	47.7	.63	11.9	427.	0.	697.	0.	1297.	99.12
M05603	3.1	13.1	19.7	41.9	.58	12.5	499.	0.	739.	0.	1571.	91.57
M05604	1.6	14.6	19.2	29.0	.24	6.6	632.	0.	721.	0.	1066.	38.90
M05605	1.2	21.3	23.3	25.3	.09	5.1	874.	0.	874.	0.	885.	14.73
M05606	1.0	23.2	23.2	23.7	.04	4.5	0.	0.	872.	0.	0.	6.31
M05607	.3	0.0	24.3	0.0	.00	1.1	0.	0.	914.	0.	0.	.56

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
N05600	.3	0.0	2.7	0.0	.03	1.2	0.	0.	102.	0.	0.	4.68
N05601	.3	0.0	39.1	0.0	.03	1.2	0.	0.	1468.	0.	0.	5.76
N05602	.5	0.0	11.8	0.0	.05	2.1	0.	0.	443.	0.	0.	8.09
N05603	.6	0.0	2.7	0.0	.06	2.6	0.	0.	103.	0.	0.	9.16
N05604	.4	0.0	16.6	0.0	.02	1.8	0.	0.	624.	0.	0.	3.96
N05605	1.0	20.6	20.6	20.6	.15	4.5	0.	0.	774.	0.	0.	24.56
N05606	1.9	12.7	14.7	31.9	.29	8.0	476.	0.	551.	0.	1197.	46.28
N05607	3.3	11.7	12.3	32.0	.36	13.2	442.	0.	463.	0.	1048.	56.63
P05600	3.4	9.4	22.0	48.0	.93	13.4	353.	0.	826.	0.	1678.	144.3
P05601	3.4	8.5	23.8	46.6	.93	13.6	319.	0.	893.	0.	1744.	143.4
P05602	5.3	6.6	12.4	52.1	1.57	19.9	248.	287.	466.	998.	1859.	231.6
P05603	6.1	6.8	20.3	51.6	1.76	22.4	264.	312.	760.	1207.	1853.	255.5
P05604 *												
P05605 *												
P05606 *												
P05607 *												
Q05600	3.1	9.1	21.7	47.2	.85	12.5	344.	0.	815.	0.	1644.	131.1
Q05601	3.3	7.6	11.7	44.1	.85	13.1	288.	0.	440.	0.	1543.	132.2
Q05602	3.6	9.7	19.3	55.9	1.01	14.1	372.	0.	723.	0.	1810.	155.7
Q05603	4.7	6.6	11.9	49.4	.92	17.9	278.	446.	446.	447.	1856.	140.7
Q05604	2.4	7.5	12.0	42.6	.68	9.8	296.	0.	449.	0.	1591.	107.5
Q05605	2.5	12.3	31.3	46.7	.69	10.2	465.	0.	1173.	0.	1609.	108.7
Q05606	3.3	8.8	13.6	51.1	1.06	13.1	330.	0.	511.	0.	1830.	164.3
Q05607	3.9	8.3	18.2	55.6	1.19	15.2	323.	682.	682.	684.	1943.	182.3

*missing data

FILE NAME		MODEL CONDITIONS				PROTOTYPE CONDITIONS					
		PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
E05700		.1	0.0	69.8	0.0	.01	.5	0.	0.	2618.	0.	0.	1.82
E05701		.1	0.0	57.9	0.0	.01	.6	0.	0.	2173.	0.	0.	1.76
E05702		.3	0.0	44.5	0.0	.02	1.3	0.	0.	1669.	0.	0.	3.91
E05703	*												
E05704		.1	0.0	.5	0.0	.01	.4	0.	0.	19.	0.	0.	.84
E05705		.1	0.0	37.2	0.0	.00	.5	0.	0.	1397.	0.	0.	.72
E05706	*												
E05707		.2	0.0	35.4	0.0	.02	.8	0.	0.	1329.	0.	0.	3.28
F05700		.9	0.0	1.5	0.0	.12	3.7	0.	0.	55.	0.	0.	19.77
F05701		.9	0.0	1.4	0.0	.19	3.8	0.	0.	52.	0.	0	31.64
F05702		1.6	.1	1.5	5.6	.28	6.6	57.	0.	57.	0.	58.	46.04
F05703		1.5	.1	.2	45.2	.43	6.3	6.	0.	6.	0.	1644.	69.16
F05704	*												
F05705	*												
F05706		1.7	.4	1.4	5.5	.32	7.3	16.	0.	54.	0.	54.	52.37
F05707		1.9	48.6	48.9	50.0	.24	7.7	1826.	0.	1836.	0.	1864.	40.07
G05700		.6	0.0	17.8	0.0	.07	2.8	0.	0.	666.	0.	0.	11.02
G05701		3.8	5.3	6.6	20.0	.19	15.1	200.	249.	249.	258.	687.	30.68
G05702		4.3	4.6	7.1	20.2	.39	16.6	176.	226.	266.	286.	759.	61.51
G05703		1.8	7.5	8.8	18.3	.24	7.4	315.	0.	328.	0.	687.	38.25
G05704		.7	0.0	13.4	0.0	.05	3.0	0.	0.	504.	0.	0.	8.10
G05705		.8	0.0	17.5	0.0	.03	3.6	0.	0.	657.	0.	0.	4.43
G05706		.8	0.0	17.5	0.0	.04	3.4	0.	0.	657.	0.	0.	6.19
G05707		.1	0.0	31.1	0.0	.01	.6	0.	0.	1166.	0.	0.	2.40

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
H05700	.3	0.0	43.5	0.0	.00	1.3	0.	0.	1631.	0.	0.	.19
H05701	.3	0.0	43.2	0.0	.00	1.2	0.	0.	1622.	0.	0.	.83
H05702	.5	0.0	43.5	0.0	.01	2.4	0.	0.	1633.	0.	0.	1.96
H05703	.7	0.0	10.7	0.0	.00	3.0	0.	0.	402.	0.	0.	.40
H05704	2.3	6.4	7.1	9.5	.07	9.4	241.	0.	268.	0.	345.	11.83
H05705	3.7	7.0	9.4	15.9	.32	14.4	270.	0.	351.	0.	583.	50.60
H05706	6.6	3.8	5.9	43.5	.41	23.8	143.	172.	220.	274.	1632.	61.89
H05707 *												
I05700	.4	0.0	17.0	0.0	.03	1.6	0.	0.	639.	0.	0.	5.27
I05701	.3	0.0	16.8	0.0	.04	1.2	0.	0.	632.	0.	0.	6.78
I05702	.8	0.0	.0	0.0	.04	3.3	0.	0.	1.	0.	0.	6.86
I05703	.6	0.0	16.9	0.0	.09	3.3	0.	0.	633.	0.	0.	15.47
I05704	.1	0.0	17.1	0.0	.01	.5	0.	0.	642.	0.	0.	1.42
I05705	.6	0.0	18.1	0.0	.01	2.8	0.	0.	680.	0.	0.	1.46
I05706	.3	0.0	47.5	0.0	.05	1.2	0.	0.	1781.	0.	0.	7.76
I05707	.1	0.0	11.0	0.0	.01	.4	0.	0.	411.	0.	0.	2.20
J05700	.6	0.0	18.1	0.0	.05	2.6	0.	0.	681.	0.	0.	8.96
J05701	.4	0.0	20.9	0.0	.03	2.0	0.	0.	785.	0.	0.	4.88
J05702	.7	0.0	20.9	0.0	.08	3.0	0.	0.	785.	0.	0.	12.48
J05703 *												
J05704	.2	0.0	18.1	0.0	.03	.8	0.	0.	681.	0.	0.	5.13
J05705	.4	0.0	18.2	0.0	.03	1.6	0.	0.	684.	0.	0.	5.24
J05706	.2	0.0	.3	0.0	.01	1.1	0.	0.	13.	0.	0.	1.08
J05707	.1	0.0	69.2	0.0	.00	.6	0.	0.	2599.	0.	0.	.72

*missing data

FILE NAME	MODEL CONDITIONS: PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS: PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
K05700	.3	0.0	55.4	0.0	.03	1.1	0.	0.	2080.	0.	0.	5.00
K05701	.2	0.0	45.7	0.0	.02	1.1	0.	0.	1713.	0.	0.	3.55
K05702	.8	0.0	13.2	0.0	.10	3.6	0.	0.	495.	0.	0.	15.74
K05703	1.5	7.7	10.1	14.8	.16	6.2	378.	0.	378.	0.	416.	26.98
K05704	.6	0.0	9.2	0.0	.05	2.7	0.	0.	347.	0.	0.	7.51
K05705	.2	0.0	1.3	0.0	.01	1.0	0.	0.	48.	0.	0.	2.07
K05706	.3	0.0	50.6	0.0	.04	1.4	0.	0.	1899.	0.	0.	7.41
K05707	.1	0.0	.1	0.0	.02	.5	0.	0.	3.	0.	0.	3.17
L05700	.3	0.0	17.3	0.0	.08	1.4	0.	0.	650.	0.	0.	12.62
L05701	.3	0.0	54.7	0.0	.06	1.4	0.	0.	2054.	0.	0.	10.46
L05702	.6	0.0	46.7	0.0	.11	2.6	0.	0.	1751.	0.	0.	17.44
L05703 *												
L05704	1.0	8.1	8.1	11.1	.09	4.4	0.	0.	303.	0.	0.	14.72
L05705	1.2	12.9	13.0	17.4	.17	5.1	488.	0.	488.	0.	569.	28.02
L05706	1.1	17.3	17.3	17.3	.14	4.8	0.	0.	650.	0.	0.	23.21
L05707	.8	0.0	7.4	0.0	.13	3.4	0.	0.	278.	0.	0.	20.65
M05700	.1	0.0	18.9	0.0	.03	.7	0.	0.	711.	0.	0.	4.79
M05701	.3	0.0	42.5	0.0	.03	1.5	0.	0.	1595.	0.	0.	5.26
M05702	.6	0.0	42.5	0.0	.09	2.6	0.	0.	1594.	0.	0.	14.37
M05703	.9	0.0	42.3	0.0	.12	3.7	0.	0.	1587.	0.	0.	20.40
M05704	.1	0.0	14.0	0.0	.00	.5	0.	0.	524.	0.	0.	.72
M05705	.4	0.0	42.5	0.0	.02	1.6	0.	0.	1594.	0.	0.	3.60
M05706	.4	0.0	42.5	0.0	.02	1.7	0.	0.	1593.	0.	0.	3.95
M05707	.1	0.0	56.5	0.0	.03	.6	0.	0.	2121.	0.	0.	5.13

*missing data

FILE NAME	MODEL CONDITIONS PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PROTOTYPE CONDITIONS PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
N05700	.2	0.0	61.9	0.0	.01	.7	0.	0.	2325.	0.	0.	1.13
N05701	*											
N05702	.2	0.0	.0	0.0	.04	.8	0.	0.	1.	0.	0.	6.90
N05703	*											
N05704	.1	0.0	58.1	0.0	.02	.6	0.	0.	2179.	0.	0.	3.10
N05705	.2	0.0	18.3	0.0	.01	.9	0.	0.	686.	0.	0.	1.42
N05706	.3	0.0	53.2	0.0	.02	1.3	0.	0.	1995.	0.	0.	3.27
N05707	.7	0.0	40.1	0.0	.01	3.1	0.	0.	1505.	0.	0.	1.22
P05700	.4	0.0	15.9	0.0	.05	1.9	0.	0.	562.	0.	0.	8.44
P05701	.3	0.0	9.6	0.0	.08	1.4	0.	0.	362.	0.	0.	13.81
P05702	.3	0.0	52.0	0.0	.03	1.3	0.	0.	1951.	0.	0.	4.82
P05703	.7	0.0	22.0	0.0	.07	3.0	0.	0.	826.	0.	0.	10.79
P05704	.4	0.0	15.7	0.0	.06	1.7	0.	0.	587.	0.	0.	9.14
P05705	.4	0.0	17.8	0.0	.06	1.8	0.	0.	669.	0.	0.	10.68
P05706	.6	0.0	16.3	0.0	.07	2.6	0.	0.	614.	0.	0.	11.16
P05707	.3	0.0	15.9	0.0	.02	1.4	0.	0.	596.	0.	0.	4.12
Q05700	.3	0.0	17.6	0.0	.02	1.2	0.	0.	660.	0.	0.	3.98
Q05701	.6	0.0	17.6	0.0	.02	2.8	0.	0.	661.	0.	0.	3.54
Q05702	1.0	0.0	17.6	0.0	.04	4.2	0.	0.	661.	0.	0.	6.64
Q05703	*											
Q05704	.4	0.0	13.6	0.0	.04	1.7	0.	0.	509.	0.	0.	6.01
Q05705	.5	0.0	17.6	0.0	.04	2.3	0.	0.	660.	0.	0.	5.87
Q05706	.5	0.0	13.5	0.0	.05	2.3	0.	0.	506.	0.	0.	8.88
Q05707	.3	0.0	15.6	0.0	.06	1.4	0.	0.	585.	0.	0.	9.80

*missing data

	MODEL CONDITIONS					PROTOTYPE CONDITIONS						
FILE NAME	PEAK CONC. (%)	1% ARR. TIME (SEC)	PEAK TIME (SEC)	1% END TIME (SEC)	SUM (X-S)	PEAK CONC. (%)	5% ARR. TIME (SEC)	15% ARR. TIME (SEC)	PEAK TIME (SEC)	15% END TIME (SEC)	5% END TIME (SEC)	SUM (X-S)
S20500	5.3	152.5	169.9	193.0	1.02	20.1	5821.	6030.	6374.	6941.	7090.	155.4
S20501	1.2	153.7	172.4	186.9	.07	5.0	6469.	0.	6469.	0.	6472.	11.55
S20502	.8	0.0	23.2	0.0	.01	3.5	0.	0.	869	0.	0.	1.22
S20503	1.1	23.0	23.0	23.1	.15	4.8	0.	0.	865.	0.	0.	25.14
S20504	.3	0.0	221.1	0.0	.04	1.1	0.	0.	8299.	0.	0.	5.80
S20600	1.1	7.6	8.4	8.5	.08	4.9	0.	0.	314.	0.	0.	13.49
S20601	.7	0.0	6.5	0.0	.05	3.0	0.	0	244.	0.	0.	9.02
S20602	.6	0.0	38.4	0.0	.04	2.5	0.	0.	1442.	0.	0.	6.54
S20603	.4	0.0	32.2	0.0	.01	1.7	0.	0.	1210.	0.	0.	1.48
S20604	.2	0.0	28.2	0.0	.02	.7	0.	0	1059.	0.	0.	2.61
S20700	9.8	4.5	13.7	54.2	2.11	32.5	168.	203.	513.	1434.	1947.	297.3
S20701	1.6	5.3	6.4	38.9	.11	6.7	239.	0.	241.	0.	1462.	18.55
S20702	1.0	0.0	12.6	0.0	.07	4.3	0.	0.	472.	0.	0.	10.90
S20703	1.3	12.6	12.6	12.6	.05	5.6	472.	0.	472	0.	473.	8.32
S20704	.3	0.0	12.5	0.0	.01	1.2	0.	0.	471.	0.	0.	2.30

Note: Run numbers 205, 206 and 207 corresponds to the vertical concentration profiles observed at the LNG flare, wind direction of 180°, 2.23 m/sec wind speed, and with source descriptions AA, CC and BB respectively. The tap number 00, 01, 02, 03, and 04 are located at 0.0, 10.16, 20.32, 30.48, and 40.64 meters above the ground respectively.