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STACK GAS DISPERSION CAUSED BY THE
ARCHITECTURAL LIGHTHOUSE AT
B. L. ENGLAND STATION

by

W. W. Li¹, J. A. Peterka² and J. E. Cermak³



FLUID MECHANICS AND
WIND ENGINEERING PROGRAM

COLLEGE OF ENGINEERING

COLORADO STATE UNIVERSITY
FORT COLLINS, COLORADO

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Stearns Catalytic Corporation
Centre Square West
1500 Market Street
Philadelphia, PA 19102-2197

Fluid Mechanics and Wind Engineering Program
Fluid Dynamics and Diffusion Laboratory
Department of Civil Engineering
Colorado State University
Fort Collins, Colorado 80523

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¹ Research Associate, Colorado State University.

² Professor, Fluid Mechanics and Wind Engineering Program, Colorado State University.

³ Professor and Senior Counsel, Fluid Mechanics and Wind Engineering Program, Colorado State University.

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LIST OF SYMBOLS

<u>Symbol</u>	<u>Definition</u>	<u>Dimension</u>
D	Stack or flue diameter	L
H_s	Stack height	L
n	Power law exponent	--
Q	Pollutant emission rate	ppm $L^3 T^{-1}$
Fr	Froude number, $\frac{W_s}{\sqrt{g \Delta \gamma D}}$	--
U	Wind speed	LT^{-1}
U_s	Mean speed of ambient wind at H_s	LT^{-1}
W_s	Speed of stack gas emission	LT^{-1}
g	Gravitational acceleration	LT^{-2}
x, y, z	Cartesian coordinates	L
ρ_s	Density of stack gas	ML^{-3}
ρ_a	Density of ambient air	ML^{-3}
v_a	Kinematic viscosity of ambient air	$L^2 T^{-1}$
v_s	Kinematic viscosity of the effluent	$L^2 T^{-1}$
$\Delta \gamma$	$(\rho_a - \rho_s)g$ - difference in specific weight of ambient air and stack gas	$ML^{-2} T^{-2}$
δ	Boundary layer thickness	L
χ	Volumetric concentration of pollutant	ppm
() _m	Model value	--
() _p	Prototype value	--

Subscripts

a	Ambient
m	Model
p	Prototype
s	Stack
T	Total

1. INTRODUCTION

1.1 Purpose and Scope of Study

Previous wind tunnel studies of B. L. England Station (BLES) stack dispersion detailed the ground-level SO₂ concentration and selection of Good-Engineering-Practice stack height as reported by Cermak, Peterka and Beatty (1984) and Li, Peterka and Cermak (1985) (hereinafter LPC). In addition, Atlantic City Electric Company (ACE), which owns and operates the BLES Units 1, 2 and 3, is investigating the engineering, economic, and regulatory aspects of installing an architectural lighthouse fixture on the new 144.8 m stack. Therefore, the purpose of this study is to examine the influence of the architectural lighthouse attachment of the 144.8 m stack at BLES on plume dispersion. Primary effort is to acquire additional data on ground-level concentrations resulting from stack emission at BLES with and without the architectural lighthouse attachment.

1.2 Simulation of Boundary Layer and Atmospheric Dispersion

The wind tunnel facility and boundary layer augmentation devices were kept exactly the same as they were in LPS. Reference velocity was monitored with a Datametrics Model 800LV linear flowmeter with probe. Figure 1 shows the mean and turbulence velocity profiles observed in this phase of study. The mean velocity profiles reproduced the desired boundary layer with $\delta = 100$ cm and $n = 0.14$. Detailed information concerning the characteristics of the boundary layer is referred to LPC.

Two simulation techniques of plume rise are adopted in the present study to examine the impact of the architectural lighthouse attachment on the 144.8 m stack dispersion. Simulation of effluent-to-air density ratio, ρ_s / ρ_a , (according to Lawson and Snyder (1983)) and simulation of Froude number, Fr, (according to Snyder (1981)) are conducted for the

BLES model with and without architectural lighthouse attachment. The simulation criterion for density ratio and Froude number are referred to Section 2.2 and Section C.2.1 of LPC, respectively.

A circular area about the BLES, 457.2 m in diameter, was modeled on a scale of 1:300 for use in the wind-tunnel tests. The model was completely described in LPC. The model was slightly modified to include the new design for duct work which connects the three units and the new stack. The lighthouse fixture was constructed to scale to easily slip over the stack. Photographs of the modified BLES model are presented in Figure 2.

1.3 Data Reduction

Concentration data obtained in the wind tunnel may be related to those in the prototype through the nondimensional concentration coefficient, $K_c = \chi U L^2 / Q$, where

χ = volumetric concentration of pollutant (ppm, parts tracer gas per million parts air),

U = reference wind speed (LT^{-1}),

L = characteristic length (L), and

Q = pollutant emission rate (ppm $L^3 T^{-1}$).

The relation between prototype and model concentration beyond a few diameters from the source is thus

$$\chi_p = \chi_m \left(\frac{U_m}{U_p} \right) \left(\frac{L_m}{L_p} \right)^2 \left(\frac{Q_p}{Q_m} \right)$$

As a result of the simulation techniques, concentration data obtained in the wind tunnel are presented in two different formats. Firstly, the data can be reduced in a format, consistent with Lawson and Snyder (1983), $\chi U_s / Q$, i.e.,

$$\frac{x_p U_{sp}}{Q_p} \left(\frac{1}{m^2} \right) = \frac{(RAW-BG) (\mu v \cdot s)}{S \cdot S (ppm)} \cdot \frac{CAL.FAC (ppm/\mu v \cdot s)}{(S \cdot F)^2} \cdot \frac{U_{sm} (m/s)}{Q_m (m^3/s)}$$

Secondly, the data may be reduced in a format consistent with Snyder (1981), x_p , i.e.,

$$x_p \left(\frac{gSO_2}{m^3 air} \right) = \frac{(RAW-BG) (\mu v \cdot s)}{S \cdot S \left(\frac{\ell_{tracer}}{10^6 \ell_{air}} \right)} \cdot \frac{CAL.FAC \left(\frac{\ell_{tracer}}{10^6 \ell_{tracer}} \frac{1}{\mu v \cdot s} \right)}{(S \cdot F)^2} \\ \cdot \frac{U_{sm} (m/s)}{U_{sp} (m/s)} \cdot \frac{Q_p (gSO_2/s)}{Q_m (m^3 air/s)},$$

where:

(RAW-BG): integrator values of a tracer sample minus a background reading measured in microvolts · seconds,

CAL.FAC: calibration factor of the gas chromatograph which provides a baseline to compensate for changes in operation and also compensate for the use of tracers with varying molecular weights,

S·F: prototype-to-model length scale,

S·S: source strength of effluent,

U_{sm} : stack-height velocity of the wind-tunnel test,

U_{sp} : stack height velocity of the prototype,

Q_m : volumetric flow of the tracer through a model stack, and

Q_p : emission rate from the prototype stack.

Total SO_2 concentration at each sampler location was summarized and presented in addition to the foregoing calculation made for each stack output. The total "dimensional" concentration coefficient, $x_T U / Q_T$, is evaluated as

$$\frac{\chi_{T\text{ sp}}^U}{Q_T} = \frac{\chi_{1p\text{ sp}}^U}{Q_{1p}} \frac{Q_{1p}}{Q_T} + \frac{\chi_{2p\text{ sp}}^U}{Q_{2p}} \frac{Q_{2p}}{Q_T} + \frac{\chi_{3p\text{ sp}}^U}{Q_{3p}} \frac{Q_{3p}}{Q_T},$$

where: $Q_T = Q_{1p} + Q_{2p} + Q_{3p}$,

$\chi_T = \chi_{1p} + \chi_{2p} + \chi_{3p}$, and

1, 2, 3 indicates quantities corresponding to Stack 1, 2 and
3, respectively.

2. TEST PROGRAM AND RESULTS

2.1 Test Program

It was demonstrated in LPC that minimum plant-load operation is more likely than full load to cause excessive ground-level concentration near the critical wind speed, 30.3 mph at 60 m height. Examination of the stack geometry and surrounding buildings indicates that the lighthouse fixture maybe at an elevation too high to interact with the building wake but will influence the wake structure behind the stack. The stack aerodynamic effect states that low pressure in the wake of the stack may cause the plume to be drawn downward behind the stack and thus increase the ground-level concentration. It is generally recognized that plume downwash won't occur for W_s/U_s greater than 1.5 (Hanna, et al., 1982) for a typical stack; however, it is not clear that this criteria is valid with the lighthouse fixture in place. The test program is thus designed to concentrate on the minimum plant-load operation which might result in higher ground-level concentration by the presence of lighthouse attachment on the stack.

Table 1 summarizes the run numbers assigned to wind-tunnel tests, model parameters, BLER configurations, plume simulation criterion and model wind speeds used in the present study. Model flow rates, wind speeds, effluent-to-air density ratios and Froude numbers were calculated using plant operating conditions for minimum power-loads as contained in Table 2. Table 3 lists model and prototype parameters employed in the present study.

Data from 34 separate concentration measurements are tabulated in the Appendix in terms of mass concentration ($\mu\text{g}/\text{m}^3$) if Froude number is simulated or dimensional concentration coefficient ($1/\text{m}^2$) if effluent-to-air density ratio is simulated.

Flow visualizations were performed on some representative runs. The test parameters/conditions which were documented on the video tape are summarized in Table 4. Figure 3 shows the multi-flue effluent release with and without the lighthouse attachment. No substantial difference is observed.

2.2 Dispersion from the Existing Stacks

Two test runs were performed for the existing 76.2 m stack with units 1, 2, and 3 operating at full load for a 198° wind. Concentration data were collected at a distance 2.7 km downwind of the stack (Somer's Point). These data provide a reference for establishing that EPA criteria has been satisfied as well as an examination of repeatability between the present measurements and previous measurements. Present concentration data are in good agreement with data reported in LPC for both simulation techniques as shown in Figures 4 and 5. Mass concentration at Somer's Point observed in the present study was $1860 \mu\text{g}/\text{m}^3$ which replicated the previous observation of $1900 \mu\text{g}/\text{m}^3$.

2.3 Dispersion From the 144.8 m Stack With/Without Architectural Lighthouse

Dispersion measurements for the 144.8 m stack emission were conducted to establish effects of the lighthouse elements on ground-level concentration. Data were obtained for various wind speeds and two wind directions (198° and 270°). Attention was focused on finding the maximum ground-level concentration and its location for the worst wind direction, 270° , which resulted in highest ground-level concentration as reported in LPC. Measurements of plume dispersion for a 198° wind were aimed to provide concentration level at Somer's Point.

Figures 6 through 9 show the ground-level concentration with and without the lighthouse attachment for different wind speeds with Froude

number simulated. Similar results are presented in Figures 10 through 13 with effluent-to-air density ratio simulated. Table 5 summarizes the effects of the lighthouse elements on ground-level concentration. The effect may be seen in the ratio of $X_{\text{with lighthouse}} / X_{\text{without lighthouse}}$. This ratio varies from 90% to 112% in terms of mass concentration and 91% to 119% in terms of dimensional concentration coefficient. The maximum variation occurred at wind speed 25 mph. At this wind speed, Table 6 clearly shows the concentration level is far less than 40% of the reference concentration (i.e., ground-level concentration observed at Somer's Point for a full-load, existing stacks emission).

Figures 14 and 15 display the variation of ground-level concentration in terms of wind speed for the 144.8 m stack. A horizontal line has been drawn on Figure 14 at 40 percent of the $1900 \mu\text{g}/\text{m}^3$ (reference concentration) to aid in determination of acceptability of results. This 40 percent value represents the level of concentration which ACE personnel have estimated is needed to prevent air quality standard exceedances. Concentrations with and without lighthouse elements do not exceed the acceptability criteria for a 30.3 mph wind on stack dispersion as shown in Figure 15. Figure 15 contains another horizontal line specifying the 40 percent exceedance criteria outlined in U.S. EPA regulations for GEP stack height. (Guideline for Determination of Good Engineering Practice Stack Height, (Technical Support Document for the Stack Height Regulations), with Addenda, U.S. EPA, November 1984.) The line represents 140 percent of the maximum ground-level concentration from a 144.8 m stack emission under conditions of minimum load, 270° wind and no surrounding buildings. Again, the ground-level concentration does not exceed the acceptability criteria on the 144.8 m stack dispersion regardless presence of the lighthouse elements.

3. SUMMARY

Additional data acquisition was conducted in the Meteorological Wind Tunnel at Colorado State University for a 144.8 m stack dispersion with and without the architectural lighthouse attachment. The present study replicated simulations of atmospheric boundary layer and dispersion used in Li, Peterka and Cermak (1985). Detailed descriptions of the simulated boundary layer, experimental facilities and instrumentation are referred to that report.

The influence of the lighthouse elements on stack dispersion is small. The acceptability criterion for ground-level concentration, both in mass concentration and dimensional concentration coefficient, remain unexceeded irregardless presence of the lighthouse elements. No consistent trend was found to support special consideration for the lighthouse elements on stack dispersion.

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5. Snyder, W. H, 1981. Guideline for Fluid Modeling of Atmospheric Diffusion, U.S. EPA, ESRL, EPA-600/8-81-009.

FIGURES

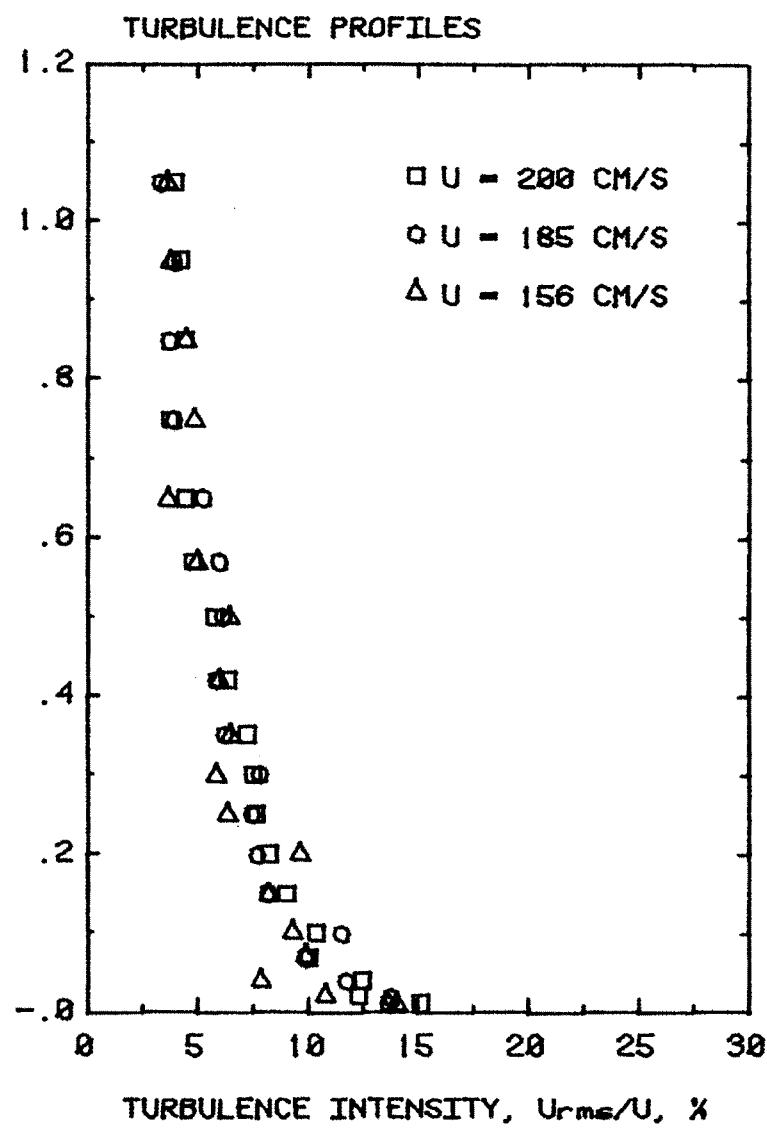
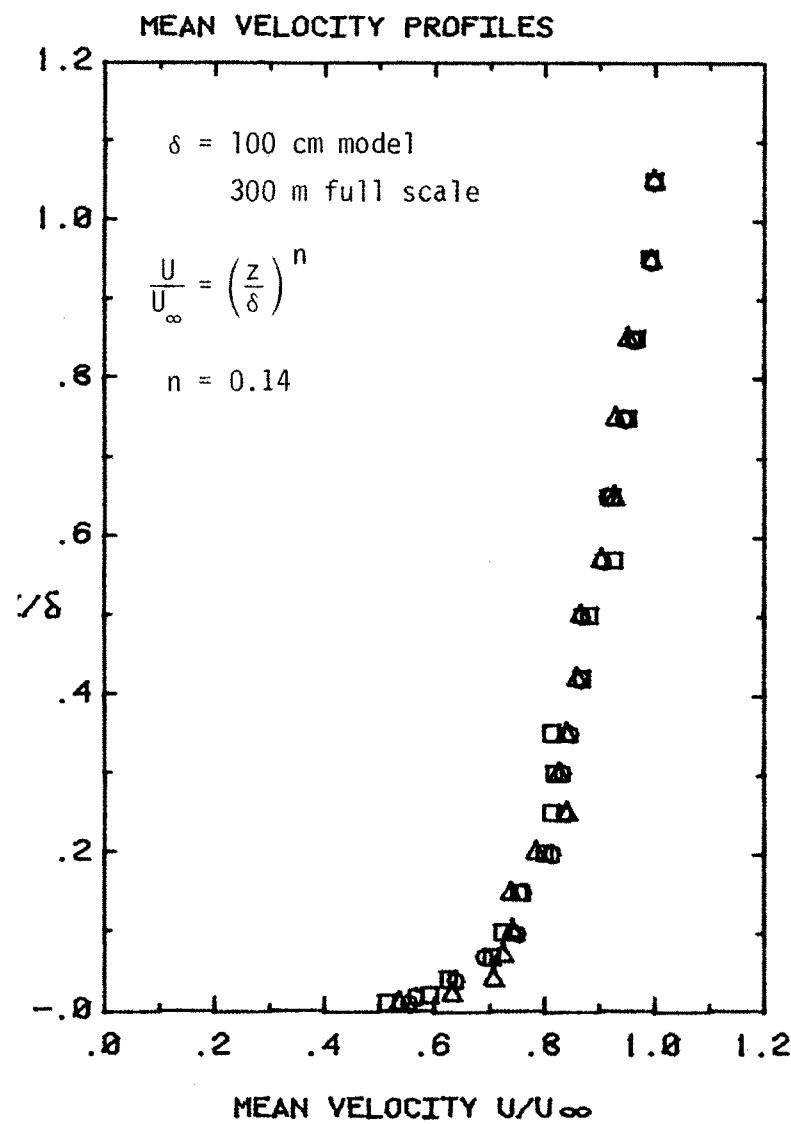
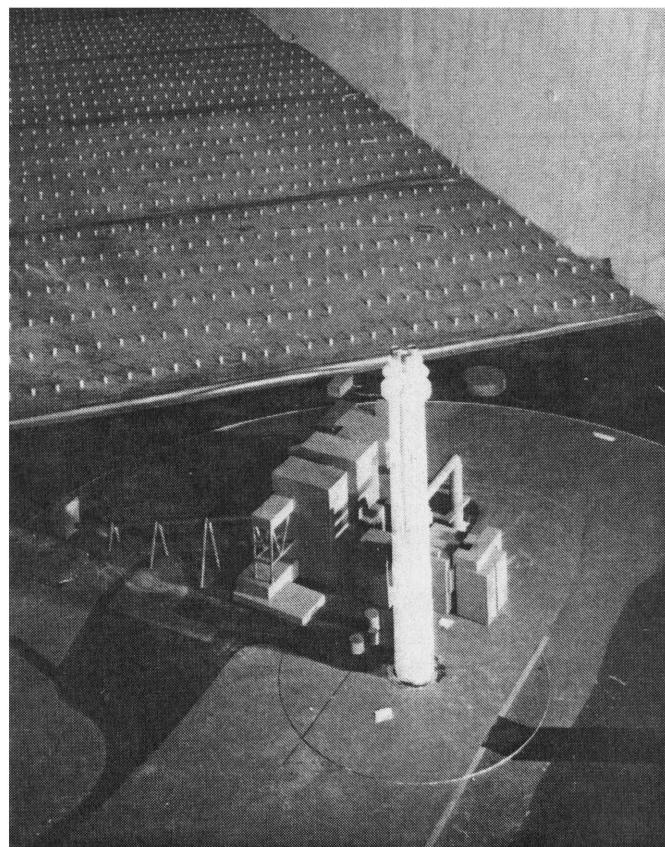
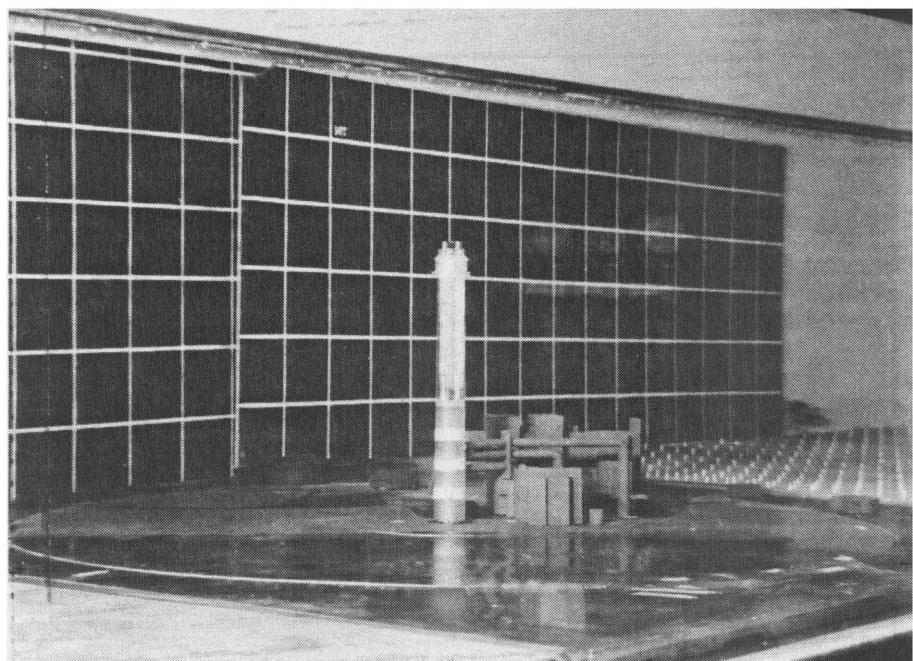


Figure 1. Mean Velocity and Turbulence Profiles Approaching the Model

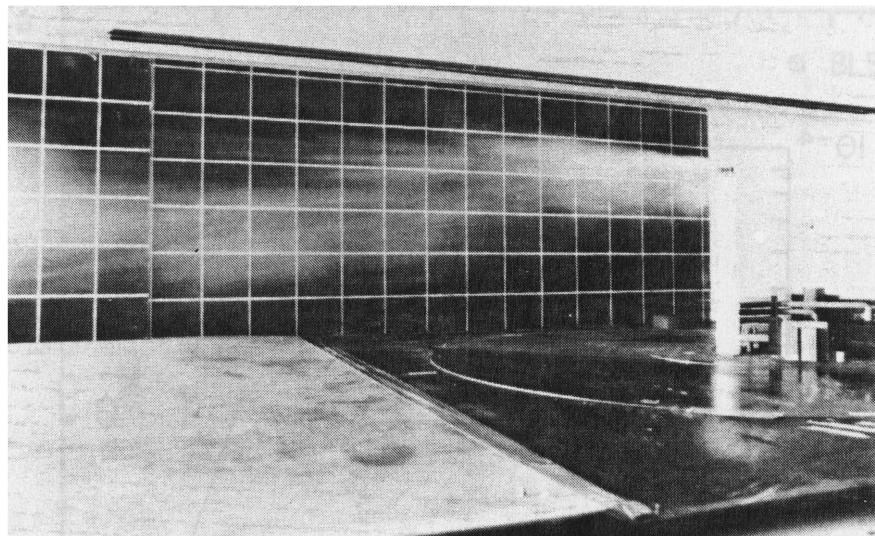


(a)

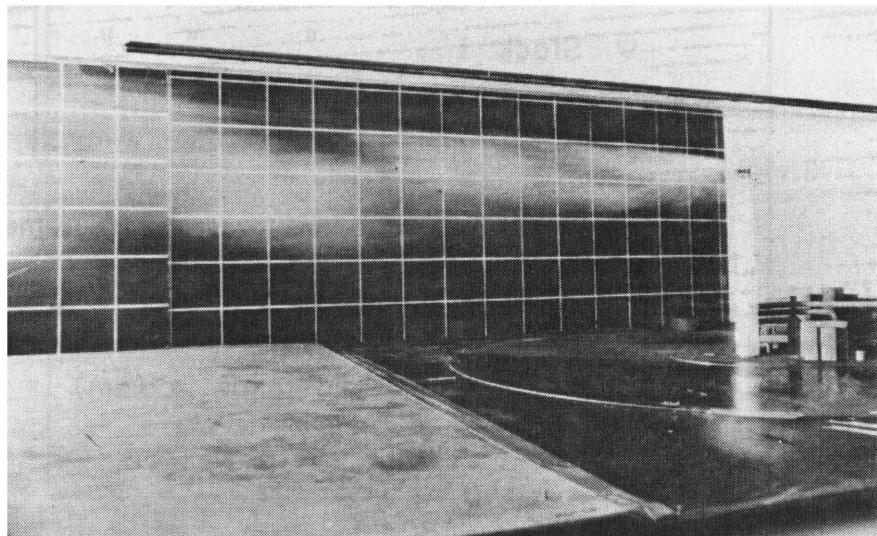


(b)

Figure 2. Photographs of the BLES model in the Meteorological Wind Tunnel (a) Upwind View (b) Downwind View



(a)



(b)

Figure 3. Flow Visualization (a) Run 303 (b) Run 304

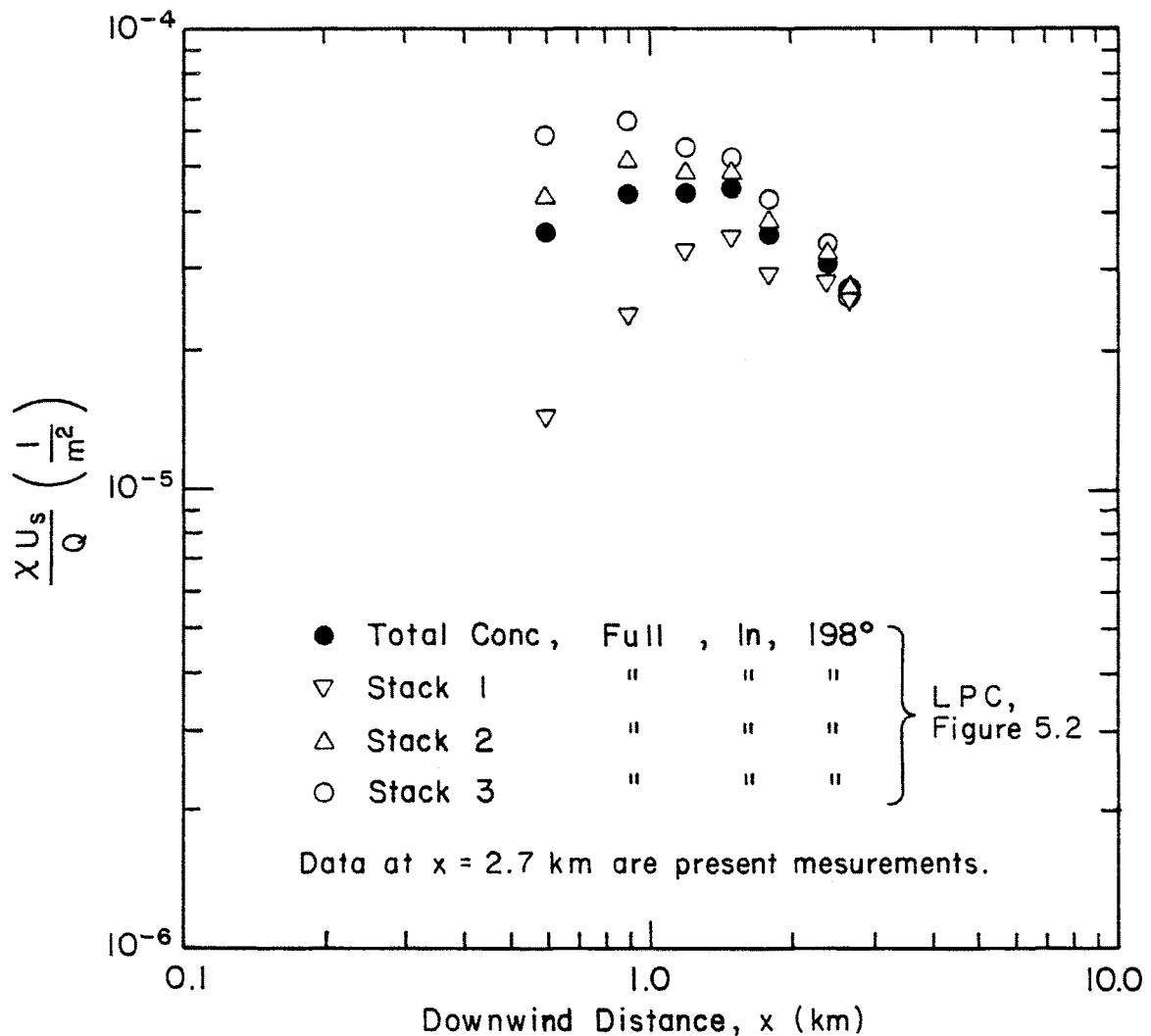


Figure 4. Longitudinal Ground-level Concentration Profiles from the Existing Stack; $H_s = 76.2$ m, Full Load, 198°, 30.3 mph at 60 m Height, Density Ratio Simulated

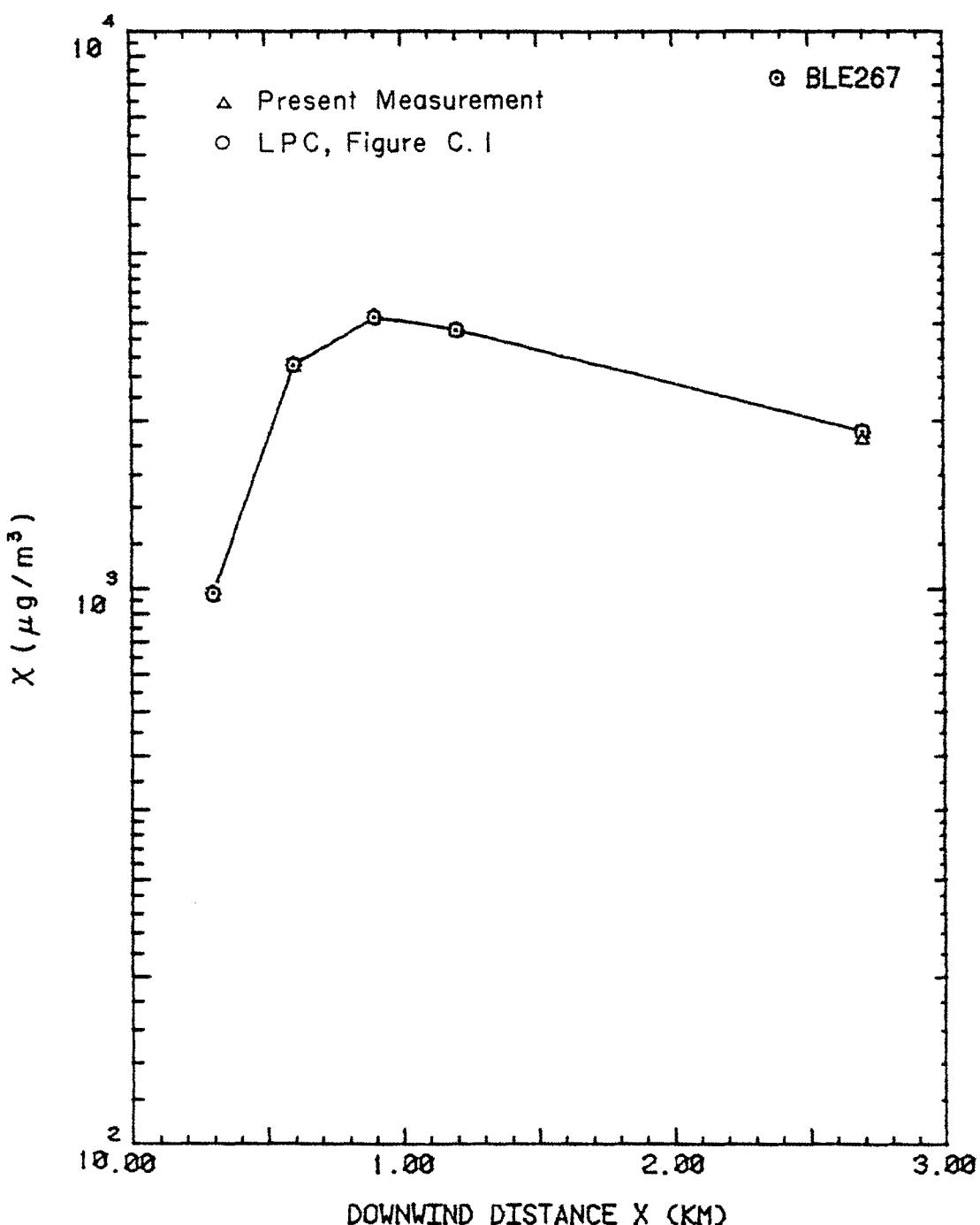


Figure 5. Ground-level Concentrations for the Existing Stacks;
 $H_s = 76.2 \text{ m}$, Full Load, 198° , 30.3 mph at 60 m Height,
 Froude Number Simulated

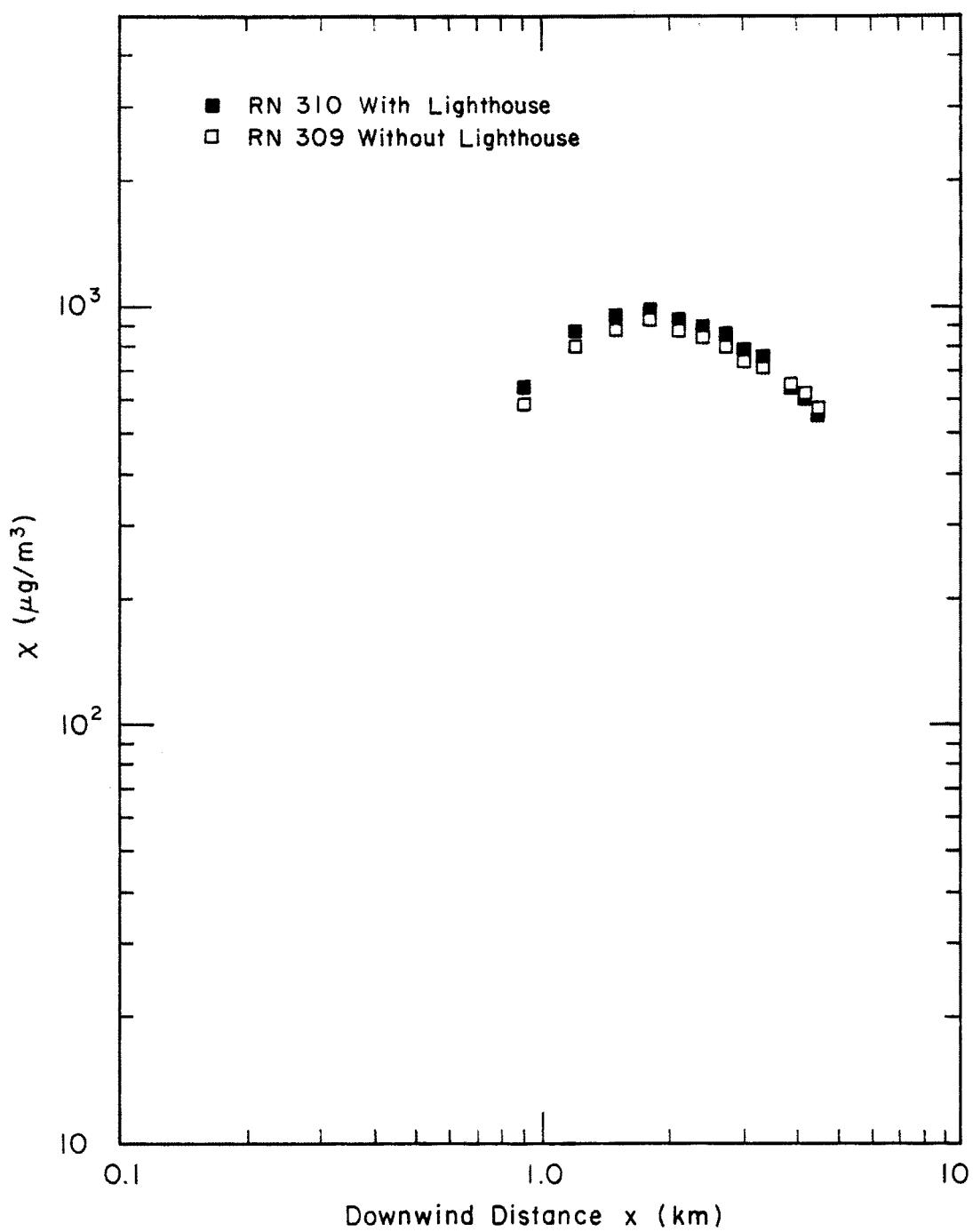


Figure 6. Variation of Ground-level Concentration for the 144.8 m Stack, Minimum Load, 270° , Froude Number Simulated, 45 mph at 60 m Height

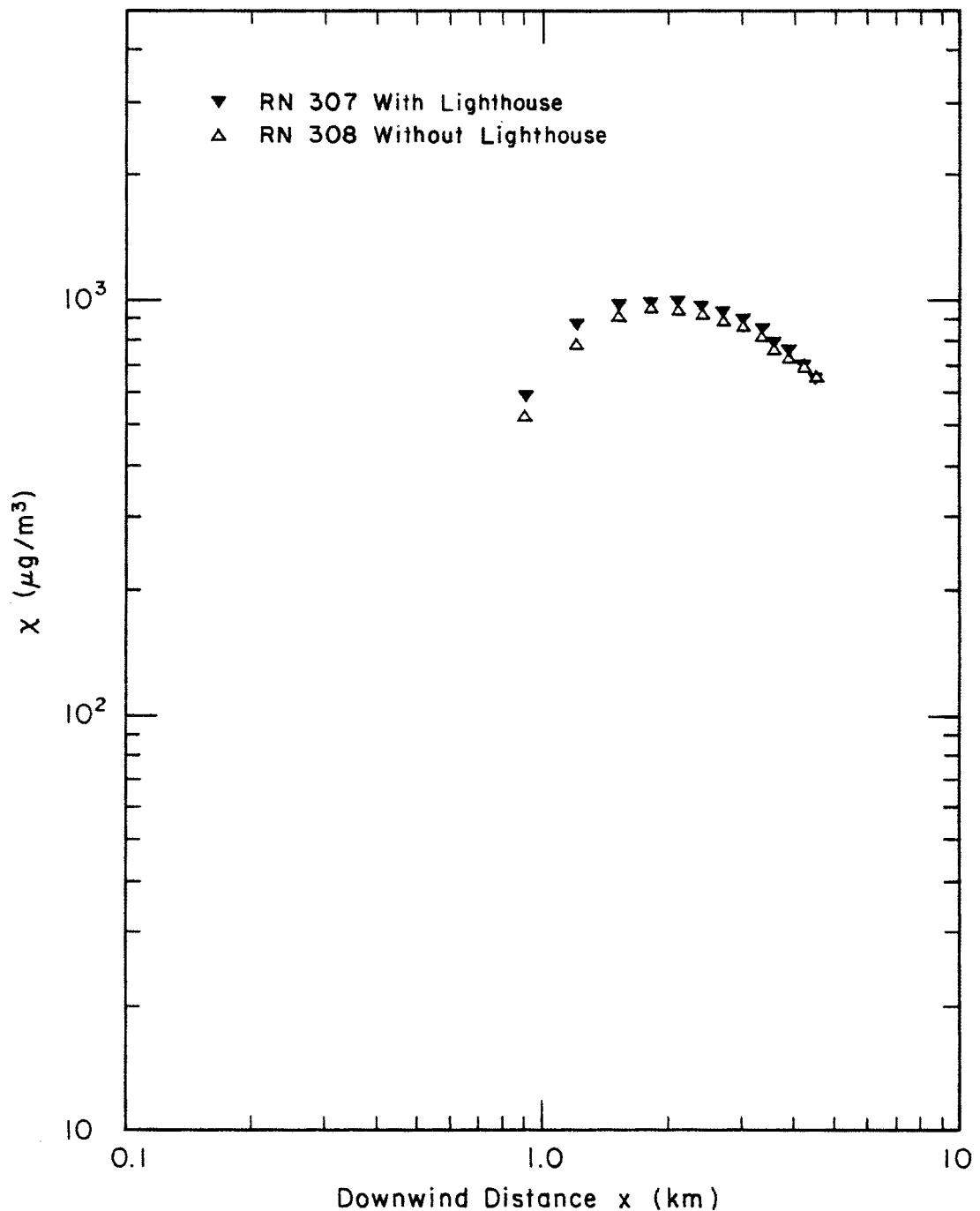


Figure 7. Variation of Ground-level Concentration for the 144.8 m Stack, Minimum Load, 270° , Froude Number Simulated, 37.5 mph at 60 m Height

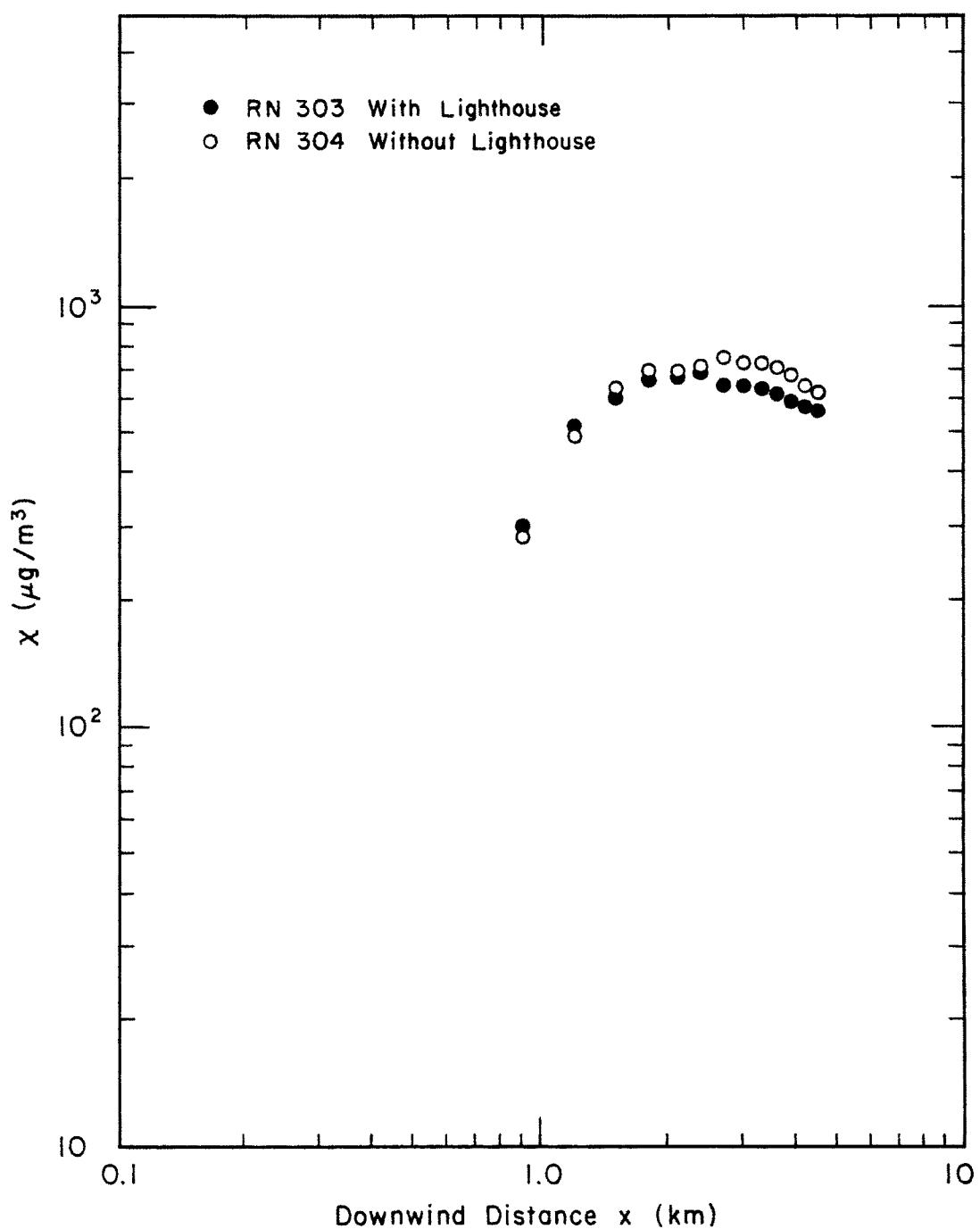


Figure 8. Variation of Ground-level Concentration for the 144.8 m Stack, Minimum Load, 270°, Froude Number Simulated, 30.3 mph at 60 m Height

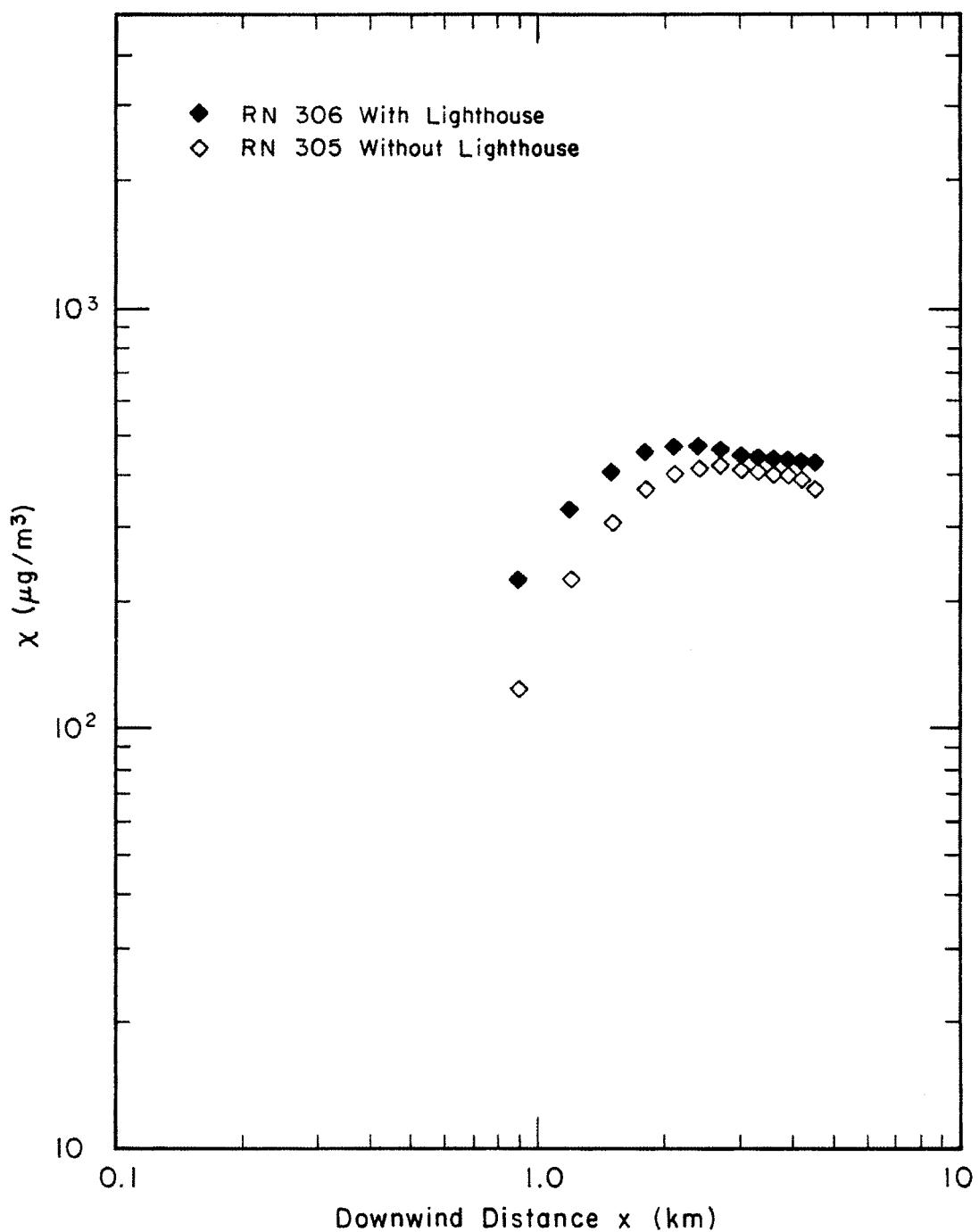


Figure 9. Variation of Ground-level Concentration for the 144.8 m Stack, Minimum Load, 270°, Froude Number Simulated, 25 mph at 60 m Height

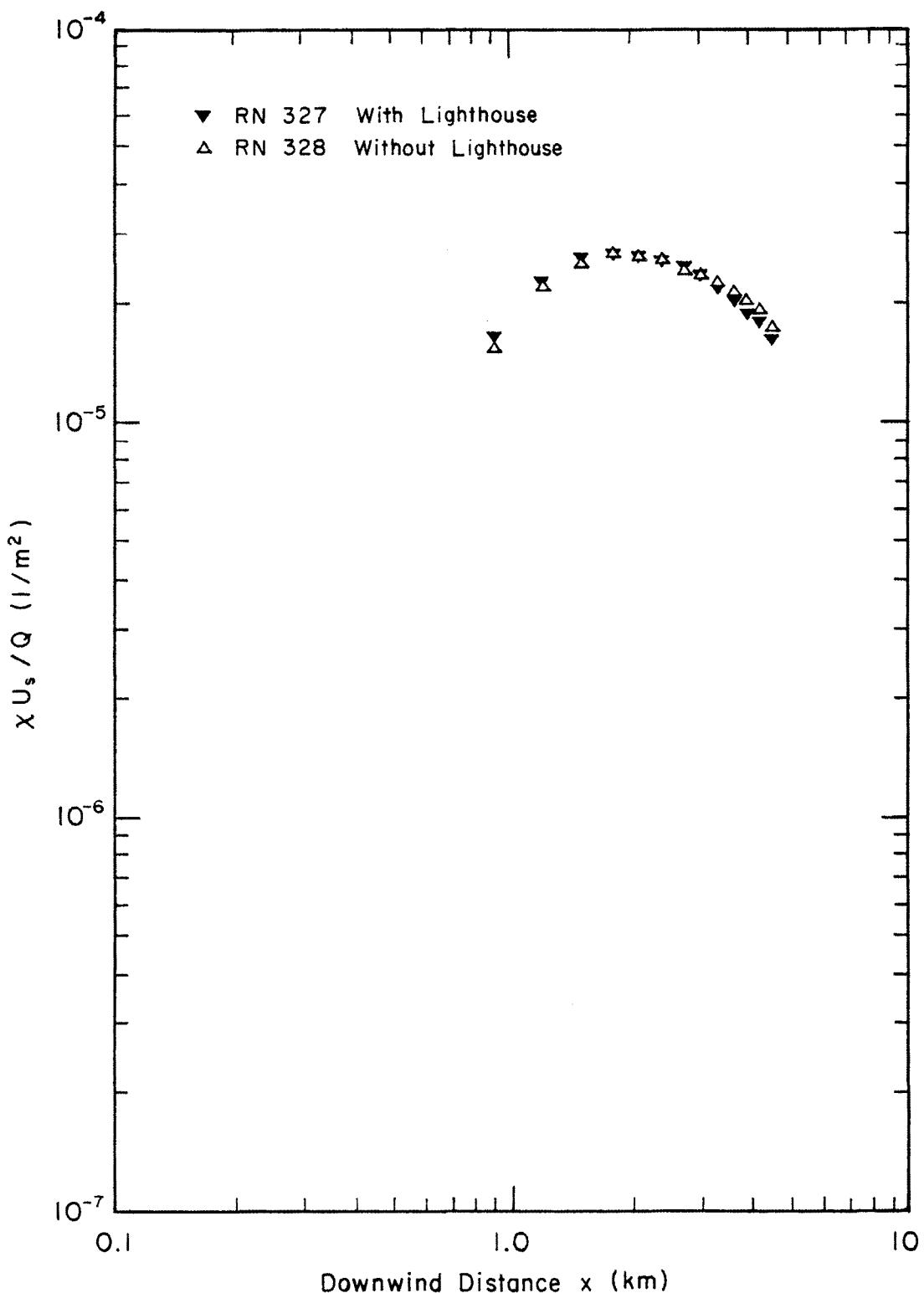


Figure 10. Variation of Ground-level Concentration for the 144.8 m Stack, Minimum Load, 270° , Density Ratio Simulated, 37.5 mph at 60 m Height

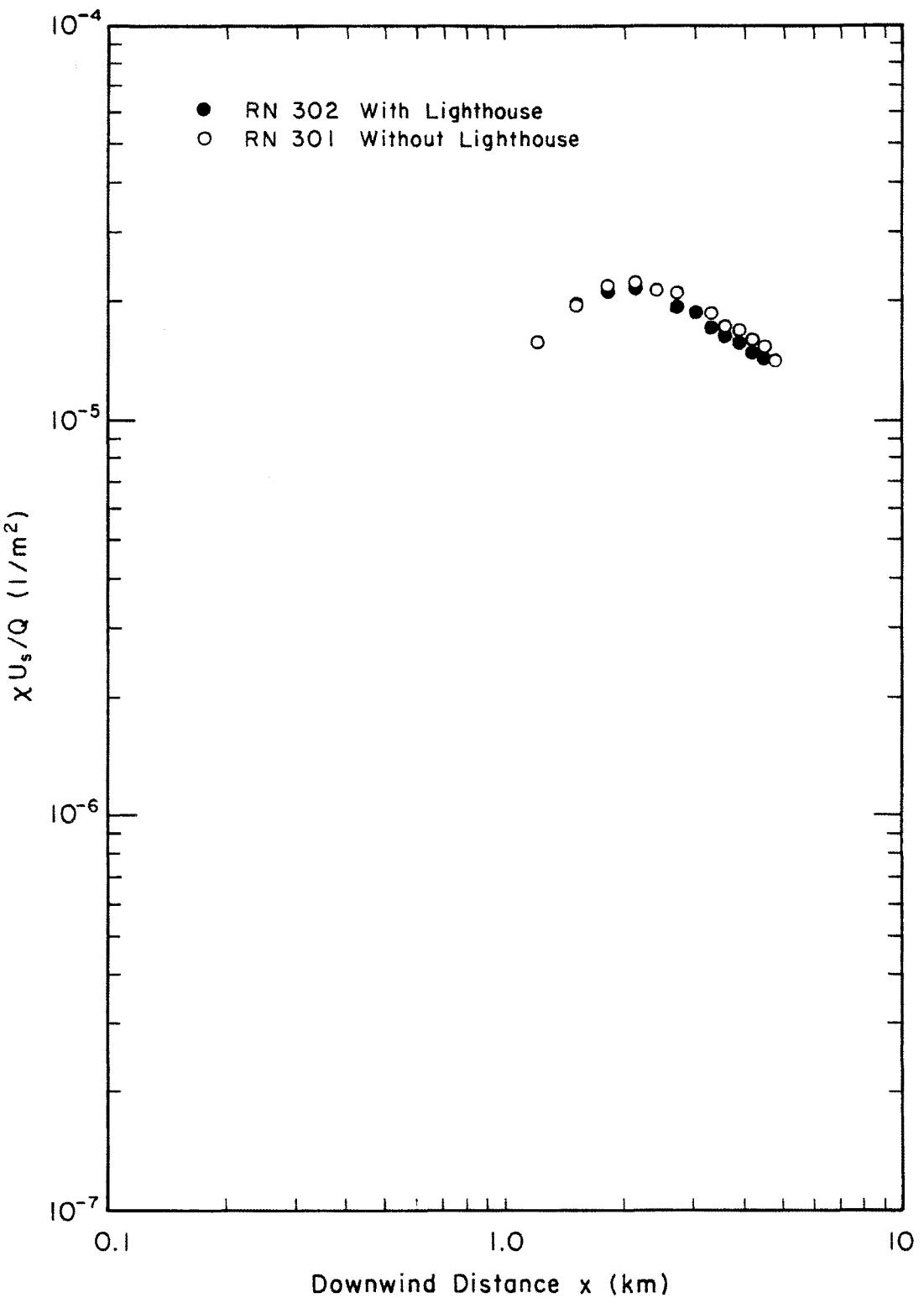


Figure 11. Variation of Ground-level Concentration for the 144.8 m Stack, Minimum Load, 270°, Density Ratio Simulated, 30.3 mph at 60 m Height

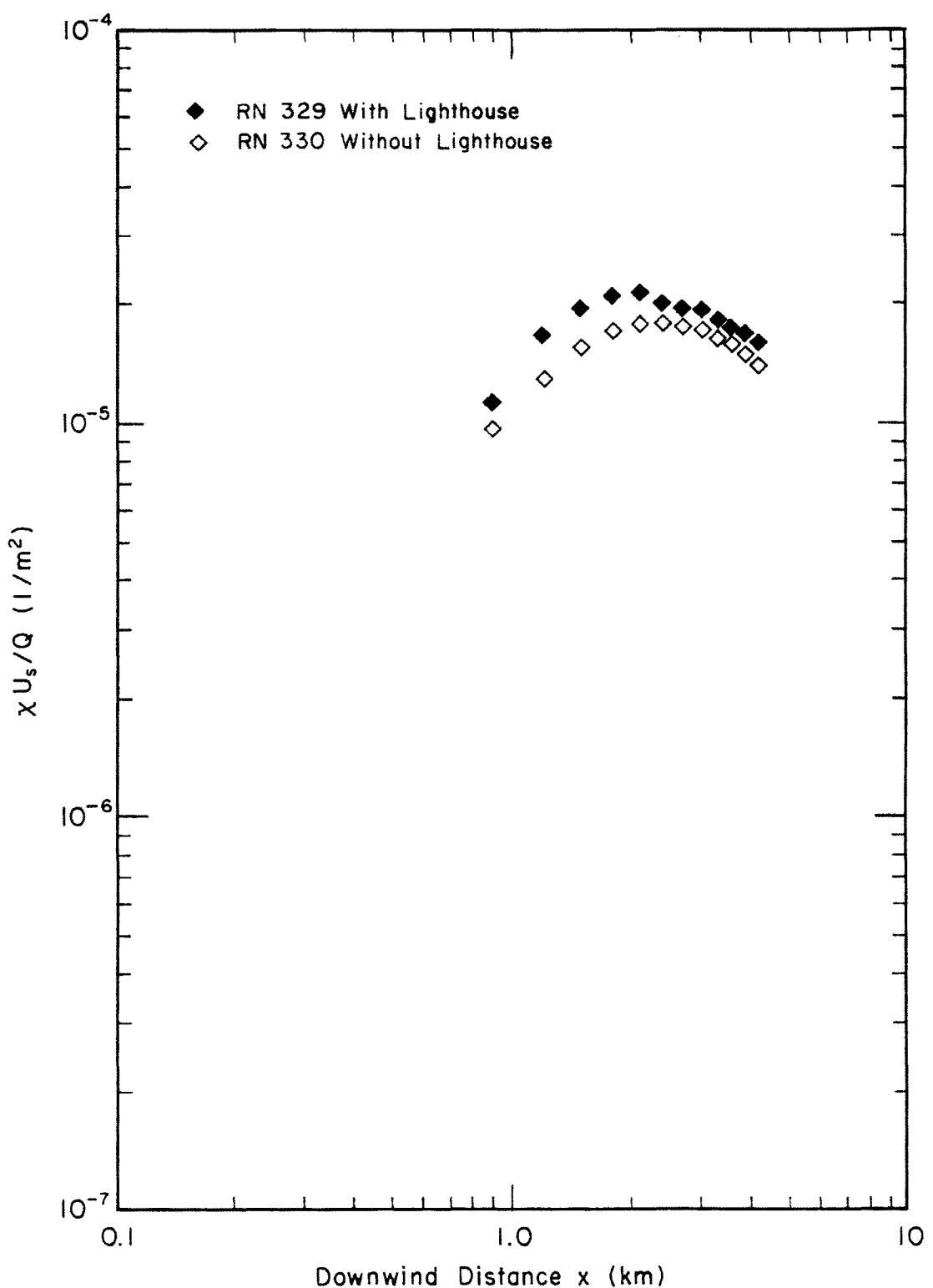


Figure 12. Variation of Ground-level Concentration for the 144.8 m Stack, Minimum Load, 270°, Density Ratio Simulated, 25 mph at 60 m Height

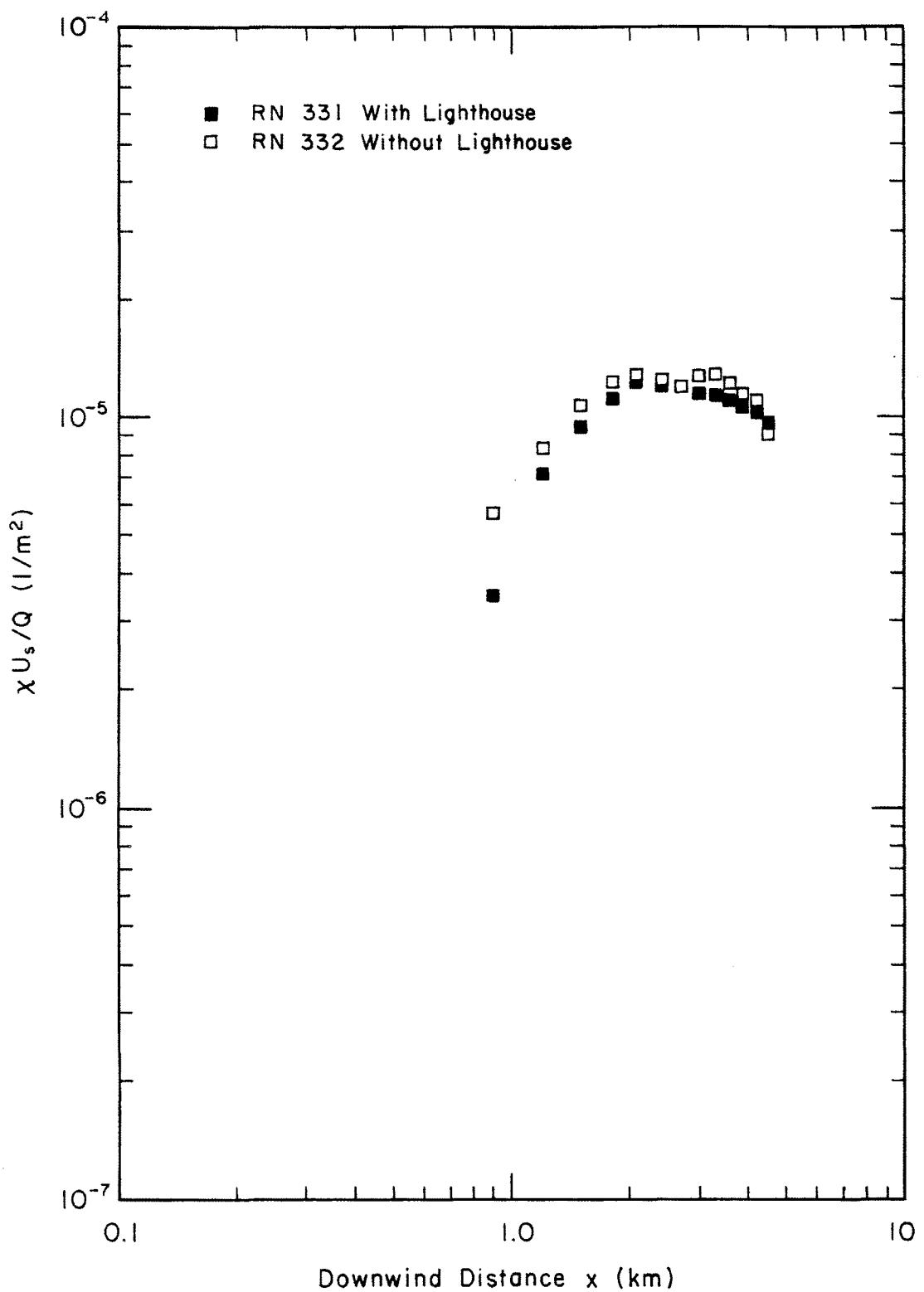


Figure 13. Variation of Ground-level Concentration for the 144.8 m Stack, Minimum Load, 270°, Density Ratio Simulated, 20 mph at 60 m Height

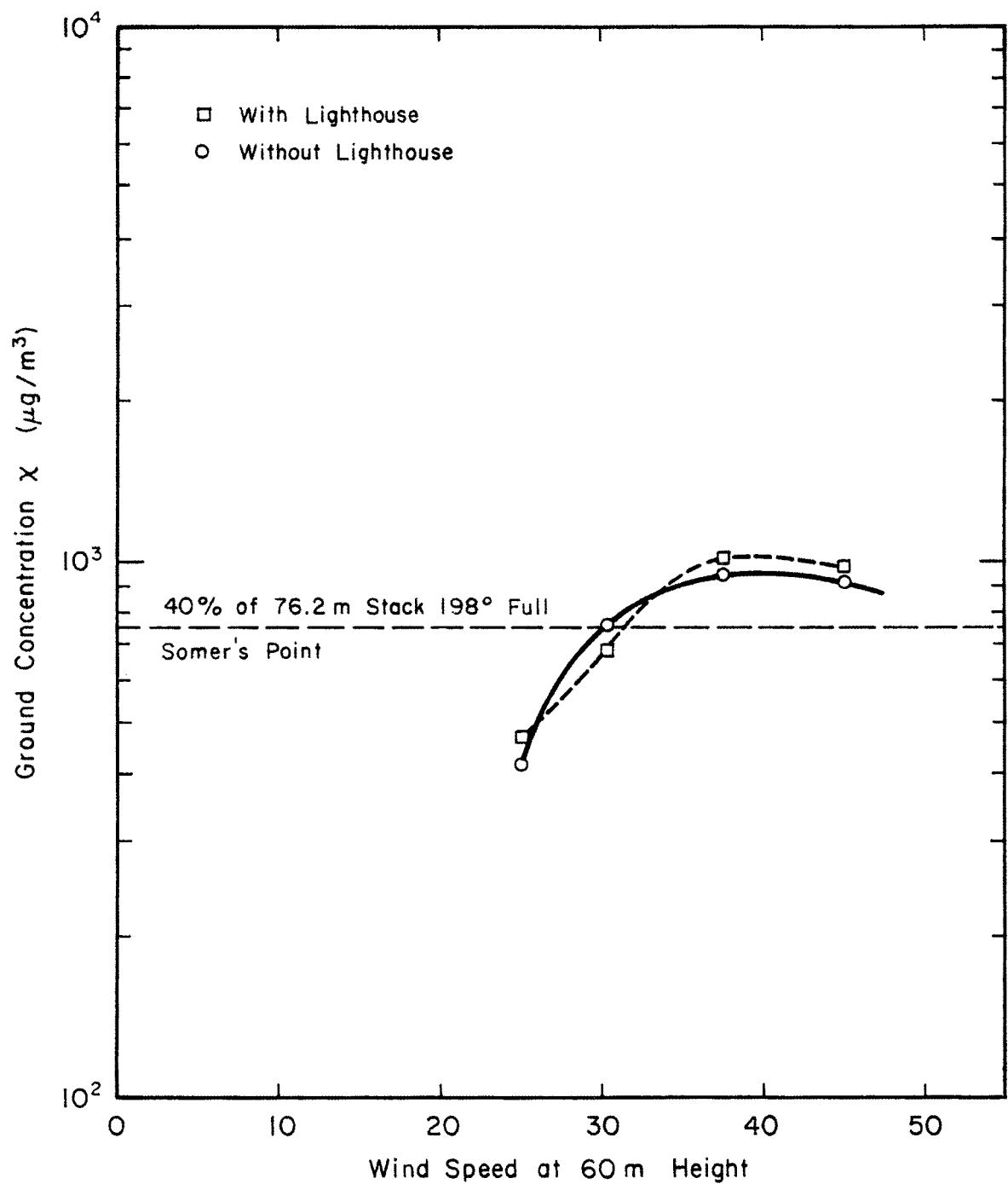


Figure 14. Variation of Ground-level Concentration With Wind Speed for the 144.8 m Stack, Minimum Load, 270°, Froude Number Simulated

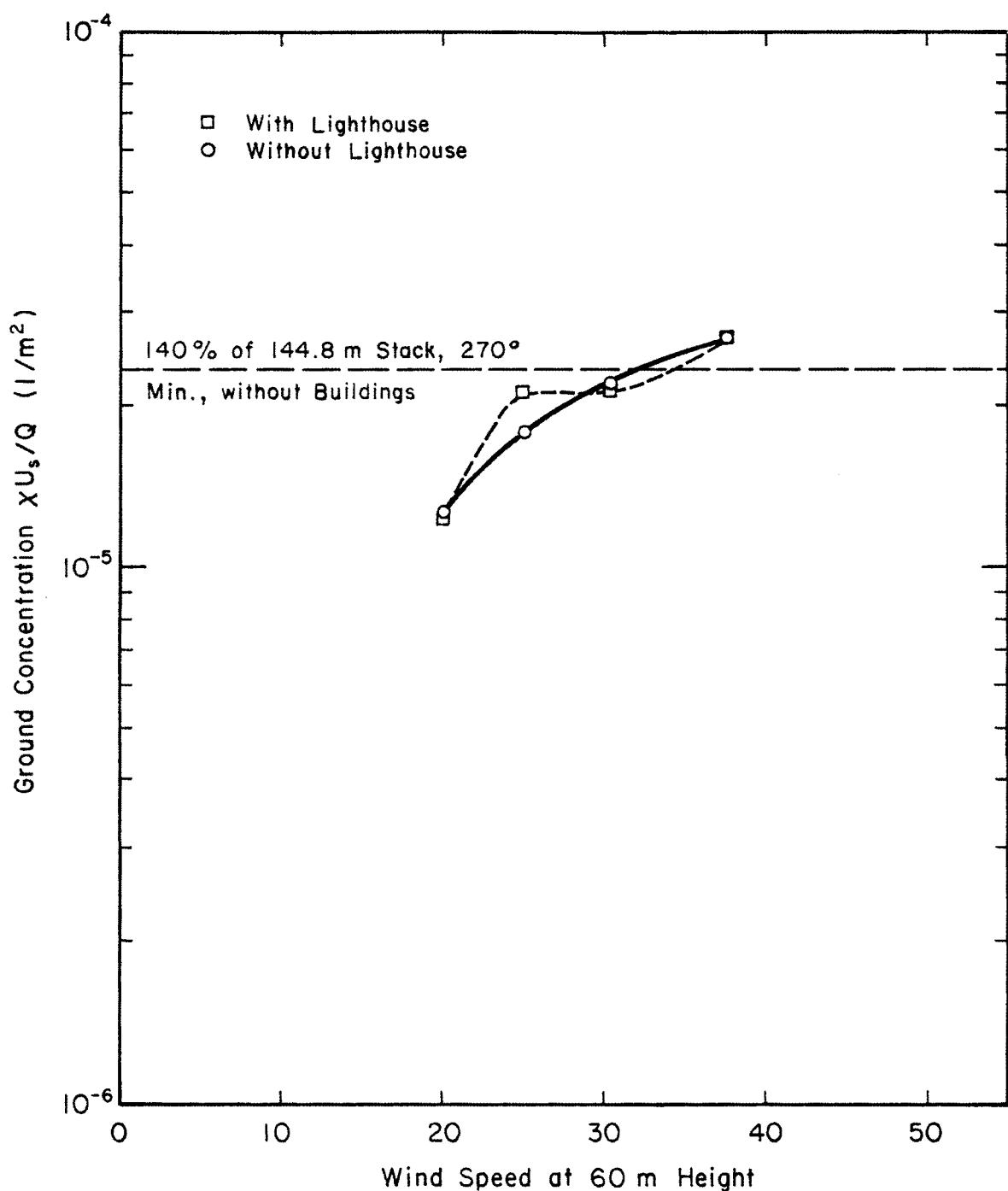


Figure 15. Variation of Ground-level Concentration With Wind Speed for for the 144.8 m Stack, Minimum Load, 270°, Density Ratio Simulated

TABLES

TABLE 1. Run numbers and model parameters used on BLES wind-tunnel tests.

Run No.	Power Load	Wind Dir.	Tunnel Speed (m/s)	SIMU-LATION		MODEL	UNIT #1			UNIT #2			UNIT #3			Wind Speed at 60m (mph)	Concentration Measurement	Data File
				Fr	$\frac{p_s}{p_a}$		Stack Ht. (cm)	Stack Temp. ($^{\circ}$ F)	Vol. ($m^3/s \times 10^{-6}$)	Stack Ht. (cm)	Stack Temp. ($^{\circ}$ F)	Vol. ($m^3/s \times 10^{-6}$)	Stack Ht. (cm)	Stack Temp. ($^{\circ}$ F)	Vol. ($m^3/s \times 10^{-6}$)			
301	Min	270	2.00	No	Yes	IN OUT	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	30.3	Ground, 7m-16m	BLEM01
302	Min	270	2.00	No	Yes	IN IN	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	30.3	Ground, 4m-15m	BLEM02
303	Min	270	1.63	Yes	No	IN IN	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	30.3	Ground, 3m-15m	BLEM03
304	Min	270	1.63	Yes	No	IN OUT	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	30.3	Ground, 3m-15m	BLEM04
305	Min	270	1.34	Yes	No	IN OUT	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	25.0	Ground, 3m-15m	BLEM05
306	Min	270	1.34	Yes	No	IN IN	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	25.0	Ground, 3m-15m	BLEM06
307	Min	270	2.02	Yes	No	IN IN	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	37.5	Ground, 3m-15m	BLEM07
308	Min	270	2.02	Yes	No	IN OUT	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	37.5	Ground, 3m-15m	BLEM08
309	Min	270	2.42	Yes	No	IN OUT	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	45.0	Ground, 3m-15m	BLEM09
310	Min	270	2.42	Yes	No	IN IN	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	45.0	Ground, 3m-15m	BLEM10
311	Min	198	2.42	Yes	No	IN IN	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	45.0	Ground, 9m	BLEM11
312	Min	198	2.42	Yes	No	IN OUT	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	45.0	Ground, 9m	BLEM12
313	Min	198	2.02	Yes	No	IN OUT	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	37.5	Ground, 9m	BLEM13
314	Min	198	2.02	Yes	No	IN IN	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	37.5	Ground, 9m	BLEM14
315	Min	198	1.63	Yes	No	IN IN	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	30.3	Ground, 9m	BLEM15
316	Min	198	1.63	Yes	No	IN OUT	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	30.3	Ground, 9m	BLEM16
317	Min	198	1.34	Yes	No	IN OUT	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	25.0	Ground, 9m	BLEM17

TABLE 1 (cont.).

Run No.	Power Load	Wind Dir.	Tunnel Speed (m/s)	SIMULATION $Fr \frac{\rho_s}{\rho_a}$	MODEL BLDG LIGHT-HOUSE	UNIT #1			UNIT #2			UNIT #3			Wind Speed at 60m (mph)	Concentration Measurement	Data File		
						Stack Ht. (cm)	Stack Temp. ($^{\circ}$ F)	Vol. Flow ($m^3/s \times 10^{-6}$)	Stack Ht. (cm)	Stack Temp. ($^{\circ}$ F)	Vol. Flow ($m^3/s \times 10^{-6}$)	Stack Ht. (cm)	Stack Temp. ($^{\circ}$ F)	Vol. Flow ($m^3/s \times 10^{-6}$)					
318	Min	198	1.34	Yes	No	IN	IN	48.3	260	120.0	48.3	260	128.0	48.3	260	128.0	25.0	Ground, 9m	BLEM18
319	Min	198	1.46	No	Yes	IN	IN	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	20.0	Ground, 9m	BLEM19
320	Min	198	1.46	No	Yes	IN	OUT	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	20.0	Ground, 9m	BLEM20
321	Min	198	1.83	No	Yes	IN	IN	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	25.0	Ground, 9m	BLEM21
322	Min	198	1.83	No	Yes	IN	OUT	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	25.0	Ground, 9m	BLEM22
323	Min	198	2.00	No	Yes	IN	IN	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	30.3	Ground, 9m	BLEM23
324	Min	198	2.00	No	Yes	IN	OUT	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	30.3	Ground, 9m	BLEM24
325	Min	198	2.71	No	Yes	IN	IN	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	37.5	Ground, 9m	BLEM25
326	Min	198	2.71	No	Yes	IN	OUT	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	37.5	Ground, 9m	BLEM26
327	Min	270	2.71	No	Yes	IN	IN	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	37.5	Ground, 3m-15m	BLEM27
328	Min	270	2.71	No	Yes	IN	OUT	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	37.5	Ground, 3m-15m	BLEM28
329	Min	270	1.83	No	Yes	IN	IN	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	25.0	Ground, 3m-15m	BLEM29
330	Min	270	1.83	No	Yes	IN	OUT	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	25.0	Ground, 3m-15m	BLEM30
331	Min	270	1.46	No	Yes	IN	IN	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	20.0	Ground, 3m-15m	BLEM31
332	Min	270	1.46	No	Yes	IN	OUT	48.3	260	152.0	48.3	260	158.1	48.3	260	152.0	20.0	Ground, 3m-15m	BLEM32
333	Full	198	2.00	No	Yes	IN	OUT	25.4	260	152.0	25.4	260	158.1	25.4	260	152.0	30.3	Ground, 9m	BLEM33
334	Full	198	1.63	Yes	No	IN	OUT	25.4	260	120.0	25.4	260	128.0	25.4	260	128.0	30.3	Ground, 9m	BLEM34

Table 2. Prototype operating criteria used in model calculations.

Unit	MW	Fuel	ACFM	Exit Gas Temp. °F	M ³ /sec	Stack Diam.-M	Exit Gas Velocity M/S	Stack Height-M	Emission Gr/sec	Stack SO ₂	Stack SO ₂
<u>Full Load Study Criteria</u>											
1	127	Coal	570,000	270	269.0	3.66	25.6	76.2	850	3.16	
2	160	Coal	607,000	285	286.5	4.02	22.6	76.2	1050	3.67	
3	160	Oil	576,000	310	271.9	3.96	22.0	76.2	220	0.81	
<u>Minimum Load Study Criteria</u>											
1	60	Coal	250,000	260	118.0	3.66	11.2	76.2	400	3.39	
2	60	Coal	260,000	260	122.7	4.02	9.7	76.2	400	3.26	
3	40	Oil	250,000	260	118.0	3.96	9.6	76.2	55	0.47	

(a)

Unit	MW	Fuel	ACFM	Exit Gas Temp. °F	M ³ /sec	Stack Diam.-M	Exit Gas Velocity M/S	Stack Height-M	Emission Gr/sec	Stack SO ₂	Stack SO ₂
<u>Full Load Study Criteria - Three-Flue Stack</u>											
1	127	Coal	570,000	270	269.0	4.14	20.0	GEP	850	3.16	
2	160	Coal	607,000	285	286.5	4.26	20.5	GEP	1050	3.67	
3	160	Oil	576,000	310	271.9	3.96	22.0	GEP	220	0.81	
<u>Minimum Load Study Criteria - Three-Flue Stack</u>											
1	60	Coal	250,000	260	118.0	4.14	8.8	GEP	400	3.39	
2	60	Coal	260,000	260	122.7	4.22	8.8	GEP	400	3.26	
3	40	Oil	250,000	260	118.0	3.96	9.6	GEP	55	0.47	

(b)

Table 3. Model and prototype parameters for the BLES evaluations.

(a) Simulation of density ratio

Parameters	MIN LOAD, 144.8 m STACKS, VELOCITY AT 60 M HEIGHT = 30.3 MPH					
	Flue 1		Flue 2		Flue 3	
	Prototype	Model	Prototype	Model	Prototype	Model
1. Scale	300	1	300	1	300	1
2. Free Stream Velocity, (m/s)	17.24	2.00	17.24	2.00	17.24	2.00
3. Effluent Velocity, W_s (m/s)	8.76	1.02	8.77	1.02	9.57	1.11
4. Effluent Temperature, (°K)	399.7	293	399.7	293	399.7	293
5. Ambient Temperature, (°K)	285.9	293	285.9	293	285.9	293
6. Density Ratio, (ρ_s/ρ_a)	0.715	0.714	0.715	0.714	0.715	0.715
7. Effluent-to-Wind-Speed Ratio at Stack Exit, ($H_s = 144.8$ m)	0.567	0.567	0.567	0.567	0.619	0.619
8. Stack Diameter, D(m)	4.14	0.0138	4.22	0.0141	3.96	0.0132
9. Volume Flow, Q(m^3/s)	118.0	1.52×10^{-4}	122.7	1.58×10^{-4}	118.0	1.52×10^{-4}
10. Froude Number,	2.58	5.19	2.55	5.13	2.88	5.78
Fr $\left(\frac{W_s}{\sqrt{gA\rho}} \right)$						
11. Momentum Ratio,	0.00685	0.00685	0.00699	0.00699	0.00716	0.00716
$\frac{\ell_m}{H_s} = \frac{1}{2} \left[\frac{\rho_s}{\rho_a} \right]^{1/2} \frac{W_s}{U_s} \frac{D}{H_s}$						

Table 3 (cont.).

(b) Simulation of Froude number

Parameters	MIN LOAD, 144.8 m STACKS, VELOCITY AT 60 M HEIGHT = 30.3 MPH					
	Flue 1		Flue 2		Flue 3	
	Prototype	Model	Prototype	Model	Prototype	Model
1. Scale	300	1	300	1	300	1
2. Free Stream Velocity, (m/s)	17.24	1.63	17.24	1.63	17.24	1.63
3. Effluent Velocity, W_s (m/s)	8.76	0.807	8.77	0.825	9.58	0.933
4. Effluent Temperature, (°K)	399.7	293	399.7	293	399.7	293
5. Ambient Temperature, (°K)	285.9	293	285.9	293	285.9	293
6. Density Ratio, (ρ_s/ρ_a)	0.715	0.279	0.715	0.240	0.715	0.188
7. Effluent-to-Wind-Speed Ratio at Stack Exit, ($H_s = 144.8$ m)	0.567	0.567	.567	0.567	0.619	0.619
8. Stack Diameter, D(m)	4.14	0.0138	4.22	0.0141	3.96	0.0132
9. Volume Flow, Q(m^3/s)	118.0	1.20×10^{-4}	122.7	1.28×10^{-4}	118.0	1.28×10^{-4}
10. Froude Number,	2.58	2.58	2.55	2.54	2.88	2.88
	$Fr \left(\frac{W_s}{\sqrt{g \Delta \gamma D}} \right)$					
11. Momentum Ratio	0.00685	0.00428	0.00699	0.00405	0.00716	0.00367
	$\frac{\ell_m}{H_s} = \frac{1}{2} \left[\frac{\rho_s}{\rho_a} \right]^{1/2} \frac{W_s}{U_s} \frac{D}{H_s}$					

Table 4. Run numbers and model parameters of flow visualization study in BLLES wind-tunnel study.

Run No.	Power Load	Wind Direction	Tunnel Speed (m/s)	MODEL		Wind Speed at 60m (mph)	Stack Configuration
				BLDG.	LIGHT-HOUSE		
303	Min	270°	1.63	IN	IN	30.3	144.8 m stack
304	Min	270°	1.63	IN	OUT	30.3	144.8 m stack
307	Min	270°	2.02	IN	IN	37.5	144.8 m stack
308	Min	270°	2.02	IN	OUT	37.5	144.8 m stack
301	Min	270°	2.00	IN	OUT	30.3	144.8 m stack
302	Min	270°	2.00	IN	IN	30.3	144.8 m stack

Table 5. Variation of ground-level concentration due to the architectural lighthouse attachment on the 144.8 m stack.

(I) Froude number simulation

Lighthouse Configuration	Maximum Ground-level Concentration and Location, $\mu\text{g}/\text{m}^3$	W.D. = 270° , Wind Speed at 60 m Height			
		25 mph	30.3 mph	37.5 mph	45 mph
Without Lighthouse	420 (2.7 km)	760 (2.7 km)	952 (2.1 km)	919 (1.8 km)	
With Lighthouse	471 (2.4 km)	684 (2.4 km)	1010 (2.1 km)	980 (1.8 km)	
<u>With Lighthouse</u> x 100%	112%	90%	106%	107%	
Without Lighthouse					
W.D. = 198° , Maximum ground-level concentration at Somer's Point					
Without Lighthouse	420	706	761	733	
With Lighthouse	450	690	726	738	
<u>With Lighthouse</u> x 100%	107%	98%	95%	101%	
Without Lighthouse					

Table 5 (cont.).

(II) Density Ratio Simulation

Lighthouse Configuration	W.D. = 270°, Wind Speed at 60 m Height			
	20 mph	25 mph	30.3 mph	37.5 mph
Without Lighthouse	.127 x 10 ⁻⁴ (2.7 km)	.179 x 10 ⁻⁴ (2.1 km)	.219 x 10 ⁻⁴ (2.1 km)	.268 x 10 ⁻⁴ (2.1 km)
With Lighthouse	.123 x 10 ⁻⁴ (2.1 km)	.213 x 10 ⁻⁴ (2.1 km)	.215 x 10 ⁻⁴ (2.1 km)	.268 x 10 ⁻⁴ (2.1 km)
<u>With Lighthouse</u> x 100% Without Lighthouse	97%	119%	98%	100%
W.D. = 198°, Maximum ground-level concentration at Somer's Point				
Without Lighthouse	.103 x 10 ⁻⁴	.154 x 10 ⁻⁴	.178 x 10 ⁻⁴	.218 x 10 ⁻⁴
With Lighthouse	.940 x 10 ⁻⁵	.168 x 10 ⁻⁴	.174 x 10 ⁻⁴	.229 x 10 ⁻⁴
<u>With Lighthouse</u> x 100% Without Lighthouse	91%	109%	98%	105%

Table 6. Reduction of ground-level concentration with/without the architectural lighthouse attachment on the 144.8 m stack (Froude number simulation).

Lighthouse Configuration	Max GLC GLC at Somer's Point*			
	25 mph	30.3 mph	37.5 mph	45 mph
Without Lighthouse	0.226	0.409	0.512	0.494
With Lighthouse	0.253	0.368	0.543	0.527

* Maximum ground-level concentration at Somer's Point is $1860 \mu\text{g}/\text{m}^3$, full load, W.D. = 198° , 76.2 m stack.

APPENDIX
CONCENTRATION DATA

RUN # 301

475FT,270,TS:F
40%,OUT,BLEMO1::17

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE		
VEL. AT STACK HT	1.80 M/S	15.51 M/S	1.80 M/S	15.51 M/S	1.80 M/S	15.51 M/S	1.80 M/S	15.51 M/S		
EXIT VEL.	1.02 M/S	8.77 M/S	1.01 M/S	8.73 M/S	1.11 M/S	9.58 M/S				
VOL. FLOW	.15E-03M3/S	.12E+03M3/S	.14E-03M3/S	.12E+03M3/S	.15E-03M3/S	.12E+03M3/S				
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05					
BACKGROUND	.72E+03		.17E+03		.12E+03					
CALIBRATION FACTOR	.42E-02		.22E-02		.15E-02					
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M				
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M				
SAMPLE	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
31	1.8	0.0	0.0	4903	.229E-04	4397	.223E-04	3719	.198E-04	.217E-04
32	1.8	-30.0	0.0	4478	.206E-04	3978	.201E-04	3398	.181E-04	.196E-04
38	2.1	30.0	0.0	4721	.219E-04	4214	.213E-04	3576	.190E-04	.208E-04
39	2.1	0.0	0.0	4951	.232E-04	4433	.225E-04	3766	.201E-04	.219E-04
40	2.1	-30.0	0.0	4665	.216E-04	4161	.210E-04	3536	.188E-04	.205E-04
47	2.4	30.0	0.0	4515	.208E-04	4010	.202E-04	3375	.179E-04	.197E-04
48	2.4	0.0	0.0	4833	.226E-04	4258	.215E-04	3680	.196E-04	.212E-04
49	2.4	-30.0	0.0	4581	.212E-04	4078	.206E-04	3448	.183E-04	.200E-04
56	2.7	60.0	0.0	4123	.187E-04	3631	.182E-04	3067	.162E-04	.177E-04
57	2.7	30.0	0.0	3670	.162E-04	3160	.158E-04	2653	.140E-04	.153E-04
58	2.7	0.0	0.0	4723	.220E-04	4237	.214E-04	3577	.190E-04	.208E-04
59	2.7	-30.0	0.0	3928	.176E-04	3436	.172E-04	2896	.153E-04	.167E-04
60	2.7	-60.0	0.0	3793	.169E-04	3294	.165E-04	2788	.147E-04	.160E-04
66	3.0	90.0	0.0	3602	.158E-04	3100	.154E-04	2594	.136E-04	.150E-04
67	3.0	45.0	0.0	4147	.188E-04	3657	.184E-04	3084	.163E-04	.178E-04
68	3.0	0.0	0.0	4248	.193E-04	3670	.184E-04	3068	.162E-04	.180E-04
69	3.0	-45.0	0.0	4058	.183E-04	3553	.178E-04	2997	.159E-04	.173E-04
70	3.0	-90.0	0.0	3076	.129E-04	2580	.127E-04	2167	.113E-04	.123E-04
75	3.3	90.0	0.0	3253	.139E-04	2744	.136E-04	2303	.120E-04	.132E-04
76	3.3	45.0	0.0	4134	.187E-04	3647	.183E-04	3049	.161E-04	.177E-04
77	3.3	0.0	0.0	4349	.199E-04	3861	.194E-04	3240	.172E-04	.189E-04
78	3.3	-45.0	0.0	3980	.179E-04	3483	.175E-04	2923	.154E-04	.169E-04
79	3.3	-90.0	0.0	3002	.125E-04	2508	.123E-04	2110	.110E-04	.119E-04
84	3.6	90.0	0.0	3276	.140E-04	2775	.137E-04	2317	.121E-04	.133E-04
85	3.6	45.0	0.0	3912	.175E-04	3422	.171E-04	2866	.151E-04	.166E-04
86	3.6	0.0	0.0	3995	.180E-04	3485	.175E-04	2967	.157E-04	.170E-04
87	3.6	-45.0	0.0	3702	.164E-04	3196	.159E-04	2690	.142E-04	.155E-04
88	3.6	-90.0	0.0	3104	.131E-04	2602	.128E-04	2156	.112E-04	.124E-04
93	3.9	90.0	0.0	3147	.133E-04	2645	.130E-04	2191	.114E-04	.126E-04
94	3.9	45.0	0.0	3497	.152E-04	2997	.149E-04	2490	.131E-04	.144E-04
95	3.9	0.0	0.0	3991	.179E-04	3491	.175E-04	2935	.155E-04	.170E-04
96	3.9	-45.0	0.0	3623	.159E-04	3127	.153E-04	2618	.138E-04	.151E-04
97	3.9	-90.0	0.0	2912	.120E-04	2416	.118E-04	2032	.105E-04	.115E-04
102	4.2	90.0	0.0	3141	.133E-04	2644	.130E-04	2187	.114E-04	.126E-04
103	4.2	45.0	0.0	3671	.162E-04	3167	.158E-04	2631	.138E-04	.153E-04
104	4.2	0.0	0.0	3810	.169E-04	3311	.165E-04	2757	.145E-04	.160E-04
105	4.2	-45.0	0.0	3437	.149E-04	2940	.146E-04	2465	.129E-04	.141E-04
106	4.2	-90.0	0.0	2285	.859E-05	1006	.861E-05	1495	.759E-05	.827E-05
111	4.5	90.0	0.0	3032	.127E-04	2524	.124E-04	2068	.107E-04	.119E-04
112	4.5	45.0	0.0	3556	.156E-04	3045	.151E-04	2505	.131E-04	.146E-04
113	4.5	0.0	0.0	3653	.161E-04	3142	.157E-04	2583	.136E-04	.151E-04
114	4.5	-45.0	0.0	3298	.141E-04	2784	.138E-04	2295	.120E-04	.133E-04
115	4.5	-90.0	0.0	2230	.829E-05	1724	.819E-05	1425	.721E-05	.790E-05
121	4.8	45.0	0.0	3435	.149E-04	2922	.145E-04	2413	.126E-04	.140E-04
122	4.8	0.0	0.0	3481	.151E-04	2907	.148E-04	2475	.130E-04	.143E-04
123	4.8	-45.0	0.0	3125	.132E-04	2639	.130E-04	2194	.114E-04	.126E-04

RUN # 302

475FT,270,TSIF
40ZIN,BLEM021:17

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE				
	VEL. AT STACK HT	1.80 M/S	15.51 M/S	VEL. AT STACK HT	1.80 M/S	15.51 M/S	VEL. AT STACK HT	1.80 M/S	15.51 M/S <th data-kind="ghost"></th>	
VEL. AT STACK HT	1.80 M/S	15.51 M/S	VEL. AT STACK HT	1.80 M/S	15.51 M/S	VEL. AT STACK HT	1.80 M/S	15.51 M/S	VEL. AT STACK HT	
EXIT VEL.	1.02 M/S	8.77 M/S	EXIT VEL.	1.01 M/S	8.73 M/S	EXIT VEL.	1.11 M/S	9.58 M/S	EXIT VEL.	
VOL. FLOW	.15E+03M3/S	.12E+03M3/S	VOL. FLOW	.16E+03M3/S	.12E+03M3/S	VOL. FLOW	.15E+03M3/S	.12E+03M3/S	VOL. FLOW	
SOURCE STRENGTH	.10E+06		SOURCE STRENGTH	.53E+05		SOURCE STRENGTH	.36E+05		SOURCE STRENGTH	
BACKGROUND	.64E+03		BACKGROUND	.13E+03		BACKGROUND	.12E+03		BACKGROUND	
CALIBRATION FACTOR	.42E-02		CALIBRATION FACTOR	.22E-02		CALIBRATION FACTOR	.15E-02		CALIBRATION FACTOR	
STACK HEIGHT	48.26 CM	144.78 M	STACK HEIGHT	48.26 CM	144.78 M	STACK HEIGHT	48.26 CM	144.78 M	STACK HEIGHT	
STACK DIAMETER	1.38 CM	4.14 M	STACK DIAMETER	1.41 CM	4.23 M	STACK DIAMETER	1.32 CM	3.96 M	STACK DIAMETER	
SAMPLE FT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M^3M)	RAW (AREA)	CONCENTRATION (1/M^3M)	RAW (AREA)	CONCENTRATION (1/M^3M)	TOTAL CONC. (1/M^3M)
16	1.2	15.0	0.0	3850	.176E-04	3085	.156E-04	2724	.143E-04	.158E-04
22	1.5	60.0	0.0	3511	.157E-04	2801	.141E-04	2438	.128E-04	.142E-04
24	1.5	0.0	0.0	4552	.214E-04	3789	.193E-04	3334	.177E-04	.195E-04
29	1.8	60.0	0.0	3887	.178E-04	3216	.163E-04	2779	.146E-04	.162E-04
31	1.8	0.0	0.0	4776	.226E-04	4061	.207E-04	3561	.189E-04	.208E-04
32	1.8	-30.0	0.0	4505	.212E-04	3802	.193E-04	3349	.178E-04	.194E-04
37	2.1	60.0	0.0	4034	.186E-04	3384	.171E-04	2896	.153E-04	.170E-04
38	2.1	30.0	0.0	4665	.220E-04	4008	.204E-04	3495	.186E-04	.204E-04
39	2.1	0.0	0.0	4895	.233E-04	4209	.215E-04	3680	.196E-04	.215E-04
40	2.1	-30.0	0.0	4505	.212E-04	3824	.195E-04	3354	.178E-04	.195E-04
41	2.1	-60.0	0.0	3063	.133E-04	2439	.122E-04	2104	.109E-04	.121E-04
46	2.4	60.0	0.0	4112	.190E-04	3472	.176E-04	2985	.158E-04	.175E-04
47	2.4	30.0	0.0	4090	.189E-04	3474	.176E-04	3009	.159E-04	.175E-04
48	2.4	0.0	0.0	3679	.166E-04	3080	.155E-04	2673	.141E-04	.154E-04
49	2.4	-30.0	0.0	4350	.203E-04	3697	.188E-04	3221	.171E-04	.187E-04
50	2.4	-60.0	0.0	3776	.172E-04	3105	.157E-04	2662	.140E-04	.156E-04
56	2.7	60.0	0.0	4049	.167E-04	3450	.175E-04	2970	.157E-04	.173E-04
57	2.7	30.0	0.0	4353	.203E-04	3736	.190E-04	3221	.171E-04	.188E-04
58	2.7	0.0	0.0	4423	.207E-04	3795	.193E-04	3286	.174E-04	.192E-04
60	2.7	-60.0	0.0	3626	.163E-04	3020	.152E-04	2619	.138E-04	.151E-04
66	3.0	90.0	0.0	3372	.149E-04	2792	.140E-04	2380	.125E-04	.138E-04
67	3.0	45.0	0.0	4182	.194E-04	3583	.182E-04	3075	.163E-04	.180E-04
68	3.0	0.0	0.0	2719	.114E-04	2172	.108E-04	1861	.960E-05	.106E-04
69	3.0	-45.0	0.0	3754	.170E-04	3164	.160E-04	2736	.144E-04	.158E-04
70	3.0	-90.0	0.0	2994	.129E-04	2426	.121E-04	2071	.108E-04	.119E-04
75	3.3	90.0	0.0	2921	.125E-04	2357	.117E-04	2020	.105E-04	.116E-04
76	3.3	45.0	0.0	3927	.180E-04	3341	.169E-04	2846	.150E-04	.166E-04
77	3.3	0.0	0.0	4031	.186E-04	3433	.174E-04	2964	.157E-04	.172E-04
78	3.3	-45.0	0.0	3621	.163E-04	3046	.154E-04	2624	.138E-04	.152E-04
79	3.3	-90.0	0.0	2595	.107E-04	2049	.101E-04	1769	.909E-05	.996E-05
84	3.6	90.0	0.0	2928	.125E-04	2344	.117E-04	1978	.102E-04	.115E-04
85	3.6	45.0	0.0	3672	.166E-04	3103	.157E-04	2665	.140E-04	.154E-04
86	3.6	0.0	0.0	3885	.178E-04	3304	.167E-04	2839	.150E-04	.165E-04
87	3.6	-45.0	0.0	3488	.156E-04	2919	.147E-04	2519	.132E-04	.145E-04
94	3.9	45.0	0.0	3467	.155E-04	2905	.146E-04	2474	.130E-04	.144E-04
95	3.9	0.0	0.0	3736	.169E-04	3168	.160E-04	2713	.143E-04	.157E-04
96	3.9	-45.0	0.0	3390	.150E-04	2827	.142E-04	2428	.127E-04	.140E-04
103	4.2	45.0	0.0	3464	.155E-04	2909	.146E-04	2469	.129E-04	.143E-04
104	4.2	0.0	0.0	3577	.161E-04	3014	.152E-04	2580	.136E-04	.149E-04
105	4.2	-45.0	0.0	3275	.144E-04	2715	.136E-04	2321	.121E-04	.134E-04
113	4.5	0.0	0.0	3464	.155E-04	2899	.146E-04	2414	.126E-04	.142E-04
114	4.5	-45.0	0.0	3207	.140E-04	2644	.132E-04	2233	.116E-04	.130E-04

RUN # 303

475FT,270,TBIC
40%,IN,BLEM03;117

STACK #1			STACK #2			STACK #3	
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	
VEL, AT STACK HT	1.46 M/S	15.51 M/S	1.46 M/S	15.51 M/S	1.46 M/S	15.51 M/S	
EXIT VEL,	.80 M/S	8.77 M/S	.02 M/S	8.73 M/S	.94 M/S	9.58 M/S	
VOL, FLOW	.12E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S	
SOURCE STRENGTH	.10E+06		.53E+05		.34E+05		
BACKGROUND	.50E+03		.12E+03		.48E+03		
CALIBRATION FACTOR	.42E-02		.23E-02		.15E-02		
SO2 FLUX		.400E+03 (GM/S)		.400E+03 (GM/S)		.550E+02 (GM/S)	
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.70 M	48.26 CM	144.78 M	
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M	

SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
11	.9	0.0	0.0	1571	.158E-03	1019	.125E-03	1539	.202E-04	.303E-03
17	1.2	0.0	0.0	2229	.256E-03	1692	.218E-03	2213	.331E-04	.507E-03
23	1.5	30.0	0.0	2239	.257E-03	1731	.224E-03	2227	.333E-04	.514E-03
24	1.5	0.0	0.0	2505	.296E-03	1978	.258E-03	2352	.395E-04	.594E-03
25	1.5	-30.0	0.0	2473	.292E-03	1960	.255E-03	2516	.388E-04	.586E-03
30	1.8	30.0	0.0	1286	.116E-03	867	.104E-03	1237	.145E-04	.235E-03
31	1.8	0.0	0.0	2687	.323E-03	2208	.290E-03	2712	.426E-04	.656E-03
32	1.8	-30.0	0.0	2673	.321E-03	2181	.286E-03	2721	.427E-04	.650E-03
33	1.8	-60.0	0.0	2258	.260E-03	1769	.229E-03	2296	.346E-04	.523E-03
37	2.1	60.0	0.0	2032	.226E-03	1553	.199E-03	2025	.295E-04	.455E-03
38	2.1	30.0	0.0	2460	.290E-03	1971	.257E-03	2487	.303E-04	.585E-03
39	2.1	0.0	0.0	2669	.321E-03	2235	.294E-03	2718	.427E-04	.657E-03
40	2.1	-30.0	0.0	2770	.336E-03	2309	.304E-03	2838	.450E-04	.684E-03
41	2.1	-60.0	0.0	2457	.289E-03	1979	.258E-03	2505	.386E-04	.586E-03
46	2.4	60.0	0.0	2139	.242E-03	1665	.215E-03	2166	.322E-04	.489E-03
47	2.4	30.0	0.0	2487	.294E-03	2037	.263E-03	2517	.389E-04	.599E-03
48	2.4	0.0	0.0	2096	.236E-03	1676	.216E-03	2135	.316E-04	.484E-03
49	2.4	-30.0	0.0	2742	.331E-03	2260	.297E-03	2799	.442E-04	.673E-03
50	2.4	-60.0	0.0	2510	.297E-03	2037	.266E-03	2555	.396E-04	.603E-03
56	2.7	60.0	0.0	2064	.231E-03	1849	.212E-03	2085	.306E-04	.474E-03
57	2.7	30.0	0.0	2512	.297E-03	2046	.267E-03	2543	.393E-04	.604E-03
58	2.7	0.0	0.0	2610	.312E-03	2142	.281E-03	2659	.416E-04	.634E-03
59	2.7	-30.0	0.0	2630	.315E-03	2170	.285E-03	2698	.423E-04	.642E-03
60	2.7	-60.0	0.0	2318	.269E-03	1917	.249E-03	2368	.360E-04	.554E-03
66	3.0	90.0	0.0	1634	.168E-03	1217	.152E-03	1643	.222E-04	.342E-03
67	3.0	45.0	0.0	2287	.264E-03	1842	.239E-03	2315	.350E-04	.538E-03
68	3.0	0.0	0.0	2604	.311E-03	2159	.283E-03	2651	.414E-04	.635E-03
69	3.0	-45.0	0.0	2567	.306E-03	2112	.276E-03	2630	.410E-04	.623E-03
70	3.0	-90.0	0.0	2123	.240E-03	1682	.217E-03	2149	.318E-04	.489E-03
75	3.3	90.0	0.0	1598	.162E-03	1193	.148E-03	1614	.217E-04	.332E-03
76	3.3	45.0	0.0	2138	.242E-03	1743	.225E-03	2168	.322E-04	.500E-03
77	3.3	0.0	0.0	2565	.305E-03	2111	.276E-03	2610	.406E-04	.622E-03
78	3.3	-45.0	0.0	2498	.295E-03	2057	.264E-03	2553	.395E-04	.604E-03
85	3.6	45.0	0.0	2038	.227E-03	1633	.210E-03	2044	.298E-04	.467E-03
86	3.6	0.0	0.0	2493	.295E-03	2082	.272E-03	2548	.394E-04	.606E-03
87	3.6	-45.0	0.0	2449	.288E-03	2012	.263E-03	2485	.382E-04	.589E-03
94	3.9	45.0	0.0	2059	.230E-03	1661	.214E-03	2071	.304E-04	.475E-03
95	3.9	0.0	0.0	2414	.283E-03	1999	.261E-03	2447	.375E-04	.581E-03
96	3.9	-45.0	0.0	2437	.286E-03	2011	.262E-03	2477	.381E-04	.587E-03
103	4.2	45.0	0.0	2032	.226E-03	1638	.211E-03	2050	.300E-04	.467E-03
104	4.2	0.0	0.0	2383	.278E-03	1976	.258E-03	2382	.363E-04	.572E-03
105	4.2	-45.0	0.0	2300	.266E-03	1892	.246E-03	2341	.355E-04	.548E-03
112	4.5	45.0	0.0	1697	.177E-03	1338	.169E-03	1723	.237E-04	.370E-03
113	4.5	0.0	0.0	2291	.265E-03	1911	.249E-03	2296	.346E-04	.548E-03
114	4.5	-45.0	0.0	2283	.264E-03	1888	.245E-03	2280	.343E-04	.543E-03

RUN # 304

475FT,270,1S:1
40%,OUT,BLEMO4::17

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE		
VEL. AT STACK HT	1.46 M/S	15.51 M/S	1.46 M/S	15.51 M/S	1.46 M/S	15.51 M/S	1.46 M/S	15.51 M/S		
EXIT VEL.	.80 M/S	8.77 M/S	.82 M/S	8.73 M/S	.94 M/S	9.58 M/S	.94 M/S	9.58 M/S		
VOL. FLOW	.12E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S		
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05		.16E+03			
BACKGROUND	.46E+03		.46E+02		.16E+03		.15E+02			
CALIBRATION FACTOR	.42E-02		.23E-02							
SO2 FLUX		.400E+03 (GM/S)		.400E+03 (GM/S)			.550E+02 (GM/S)			
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M				
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M				
SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW AREA	CONCENTRATION (GM/M**3)	RAW AREA	CONCENTRATION (GM/M**3)	RAW AREA	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
11	.9	0.0	0.0	1409	.141E-03	927	.122E-03	1111	.182E-04	.281E-03
17	1.2	0.0	0.0	2106	.244E-03	1589	.214E-03	1777	.309E-04	.489E-03
23	1.5	30.0	0.0	2099	.243E-03	1596	.215E-03	1723	.308E-04	.489E-03
24	1.5	0.0	0.0	2579	.314E-03	2060	.279E-03	2276	.404E-04	.633E-03
25	1.5	-30.0	0.0	2559	.311E-03	2035	.276E-03	2262	.401E-04	.627E-03
30	1.8	30.0	0.0	2310	.274E-03	1813	.245E-03	2003	.352E-04	.554E-03
31	1.8	0.0	0.0	2395	.287E-03	1900	.257E-03	2097	.369E-04	.581E-03
32	1.8	-30.0	0.0	2778	.343E-03	2274	.309E-03	2506	.442E-04	.692E-03
33	1.8	-60.0	0.0	2475	.29BE-03	1973	.267E-03	2200	.389E-04	.605E-03
37	2.1	60.0	0.0	2034	.233E-03	1559	.210E-03	1712	.296E-04	.473E-03
38	2.1	30.0	0.0	2487	.300E-03	1993	.270E-03	2177	.385E-04	.609E-03
39	2.1	0.0	0.0	2678	.328E-03	2179	.296E-03	2376	.423E-04	.666E-03
41	2.1	-60.0	0.0	2751	.339E-03	2244	.305E-03	2480	.442E-04	.688E-03
46	2.4	60.0	0.0	2153	.251E-03	1694	.229E-03	1844	.321E-04	.512E-03
47	2.4	30.0	0.0	2632	.322E-03	2156	.293E-03	2329	.414E-04	.656E-03
48	2.4	0.0	0.0	2053	.234E-03	1591	.214E-03	1750	.303E-04	.481E-03
49	2.4	-30.0	0.0	2618	.320E-03	2186	.297E-03	2385	.424E-04	.659E-03
50	2.4	-60.0	0.0	2756	.340E-03	2270	.308E-03	2492	.445E-04	.693E-03
56	2.7	60.0	0.0	2080	.240E-03	1620	.218E-03	1786	.310E-04	.489E-03
57	2.7	30.0	0.0	2686	.330E-03	2194	.298E-03	2377	.423E-04	.670E-03
58	2.7	0.0	0.0	2904	.362E-03	2428	.330E-03	2611	.467E-04	.739E-03
59	2.7	-30.0	0.0	2969	.371E-03	2497	.340E-03	2709	.486E-04	.760E-03
60	2.7	-60.0	0.0	2401	.288E-03	1931	.261E-03	2113	.373E-04	.586E-03
66	3.0	90.0	0.0	1601	.181E-03	1254	.168E-03	1374	.232E-04	.372E-03
67	3.0	45.0	0.0	1621	.172E-03	1192	.159E-03	1324	.222E-04	.353E-03
68	3.0	0.0	0.0	2833	.351E-03	2342	.321E-03	2549	.456E-04	.718E-03
69	3.0	-45.0	0.0	2643	.323E-03	2175	.295E-03	2381	.424E-04	.661E-03
70	3.0	-90.0	0.0	2156	.281E-03	1889	.256E-03	2064	.323E-04	.573E-03
75	3.3	90.0	0.0	1588	.167E-03	1183	.155E-03	1279	.214E-04	.344E-03
76	3.3	45.0	0.0	2181	.255E-03	1741	.235E-03	1892	.330E-04	.523E-03
77	3.3	0.0	0.0	2752	.339E-03	2294	.312E-03	2470	.440E-04	.695E-03
78	3.3	-45.0	0.0	2842	.353E-03	2376	.323E-03	2577	.461E-04	.722E-03
85	3.6	45.0	0.0	2223	.261E-03	1792	.242E-03	1935	.339E-04	.537E-03
86	3.6	0.0	0.0	2607	.318E-03	2165	.294E-03	2331	.414E-04	.653E-03
87	3.6	-45.0	0.0	2786	.344E-03	2349	.318E-03	2490	.444E-04	.707E-03
94	3.9	45.0	0.0	2177	.254E-03	1792	.238E-03	1880	.328E-04	.525E-03
95	3.9	0.0	0.0	2575	.313E-03	2155	.292E-03	2314	.411E-04	.647E-03
96	3.9	-45.0	0.0	2713	.334E-03	2269	.308E-03	2427	.432E-04	.685E-03
103	4.2	45.0	0.0	2162	.252E-03	1755	.237E-03	1876	.327E-04	.522E-03
104	4.2	0.0	0.0	2460	.296E-03	2023	.274E-03	2189	.387E-04	.609E-03
105	4.2	-45.0	0.0	2587	.319E-03	2195	.292E-03	2306	.409E-04	.648E-03
112	4.5	45.0	0.0	1372	.135E-03	945	.125E-03	1082	.176E-04	.278E-03
113	4.5	0.0	0.0	2361	.282E-03	1933	.262E-03	2099	.370E-04	.580E-03
114	4.5	-45.0	0.0	2512	.304E-03	2081	.282E-03	2258	.400E-04	.626E-03

RUN # 305

475FT,270,TS:E
40%,OUT,BLEM05;;17

		STACK #1		STACK #2		STACK #3	
		MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT		1.20 M/S	12.75 M/S	1.20 M/S	12.75 M/S	1.20 M/S	12.75 M/S
EXIT VEL.		.80 M/S	8.77 M/S	.82 M/S	8.73 M/S	.94 M/S	9.58 M/S
VOL. FLOW		.12E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S
SOURCE STRENGTH		.10E+06		.53E+05		.34E+05	
BACKGROUND		.44E+03		.40E+02		.50E+02	
CALIBRATION FACTOR		.42E-02		.23E-02		.15E-02	
SO2 FLUX			.400E+03 (GM/S)		.400E+03 (GM/S)		.550E+02 (GM/S)
STACK HEIGHT		48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER		1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE #	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
11	.9	0.0	0.0	993	.817E-04	293	.351E-04	355	.581E-05	.123E-03
16	1.2	15.0	0.0	1034	.878E-04	338	.414E-04	418	.701E-05	.136E-03
17	1.2	0.0	0.0	1423	.145E-03	521	.668E-04	609	.102E-04	.223E-03
18	1.2	-15.0	0.0	1431	.147E-03	544	.700E-04	636	.112E-04	.228E-03
23	1.5	30.0	0.0	1520	.160E-03	581	.751E-04	671	.118E-04	.247E-03
24	1.5	0.0	0.0	1776	.198E-03	728	.955E-04	848	.152E-04	.308E-03
25	1.5	-30.0	0.0	1746	.193E-03	709	.929E-04	830	.149E-04	.301E-03
30	1.8	30.0	0.0	1749	.194E-03	743	.976E-04	850	.152E-04	.306E-03
31	1.8	0.0	0.0	2002	.231E-03	887	.118E-03	1013	.184E-04	.367E-03
32	1.8	-30.0	0.0	1986	.229E-03	847	.112E-03	988	.179E-04	.359E-03
33	1.8	-60.0	0.0	1757	.195E-03	730	.958E-04	847	.152E-04	.306E-03
37	2.1	60.0	0.0	1430	.146E-03	550	.708E-04	644	.113E-04	.228E-03
38	2.1	30.0	0.0	1757	.195E-03	766	.101E-03	881	.158E-04	.311E-03
39	2.1	0.0	0.0	2039	.236E-03	934	.124E-03	1074	.195E-04	.380E-03
40	2.1	-30.0	0.0	2142	.252E-03	964	.128E-03	1111	.202E-04	.400E-03
41	2.1	-60.0	0.0	1879	.213E-03	815	.108E-03	946	.171E-04	.337E-03
46	2.4	60.0	0.0	1503	.157E-03	603	.782E-04	685	.121E-04	.247E-03
47	2.4	30.0	0.0	1831	.206E-03	811	.107E-03	939	.169E-04	.330E-03
48	2.4	0.0	0.0	1619	.174E-03	693	.907E-04	805	.144E-04	.279E-03
49	2.4	-30.0	0.0	2173	.256E-03	1009	.135E-03	1162	.212E-04	.412E-03
50	2.4	-60.0	0.0	1993	.230E-03	890	.118E-03	1014	.184E-04	.366E-03
56	2.7	60.0	0.0	1384	.140E-03	563	.726E-04	659	.116E-04	.224E-03
57	2.7	30.0	0.0	1851	.209E-03	827	.109E-03	942	.170E-04	.335E-03
58	2.7	0.0	0.0	2091	.244E-03	972	.129E-03	1107	.201E-04	.394E-03
59	2.7	-30.0	0.0	2201	.260E-03	1038	.139E-03	1173	.214E-04	.420E-03
60	2.7	-60.0	0.0	1796	.201E-03	807	.106E-03	910	.164E-04	.323E-03
66	3.0	90.0	0.0	1277	.124E-03	525	.673E-04	587	.102E-04	.201E-03
67	3.0	45.0	0.0	1552	.164E-03	676	.883E-04	752	.134E-04	.266E-03
68	3.0	0.0	0.0	2046	.238E-03	960	.128E-03	1090	.198E-04	.385E-03
69	3.0	-45.0	0.0	2139	.251E-03	1032	.138E-03	1155	.211E-04	.410E-03
70	3.0	-90.0	0.0	1790	.200E-03	821	.108E-03	915	.165E-04	.325E-03
75	3.3	90.0	0.0	1265	.122E-03	539	.693E-04	602	.105E-04	.202E-03
76	3.3	45.0	0.0	1595	.171E-03	726	.952E-04	807	.144E-04	.280E-03
77	3.3	0.0	0.0	1993	.230E-03	960	.128E-03	1076	.196E-04	.377E-03
78	3.3	-45.0	0.0	2117	.248E-03	1030	.137E-03	1152	.210E-04	.406E-03
85	3.6	45.0	0.0	1557	.165E-03	724	.750E-04	794	.142E-04	.274E-03
86	3.6	0.0	0.0	1965	.226E-03	964	.128E-03	1080	.196E-04	.373E-03
87	3.6	-45.0	0.0	2050	.238E-03	1013	.135E-03	1135	.207E-04	.394E-03
94	3.9	45.0	0.0	1572	.167E-03	755	.993E-04	842	.151E-04	.282E-03
95	3.9	0.0	0.0	1929	.220E-03	967	.129E-03	1080	.196E-04	.369E-03
96	3.9	-45.0	0.0	2044	.237E-03	1031	.138E-03	1149	.209E-04	.396E-03
103	4.2	45.0	0.0	1627	.176E-03	812	.107E-03	878	.158E-04	.298E-03
104	4.2	0.0	0.0	1916	.218E-03	985	.131E-03	1078	.196E-04	.369E-03
105	4.2	-45.0	0.0	1995	.230E-03	1017	.136E-03	1125	.205E-04	.386E-03
113	4.5	0.0	0.0	1879	.213E-03	981	.131E-03	1059	.192E-04	.363E-03

T1

RUN # 306

475FT,270,TS:C
40%,IN,BLEM061:17

STACK #1			STACK #2			STACK #3
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT	1.20 M/S	12.75 M/S	1.20 M/S	12.75 M/S	1.20 M/S	12.75 M/S
EXIT VEL.	.80 M/S	8.77 M/S	.82 M/S	8.73 M/S	.94 M/S	9.58 M/S
VOL. FLOW	.12E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05	
BACKGROUND	.53E+03		.90E+02		.32E+03	
CALIBRATION FACTOR	.41E-02		.22E-02		.15E-02	
SO2 FLUX	.400E+03 (GM/S)			.400E+03 (GM/S)		
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE #	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
11	.9	0.0	0.0	1444	.132E-03	686	.806E-04	1122	.148E-04	.228E-03
16	1.2	15.0	0.0	1436	.131E-03	698	.822E-04	1127	.149E-04	.228E-03
17	1.2	0.0	0.0	1860	.192E-03	961	.118E-03	1446	.208E-04	.331E-03
18	1.2	-15.0	0.0	1864	.193E-03	982	.121E-03	1474	.214E-04	.335E-03
23	1.5	30.0	0.0	1899	.198E-03	1015	.125E-03	1498	.218E-04	.345E-03
24	1.5	0.0	0.0	2148	.234E-03	1168	.146E-03	1685	.253E-04	.405E-03
25	1.5	-30.0	0.0	2116	.229E-03	1131	.141E-03	1661	.248E-04	.395E-03
30	1.8	30.0	0.0	2049	.219E-03	1121	.139E-03	1612	.239E-04	.383E-03
31	1.8	0.0	0.0	2292	.254E-03	1287	.162E-03	1821	.278E-04	.444E-03
32	1.8	-30.0	0.0	2344	.262E-03	1312	.165E-03	1848	.283E-04	.455E-03
33	1.8	-60.0	0.0	2056	.220E-03	1121	.139E-03	1632	.243E-04	.384E-03
37	2.1	60.0	0.0	1731	.173E-03	923	.113E-03	1360	.192E-04	.305E-03
38	2.1	30.0	0.0	1982	.210E-03	1116	.139E-03	1587	.235E-04	.372E-03
39	2.1	0.0	0.0	2300	.256E-03	1313	.165E-03	1831	.280E-04	.449E-03
40	2.1	-30.0	0.0	2364	.265E-03	1359	.172E-03	1883	.290E-04	.465E-03
41	2.1	-60.0	0.0	2194	.240E-03	1245	.156E-03	1771	.269E-04	.423E-03
46	2.4	60.0	0.0	1866	.193E-03	1041	.129E-03	1486	.216E-04	.343E-03
47	2.4	30.0	0.0	2119	.229E-03	1221	.153E-03	1694	.254E-04	.408E-03
48	2.4	0.0	0.0	1951	.205E-03	1091	.135E-03	1529	.224E-04	.363E-03
49	2.4	-30.0	0.0	2373	.266E-03	1388	.176E-03	1908	.294E-04	.471E-03
50	2.4	-60.0	0.0	2220	.244E-03	1282	.161E-03	1793	.273E-04	.433E-03
51	2.4	-90.0	0.0	1781	.181E-03	993	.122E-03	1443	.208E-04	.324E-03
57	2.7	30.0	0.0	2129	.231E-03	1252	.157E-03	1725	.260E-04	.414E-03
58	2.7	0.0	0.0	2301	.236E-03	1354	.171E-03	1652	.284E-04	.455E-03
59	2.7	-30.0	0.0	2298	.255E-03	1345	.170E-03	1655	.284E-04	.453E-03
60	2.7	-60.0	0.0	1926	.202E-03	1096	.136E-03	1557	.229E-04	.361E-03
66	3.0	90.0	0.0	1531	.145E-03	814	.979E-04	1213	.165E-04	.259E-03
67	3.0	45.0	0.0	1988	.211E-03	1155	.144E-03	1616	.240E-04	.379E-03
68	3.0	0.0	0.0	2234	.246E-03	1330	.168E-03	1833	.280E-04	.442E-03
69	3.0	-45.0	0.0	2240	.247E-03	1339	.169E-03	1823	.278E-04	.444E-03
70	3.0	-90.0	0.0	1892	.197E-03	1099	.136E-03	1539	.226E-04	.356E-03
75	3.3	90.0	0.0	1530	.144E-03	837	.101E-03	1239	.170E-04	.263E-03
76	3.3	45.0	0.0	1865	.193E-03	1085	.135E-03	1521	.222E-04	.350E-03
77	3.3	0.0	0.0	1449	.133E-03	753	.897E-04	1134	.150E-04	.238E-03
78	3.3	-45.0	0.0	2228	.245E-03	1339	.169E-03	1829	.279E-04	.442E-03
85	3.6	45.0	0.0	1832	.188E-03	1068	.132E-03	1505	.219E-04	.342E-03
86	3.6	0.0	0.0	2191	.240E-03	1334	.168E-03	1800	.274E-04	.435E-03
87	3.6	-45.0	0.0	2169	.237E-03	1325	.167E-03	1783	.271E-04	.431E-03
94	3.9	45.0	0.0	1866	.193E-03	1114	.139E-03	1527	.223E-04	.354E-03
95	3.9	0.0	0.0	2163	.236E-03	1350	.170E-03	1787	.272E-04	.433E-03
96	3.9	-45.0	0.0	2188	.239E-03	1344	.170E-03	1795	.273E-04	.436E-03
103	4.2	45.0	0.0	1894	.197E-03	1158	.144E-03	1556	.229E-04	.364E-03
104	4.2	0.0	0.0	2179	.238E-03	1368	.173E-03	1787	.272E-04	.438E-03
105	4.2	-45.0	0.0	2128	.231E-03	1326	.167E-03	1758	.266E-04	.425E-03
113	4.5	0.0	0.0	2122	.230E-03	1351	.171E-03	1770	.269E-04	.427E-03

RUN # 307

475FT,270,TS:C
40%,IN,BLEM071117

STACK #1			STACK #2			STACK #3	
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	
VEL. AT STACK HT	1.81 M/S	19.12 M/S	1.81 M/S	19.12 M/S	1.81 M/S	19.12 M/S	
EXIT VEL.	.80 M/S	8.77 M/S	.82 M/S	8.73 M/S	.94 M/S	9.58 M/S	
VOL. FLOW	.12E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S	
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05		
BACKGROUND	.81E+03		.26E+03		.24E+03		
CALIBRATION FACTOR	.41E-02		.22E-02		.15E-02		
SO2 FLUX	.400E+03 (GM/S)			.400E+03 (GM/S)			
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M	
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M	

SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
11	.9	0.0	0.0	2687	.272E-03	2299	.277E-03	2325	.389E-04	.588E-03
16	1.2	15.0	0.0	2235	.207E-03	1809	.210E-03	1852	.301E-04	.447E-03
17	1.2	0.0	0.0	3622	.408E-03	3276	.410E-03	3342	.579E-04	.876E-03
18	1.2	-15.0	0.0	3563	.399E-03	3198	.399E-03	3280	.568E-04	.856E-03
23	1.5	30.0	0.0	3763	.428E-03	3426	.430E-03	3491	.607E-04	.920E-03
24	1.5	0.0	0.0	3964	.458E-03	3643	.460E-03	3715	.649E-04	.983E-03
25	1.5	-30.0	0.0	3763	.428E-03	3436	.432E-03	3515	.612E-04	.921E-03
30	1.8	30.0	0.0	4006	.464E-03	3659	.462E-03	3712	.648E-04	.991E-03
31	1.8	0.0	0.0	4177	.488E-03	3864	.490E-03	3933	.690E-04	.105E-02
32	1.8	-30.0	0.0	3914	.450E-03	3589	.453E-03	3668	.640E-04	.967E-03
33	1.8	-60.0	0.0	3319	.364E-03	2969	.368E-03	3026	.520E-04	.784E-03
37	2.1	60.0	0.0	3667	.415E-03	3297	.413E-03	3341	.579E-04	.885E-03
38	2.1	30.0	0.0	4063	.472E-03	3731	.472E-03	3781	.661E-04	.101E-02
39	2.1	0.0	0.0	3954	.456E-03	3624	.457E-03	3677	.642E-04	.978E-03
40	2.1	-30.0	0.0	3848	.441E-03	3513	.442E-03	3568	.621E-04	.945E-03
41	2.1	-60.0	0.0	3296	.361E-03	2727	.363E-03	2984	.512E-04	.775E-03
46	2.4	60.0	0.0	3649	.412E-03	3274	.410E-03	3328	.577E-04	.879E-03
47	2.4	30.0	0.0	3824	.445E-03	3516	.443E-03	3576	.623E-04	.950E-03
48	2.4	0.0	0.0	2157	.196E-03	1725	.199E-03	1764	.284E-04	.423E-03
49	2.4	-30.0	0.0	3704	.420E-03	3348	.420E-03	3415	.593E-04	.899E-03
50	2.4	-60.0	0.0	3234	.352E-03	2853	.353E-03	2890	.495E-04	.754E-03
56	2.7	60.0	0.0	3164	.342E-03	2765	.341E-03	2816	.481E-04	.730E-03
57	2.7	30.0	0.0	3878	.445E-03	3527	.444E-03	3571	.622E-04	.952E-03
58	2.7	0.0	0.0	3790	.432E-03	3435	.432E-03	3483	.606E-04	.925E-03
59	2.7	-30.0	0.0	3544	.397E-03	3177	.397E-03	3215	.555E-04	.849E-03
60	2.7	-60.0	0.0	2727	.278E-03	2311	.279E-03	2346	.393E-04	.596E-03
66	3.0	90.0	0.0	3056	.326E-03	2642	.324E-03	2658	.451E-04	.695E-03
67	3.0	45.0	0.0	3578	.402E-03	3193	.399E-03	3211	.555E-04	.856E-03
68	3.0	0.0	0.0	3670	.415E-03	3294	.413E-03	3326	.576E-04	.885E-03
69	3.0	-45.0	0.0	3128	.336E-03	2739	.337E-03	2756	.470E-04	.720E-03
70	3.0	-90.0	0.0	2548	.252E-03	2122	.253E-03	2109	.349E-04	.540E-03
75	3.3	90.0	0.0	2968	.313E-03	2549	.311E-03	2559	.433E-04	.668E-03
76	3.3	45.0	0.0	3304	.362E-03	2901	.359F-03	2918	.500E-04	.771E-03
77	3.3	0.0	0.0	3516	.393E-03	3142	.392E-03	3151	.544E-04	.839E-03
78	3.3	-45.0	0.0	3132	.337E-03	2738	.337E-03	2769	.472E-04	.721E-03
85	3.6	45.0	0.0	3252	.354E-03	2053	.353E-03	2852	.488E-04	.756E-03
86	3.6	0.0	0.0	3357	.370E-03	2976	.369E-03	2992	.514E-04	.790E-03
87	3.6	-45.0	0.0	3023	.321E-03	2619	.321E-03	2605	.442E-04	.686E-03
94	3.9	45.0	0.0	3059	.326E-03	2637	.323E-03	2644	.449E-04	.694E-03
95	3.9	0.0	0.0	3248	.354E-03	2856	.353E-03	2965	.509E-04	.758E-03
96	3.9	-45.0	0.0	2916	.306E-03	2516	.307E-03	2509	.424E-04	.655E-03
103	4.2	45.0	0.0	3057	.326E-03	2645	.324E-03	2639	.448E-04	.695E-03
104	4.2	0.0	0.0	3079	.329E-03	2670	.328E-03	2643	.449E-04	.702E-03
105	4.2	-45.0	0.0	2791	.287E-03	2373	.287E-03	2356	.395E-04	.614E-03
113	4.5	0.0	0.0	2928	.307E-03	2508	.306E-03	2484	.419E-04	.655E-03

RUN # 308

STACK #1

STACK #2

STACK #3

475FT,270,TS:E
40%,OUT,BLEM0B::17

	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT	1.81 M/S	19.12 M/S	1.81 M/S	19.12 M/S	1.81 M/S	19.12 M/S
EXIT VEL.	.80 M/S	8.77 M/S	.82 M/S	8.73 M/S	.94 M/S	9.58 M/S
VOL. FLOW	.12E-03M ³ /S	.12E+03M ³ /S	.13E-03M ³ /S	.12E+03M ³ /S	.13E-03M ³ /S	.12E+03M ³ /S
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05	
BACKGROUND	.80E+03		.30E+03		.53E+03	
CALIBRATION FACTOR	.41E-02		.22E-02		.15E-02	
SO ₂ FLUX		.400E+03 (GM/S)		.400E+03 (GM/S)		.550E+02 (GM/S)
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE #	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
11	.9	0.0	0.0	2401	.232E-03	2179	.255E-03	2386	.346E-04	.522E-03
16	1.2	15.0	0.0	2607	.262E-03	2363	.280E-03	2563	.379E-04	.580E-03
17	1.2	0.0	0.0	3199	.348E-03	3055	.375E-03	3262	.510E-04	.773E-03
18	1.2	-15.0	0.0	3067	.329E-03	2913	.355E-03	3130	.485E-04	.732E-03
23	1.5	30.0	0.0	3402	.377E-03	3195	.394E-03	3393	.534E-04	.824E-03
24	1.5	0.0	0.0	3651	.413E-03	3516	.437E-03	3720	.595E-04	.910E-03
25	1.5	-30.0	0.0	3381	.374E-03	3236	.399E-03	3463	.547E-04	.828E-03
30	1.8	30.0	0.0	3587	.404E-03	3377	.418E-03	3561	.566E-04	.879E-03
31	1.8	0.0	0.0	3805	.436E-03	3643	.455E-03	3827	.615E-04	.952E-03
32	1.8	-30.0	0.0	3561	.400E-03	3383	.420E-03	3598	.573E-04	.877E-03
33	1.8	-60.0	0.0	3023	.322E-03	2824	.343E-03	3053	.471E-04	.713E-03
37	2.1	60.0	0.0	3118	.336E-03	2842	.346E-03	3055	.471E-04	.729E-03
38	2.1	30.0	0.0	3499	.391E-03	3258	.402E-03	3441	.543E-04	.848E-03
39	2.1	0.0	0.0	3724	.431E-03	3574	.445E-03	3778	.606E-04	.937E-03
40	2.1	-30.0	0.0	3605	.407E-03	3427	.425E-03	3627	.578E-04	.890E-03
41	2.1	-60.0	0.0	3106	.334E-03	2881	.351E-03	3091	.478E-04	.733E-03
46	2.4	60.0	0.0	3191	.347E-03	2915	.356E-03	3096	.479E-04	.750E-03
47	2.4	30.0	0.0	3538	.397E-03	3278	.405E-03	3478	.550E-04	.857E-03
48	2.4	0.0	0.0	2998	.319E-03	2725	.330E-03	2917	.445E-04	.693E-03
49	2.4	-30.0	0.0	3525	.395E-03	3326	.411E-03	3533	.561E-04	.863E-03
50	2.4	-60.0	0.0	3037	.324E-03	2800	.340E-03	2989	.459E-04	.710E-03
56	2.7	60.0	0.0	2957	.313E-03	2452	.320E-03	2863	.435E-04	.676E-03
57	2.7	30.0	0.0	3507	.392E-03	3253	.402E-03	3438	.543E-04	.848E-03
58	2.7	0.0	0.0	3609	.407E-03	3378	.419E-03	3562	.566E-04	.882E-03
59	2.7	-30.0	0.0	3446	.384E-03	3210	.396E-03	3405	.537E-04	.833E-03
60	2.7	-60.0	0.0	2600	.261E-03	2301	.272E-03	2506	.369E-04	.570E-03
66	3.0	90.0	0.0	2671	.271E-03	2342	.278E-03	2513	.370E-04	.586E-03
67	3.0	45.0	0.0	3288	.361E-03	2996	.367E-03	3186	.496E-04	.772E-03
68	3.0	0.0	0.0	3518	.394E-03	3265	.403E-03	3456	.544E-04	.852E-03
69	3.0	-45.0	0.0	3082	.331E-03	2794	.339E-03	3006	.462E-04	.716E-03
70	3.0	-90.0	0.0	2431	.236E-03	2109	.246E-03	2313	.333E-04	.516E-03
75	3.3	90.0	0.0	2553	.254E-03	2211	.260E-03	2415	.352E-04	.549E-03
76	3.3	45.0	0.0	3180	.345E-03	2862	.348E-03	3064	.473E-04	.741E-03
77	3.3	0.0	0.0	3346	.369E-03	3070	.377E-03	3282	.514E-04	.797E-03
78	3.3	-45.0	0.0	3133	.338E-03	2861	.348E-03	3056	.471E-04	.734E-03
85	3.6	45.0	0.0	3008	.320E-03	2682	.324E-03	2888	.440E-04	.688E-03
86	3.6	0.0	0.0	3225	.352E-03	2933	.358E-03	3145	.488E-04	.758E-03
87	3.6	-45.0	0.0	3034	.324E-03	2749	.333E-03	2950	.452E-04	.702E-03
94	3.9	45.0	0.0	2890	.303E-03	2557	.307E-03	2741	.413E-04	.651E-03
95	3.9	0.0	0.0	3114	.335E-03	2809	.341E-03	2999	.461E-04	.723E-03
96	3.9	-45.0	0.0	2913	.306E-03	2605	.313E-03	2799	.423E-04	.662E-03
103	4.2	45.0	0.0	2835	.295E-03	2500	.299E-03	2690	.403E-04	.634E-03
104	4.2	0.0	0.0	2982	.316E-03	2646	.319E-03	2841	.431E-04	.678E-03
105	4.2	-45.0	0.0	2806	.291E-03	2479	.296E-03	2664	.398E-04	.627E-03
113	4.5	0.0	0.0	2889	.303E-03	2535	.304E-03	2729	.410E-04	.648E-03

RUN # 309

475FT,270,TS;E
40%,OUT,BLEM091;17

	STACK #1	STACK #2	STACK #3			
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL, AT STACK HT	2.17 M/S	22.94 M/S	2.17 M/S	22.94 M/S	2.17 M/S	22.94 M/S
EXIT VEL.	.80 M/S	8.77 M/S	.82 M/S	8.73 M/S	.94 M/S	9.58 M/S
VOL. FLOW	.12E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05	
BACKGROUND	.59E+03		.18E+03		.80E+03	
CALIBRATION FACTOR	.41E-02		.22E-02		.15E-02	
SO2 FLUX	.400E+03 (GM/S)		.400E+03 (GM/S)		.550E+02 (GM/S)	
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
11	.9	0.0	0.0	2329	.253E-03	2310	.289E-03	2810	.375E-04	.580E-03
16	1.2	15.0	0.0	2026	.209E-03	1873	.230E-03	2418	.302E-04	.469E-03
17	1.2	-0.0	0.0	3023	.353E-03	3032	.388E-03	3567	.516E-04	.793E-03
18	1.2	-15.0	0.0	2929	.340E-03	2945	.376E-03	4437	.679E-04	.783E-03
23	1.5	30.0	0.0	3170	.375E-03	3150	.404E-03	3680	.537E-04	.832E-03
24	1.5	-0.0	0.0	3319	.396E-03	3327	.428E-03	3863	.521E-04	.881E-03
25	1.5	-30.0	0.0	3127	.368E-03	3139	.402E-03	3671	.536E-04	.824E-03
30	1.8	30.0	0.0	3324	.397E-03	3290	.423E-03	3819	.563E-04	.876E-03
31	1.8	-0.0	0.0	3453	.416E-03	3449	.444E-03	3964	.590E-04	.919E-03
32	1.8	-30.0	0.0	3208	.380E-03	3188	.409E-03	3703	.542E-04	.843E-03
33	1.8	-60.0	0.0	2651	.299E-03	2593	.328E-03	3131	.435E-04	.671E-03
37	2.1	60.0	0.0	3030	.354E-03	2941	.375E-03	3422	.499E-04	.779E-03
38	2.1	30.0	0.0	3179	.376E-03	3119	.399E-03	3620	.526E-04	.828E-03
39	2.1	-0.0	0.0	3310	.395E-03	3280	.421E-03	3794	.559E-04	.872E-03
40	2.1	-30.0	0.0	3112	.366E-03	3062	.392E-03	3589	.520E-04	.810E-03
41	2.1	-60.0	0.0	2627	.296E-03	2532	.320E-03	3073	.424E-04	.658E-03
46	2.4	60.0	0.0	3021	.353E-03	2922	.373E-03	3439	.492E-04	.775E-03
47	2.4	30.0	0.0	3093	.333E-03	3010	.385E-03	3541	.511E-04	.799E-03
48	2.4	-0.0	0.0	2693	.306E-03	2576	.326E-03	3112	.431E-04	.674E-03
49	2.4	-30.0	0.0	3036	.355E-03	2964	.378E-03	3496	.503E-04	.784E-03
50	2.4	-60.0	0.0	2635	.297E-03	2529	.319E-03	3056	.421E-04	.658E-03
56	2.7	60.0	0.0	2875	.332E-03	2749	.349E-03	3260	.459E-04	.727E-03
57	2.7	30.0	0.0	3092	.363E-03	3002	.384E-03	3509	.505E-04	.797E-03
58	2.7	0.0	0.0	3073	.331E-03	2989	.382E-03	3501	.504E-04	.793E-03
59	2.7	-30.0	0.0	2877	.332E-03	2781	.353E-03	3301	.467E-04	.732E-03
60	2.7	-60.0	0.0	2358	.257E-03	2207	.275E-03	2749	.364E-04	.569E-03
66	3.0	90.0	0.0	2543	.284E-03	2377	.299E-03	2907	.393E-04	.622E-03
67	3.0	45.0	0.0	1879	.188E-03	1643	.199E-03	2172	.256E-04	.412E-03
68	3.0	0.0	0.0	2927	.339E-03	2817	.358E-03	3334	.473E-04	.745E-03
69	3.0	-45.0	0.0	2614	.294E-03	2480	.313E-03	3019	.414E-04	.648E-03
70	3.0	-90.0	0.0	2037	.210E-03	1834	.225E-03	2386	.296E-04	.465E-03
75	3.3	90.0	0.0	2412	.265E-03	2226	.278E-03	2761	.366E-04	.579E-03
76	3.3	45.0	0.0	2710	.308E-03	2568	.325E-03	3102	.429E-04	.675E-03
77	3.3	0.0	0.0	2827	.325E-03	2701	.343E-03	3239	.455E-04	.713E-03
78	3.3	-45.0	0.0	2573	.288E-03	2425	.305E-03	2968	.404E-04	.634E-03
B5	3.6	45.0	0.0	2652	.300E-03	2499	.315E-03	3006	.412E-04	.656E-03
B6	3.6	0.0	0.0	1475	.129E-03	1208	.140E-03	1780	.183E-04	.287E-03
B7	3.6	-45.0	0.0	2498	.277E-03	2334	.293E-03	2855	.383E-04	.608E-03
94	3.9	45.0	0.0	2479	.275E-03	2298	.288E-03	2841	.381E-04	.600E-03
95	3.9	0.0	0.0	2607	.293E-03	2456	.309E-03	3006	.412E-04	.644E-03
96	3.9	-45.0	0.0	2388	.261E-03	2212	.276E-03	2763	.366E-04	.574E-03
103	4.2	45.0	0.0	2468	.273E-03	2291	.287E-03	2819	.377E-04	.597E-03
104	4.2	0.0	0.0	2508	.279E-03	2334	.293E-03	2859	.384E-04	.610E-03
105	4.2	-45.0	0.0	2252	.242E-03	2065	.256E-03	2600	.336E-04	.531E-03
113	4.5	0.0	0.0	2350	.256E-03	2157	.269E-03	2690	.353E-04	.560E-03

RUN # 310

475FT,270,TSIC
40%,IN,BLEM10::17

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE		MODEL	PROTOTYPE		MODEL	PROTOTYPE		
VEL. AT STACK HT	2.17 M/S	22.94 M/S		2.17 M/S	22.94 M/S		2.17 M/S	22.94 M/S		
EXIT VEL.	.80 M/S	8.77 M/S		.82 M/S	8.73 M/S		.94 M/S	9.58 M/S		
VOL. FLOW	.12E+03M3/S	.12E+03M3/S		.13E+03M3/S	.12E+03M3/S		.13E+03M3/S	.12E+03M3/S		
SOURCE STRENGTH	.10E+06			.53E+05			.36E+05			
BACKGROUND	.68E+03			.27E+03			.70E+03			
CALIBRATION FACTOR	.41E-02			.22E-02			.15E-02			
SO2 FLUX	.400E+03 (GM/S)			.400E+03 (GM/S)			.550E+02 (GM/S)			
STACK HEIGHT	48.26 CM	144.78 M		48.26 CM	144.78 M		48.26 CM	144.78 M		
STACK DIAMETER	1.38 CM	4.14 M		1.41 CM	4.23 M		1.32 CM	3.96 M		
SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW AREA	CONCENTRATION (GM/M**3)	RAW AREA	CONCENTRATION (GM/M**3)	RAW AREA	CONCENTRATION (GM/M**3)	TOTAL CONC (GM/M**3)
11	.9	0.0	0.0	2682	.290E-03	2561	.312E-03	2757	.384E-04	.640E-03
16	1.2	15.0	0.0	2007	.192E-03	1821	.211E-03	2920	.415E-04	.445E-03
17	1.2	0.0	0.0	3404	.395E-03	3350	.419E-03	3520	.527E-04	.867E-03
18	1.2	-15.0	0.0	3356	.388E-03	3306	.413E-03	3470	.517E-04	.853E-03
23	1.5	30.0	0.0	3484	.406E-03	3397	.426E-03	3563	.535E-04	.885E-03
24	1.5	0.0	0.0	3677	.434E-03	3654	.460E-03	3821	.583E-04	.953E-03
25	1.5	-30.0	0.0	3457	.402E-03	3425	.429E-03	3600	.541E-04	.886E-03
30	1.8	30.0	0.0	2964	.331E-03	2822	.347E-03	3406	.505E-04	.729E-03
31	1.8	0.0	0.0	3778	.449E-03	3733	.471E-03	3884	.594E-04	.980E-03
32	1.8	-30.0	0.0	3567	.418E-03	3516	.442E-03	3674	.555E-04	.916E-03
33	1.8	-60.0	0.0	3062	.345E-03	2976	.368E-03	3159	.459E-04	.759E-03
37	2.1	60.0	0.0	3235	.370E-03	3098	.385E-03	3261	.478E-04	.803E-03
38	2.1	30.0	0.0	3477	.405E-03	3364	.421E-03	3542	.531E-04	.880E-03
39	2.1	0.0	0.0	3621	.426E-03	3559	.448E-03	3717	.563E-04	.930E-03
40	2.1	-30.0	0.0	3513	.411E-03	3451	.433E-03	3617	.545E-04	.898E-03
41	2.1	-60.0	0.0	3046	.343E-03	2940	.363E-03	3108	.450E-04	.751E-03
46	2.4	60.0	0.0	3174	.361E-03	3037	.377E-03	3203	.467E-04	.785E-03
47	2.4	30.0	0.0	3417	.397E-03	3302	.413E-03	3461	.516E-04	.861E-03
48	2.4	0.0	0.0	2808	.308E-03	2657	.325E-03	3261	.478E-04	.681E-03
49	2.4	-30.0	0.0	3350	.382E-03	3230	.407E-03	3430	.510E-04	.845E-03
50	2.4	-60.0	0.0	2909	.323E-03	2786	.342E-03	2958	.422E-04	.708E-03
56	2.7	60.0	0.0	2988	.335E-03	2819	.347E-03	3039	.437E-04	.725E-03
57	2.7	30.0	0.0	3316	.382E-03	3190	.397E-03	3352	.495E-04	.829E-03
58	2.7	0.0	0.0	3375	.391E-03	3260	.407E-03	3426	.509E-04	.848E-03
59	2.7	-30.0	0.0	3146	.357E-03	3021	.374E-03	3191	.465E-04	.778E-03
60	2.7	-60.0	0.0	2448	.256E-03	2281	.274E-03	2773	.387E-04	.569E-03
66	3.0	90.0	0.0	2562	.273E-03	2343	.282E-03	2539	.343E-04	.589E-03
67	3.0	45.0	0.0	3110	.352E-03	2958	.366E-03	3119	.452E-04	.763E-03
68	3.0	0.0	0.0	3186	.363E-03	3056	.379E-03	3212	.469E-04	.789E-03
69	3.0	-45.0	0.0	2890	.320E-03	2734	.335E-03	2901	.411E-04	.697E-03
70	3.0	-90.0	0.0	2319	.238E-03	2115	.251E-03	2303	.299E-04	.519E-03
75	3.3	90.0	0.0	2472	.260E-03	2241	.268E-03	2442	.325E-04	.561E-03
76	3.3	45.0	0.0	2908	.323E-03	2730	.335E-03	2915	.414E-04	.699E-03
77	3.3	0.0	0.0	3063	.345E-03	2916	.360E-03	3025	.447E-04	.750E-03
78	3.3	-45.0	0.0	2778	.304E-03	2607	.318E-03	2795	.391E-04	.661E-03
79	3.3	-90.0	0.0	1531	.123E-03	1283	.138E-03	2363	.311E-04	.293E-03
85	3.6	45.0	0.0	2760	.301E-03	2561	.312E-03	2758	.384E-04	.652E-03
86	3.6	0.0	0.0	2473	.260E-03	2292	.275E-03	2870	.405E-04	.576E-03
87	3.6	-45.0	0.0	2668	.288E-03	2482	.301E-03	2671	.368E-04	.626E-03
94	3.9	45.0	0.0	2648	.285E-03	2441	.296E-03	2627	.360E-04	.617E-03
95	3.9	0.0	0.0	2786	.305E-03	2607	.318E-03	2778	.388E-04	.662E-03
96	3.9	-45.0	0.0	2547	.271E-03	2348	.283E-03	2523	.340E-04	.588E-03
103	4.2	45.0	0.0	2565	.273E-03	2352	.283E-03	2534	.342E-04	.591E-03
104	4.2	0.0	0.0	2616	.281E-03	2414	.292E-03	2575	.350E-04	.608E-03
105	4.2	-45.0	0.0	2379	.246E-03	2163	.258E-03	2342	.307E-04	.535E-03
113	4.5	0.0	0.0	2458	.258E-03	2232	.267E-03	2404	.318E-04	.557E-03

RUN # 311

475FT,198,TS:C
40%,IN,BLEM11::17

	STACK #1		STACK #2		STACK #3	
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT	2.17 M/S	22.24 M/S	2.17 M/S	22.24 M/S	2.17 M/S	22.24 M/S
EXIT VEL.	.80 M/S	8.77 M/S	.82 M/S	8.73 M/S	.94 M/S	9.58 M/S
VOL. FLOW	.12E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05	
BACKGROUND	.67E+03		.19E+03		.20E+03	
CALIBRATION FACTOR	.42E-02		.22E-02		.15E-02	
SO2 FLUX		.400E+03 (GM/S)		.400E+03 (GM/S)		.550E+02 (GM/S)
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE #	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
1	2.7	240.0	0.0	961	.428E-04	520	.450E-04	538	.640E-05	.942E-04
2	2.7	225.0	0.0	1058	.570E-04	614	.578E-04	641	.833E-05	.123E-03
3	2.7	210.0	0.0	1125	.749E-04	754	.783E-04	763	.106E-04	.166E-03
4	2.7	195.0	0.0	1256	.858E-04	827	.869E-04	853	.123E-04	.185E-03
5	2.7	180.0	0.0	1299	.921E-04	866	.923E-04	875	.127E-04	.197E-03
6	2.7	165.0	0.0	1613	.133E-03	1295	.151E-03	1248	.197E-04	.308E-03
7	2.7	150.0	0.0	1889	.178E-03	1540	.184E-03	1527	.250E-04	.387E-03
8	2.7	135.0	0.0	2044	.201E-03	1708	.202E-03	1679	.278E-04	.436E-03
9	2.7	120.0	0.0	2264	.233E-03	1961	.242E-03	1925	.324E-04	.507E-03
10	2.7	105.0	0.0	2379	.249E-03	2084	.259E-03	2071	.352E-04	.543E-03
11	2.7	90.0	0.0	2573	.278E-03	2307	.289E-03	2300	.395E-04	.606E-03
12	2.7	75.0	0.0	2717	.299E-03	2472	.312E-03	2418	.417E-04	.552E-03
13	2.7	60.0	0.0	2869	.321E-03	2649	.336E-03	2602	.451E-04	.702E-03
14	2.7	45.0	0.0	2932	.330E-03	2720	.346E-03	2660	.462E-04	.722E-03
15	2.7	30.0	0.0	2827	.315E-03	2654	.337E-03	2547	.411E-04	.696E-03
16	2.7	15.0	0.0	2978	.337E-03	2783	.354E-03	2704	.470E-04	.738E-03
17	2.7	0.0	0.0	2876	.322E-03	2685	.341E-03	2608	.452E-04	.708E-03
18	2.7	-15.0	0.0	2712	.298E-03	2490	.314E-03	2423	.418E-04	.654E-03
19	2.7	-30.0	0.0	2511	.267E-03	2290	.287E-03	2230	.382E-04	.594E-03
20	2.7	-45.0	0.0	2317	.240E-03	2072	.257E-03	1988	.336E-04	.531E-03
21	2.7	-60.0	0.0	2070	.204E-03	1809	.221E-03	1746	.291E-04	.455E-03
22	2.7	-75.0	0.0	1832	.170E-03	1537	.184E-03	1469	.239E-04	.378E-03
23	2.7	-90.0	0.0	1639	.142E-03	1322	.155E-03	1284	.204E-04	.317E-03
24	2.7	-105.0	0.0	1075	.595E-04	659	.640E-04	643	.837E-05	.132E-03
25	2.7	-120.0	0.0	1265	.871E-04	858	.912E-04	837	.120E-04	.190E-03
26	2.7	-135.0	0.0	1090	.616E-04	701	.697E-04	675	.897E-05	.140E-03
27	2.7	-150.0	0.0	983	.460E-04	553	.495E-04	551	.664E-05	.102E-03
28	2.7	-165.0	0.0	859	.280E-04	435	.334E-04	431	.439E-05	.657E-04
29	2.7	-180.0	0.0	771	.152E-04	335	.192E-04	344	.276E-05	.376E-04
30	2.7	-195.0	0.0	702	.510E-05	249	.793E-05	263	.124E-05	.143E-04
31	2.7	-210.0	0.0	660	.000E+00	219	.383E-05	227	.563E-06	.439E-05
32	2.7	-225.0	0.0	632	.000E+00	188	.000E+00	200	.563E-07	.563E-07
33	2.7	-240.0	0.0	606	.000E+00	149	.000E+00	169	.000E+00	

RUN # 312

475FT,198,TSIE
40%,OUT,BLEM12::17

	STACK #1			STACK #2		
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT	2.17 M/S	22.24 M/S	2.17 M/S	22.24 M/S	2.17 M/S	22.24 M/S
EXIT VEL.	.80 M/S	8.77 M/S	.82 M/S	8.73 M/S	.94 M/S	9.58 M/S
VOL. FLOW	.12E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S
SOURCE STRENGTH	.10E+06		.53E+05		.34E+05	
BACKGROUND	.63E+03		.13E+03		.12E+03	
CALIBRATION FACTOR	.42E-02		.22E-02		.15E-02	
SO2 FLUX		.400E+03 (GM/S)		.400E+03 (GM/S)		.550E+02 (GM/S)
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE #	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
1	2.7	240.0	0.0	969	.49BE-04	473	.46BE-04	459	.642E-05	.103E-03
2	2.7	225.0	0.0	1085	.667E-04	589	.626E-04	583	.874E-05	.138E-03
3	2.7	210.0	0.0	1183	.810E-04	696	.722E-04	702	.110E-04	.169E-03
4	2.7	195.0	0.0	1256	.917E-04	772	.826E-04	767	.122E-04	.191E-03
5	2.7	180.0	0.0	1307	.991E-04	828	.953E-04	818	.132E-04	.208E-03
6	2.7	165.0	0.0	1510	.129E-03	1122	.135E-03	1055	.176E-04	.282E-03
7	2.7	150.0	0.0	1868	.181E-03	1437	.179E-03	1417	.244E-04	.384E-03
8	2.7	135.0	0.0	1979	.192E-03	1563	.196E-03	1544	.268E-04	.420E-03
9	2.7	120.0	0.0	2224	.233E-03	1828	.232E-03	1805	.317E-04	.496E-03
10	2.7	105.0	0.0	2384	.256E-03	1998	.255E-03	1977	.349E-04	.546E-03
11	2.7	90.0	0.0	2586	.285E-03	2238	.288E-03	2222	.395E-04	.613E-03
12	2.7	75.0	0.0	2717	.305E-03	2304	.308E-03	2348	.419E-04	.654E-03
13	2.7	60.0	0.0	2838	.322E-03	2525	.327E-03	2493	.446E-04	.694E-03
14	2.7	45.0	0.0	2958	.340E-03	2647	.344E-03	2585	.463E-04	.730E-03
15	2.7	30.0	0.0	2965	.341E-03	2663	.346E-03	2604	.467E-04	.733E-03
16	2.7	15.0	0.0	2923	.335E-03	2618	.340E-03	2557	.458E-04	.720E-03
17	2.7	0.0	0.0	2811	.318E-03	2521	.327E-03	2468	.441E-04	.689E-03
18	2.7	-15.0	0.0	2640	.293E-03	2335	.301E-03	2242	.399E-04	.634E-03
19	2.7	-30.0	0.0	2442	.264E-03	2131	.273E-03	2046	.362E-04	.574E-03
20	2.7	-45.0	0.0	2196	.229E-03	1867	.237E-03	1780	.312E-04	.497E-03
21	2.7	-60.0	0.0	1980	.197E-03	1637	.206E-03	1566	.272E-04	.430E-03
22	2.7	-75.0	0.0	1724	.160E-03	1350	.167E-03	1263	.215E-04	.348E-03
23	2.7	-90.0	0.0	1536	.132E-03	1148	.139E-03	1070	.179E-04	.269E-03
24	2.7	-105.0	0.0	1326	.102E-03	890	.104E-03	841	.136E-04	.219E-03
25	2.7	-120.0	0.0	1157	.772E-04	703	.782E-04	667	.103E-04	.166E-03
26	2.7	-135.0	0.0	1052	.619E-04	588	.625E-04	555	.822E-05	.133E-03
27	2.7	-150.0	0.0	956	.479E-04	482	.480E-04	446	.617E-05	.102E-03
28	2.7	-165.0	0.0	858	.337E-04	387	.350E-04	360	.456E-05	.732E-04
29	2.7	-180.0	0.0	807	.262E-04	329	.271E-04	312	.366E-05	.570E-04
30	2.7	-210.0	0.0	713	.125E-04	230	.135E-04	211	.176E-05	.278E-04
31	2.7	-225.0	0.0	685	.845E-05	191	.820E-05	154	.407E-05	.207E-04
32	2.7	-240.0	0.0	659	.466E-05	167	.492E-05	152	.657E-06	.102E-04

RUN # 313

475FT,198,TS:E
40%,OUT,BLEM131:17

			STACK #1		STACK #2		STACK #3			
			MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE		
VEL. AT STACK HT			1.81 M/S	19.12 M/S	1.81 M/S	19.12 M/S	1.81 M/S	19.12 M/S		
EXIT VEL.			.80 M/S	.877 M/S	.82 M/S	.875 M/S	.94 M/S	.958 M/S		
VOL. FLOW			.12E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S		
SOURCE STRENGTH			.10E+06		.53E+05		.36E+05			
BACKGROUND			.65E+03		.14E+03		.12E+03			
CALIBRATION FACTOR			.42E-02		.22E-02		.15E-02			
SO2 FLUX			.400E+03 (GM/S)		.400E+03 (GM/S)		.550E+02 (GM/S)			
STACK HEIGHT			48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M		
STACK DIAMETER			1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M		
SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC.
1	2.7	240.0	0.0	888	.347E-04	393	.349E-04	397	.520E-05	.748E-04
2	2.7	225.0	0.0	979	.480E-04	488	.479E-04	488	.691E-05	.103E-03
3	2.7	210.0	0.0	1123	.690E-04	635	.680E-04	635	.962E-05	.147E-03
4	2.7	195.0	0.0	1183	.772E-04	701	.770E-04	708	.110E-04	.166E-03
5	2.7	180.0	0.0	1289	.932E-04	805	.912E-04	808	.129E-04	.197E-03
6	2.7	165.0	0.0	1581	.136E-03	1210	.147E-03	1145	.192E-04	.302E-03
7	2.7	150.0	0.0	1857	.176E-03	1442	.178E-03	1432	.246E-04	.379E-03
8	2.7	135.0	0.0	2070	.207E-03	1669	.209E-03	1642	.286E-04	.445E-03
9	2.7	120.0	0.0	2289	.239E-03	1907	.242E-03	1900	.334E-04	.514E-03
10	2.7	105.0	0.0	2444	.262E-03	2068	.264E-03	2060	.364E-04	.562E-03
11	2.7	90.0	0.0	2641	.290E-03	2300	.296E-03	2295	.408E-04	.627E-03
12	2.7	75.0	0.0	2844	.320E-03	2528	.327E-03	2505	.448E-04	.692E-03
13	2.7	60.0	0.0	2978	.339E-03	2676	.347E-03	2673	.479E-04	.735E-03
14	2.7	45.0	0.0	3040	.349E-03	2745	.357E-03	2705	.485E-04	.754E-03
15	2.7	30.0	0.0	3058	.351E-03	2773	.360E-03	2741	.492E-04	.761E-03
16	2.7	15.0	0.0	3027	.347E-03	2751	.357E-03	2684	.482E-04	.752E-03
17	2.7	0.0	0.0	2855	.322E-03	2573	.333E-03	2530	.453E-04	.700E-03
18	2.7	-15.0	0.0	2677	.296E-03	2369	.305E-03	2308	.411E-04	.642E-03
19	2.7	-30.0	0.0	2475	.266E-03	2171	.278E-03	2098	.371E-04	.581E-03
20	2.7	-45.0	0.0	2283	.238E-03	1960	.249E-03	1871	.329E-04	.520E-03
21	2.7	-60.0	0.0	2046	.204E-03	1711	.215E-03	1641	.286E-04	.447E-03
22	2.7	-75.0	0.0	664	.204E-05	192	.739E-05	190	.131E-05	.107E-04
23	2.7	-90.0	0.0	1621	.142E-03	1251	.152E-03	1185	.200E-04	.314E-03
24	2.7	-105.0	0.0	651	.146E-06	170	.438E-05	168	.901E-06	.542E-05
25	2.7	-120.0	0.0	1264	.895E-04	825	.940E-04	783	.125E-04	.196E-03
26	2.7	-135.0	0.0	1120	.685E-04	664	.720E-04	622	.943E-05	.150E-03
27	2.7	-150.0	0.0	980	.481E-04	512	.512E-04	479	.674E-05	.106E-03
28	2.7	-165.0	0.0	868	.318E-04	396	.353E-04	361	.453E-05	.716E-04
29	2.7	-180.0	0.0	787	.200E-04	310	.235E-04	282	.304E-05	.466E-04
30	2.7	-210.0	0.0	696	.671E-05	208	.958E-05	195	.141E-05	.177E-04
31	2.7	-225.0	0.0	696	.671E-05	194	.766E-05	0	.000E+00	.144E-04
32	2.7	-240.0	0.0	739	.130E-04	167	.397E-05	149	.545E-06	.175E-04

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RUN # 314

475FT,198,TS;C
40%,IN,BLEM141117

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE		MODEL	PROTOTYPE		MODEL	PROTOTYPE		
VEL. AT STACK HT	1.81 M/S	19.12 M/S		1.81 M/S	19.12 M/S		1.81 M/S	19.12 M/S		
EXIT VEL.	.80 M/S	8.77 M/S		.82 M/S	8.75 M/S		.94 M/S	9.58 M/S		
VOL. FLOW	.12E-03M3/S	.12E+03M3/S		.13E-03M3/S	.12E+03M3/S		.13E-03M3/S	.12E+03M3/S		
SOURCE STRENGTH	.10E+06			.53E+05			.36E+05			
BACKGROUND	.59E+03			.12E+03			.11E+03			
CALIBRATION FACTOR	.42E-02			.22E-02			.15E-02			
SO2 FLUX		.400E+03 (GM/S)			.400E+03 (GM/S)			.550E+02 (GM/S)		
STACK HEIGHT	48.26 CM	144.78 M		48.26 CM	144.78 M		48.26 CM	144.78 M		
STACK DIAMETER	1.38 CM	4.14 M		1.41 CM	4.23 M		1.32 CM	3.96 M		
SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW AREA	CONCENTRATION (GM/M**3)	RAW AREA	CONCENTRATION (GM/M**3)	RAW AREA	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
1	2.7	240.0	0.0	825	.343E-04	367	.334E-04	375	.498E-05	.726E-04
2	2.7	225.0	0.0	916	.475E-04	432	.464E-04	455	.648E-05	.100E-03
3	2.7	210.0	0.0	1053	.675E-04	607	.662E-04	600	.920E-05	.143E-03
4	2.7	195.0	0.0	1149	.815E-04	716	.811E-04	717	.114E-04	.174E-03
5	2.7	180.0	0.0	1176	.855E-04	752	.860E-04	754	.121E-04	.184E-03
6	2.7	165.0	0.0	1526	.136E-03	1186	.145E-03	1118	.189E-04	.301E-03
7	2.7	150.0	0.0	1629	.152E-03	1249	.154E-03	1231	.211E-04	.327E-03
8	2.7	135.0	0.0	1824	.180E-03	1468	.184E-03	1457	.253E-04	.389E-03
9	2.7	120.0	0.0	1987	.204E-03	1641	.208E-03	1630	.285E-04	.440E-03
10	2.7	105.0	0.0	2156	.228E-03	1830	.234E-03	1818	.321E-04	.494E-03
11	2.7	90.0	0.0	2309	.251E-03	2005	.257E-03	1981	.351E-04	.543E-03
12	2.7	75.0	0.0	2470	.274E-03	2190	.283E-03	2158	.385E-04	.595E-03
13	2.7	60.0	0.0	2613	.295E-03	2367	.307E-03	2323	.416E-04	.644E-03
14	2.7	45.0	0.0	2772	.318E-03	2532	.330E-03	2466	.442E-04	.692E-03
15	2.7	30.0	0.0	2800	.322E-03	2580	.336E-03	2522	.453E-04	.704E-03
16	2.7	15.0	0.0	2867	.332E-03	2659	.347E-03	2588	.465E-04	.726E-03
17	2.7	0.0	0.0	2790	.321E-03	2565	.334E-03	2505	.450E-04	.700E-03
18	2.7	-15.0	0.0	2650	.300E-03	2407	.312E-03	2339	.419E-04	.655E-03
19	2.7	-30.0	0.0	2448	.271E-03	2189	.283E-03	2140	.381E-04	.592E-03
20	2.7	-45.0	0.0	2216	.237E-03	1933	.248E-03	1855	.328E-04	.518E-03
21	2.7	-60.0	0.0	1937	.196E-03	1632	.206E-03	1574	.275E-04	.430E-03
22	2.7	-75.0	0.0	1622	.150E-03	1277	.158E-03	1211	.207E-04	.329E-03
23	2.7	-90.0	0.0	1502	.133E-03	1151	.141E-03	1097	.185E-04	.292E-03
24	2.7	-105.0	0.0	1319	.106E-03	926	.110E-03	883	.145E-04	.231E-03
25	2.7	-120.0	0.0	1223	.923E-04	819	.952E-04	777	.125E-04	.200E-03
26	2.7	-135.0	0.0	664	.108E-04	222	.135E-04	220	.207E-05	.264E-04
27	2.7	-150.0	0.0	944	.516E-04	515	.536E-04	498	.729E-05	.113E-03
28	2.7	-165.0	0.0	849	.378E-04	415	.399E-04	389	.524E-05	.830E-04
29	2.7	-180.0	0.0	762	.251E-04	323	.274E-04	302	.361E-05	.560E-04
31	2.7	-210.0	0.0	616	.379E-05	165	.575E-05	154	.826E-06	.104E-04
32	2.7	-225.0	0.0	623	.481E-05	164	.561E-05	148	.714E-06	.111E-04
33	2.7	-240.0	0.0	593	.437E-06	133	.137E-05	124	.263E-06	.207E-05

RUN # 315

475FT,198,TSIC
40%,IN,BLEM15::17

		STACK #1		STACK #2		STACK #3	
		MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT		1.46 M/S	15.51 M/S	1.46 M/S	15.51 M/S	1.46 M/S	15.51 M/S
EXIT VEL.		.80 M/S	8.77 M/S	.82 M/S	8.75 M/S	.94 M/S	9.58 M/S
VDL. FLOW		.12E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S	.13E+03M3/S	.12E+03M3/S
SOURCE STRENGTH		.10E+06		.53E+05		.36E+05	
BACKGROUND		.51E+03		.73E+02		.89E+02	
CALIBRATION FACTOR		.42E-02		.23E-02		.15E-02	
SO2 FLUX		.400E+03 (GM/S)		.400E+03 (GM/S)		.550E+02 (GM/S)	
STACK HEIGHT		48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER		1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE #	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
1	2.7	240.0	0.0	699	.280E-04	298	.311E-04	309	.418E-05	.633E-04
2	2.7	225.0	0.0	771	.386E-04	374	.416E-04	396	.583E-05	.861E-04
3	2.7	210.0	0.0	858	.515E-04	465	.542E-04	475	.733E-05	.113E-03
4	2.7	195.0	0.0	907	.58E-04	528	.629E-04	547	.870E-05	.130E-03
5	2.7	180.0	0.0	999	.723E-04	616	.751E-04	619	.101E-04	.157E-03
6	2.7	165.0	0.0	1485	.144E-03	1182	.153E-03	1147	.201E-04	.317E-03
7	2.7	150.0	0.0	1368	.127E-03	1041	.134E-03	1023	.177E-04	.278E-03
8	2.7	135.0	0.0	1482	.143E-03	1177	.153E-03	1141	.200E-04	.316E-03
9	2.7	120.0	0.0	1659	.170E-03	1392	.182E-03	1354	.240E-04	.376E-03
10	2.7	105.0	0.0	1877	.202E-03	1636	.216E-03	1600	.287E-04	.447E-03
11	2.7	90.0	0.0	2052	.228E-03	1841	.245E-03	1801	.325E-04	.505E-03
12	2.7	75.0	0.0	2265	.259E-03	2083	.278E-03	2022	.367E-04	.574E-03
13	2.7	60.0	0.0	2400	.279E-03	2232	.299E-03	2169	.395E-04	.617E-03
14	2.7	45.0	0.0	2543	.300E-03	2390	.321E-03	2316	.423E-04	.663E-03
15	2.7	30.0	0.0	2562	.303E-03	2425	.325E-03	2351	.430E-04	.671E-03
16	2.7	15.0	0.0	2624	.312E-03	2486	.334E-03	2405	.440E-04	.690E-03
18	2.7	-15.0	0.0	2364	.274E-03	2192	.293E-03	2108	.383E-04	.605E-03
19	2.7	-30.0	0.0	2166	.244E-03	1978	.264E-03	1906	.345E-04	.542E-03
20	2.7	-45.0	0.0	1994	.219E-03	1769	.235E-03	1690	.304E-04	.484E-03
21	2.7	-60.0	0.0	1752	.183E-03	1508	.198E-03	1448	.258E-04	.408E-03
22	2.7	-75.0	0.0	1467	.141E-03	1184	.154E-03	1130	.198E-04	.315E-03
23	2.7	-90.0	0.0	1330	.121E-03	1030	.132E-03	978	.169E-04	.270E-03
24	2.7	-105.0	0.0	1162	.963E-04	823	.104E-03	801	.135E-04	.214E-03
25	2.7	-120.0	0.0	1035	.776E-04	674	.831E-04	643	.105E-04	.171E-03
27	2.7	-150.0	0.0	809	.442E-04	426	.488E-04	408	.606E-05	.991E-04
28	2.7	-165.0	0.0	723	.316E-04	335	.362E-04	331	.460E-05	.724E-04
29	2.7	-180.0	0.0	655	.215E-04	253	.249E-04	257	.319E-05	.496E-04
31	2.7	-210.0	0.0	557	.708E-05	143	.968E-05	156	.127E-05	.180E-04
32	2.7	-225.0	0.0	529	.295E-05	147	.105E-04	125	.684E-06	.141E-04
33	2.7	-240.0	0.0	513	.590E-06	91	.249E-05	104	.285E-06	.336E-05

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RUN # 316

475FT,198,TS:E
40%,OUT,BLEM161:17

		STACK #1		STACK #2		STACK #3	
		MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT		1.46 M/S	15.51 M/S	1.46 M/S	15.51 M/S	1.46 M/S	15.51 M/S
EXIT VEL.		.80 M/S	8.72 M/S	.82 M/S	8.75 M/S	.94 M/S	9.58 M/S
VOL. FLOW		.12E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S
SOURCE STRENGTH		.10E+06		.53E+05		.36E+05	
BACKGROUND		.52E+03		.99E+02		.98E+02	
CALIBRATION FACTOR		.42E-02		.23E-02		.15E-02	
SO2 FLUX		.400E+03 (GM/S)		.400E+03 (GM/S)		.550E+02 (GM/S)	
STACK HEIGHT		48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER		1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE #	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
1	2.7	240.0	0.0	675	.230E-04	262	.225E-04	267	.321E-05	.488E-04
2	2.7	225.0	0.0	750	.341E-04	344	.339E-04	349	.477E-05	.727E-04
3	2.7	210.0	0.0	794	.406E-04	396	.411E-04	404	.581E-05	.874E-04
4	2.7	195.0	0.0	892	.550E-04	495	.548E-04	499	.761E-05	.117E-03
5	2.7	180.0	0.0	710	.282E-04	407	.426E-04	411	.594E-05	.767E-04
6	2.7	165.0	0.0	1772	.185E-03	1471	.193E-03	1434	.254E-04	.403E-03
7	2.7	150.0	0.0	1411	.132E-03	1062	.133E-03	1053	.181E-04	.283E-03
8	2.7	135.0	0.0	1578	.156E-03	1247	.159E-03	1237	.216E-04	.337E-03
9	2.7	120.0	0.0	1709	.175E-03	1393	.179E-03	1393	.246E-04	.379E-03
10	2.7	105.0	0.0	1892	.202E-03	1580	.205E-03	1574	.280E-04	.435E-03
11	2.7	90.0	0.0	2038	.224E-03	1751	.229E-03	1732	.310E-04	.484E-03
12	2.7	75.0	0.0	2201	.248E-03	1930	.253E-03	1921	.346E-04	.536E-03
13	2.7	60.0	0.0	2383	.275E-03	2125	.280E-03	2107	.381E-04	.593E-03
14	2.7	45.0	0.0	2534	.297E-03	2288	.303E-03	2255	.410E-04	.641E-03
15	2.7	30.0	0.0	2633	.312E-03	2407	.319E-03	2376	.433E-04	.674E-03
16	2.7	15.0	0.0	2726	.325E-03	2521	.335E-03	2479	.452E-04	.706E-03
18	2.7	-15.0	0.0	268B	.320E-03	2430	.329E-03	2406	.43BE-04	.693E-03
19	2.7	-30.0	0.0	2600	.307E-03	2385	.316E-03	2339	.426E-04	.666E-03
20	2.7	-45.0	0.0	2414	.279E-03	2178	.288E-03	2119	.384E-04	.605E-03
21	2.7	-60.0	0.0	2202	.248E-03	1950	.256E-03	1909	.344E-04	.539E-03
22	2.7	-75.0	0.0	1960	.212E-03	1575	.218E-03	1604	.286E-04	.459E-03
23	2.7	-90.0	0.0	1759	.183E-03	1476	.190E-03	1421	.251E-04	.398E-03
24	2.7	-105.0	0.0	1498	.144E-03	1184	.150E-03	1135	.197E-04	.314E-03
27	2.7	-150.0	0.0	997	.705E-04	626	.729E-04	609	.970E-05	.153E-03
28	2.7	-165.0	0.0	865	.510E-04	471	.515E-04	459	.686E-05	.109E-03
29	2.7	-180.0	0.0	784	.391E-04	392	.405E-04	381	.537E-05	.850E-04
31	2.7	-210.0	0.0	622	.152E-04	215	.160E-04	213	.218E-05	.334E-04
32	2.7	-225.0	0.0	545	.383E-05	204	.145E-04	167	.131E-05	.197E-04
33	2.7	-240.0	0.0	564	.664E-05	138	.539E-05	316	.414E-05	.162E-04

RUN # 317

STACK #1

STACK #2

STACK #3

475FT,198,TS;E
40%,OUT,BLEM17;;17

	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT	1.20 M/S	12.75 M/S	1.20 M/S	12.75 M/S	1.20 M/S	12.75 M/S
EXIT VEL.	.80 M/S	8.77 M/S	.82 M/S	8.75 M/S	.94 M/S	9.58 M/S
VOL. FLOW	.12E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05	
BACKGROUND	.46E+03		.59E+02		.45E+02	
CALIBRATION FACTOR	.42E-02		.22E-02		.15E-02	
SO2 FLUX		.400E+03 (GM/S)		.400E+03 (GM/S)		.550E+02 (GM/S)
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW AREA	CONCENTRATION (GM/M**3)	RAW AREA	CONCENTRATION (GM/M**3)	RAW AREA	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
1	2.7	240.0	0.0	483	.394E-05	92	.451E-05	0	.000E+00	.845E-05
2	2.7	225.0	0.0	505	.715E-05	118	.807E-05	113	.128E-05	.165E-04
3	2.7	210.0	0.0	535	.115E-04	148	.122E-04	133	.165E-05	.254E-04
4	2.7	195.0	0.0	565	.159E-04	190	.179E-04	171	.237E-05	.362E-04
5	2.7	180.0	0.0	602	.213E-04	226	.228E-04	201	.293E-05	.471E-04
6	2.7	165.0	0.0	1259	.117E-03	1056	.136E-03	879	.157E-04	.269E-03
7	2.7	150.0	0.0	839	.559E-04	467	.558E-04	398	.663E-05	.118E-03
8	2.7	135.0	0.0	901	.649E-04	570	.699E-04	485	.826E-05	.143E-03
9	2.7	120.0	0.0	1006	.802E-04	720	.904E-04	602	.105E-04	.181E-03
10	2.7	105.0	0.0	1103	.944E-04	837	.106E-03	713	.125E-04	.213E-03
11	2.7	90.0	0.0	1222	.112E-03	935	.127E-03	830	.147E-04	.253E-03
12	2.7	75.0	0.0	1325	.127E-03	1108	.144E-03	936	.167E-04	.287E-03
13	2.7	60.0	0.0	1429	.142E-03	1241	.162E-03	1038	.186E-04	.322E-03
14	2.7	45.0	0.0	1537	.158E-03	1368	.179E-03	1139	.205E-04	.357E-03
15	2.7	30.0	0.0	1611	.168E-03	1472	.193E-03	1223	.221E-04	.384E-03
16	2.7	15.0	0.0	1659	.175E-03	1539	.202E-03	1279	.232E-04	.401E-03
18	2.7	-15.0	0.0	1714	.183E-03	1615	.213E-03	1321	.240E-04	.420E-03
19	2.7	-30.0	0.0	1663	.176E-03	1557	.205E-03	1282	.232E-04	.404E-03
20	2.7	-45.0	0.0	1604	.167E-03	1488	.196E-03	1224	.221E-04	.385E-03
21	2.7	-60.0	0.0	1495	.152E-03	1361	.178E-03	1123	.202E-04	.350E-03
22	2.7	-75.0	0.0	1183	.106E-03	971	.125E-03	782	.138E-04	.245E-03
23	2.7	-90.0	0.0	1140	.998E-04	929	.119E-03	749	.132E-04	.232E-03
24	2.7	-105.0	0.0	976	.758E-04	712	.893E-04	590	.102E-04	.175E-03
25	2.7	-120.0	0.0	875	.611E-04	569	.698E-04	463	.785E-05	.139E-03
26	2.7	-135.0	0.0	724	.391E-04	398	.464E-04	329	.533E-05	.908E-04
27	2.7	-150.0	0.0	665	.305E-04	323	.361E-04	266	.415E-05	.708E-04
28	2.7	-165.0	0.0	577	.176E-04	217	.216E-04	184	.261E-05	.419E-04
29	2.7	-180.0	0.0	537	.118E-04	165	.145E-04	140	.178E-05	.281E-04
31	2.7	-210.0	0.0	485	.423E-05	102	.588E-05	90	.000E+00	.101E-04
32	2.7	-225.0	0.0	460	.583E-06	69	.137E-05	0	.000E+00	.195E-05
33	2.7	-240.0	0.0	443	.000E+00	60	.137E-06	0	.000E+00	.137E-06

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RUN # 318

475FT,198,TSIC
40%,IN,BLEM1B1;17

		STACK #1		STACK #2		STACK #3		
		MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	
VEL. AT STACK HT		1.20 M/S	12.75 M/S	1.20 M/S	12.75 M/S	1.20 M/S	12.75 M/S	
EXIT VEL.		.80 M/S	.877 M/S	.82 M/S	.875 M/S	.94 M/S	.958 M/S	
VOL. FLOW		.12E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S	.13E-03M3/S	.12E+03M3/S	
SOURCE STRENGTH		.10E+06		.53E+05		.36E+05		
BACKGROUND		.51E+03		.63E+02		.50E+02		
CALIBRATION FACTOR		.42E-02		.22E-02		.15E-02		
SO2 FLUX		.400E+03 (GM/S)		.400E+03 (GM/S)		.550E+02 (GM/S)		
STACK HEIGHT	48.26	CM	144.78	M	48.26	CM	144.78	M
STACK DIAMETER	1.38	CM	4.14	M	1.41	CM	4.23	M

SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
1	2.7	240.0	0.0	509	.000E+00	72	.123E-05	75	.470E-06	.170E-05
2	2.7	225.0	0.0	635	.184E-04	225	.222E-04	215	.310E-05	.436E-04
3	2.7	210.0	0.0	665	.228E-04	270	.283E-04	255	.385E-05	.549E-04
4	2.7	195.0	0.0	732	.325E-04	351	.394E-04	330	.526E-05	.772E-04
5	2.7	180.0	0.0	692	.267E-04	306	.332E-04	278	.428E-05	.642E-04
6	2.7	165.0	0.0	1298	.115E-03	1059	.136E-03	926	.165E-04	.268E-03
7	2.7	150.0	0.0	976	.681E-04	658	.814E-04	598	.103E-04	.160E-03
8	2.7	135.0	0.0	1083	.837E-04	803	.101E-03	701	.122E-04	.197E-03
9	2.7	120.0	0.0	1185	.986E-04	936	.119E-03	815	.144E-04	.232E-03
10	2.7	105.0	0.0	1315	.118E-03	1095	.141E-03	956	.170E-04	.276E-03
11	2.7	90.0	0.0	1409	.131E-03	1229	.160E-03	1064	.190E-04	.310E-03
12	2.7	75.0	0.0	1517	.147E-03	1361	.178E-03	1181	.212E-04	.346E-03
13	2.7	60.0	0.0	1632	.164E-03	1502	.197E-03	1302	.235E-04	.384E-03
14	2.7	45.0	0.0	1695	.173E-03	1583	.208E-03	1373	.248E-04	.406E-03
15	2.7	30.0	0.0	1728	.178E-03	1632	.215E-03	1406	.255E-04	.418E-03
16	2.7	15.0	0.0	1783	.186E-03	1717	.226E-03	1478	.268E-04	.439E-03
18	2.7	-15.0	0.0	1817	.191E-03	1757	.232E-03	1510	.274E-04	.450E-03
19	2.7	-30.0	0.0	1767	.183E-03	1683	.222E-03	1441	.261E-04	.431E-03
20	2.7	-45.0	0.0	1645	.166E-03	1543	.202E-03	1321	.239E-04	.392E-03
21	2.7	-60.0	0.0	1542	.151E-03	1413	.183E-03	1208	.217E-04	.357E-03
22	2.7	-75.0	0.0	1172	.967E-04	946	.121E-03	796	.140E-04	.232E-03
23	2.7	-90.0	0.0	1241	.107E-03	1022	.131E-03	870	.154E-04	.253E-03
24	2.7	-105.0	0.0	1102	.865E-04	854	.108E-03	728	.127E-04	.207E-03
25	2.7	-120.0	0.0	971	.674E-04	668	.828E-04	574	.984E-05	.160E-03
26	2.7	-135.0	0.0	853	.502E-04	523	.629E-04	457	.764E-05	.121E-03
27	2.7	-150.0	0.0	773	.385E-04	421	.490E-04	370	.601E-05	.935E-04
28	2.7	-165.0	0.0	696	.273E-04	328	.363E-04	287	.445E-05	.680E-04
29	2.7	-180.0	0.0	642	.194E-04	254	.261E-04	225	.329E-05	.488E-04
31	2.7	-210.0	0.0	572	.919E-05	157	.129E-04	147	.182E-05	.239E-04
32	2.7	-225.0	0.0	552	.627E-05	131	.930E-05	123	.137E-05	.169E-04
33	2.7	-240.0	0.0	523	.204E-05	116	.725E-05	113	.118E-05	.105E-04

RUN # 319

STACK #1

STACK #2

STACK #3

475FT,198,TS:D
40%,IN,BLEM191117

	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT	1.32 M/S	10.20 M/S	1.32 M/S	10.20 M/S	1.32 M/S	10.20 M/S
EXIT VEL.	1.02 M/S	8.77 M/S	1.01 M/S	8.73 M/S	1.11 M/S	9.58 M/S
VOL. FLOW	.15E-03M3/S	.12E+03M3/S	.16E-03M3/S	.12E+03M3/S	.15E-03M3/S	.12E+03M3/S
SOURCE STRENGTH	.10E+06	.53E+05	.36E+05			
BACKGROUND	.49E+03	.67E+02	.50E+02			
CALIBRATION FACTOR	.42E-02	.22E-02	.15E-02			
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE #	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
1	2.7	240.0	0.0	671	.731E-06	258	.742E-06	201	.609E-06	.694E-06
2	2.7	225.0	0.0	729	.965E-06	319	.979E-06	242	.774E-06	.907E-06
3	2.7	210.0	0.0	835	.139E-05	427	.140E-05	324	.110E-05	.130E-05
4	2.7	195.0	0.0	863	.151E-05	456	.151E-05	346	.119E-05	.140E-05
5	2.7	180.0	0.0	1013	.211E-05	602	.208E-05	452	.162E-05	.194E-05
6	2.7	165.0	0.0	2239	.706E-05	1928	.723E-05	1466	.571E-05	.667E-05
7	2.7	150.0	0.0	1508	.411E-05	1176	.431E-05	865	.328E-05	.391E-05
8	2.7	135.0	0.0	1640	.464E-05	1334	.492E-05	970	.371E-05	.443E-05
9	2.7	120.0	0.0	1854	.551E-05	1559	.579E-05	1141	.440E-05	.524E-05
10	2.7	105.0	0.0	2118	.652E-05	1848	.692E-05	1363	.529E-05	.627E-05
11	2.7	90.0	0.0	2317	.738E-05	2089	.785E-05	1524	.594E-05	.707E-05
12	2.7	75.0	0.0	2516	.818E-05	2325	.877E-05	1684	.659E-05	.786E-05
13	2.7	60.0	0.0	2634	.866E-05	2477	.936E-05	1790	.701E-05	.836E-05
14	2.7	45.0	0.0	2738	.908E-05	2585	.978E-05	1834	.719E-05	.870E-05
15	2.7	30.0	0.0	2899	.973E-05	2786	.106E-04	2001	.786E-05	.940E-05
16	2.7	15.0	0.0	2826	.943E-05	2708	.103E-04	1933	.759E-05	.911E-05
18	2.7	-15.0	0.0	2895	.971E-05	2773	.104E-04	1985	.780E-05	.938E-05
19	2.7	-30.0	0.0	2879	.964E-05	2794	.106E-04	1993	.783E-05	.937E-05
20	2.7	-45.0	0.0	2685	.886E-05	2575	.974E-05	1828	.717E-05	.860E-05
21	2.7	-60.0	0.0	2431	.784E-05	2289	.863E-05	1637	.640E-05	.763E-05
22	2.7	-75.0	0.0	1327	.338E-05	999	.362E-05	710	.266E-05	.322E-05
23	2.7	-90.0	0.0	1955	.591E-05	1752	.654E-05	1235	.478E-05	.576E-05
24	2.7	-105.0	0.0	1678	.480E-05	1432	.530E-05	1016	.389E-05	.467E-05
25	2.7	-120.0	0.0	1368	.354E-05	1082	.394E-05	769	.290E-05	.347E-05
26	2.7	-135.0	0.0	550	.242E-06	114	.183E-06	99	.197E-06	.207E-06
27	2.7	-150.0	0.0	1184	.280E-05	860	.308E-05	612	.227E-05	.272E-05
28	2.7	-165.0	0.0	1007	.209E-05	631	.219E-05	458	.164E-05	.198E-05
29	2.7	-180.0	0.0	826	.136E-05	428	.140E-05	310	.105E-05	.127E-05
31	2.7	-210.0	0.0	649	.642E-06	228	.625E-06	180	.524E-06	.597E-06
32	2.7	-225.0	0.0	585	.384E-06	190	.478E-06	132	.330E-06	.398E-06
33	2.7	-240.0	0.0	550	.242E-06	127	.233E-06	0	.000E+00	.159E-06

RUN # 320

475FT,198,TS,F
40Z,OUT,BLEM201117

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE		
VEL. AT STACK HT	1.32 M/S	10.20 M/S	1.32 M/S	10.20 M/S	1.32 M/S	10.20 M/S	1.32 M/S	10.20 M/S		
EXIT VEL.	1.02 M/S	8.77 M/S	1.01 M/S	8.73 M/S	1.11 M/S	9.58 M/S				
VOL. FLOW	.15E-03M3/S	.12E+03M3/S	.16E-03M3/S	.12E+03M3/S	.15E-03M3/S	.12E+03M3/S				
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05					
BACKGROUND	.95E+03		.51E+03		.43E+03					
CALIBRATION FACTOR	.42E-02		.22E-02		.15E-02					
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M				
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M				
SAMPLE #	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
1	2.7	240.0	0.0	902	.000E+00	450	.000E+00	383	.000E+00	.000E+00
2	2.7	225.0	0.0	1239	.116E-05	779	.106E-05	635	.838E-06	.102E-05
3	2.7	210.0	0.0	1342	.157E-05	881	.146E-05	720	.118E-05	.140E-05
4	2.7	195.0	0.0	1392	.178E-05	917	.160E-05	750	.130E-05	.156E-05
5	2.7	180.0	0.0	1445	.199E-05	974	.182E-05	792	.147E-05	.176E-05
6	2.7	165.0	0.0	2754	.727E-05	2336	.711E-05	1862	.57BE-05	.673E-05
7	2.7	150.0	0.0	1968	.410E-05	1539	.401E-05	1239	.327E-05	.380E-05
8	2.7	135.0	0.0	2228	.515E-05	1785	.497E-05	1425	.402E-05	.472E-05
9	2.7	120.0	0.0	2342	.561E-05	1907	.544E-05	1527	.443E-05	.517E-05
10	2.7	105.0	0.0	2648	.685E-05	2197	.657E-05	1762	.538E-05	.627E-05
11	2.7	90.0	0.0	2858	.769E-05	2417	.742E-05	1915	.600E-05	.704E-05
12	2.7	75.0	0.0	3120	.875E-05	2674	.842E-05	2131	.687E-05	.802E-05
13	2.7	60.0	0.0	3379	.980E-05	2952	.950E-05	2343	.772E-05	.901E-05
14	2.7	45.0	0.0	3618	.108E-04	3183	.104E-04	2502	.836E-05	.985E-05
15	2.7	30.0	0.0	3701	.111E-04	3281	.103E-04	2578	.867E-05	.102E-04
16	2.7	15.0	0.0	3749	.117E-04	3307	.109E-04	2606	.878E-05	.103E-04
18	2.7	-15.0	0.0	3549	.105E-04	3137	.102E-04	2456	.818E-05	.963E-05
19	2.7	-30.0	0.0	3487	.102E-04	3085	.100E-04	2398	.794E-05	.941E-05
20	2.7	-45.0	0.0	3244	.925E-05	2845	.908E-05	2221	.723E-05	.853E-05
21	2.7	-60.0	0.0	3070	.855E-05	2678	.844E-05	2097	.673E-05	.791E-05
22	2.7	-75.0	0.0	2157	.486E-05	1740	.479E-05	1342	.369E-05	.445E-05
23	2.7	-90.0	0.0	2486	.619E-05	2088	.614E-05	1614	.478E-05	.571E-05
24	2.7	-105.0	0.0	2133	.477E-05	1713	.469E-05	1333	.365E-05	.437E-05
25	2.7	-120.0	0.0	1785	.334E-05	1369	.335E-05	1070	.259E-05	.311E-05
26	2.7	-135.0	0.0	1287	.135E-05	838	.129E-05	658	.931E-06	.119E-05
27	2.7	-150.0	0.0	1478	.212E-05	1038	.207E-05	813	.156E-05	.192E-05
28	2.7	-165.0	0.0	1268	.128E-05	825	.124E-05	658	.931E-06	.115E-05
29	2.7	-180.0	0.0	1166	.864E-06	725	.851E-06	576	.601E-06	.723E-06
31	2.7	-210.0	0.0	1028	.307E-06	587	.315E-06	483	.226E-06	.283E-06
32	2.7	-225.0	0.0	1026	.299E-06	566	.233E-06	465	.153E-06	.228E-06
33	2.7	-240.0	0.0	943	.000E+00	534	.109E-06	524	.391E-06	.166E-06

RUN # 321

475FT,198,TS:D
40%,IN,BLEM21::17

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE		MODEL	PROTOTYPE		MODEL	PROTOTYPE		
VEL. AT STACK HT	1.65 M/S	12.80 M/S		1.65 M/S	12.80 M/S		1.65 M/S	12.80 M/S		
EXIT VEL.	1.02 M/S	8.77 M/S		1.01 M/S	8.75 M/S		1.11 M/S	9.58 M/S		
VOL. FLOW	.15E+03M3/S	.12E+03M3/S		.16E+03M3/S	.12E+03M3/S		.15E+03M3/S	.12E+03M3/S		
SOURCE STRENGTH	.10E+06			.53E+05			.36E+05			
BACKGROUND	.63E+03			.10E+03			.50E+02			
CALIBRATION FACTOR	.40E-02			.21E-02			.15E-02			
STACK HEIGHT	48.26 CM	144.78 M		48.26 CM	144.78 M		48.26 CM	144.78 M		
STACK DIAMETER	1.38 CM	4.14 M		1.41 CM	4.23 M		1.32 CM	3.96 M		
SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
1	2.7	240.0	0.0	970	.166E-05	464	.168E-05	381	.161E-05	.165E-05
2	2.7	225.0	0.0	1130	.244E-05	616	.239E-05	499	.218E-05	.234E-05
3	2.7	210.0	0.0	1309	.331E-05	791	.321E-05	673	.303E-05	.318E-05
4	2.7	195.0	0.0	1356	.353E-05	833	.341E-05	675	.303E-05	.333E-05
5	2.7	180.0	0.0	1477	.412E-05	939	.391E-05	762	.346E-05	.383E-05
6	2.7	165.0	0.0	2578	.948E-05	2061	.915E-05	1699	.800E-05	.888E-05
7	2.7	150.0	0.0	2242	.784E-05	1763	.776E-05	1423	.666E-05	.743E-05
8	2.7	135.0	0.0	2388	.855E-05	1909	.844E-05	1550	.728E-05	.810E-05
9	2.7	120.0	0.0	2771	.104E-04	2300	.103E-04	1872	.887E-05	.986E-05
10	2.7	105.0	0.0	3055	.118E-04	2580	.116E-04	2113	.100E-04	.111E-04
11	2.7	90.0	0.0	3407	.135E-04	2959	.134E-04	2418	.115E-04	.128E-04
12	2.7	75.0	0.0	3649	.147E-04	3188	.144E-04	2621	.125E-04	.139E-04
13	2.7	60.0	0.0	3915	.160E-04	3477	.158E-04	2863	.137E-04	.151E-04
14	2.7	45.0	0.0	4173	.172E-04	3707	.169E-04	3020	.144E-04	.162E-04
15	2.7	30.0	0.0	4288	.178E-04	3849	.175E-04	3143	.150E-04	.168E-04
16	2.7	15.0	0.0	4279	.177E-04	3820	.174E-04	3124	.149E-04	.167E-04
18	2.7	-15.0	0.0	3911	.160E-04	3457	.157E-04	2812	.134E-04	.150E-04
19	2.7	-30.0	0.0	3674	.148E-04	3227	.146E-04	2646	.126E-04	.140E-04
20	2.7	-45.0	0.0	3391	.134E-04	2934	.132E-04	2403	.114E-04	.127E-04
21	2.7	-60.0	0.0	3013	.116E-04	2577	.116E-04	2114	.100E-04	.111E-04
22	2.7	-75.0	0.0	674	.219E-06	125	.982E-07	95	.218E-06	.177E-06
23	2.7	-90.0	0.0	2454	.887E-05	2010	.891E-05	1617	.761E-05	.847E-05
24	2.7	-105.0	0.0	2151	.740E-05	1679	.737E-05	1352	.632E-05	.703E-05
25	2.7	-120.0	0.0	1791	.565E-05	1316	.567E-05	1069	.495E-05	.542E-05
26	2.7	-135.0	0.0	1594	.469E-05	1081	.452E-05	875	.400E-05	.442E-05
27	2.7	-150.0	0.0	1326	.339E-05	820	.335E-05	658	.295E-05	.323E-05
28	2.7	-165.0	0.0	1157	.257E-05	645	.253E-05	523	.230E-05	.247E-05
29	2.7	-180.0	0.0	975	.168E-05	471	.172E-05	390	.165E-05	.168E-05
31	2.7	-210.0	0.0	749	.583E-06	240	.636E-06	195	.704E-06	.641E-06
32	2.7	-225.0	0.0	659	.144E-06	164	.281E-06	130	.388E-06	.272E-06
33	2.7	-240.0	0.0	618	.000E+00	132	.131E-06	98	.233E-06	.121E-06

RUN # 322

STACK #1

STACK #2

STACK #3

475FT,198,TSIF
40%,OUT,BLEM21117

	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT	1.65 M/S	12.80 M/S	1.65 M/S	12.80 M/S	1.65 M/S	12.80 M/S
EXIT VEL.	1.02 M/S	8.77 M/S	1.01 M/S	8.75 M/S	1.11 M/S	9.58 M/S
VOL. FLOW	.15E-03M ³ /S	.12E+03M ³ /S	.16E-03M ³ /S	.12E+03M ³ /S	.15E-03M ³ /S	.12E+03M ³ /S
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05	
BACKGROUND	.89E+03		.33E+03		.27E+03	
CALIBRATION FACTOR	.40E-02		.21E-02		.15E-02	
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE #	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*KM)	RAW (AREA)	CONCENTRATION (1/M*KM)	RAW (AREA)	CONCENTRATION (1/M*KM)	TOTAL CONC. (1/M*KM)
1	2.7	240.0	0.0	1127	.114E-05	601	.125E-05	498	.111E-05	.117E-05
2	2.7	225.0	0.0	1226	.162E-05	662	.154E-05	557	.139E-05	.152E-05
3	2.7	210.0	0.0	1357	.228E-05	778	.208E-05	644	.182E-05	.205E-05
4	2.7	195.0	0.0	1409	.251E-05	841	.238E-05	706	.212E-05	.234E-05
5	2.7	180.0	0.0	1572	.331E-05	979	.302E-05	815	.265E-05	.299E-05
6	2.7	165.0	0.0	2426	.746E-05	1863	.716E-05	1541	.617E-05	.693E-05
7	2.7	150.0	0.0	2312	.690E-05	1734	.653E-05	1447	.571E-05	.639E-05
8	2.7	135.0	0.0	2588	.825E-05	1983	.772E-05	1650	.670E-05	.756E-05
9	2.7	120.0	0.0	2986	.102E-04	2383	.959E-05	1983	.831E-05	.934E-05
10	2.7	105.0	0.0	3263	.115E-04	2631	.107E-04	2201	.937E-05	.106E-04
11	2.7	90.0	0.0	3650	.134E-04	3028	.126E-04	2544	.110E-04	.124E-04
12	2.7	75.0	0.0	3855	.144E-04	3210	.135E-04	2681	.117E-04	.132E-04
13	2.7	60.0	0.0	2574	.818E-05	1966	.764E-05	1626	.658E-05	.747E-05
14	2.7	45.0	0.0	4195	.161E-04	3539	.150E-04	2955	.130E-04	.147E-04
15	2.7	30.0	0.0	4337	.167E-04	3687	.157E-04	3077	.136E-04	.154E-04
16	2.7	15.0	0.0	4276	.165E-04	3640	.155E-04	3036	.134E-04	.151E-04
17	2.7	0.0	0.0	4128	.160E-04	3568	.151E-04	2953	.130E-04	.147E-04
18	2.7	-15.0	0.0	3961	.149E-04	3349	.141E-04	2776	.122E-04	.137E-04
19	2.7	-30.0	0.0	3810	.142E-04	3219	.135E-04	2660	.116E-04	.131E-04
20	2.7	-45.0	0.0	3392	.122E-04	2796	.115E-04	2311	.991E-05	.112E-04
21	2.7	-60.0	0.0	3097	.107E-04	2520	.102E-04	2088	.882E-05	.993E-05
23	2.7	-90.0	0.0	2431	.748E-05	1871	.719E-05	1530	.612E-05	.693E-05
24	2.7	-105.0	0.0	2097	.586E-05	1529	.559E-05	1242	.472E-05	.539E-05
25	2.7	-120.0	0.0	1835	.458E-05	1249	.428E-05	1033	.370E-05	.419E-05
26	2.7	-135.0	0.0	1616	.352E-05	1046	.333E-05	863	.288E-05	.325E-05
27	2.7	-150.0	0.0	1553	.321E-05	976	.301E-05	799	.257E-05	.293E-05
28	2.7	-165.0	0.0	1326	.211E-05	754	.202E-05	619	.169E-05	.194E-05
29	2.7	-180.0	0.0	1155	.128E-05	606	.128E-05	486	.105E-05	.120E-05
31	2.7	-210.0	0.0	971	.384E-06	423	.421E-06	336	.320E-06	.376E-06
32	2.7	-225.0	0.0	809	.000E+00	470	.641E-06	302	.155E-06	.270E-06
33	2.7	-240.0	0.0	880	.000E+00	347	.655E-07	283	.631E-07	.432E-07

RUN # 323

475FT,198,TS:D
40%,IN,BLEM23::17

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE		
VEL. AT STACK HT	1.80 M/S	15.51 M/S	1.80 M/S	15.51 M/S	1.80 M/S	15.51 M/S	1.80 M/S	15.51 M/S		
EXIT VEL.	1.02 M/S	8.77 M/S	1.01 M/S	8.75 M/S	1.11 M/S	9.58 M/S				
VOL. FLOW	.15E-03M3/S	.12E+03M3/S	.16E-03M3/S	.12E+03M3/S	.15E-03M3/S	.12E+03M3/S				
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05					
BACKGROUND	.88E+03		.28E+03		.23E+03					
CALIBRATION FACTOR	.40E-02		.21E-02		.15E-02					
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M				
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M				
SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW AREA)	CONCENTRATION (1/M*M)	RAW AREA)	CONCENTRATION (1/M*M)	RAW AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
1	2.7	240.0	0.0	1039	.833E-06	434	.796E-06	340	.582E-06	.738E-06
2	2.7	225.0	0.0	1423	.287E-05	819	.276E-05	662	.229E-05	.264E-05
3	2.7	210.0	0.0	1625	.394E-05	1024	.381E-05	829	.317E-05	.364E-05
4	2.7	195.0	0.0	1670	.418E-05	1074	.406E-05	873	.340E-05	.388E-05
5	2.7	180.0	0.0	1740	.455E-05	1131	.435E-05	930	.371E-05	.420E-05
6	2.7	165.0	0.0	2568	.894E-05	1969	.863E-05	1620	.736E-05	.831E-05
7	2.7	150.0	0.0	2513	.865E-05	1937	.846E-05	1596	.723E-05	.812E-05
8	2.7	135.0	0.0	2757	.994E-05	2172	.966E-05	1791	.826E-05	.930E-05
9	2.7	120.0	0.0	3152	.120E-04	2567	.117E-04	2145	.101E-04	.113E-04
10	2.7	105.0	0.0	3417	.134E-04	2831	.130E-04	2362	.113E-04	.126E-04
11	2.7	90.0	0.0	3766	.153E-04	3179	.148E-04	2657	.129E-04	.143E-04
12	2.7	75.0	0.0	3978	.164E-04	3385	.159E-04	2822	.137E-04	.153E-04
13	2.7	60.0	0.0	4135	.173E-04	3548	.167E-04	2969	.145E-04	.162E-04
14	2.7	45.0	0.0	4317	.182E-04	3723	.176E-04	3112	.153E-04	.170E-04
15	2.7	30.0	0.0	4371	.185E-04	3788	.179E-04	3159	.155E-04	.173E-04
16	2.7	15.0	0.0	4395	.186E-04	3813	.180E-04	3186	.157E-04	.174E-04
17	2.7	0.0	0.0	4323	.182E-04	3741	.177E-04	3134	.154E-04	.171E-04
18	2.7	-15.0	0.0	4206	.176E-04	3606	.170E-04	3009	.147E-04	.164E-04
19	2.7	-30.0	0.0	4038	.167E-04	3450	.162E-04	2869	.140E-04	.156E-04
20	2.7	-45.0	0.0	3766	.153E-04	3176	.148E-04	2624	.127E-04	.143E-04
21	2.7	-60.0	0.0	3390	.133E-04	2812	.129E-04	2323	.111E-04	.124E-04
22	2.7	-75.0	0.0	3008	.113E-04	2426	.110E-04	1976	.924E-05	.105E-04
23	2.7	-90.0	0.0	2616	.920E-05	2048	.903E-05	1686	.721E-05	.865E-05
24	2.7	-105.0	0.0	2296	.750E-05	1717	.734E-05	1400	.619E-05	.702E-05
25	2.7	-120.0	0.0	1965	.574E-05	1360	.552E-05	1112	.467E-05	.531E-05
27	2.7	-150.0	0.0	1534	.346E-05	933	.334E-05	749	.275E-05	.318E-05
28	2.7	-165.0	0.0	1303	.223E-05	700	.215E-05	560	.175E-05	.205E-05
29	2.7	-180.0	0.0	1127	.130E-05	517	.122E-05	413	.969E-06	.116E-05
30	2.7	-195.0	0.0	719	.000E+00	129	.000E+00	89	.000E+00	.000E+00
31	2.7	-210.0	0.0	731	.000E+00	131	.000E+00	88	.000E+00	.000E+00
32	2.7	-225.0	0.0	885	.159E-07	285	.357E-07	228	.000E+00	.174E-07
33	2.7	-240.0	0.0	843	.000E+00	248	.000E+00	199	.000E+00	.000E+00

RUN # 324

STACK #1

STACK #2

STACK #3

475FT,198,TS;F
40%,OUT,BLEM24;117

			MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE		
SAMPLE	X	Y	Z	RAW	CONCENTRATION	RAW	CONCENTRATION	RAW	CONCENTRATION	TOTAL CONC.
FT	(KM)	(M)	(M)	(AREA)	(1/M*M)	(AREA)	(1/M*M)	(AREA)	(1/M*M)	(1/M*M)
1	2.7	240.0	0.0	1202	.249E-05	579	.227E-05	479	.201E-05	.225E-05
2	2.7	225.0	0.0	1303	.302E-05	678	.277E-05	560	.244E-05	.274E-05
3	2.7	210.0	0.0	1457	.384E-05	819	.349E-05	685	.310E-05	.348E-05
4	2.7	195.0	0.0	1581	.450E-05	930	.406E-05	780	.360E-05	.405E-05
5	2.7	180.0	0.0	1728	.528E-05	1070	.477E-05	889	.418E-05	.474E-05
6	2.7	165.0	0.0	2410	.889E-05	1790	.844E-05	1485	.733E-05	.823E-05
7	2.7	150.0	0.0	2469	.921E-05	1779	.839E-05	1515	.749E-05	.836E-05
8	2.7	135.0	0.0	2756	.107E-04	2089	.997E-05	1757	.877E-05	.983E-05
9	2.7	120.0	0.0	3089	.125E-04	2423	.117E-04	2032	.102E-04	.115E-04
10	2.7	105.0	0.0	3344	.138E-04	2655	.129E-04	2249	.114E-04	.127E-04
11	2.7	90.0	0.0	3558	.150E-04	2874	.140E-04	2445	.124E-04	.138E-04
12	2.7	75.0	0.0	3811	.163E-04	3116	.152E-04	2635	.134E-04	.150E-04
13	2.7	60.0	0.0	4048	.176E-04	3354	.164E-04	2852	.146E-04	.162E-04
14	2.7	45.0	0.0	4240	.186E-04	3516	.172E-04	2970	.152E-04	.170E-04
15	2.7	30.0	0.0	4352	.192E-04	3643	.179E-04	3092	.158E-04	.176E-04
16	2.7	15.0	0.0	4378	.193E-04	3670	.180E-04	3102	.159E-04	.178E-04
17	2.7	0.0	0.0	4198	.184E-04	3515	.172E-04	2988	.153E-04	.170E-04
18	2.7	-15.0	0.0	4022	.174E-04	3317	.162E-04	2795	.143E-04	.160E-04
19	2.7	-30.0	0.0	3735	.159E-04	3059	.149E-04	2569	.131E-04	.146E-04
20	2.7	-45.0	0.0	3465	.145E-04	2789	.135E-04	2344	.119E-04	.133E-04
21	2.7	-60.0	0.0	3112	.126E-04	2460	.119E-04	2074	.105E-04	.116E-04
22	2.7	-75.0	0.0	2766	.108E-04	2120	.101E-04	1777	.888E-05	.993E-05
23	2.7	-90.0	0.0	2417	.893E-05	1785	.842E-05	1484	.733E-05	.823E-05
24	2.7	-105.0	0.0	2056	.702E-05	1407	.649E-05	1174	.569E-05	.640E-05
25	2.7	-120.0	0.0	2151	.752E-05	1329	.762E-05	1358	.666E-05	.727E-05
26	2.7	-135.0	0.0	1511	.413E-05	890	.385E-05	724	.330E-05	.376E-05
27	2.7	-150.0	0.0	1361	.333E-05	749	.313E-05	618	.274E-05	.307E-05
28	2.7	-165.0	0.0	1244	.271E-05	636	.256E-05	515	.220E-05	.249E-05
29	2.7	-180.0	0.0	741	.424E-07	158	.117E-06	121	.111E-06	.907E-07
30	2.7	-195.0	0.0	734	.530E-08	149	.714E-07	106	.318E-07	.366E-07
31	2.7	-210.0	0.0	998	.141E-05	391	.131E-05	308	.110E-05	.127E-05
32	2.7	-225.0	0.0	891	.838E-06	396	.133E-05	271	.905E-06	.103E-05
33	2.7	-240.0	0.0	897	.870E-06	303	.857E-06	242	.752E-06	.827E-06

RUN # 325

475FT,198,TS:D
40%,IN,BLEM25;1:17

STACK #1

STACK #2

STACK #3

	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL, AT STACK HT	2.45 M/S	19.00 M/S	2.45 M/S	19.00 M/S	2.45 M/S	19.00 M/S
EXIT VEL,	1.02 M/S	8.77 M/S	1.01 M/S	8.75 M/S	1.11 M/S	9.58 M/S
VOL, FLOW	.15E-03M3/S	.12E+03M3/S	.16E-03M3/S	.12E+03M3/S	.15E-03M3/S	.12E+03M3/S
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05	
BACKGROUND	.83E+03		.26E+03		.21E+03	
CALIBRATION FACTOR	.41E-02		.22E-02		.15E-02	
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
1	2.7	240.0	0.0	1069	.177E-05	499	.165E-05	408	.145E-05	.162E-05
2	2.7	225.0	0.0	1379	.403E-05	797	.374E-05	666	.332E-05	.370E-05
3	2.7	210.0	0.0	1593	.559E-05	1004	.519E-05	838	.457E-05	.512E-05
4	2.7	195.0	0.0	1667	.613E-05	1090	.580E-05	915	.513E-05	.569E-05
5	2.7	180.0	0.0	1814	.720E-05	1220	.671E-05	1018	.588E-05	.660E-05
6	2.7	165.0	0.0	2354	.111E-04	1796	.107E-04	1495	.935E-05	.104E-04
7	2.7	150.0	0.0	2493	.121E-04	1949	.118E-04	1621	.103E-04	.114E-04
8	2.7	135.0	0.0	2721	.138E-04	2153	.132E-04	1789	.115E-04	.129E-04
9	2.7	120.0	0.0	3104	.166E-04	2556	.161E-04	2157	.142E-04	.156E-04
10	2.7	105.0	0.0	3372	.185E-04	2816	.179E-04	2362	.157E-04	.174E-04
11	2.7	90.0	0.0	3668	.207E-04	3118	.200E-04	2642	.177E-04	.195E-04
12	2.7	75.0	0.0	3840	.220E-04	3293	.212E-04	2781	.187E-04	.206E-04
13	2.7	60.0	0.0	4000	.231E-04	3462	.224E-04	2930	.198E-04	.218E-04
14	2.7	45.0	0.0	4093	.238E-04	3541	.230E-04	2967	.201E-04	.223E-04
15	2.7	30.0	0.0	4167	.243E-04	3634	.236E-04	3047	.206E-04	.229E-04
16	2.7	15.0	0.0	4106	.239E-04	3559	.231E-04	2984	.202E-04	.224E-04
17	2.7	0.0	0.0	4014	.232E-04	3479	.225E-04	2921	.197E-04	.218E-04
18	2.7	-15.0	0.0	3794	.216E-04	3243	.209E-04	2708	.182E-04	.202E-04
19	2.7	-30.0	0.0	3629	.204E-04	3087	.198E-04	2593	.173E-04	.192E-04
20	2.7	-45.0	0.0	3343	.183E-04	2809	.178E-04	2337	.155E-04	.172E-04
21	2.7	-60.0	0.0	3054	.162E-04	2519	.158E-04	2109	.138E-04	.153E-04
22	2.7	-75.0	0.0	2705	.137E-04	2167	.133E-04	1794	.115E-04	.129E-04
23	2.7	-90.0	0.0	2483	.121E-04	1943	.118E-04	1609	.102E-04	.113E-04
24	2.7	-105.0	0.0	2181	.987E-05	1634	.961E-05	1342	.824E-05	.924E-05
25	2.7	-120.0	0.0	1912	.791E-05	1333	.750E-05	1096	.645E-05	.729E-05
27	2.7	-150.0	0.0	1411	.426E-05	848	.410E-05	692	.351E-05	.396E-05
28	2.7	-165.0	0.0	1223	.289E-05	654	.281E-05	541	.241E-05	.271E-05
29	2.7	-180.0	0.0	1056	.168E-05	492	.160E-05	397	.137E-05	.155E-05
30	2.7	-195.0	0.0	891	.474E-06	321	.406E-06	255	.335E-06	.405E-06
32	2.7	-225.0	0.0	827	.728E-08	398	.946E-06	261	.378E-06	.450E-06
33	2.7	-240.0	0.0	838	.874E-07	286	.161E-06	225	.116E-06	.122E-06

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RUN # 326

STACK #1

STACK #2

STACK #3

475FT,198,TS:F
40%,OUT,BLEM26:117

	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT	2.45 M/S	19.00 M/S	2.45 M/S	19.00 M/S	2.45 M/S	19.00 M/S
EXIT VEL.	1.02 M/S	8.77 M/S	1.01 M/S	8.75 M/S	1.11 M/S	9.58 M/S
VOL. FLOW	.15E-03M3/S	.12E+03M3/S	.16E-03M3/S	.12E+03M3/S	.15E-03M3/S	.12E+03M3/S
SOURCE STRENGTH	.10E+06	.53E+05	.36E+05			
BACKGROUND	.77E+03	.24E+03	.19E+03			
CALIBRATION FACTOR	.41E-02	.22E-02	.15E-02			
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M

SAMPLE #	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
1	2.7	240.0	0.0	1162	.286E-05	603	.258E-05	514	.237E-05	.260E-05
2	2.7	225.0	0.0	1282	.374E-05	719	.339E-05	619	.313E-05	.342E-05
3	2.7	210.0	0.0	1486	.522E-05	915	.477E-05	791	.439E-05	.479E-05
4	2.7	195.0	0.0	1615	.616E-05	1022	.592E-05	874	.499E-05	.656E-05
5	2.7	180.0	0.0	1617	.618E-05	1041	.565E-05	893	.513E-05	.665E-05
6	2.7	165.0	0.0	2139	.998E-05	1633	.980E-05	1360	.852E-05	.944E-05
7	2.7	150.0	0.0	2390	.118E-04	1833	.112E-04	1582	.101E-04	.111E-04
8	2.7	135.0	0.0	2663	.138E-04	2090	.130E-04	1792	.117E-04	.128E-04
9	2.7	120.0	0.0	2930	.157E-04	2379	.150E-04	2039	.135E-04	.147E-04
10	2.7	105.0	0.0	3149	.173E-04	2578	.164E-04	2217	.148E-04	.162E-04
11	2.7	90.0	0.0	3353	.188E-04	2800	.180E-04	2430	.163E-04	.177E-04
12	2.7	75.0	0.0	3562	.203E-04	3002	.194E-04	2582	.174E-04	.191E-04
13	2.7	60.0	0.0	3748	.217E-04	3205	.208E-04	2747	.188E-04	.204E-04
14	2.7	45.0	0.0	3885	.227E-04	3337	.217E-04	2862	.194E-04	.213E-04
15	2.7	30.0	0.0	3920	.230E-04	3368	.220E-04	2902	.197E-04	.216E-04
16	2.7	15.0	0.0	3952	.232E-04	3406	.222E-04	2931	.199E-04	.218E-04
17	2.7	0.0	0.0	3847	.224E-04	3324	.216E-04	2853	.194E-04	.212E-04
18	2.7	-15.0	0.0	3702	.214E-04	3167	.205E-04	2700	.183E-04	.201E-04
19	2.7	-30.0	0.0	3579	.205E-04	3034	.196E-04	2575	.174E-04	.192E-04
20	2.7	-45.0	0.0	3233	.179E-04	2699	.173E-04	2305	.154E-04	.169E-04
21	2.7	-60.0	0.0	2960	.160E-04	2435	.154E-04	2065	.137E-04	.150E-04
22	2.7	-75.0	0.0	2498	.126E-04	1975	.122E-04	1655	.107E-04	.118E-04
23	2.7	-90.0	0.0	2250	.108E-04	1732	.105E-04	1445	.914E-05	.101E-04
24	2.7	-105.0	0.0	1914	.834E-05	1363	.791E-05	1145	.696E-05	.774E-05
25	2.7	-120.0	0.0	1638	.633E-05	1094	.602E-05	915	.529E-05	.588E-05
27	2.7	-150.0	0.0	1300	.387E-05	756	.365E-05	627	.319E-05	.357E-05
28	2.7	-165.0	0.0	1140	.270E-05	604	.259E-05	489	.219E-05	.249E-05
29	2.7	-180.0	0.0	1030	.190E-05	499	.185E-05	401	.155E-05	.177E-05
31	2.7	-210.0	0.0	887	.860E-06	342	.750E-06	272	.611E-06	.740E-06
32	2.7	-225.0	0.0	847	.568E-06	292	.399E-06	232	.320E-06	.429E-06
33	2.7	-240.0	0.0	785	.117E-06	254	.133E-06	202	.102E-06	.117E-06

RUN # 327

475FT,270,TS1D
40%,IN,BLEM271:17

			STACK #1		STACK #2		STACK #3			
SAMPLE	X	Y	Z	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	
PT	(KM)	(M)	(M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
11	.9	0.0	0.0	3201	.183E-04	2552	.165E-04	2233	.152E-04	.167E-04
16	1.2	15.0	0.0	4077	.246E-04	3397	.223E-04	2975	.205E-04	.224E-04
17	1.2	0.0	0.0	4134	.250E-04	3470	.228E-04	2950	.203E-04	.227E-04
18	1.2	-15.0	0.0	4075	.246E-04	3417	.224E-04	3006	.207E-04	.226E-04
23	1.5	30.0	0.0	4347	.265E-04	3674	.242E-04	3211	.221E-04	.243E-04
24	1.5	0.0	0.0	4678	.289E-04	3930	.260E-04	3497	.242E-04	.263E-04
25	1.5	-30.0	0.0	4371	.267E-04	3732	.246E-04	3274	.226E-04	.246E-04
29	1.8	60.0	0.0	3896	.233E-04	3272	.215E-04	2849	.196E-04	.214E-04
30	1.8	30.0	0.0	4514	.277E-04	3829	.256E-04	3403	.235E-04	.256E-04
31	1.8	0.0	0.0	4692	.290E-04	4053	.268E-04	3547	.245E-04	.268E-04
32	1.8	-30.0	0.0	4444	.272E-04	3812	.252E-04	3335	.230E-04	.251E-04
33	1.8	-60.0	0.0	3685	.218E-04	3090	.202E-04	2698	.185E-04	.202E-04
37	2.1	60.0	0.0	3392	.197E-04	2795	.182E-04	2417	.165E-04	.181E-04
38	2.1	30.0	0.0	4538	.279E-04	3905	.258E-04	3411	.236E-04	.257E-04
39	2.1	0.0	0.0	4653	.287E-04	4025	.266E-04	3533	.244E-04	.266E-04
40	2.1	-30.0	0.0	4504	.276E-04	3869	.255E-04	3390	.234E-04	.255E-04
41	2.1	-60.0	0.0	4009	.241E-04	3404	.224E-04	2982	.205E-04	.223E-04
46	2.4	60.0	0.0	3948	.237E-04	3340	.219E-04	2897	.199E-04	.218E-04
47	2.4	30.0	0.0	4456	.273E-04	3822	.252E-04	3347	.231E-04	.252E-04
48	2.4	0.0	0.0	4552	.280E-04	3943	.261E-04	3443	.238E-04	.259E-04
49	2.4	-30.0	0.0	4372	.267E-04	3758	.248E-04	3288	.227E-04	.247E-04
50	2.4	-60.0	0.0	3874	.231E-04	3266	.214E-04	2842	.195E-04	.214E-04
57	2.7	30.0	0.0	4258	.259E-04	3631	.239E-04	3132	.216E-04	.238E-04
58	2.7	0.0	0.0	4395	.269E-04	3779	.249E-04	3274	.226E-04	.248E-04
59	2.7	-30.0	0.0	3361	.195E-04	2739	.178E-04	2354	.160E-04	.178E-04
66	3.0	90.0	0.0	3204	.184E-04	2620	.170E-04	2248	.153E-04	.169E-04
67	3.0	45.0	0.0	3935	.236E-04	3324	.218E-04	2872	.197E-04	.217E-04
68	3.0	0.0	0.0	4244	.258E-04	3626	.239E-04	3133	.216E-04	.237E-04
69	3.0	-45.0	0.0	3839	.229E-04	3223	.211E-04	2781	.191E-04	.210E-04
70	3.0	-90.0	0.0	3014	.170E-04	2455	.159E-04	2099	.142E-04	.157E-04
75	3.3	90.0	0.0	3055	.173E-04	2494	.161E-04	2152	.146E-04	.160E-04
76	3.3	45.0	0.0	3729	.221E-04	3143	.206E-04	2705	.185E-04	.204E-04
77	3.3	0.0	0.0	3940	.236E-04	3341	.219E-04	2904	.199E-04	.218E-04
78	3.3	-45.0	0.0	3676	.217E-04	3079	.201E-04	2631	.180E-04	.200E-04
79	3.3	-90.0	0.0	2940	.165E-04	2381	.153E-04	2040	.138E-04	.152E-04
85	3.6	45.0	0.0	1505	.626E-05	1006	.592E-05	851	.534E-05	.584E-05
86	3.6	0.0	0.0	3727	.221E-04	3139	.205E-04	2720	.186E-04	.204E-04
87	3.6	-45.0	0.0	3543	.208E-04	2967	.194E-04	2563	.175E-04	.192E-04
95	3.9	0.0	0.0	3525	.207E-04	2954	.193E-04	2540	.174E-04	.191E-04
104	4.2	0.0	0.0	3375	.196E-04	2807	.183E-04	2422	.165E-04	.181E-04
113	4.5	0.0	0.0	3156	.180E-04	2587	.168E-04	2224	.151E-04	.166E-04

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RUN # 328

475FT,270,TS:F
40%,OUT,BLEM2B1117

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE		
VEL. AT STACK HT	2.45 M/S	19.00 M/S	2.45 M/S	19.00 M/S	2.45 M/S	19.00 M/S	2.45 M/S	19.00 M/S		
EXIT VEL.	1.02 M/S	8.77 M/S	1.01 M/S	8.75 M/S	1.11 M/S	9.58 M/S				
VOL. FLOW	.15E+03M3/S	.12E+03M3/S	.16E+03M3/S	.12E+03M3/S	.15E+03M3/S	.12E+03M3/S				
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05					
BACKGROUND	.63E+03		.15E+03		.14E+03					
CALIBRATION FACTOR	.40E-02		.21E-02		.14E-02					
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M				
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M				
SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
11	.9	0.0	0.0	2942	.165E-04	2513	.162E-04	2133	.142E-04	.156E-04
16	1.2	15.0	0.0	3849	.230E-04	3394	.222E-04	2881	.195E-04	.216E-04
17	1.2	0.0	0.0	3919	.235E-04	3471	.228E-04	2952	.200E-04	.221E-04
18	1.2	-15.0	0.0	3844	.229E-04	3408	.223E-04	2904	.196E-04	.216E-04
23	1.5	30.0	0.0	4321	.243E-04	3836	.253E-04	3237	.220E-04	.245E-04
24	1.5	0.0	0.0	4470	.274E-04	3992	.263E-04	3384	.231E-04	.253E-04
25	1.5	-30.0	0.0	4213	.256E-04	3758	.247E-04	3182	.216E-04	.240E-04
29	1.8	60.0	0.0	3962	.238E-04	3437	.225E-04	2889	.195E-04	.220E-04
31	1.8	0.0	0.0	4683	.289E-04	4160	.275E-04	3503	.239E-04	.268E-04
32	1.8	-30.0	0.0	4339	.265E-04	3861	.254E-04	3266	.222E-04	.247E-04
37	2.1	60.0	0.0	3486	.204E-04	2975	.194E-04	2501	.168E-04	.1BBE-04
38	2.1	30.0	0.0	4534	.278E-04	4008	.264E-04	3365	.229E-04	.257E-04
39	2.1	0.0	0.0	4612	.284E-04	4096	.270E-04	3456	.234E-04	.264E-04
40	2.1	-30.0	0.0	4323	.263E-04	3822	.252E-04	3232	.220E-04	.245E-04
41	2.1	-60.0	0.0	3907	.234E-04	3426	.224E-04	2884	.195E-04	.218E-04
46	2.4	60.0	0.0	4105	.248E-04	3562	.234E-04	2992	.203E-04	.228E-04
47	2.4	30.0	0.0	4339	.245E-04	3802	.250E-04	3177	.216E-04	.244E-04
48	2.4	0.0	0.0	4540	.279E-04	4004	.264E-04	3351	.228E-04	.257E-04
49	2.4	-30.0	0.0	4274	.260E-04	3763	.248E-04	3171	.215E-04	.241E-04
50	2.4	-60.0	0.0	3805	.226E-04	3306	.216E-04	2766	.187E-04	.210E-04
56	2.7	60.0	0.0	2142	.108E-04	1653	.103E-04	1390	.888E-05	.999E-05
57	2.7	30.0	0.0	4339	.265E-04	3785	.249E-04	3143	.213E-04	.242E-04
58	2.7	0.0	0.0	4382	.268E-04	3835	.253E-04	3218	.219E-04	.246E-04
66	3.0	90.0	0.0	3361	.195E-04	2823	.183E-04	2344	.157E-04	.178E-04
67	3.0	45.0	0.0	4068	.245E-04	3514	.231E-04	2935	.199E-04	.225E-04
68	3.0	0.0	0.0	4248	.258E-04	3709	.244E-04	3095	.210E-04	.237E-04
69	3.0	-45.0	0.0	3840	.229E-04	3317	.217E-04	2777	.187E-04	.211E-04
70	3.0	-90.0	0.0	3056	.173E-04	2555	.165E-04	2129	.141E-04	.160E-04
75	3.3	90.0	0.0	3309	.191E-04	2768	.179E-04	2304	.154E-04	.175E-04
76	3.3	45.0	0.0	3904	.234E-04	3365	.220E-04	2803	.189E-04	.214E-04
77	3.3	0.0	0.0	4061	.245E-04	3515	.231E-04	2934	.199E-04	.225E-04
78	3.3	-45.0	0.0	3702	.219E-04	3170	.207E-04	2633	.172E-04	.201E-04
79	3.3	-90.0	0.0	2976	.167E-04	2137	.138E-04	2056	.136E-04	.147E-04
85	3.6	45.0	0.0	3507	.205E-04	2962	.193E-04	2457	.165E-04	.188E-04
86	3.6	0.0	0.0	3876	.232E-04	3333	.218E-04	2782	.188E-04	.213E-04
87	3.6	-45.0	0.0	3570	.210E-04	3046	.198E-04	2540	.171E-04	.193E-04
95	3.9	0.0	0.0	3721	.220E-04	3173	.207E-04	2769	.187E-04	.205E-04
104	4.2	0.0	0.0	3574	.210E-04	3047	.199E-04	2542	.171E-04	.193E-04
113	4.5	0.0	0.0	3293	.190E-04	2757	.179E-04	2314	.155E-04	.174E-04

RUN # 329

475FT,270,TSIB
40%,IN,BLEM291117

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE		
VEL AT STACK HT	1.65 M/S	12.80 M/S	1.65 M/S	12.80 M/S	1.65 M/S	12.80 M/S				
EXIT VEL.	1.02 M/S	8.77 M/S	1.01 M/S	8.75 M/S	1.11 M/S	9.58 M/S				
VOL. FLOW	.15E+03M3/S	.12E+03M3/S	.16E+03M3/S	.12E+03M3/S	.15E+03M3/S	.12E+03M3/S				
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05					
BACKGROUND	.54E+03		.13E+03		.50E+02					
CALIBRATION FACTOR	.40E-02		.21E-02		.15E-02					
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M				
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M				
SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW AREA	CONCENTRATION (1/M*M)	RAW AREA	CONCENTRATION (1/M*M)	RAW AREA	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
11	.9	0.0	0.0	3177	.127E-04	2524	.111E-04	2083	.981E-05	.112E-04
16	1.2	15.0	0.0	4338	.183E-04	3695	.166E-04	3078	.146E-04	.165E-04
17	1.2	0.0	0.0	4412	.187E-04	3768	.162E-04	3148	.149E-04	.169E-04
18	1.2	-15.0	0.0	4237	.179E-04	3578	.160E-04	2994	.142E-04	.160E-04
23	1.5	30.0	0.0	4921	.212E-04	4319	.195E-04	3641	.173E-04	.193E-04
24	1.5	0.0	0.0	4986	.215E-04	4374	.197E-04	3684	.175E-04	.196E-04
25	1.5	-30.0	0.0	4620	.197E-04	3991	.180E-04	3366	.160E-04	.179E-04
29	1.8	60.0	0.0	4516	.192E-04	3943	.177E-04	3312	.157E-04	.176E-04
30	1.8	30.0	0.0	3676	.151E-04	3101	.138E-04	2604	.123E-04	.138E-04
31	1.8	0.0	0.0	5291	.230E-04	4689	.212E-04	3943	.188E-04	.210E-04
32	1.8	-30.0	0.0	4911	.211E-04	4305	.194E-04	3625	.172E-04	.193E-04
33	1.8	-60.0	0.0	3872	.161E-04	3305	.148E-04	2795	.132E-04	.147E-04
37	2.1	60.0	0.0	3936	.164E-04	3379	.151E-04	2830	.134E-04	.150E-04
38	2.1	30.0	0.0	5188	.225E-04	4604	.208E-04	3887	.185E-04	.206E-04
39	2.1	0.0	0.0	5342	.232E-04	4756	.215E-04	3995	.190E-04	.213E-04
40	2.1	-30.0	0.0	4954	.213E-04	4336	.196E-04	3698	.174E-04	.194E-04
41	2.1	-60.0	0.0	4494	.191E-04	3911	.176E-04	3289	.156E-04	.174E-04
46	2.4	60.0	0.0	4558	.194E-04	3990	.180E-04	3347	.159E-04	.178E-04
47	2.4	30.0	0.0	5036	.217E-04	4482	.201E-04	3761	.179E-04	.199E-04
48	2.4	0.0	0.0	5033	.217E-04	4450	.201E-04	3749	.178E-04	.199E-04
49	2.4	-30.0	0.0	4903	.211E-04	4310	.194E-04	3626	.173E-04	.193E-04
50	2.4	-60.0	0.0	4503	.191E-04	3928	.177E-04	3308	.157E-04	.175E-04
57	2.7	30.0	0.0	4902	.211E-04	4324	.195E-04	3613	.172E-04	.193E-04
58	2.7	0.0	0.0	4974	.214E-04	4387	.198E-04	3665	.174E-04	.196E-04
60	2.7	-60.0	0.0	4360	.185E-04	3784	.170E-04	3177	.151E-04	.168E-04
66	3.0	90.0	0.0	3728	.154E-04	3179	.142E-04	2655	.126E-04	.140E-04
67	3.0	45.0	0.0	4642	.198E-04	4070	.184E-04	3413	.162E-04	.182E-04
68	3.0	0.0	0.0	4828	.207E-04	4245	.191E-04	3565	.170E-04	.189E-04
69	3.0	-45.0	0.0	4552	.194E-04	3968	.178E-04	3316	.158E-04	.177E-04
70	3.0	-90.0	0.0	3494	.143E-04	2947	.131E-04	2463	.116E-04	.130E-04
75	3.3	90.0	0.0	3601	.148F-04	3065	.137E-04	2550	.121E-04	.135E-04
76	3.3	45.0	0.0	4476	.190E-04	3912	.176E-04	3275	.156E-04	.174E-04
77	3.3	0.0	0.0	4575	.200E-04	4106	.185E-04	3425	.163E-04	.183E-04
78	3.3	-45.0	0.0	4387	.186E-04	3806	.171E-04	3181	.151E-04	.169E-04
79	3.3	-90.0	0.0	3506	.143E-04	2949	.131E-04	2460	.116E-04	.130E-04
86	3.6	0.0	0.0	4466	.190E-04	3896	.175E-04	3259	.155E-04	.173E-04
87	3.6	-45.0	0.0	4234	.178E-04	3682	.165E-04	3090	.147E-04	.163E-04
95	3.9	0.0	0.0	4392	.186E-04	3827	.172E-04	3163	.150E-04	.170E-04
104	4.2	0.0	0.0	4183	.176E-04	3640	.163E-04	3026	.144E-04	.161E-04

G1

RUN # 330

475FT,270,TSIF
40%,OUT,BLEM301117

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE		
VEL. AT STACK HT	1.65 M/S	12.80 M/S	1.65 M/S	12.80 M/S	1.65 M/S	12.80 M/S	1.65 M/S	12.80 M/S		
EXIT VEL.	1.02 M/S	8.77 M/S	1.01 M/S	8.75 M/S	1.11 M/S	9.58 M/S	1.11 M/S	9.58 M/S		
VOL. FLOW	.15E+03M3/S	.12E+03M3/S	.15E+03M3/S	.12E+03M3/S	.15E+03M3/S	.12E+03M3/S	.15E+03M3/S	.12E+03M3/S		
SOURCE STRENGTH	.10E+06		.52E+05		.34E+05		.16E+03			
BACKGROUND	.73E+03		.12E+03		.16E+03		.15E+02			
CALIBRATION FACTOR	.40E-02		.21E-02		.15E-02		.15E-02			
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M		
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M				
SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
11	.9	0.0	0.0	2563	.808E-05	2163	.912E-05	1734	.760E-05	.856E-05
16	1.2	15.0	0.0	3493	.134E-04	3100	.135E-04	2488	.112E-04	.127E-04
17	1.2	0.0	0.0	3463	.132E-04	3067	.134E-04	2472	.112E-04	.126E-04
18	1.2	-15.0	0.0	3522	.135E-04	3131	.137E-04	2539	.115E-04	.129E-04
23	1.5	30.0	0.0	3946	.154E-04	3518	.155E-04	2853	.130E-04	.142E-04
24	1.5	0.0	0.0	4105	.163E-04	3692	.163E-04	3014	.138E-04	.155E-04
25	1.5	-30.0	0.0	3737	.146E-04	3732	.146E-04	2708	.123E-04	.138E-04
29	1.8	60.0	0.0	3670	.142E-04	3199	.140E-04	2613	.118E-04	.134E-04
30	1.8	30.0	0.0	4146	.165E-04	3698	.163E-04	2998	.137E-04	.155E-04
31	1.8	0.0	0.0	4495	.182E-04	4055	.180E-04	3315	.152E-04	.171E-04
32	1.8	-30.0	0.0	4321	.174E-04	3868	.171E-04	3162	.145E-04	.163E-04
33	1.8	-60.0	0.0	3398	.129E-04	2935	.128E-04	2403	.108E-04	.122E-04
37	2.1	60.0	0.0	3174	.118E-04	2667	.115E-04	2172	.971E-05	.110E-04
38	2.1	30.0	0.0	4428	.179E-04	3958	.173E-04	3252	.149E-04	.168E-04
39	2.1	0.0	0.0	4688	.192E-04	4218	.187E-04	3448	.159E-04	.179E-04
40	2.1	-30.0	0.0	4452	.180E-04	3966	.176E-04	3247	.149E-04	.168E-04
41	2.1	-60.0	0.0	3855	.151E-04	3387	.149E-04	2756	.125E-04	.142E-04
46	2.4	60.0	0.0	3956	.156E-04	3458	.152E-04	2835	.129E-04	.146E-04
47	2.4	30.0	0.0	4590	.187E-04	4086	.181E-04	3357	.154E-04	.174E-04
48	2.4	0.0	0.0	4661	.190E-04	4148	.184E-04	3410	.157E-04	.172E-04
49	2.4	-30.0	0.0	4485	.182E-04	3994	.177E-04	3286	.151E-04	.170E-04
50	2.4	-60.0	0.0	3852	.151E-04	3357	.147E-04	2746	.125E-04	.141E-04
57	2.7	30.0	0.0	4553	.185E-04	4021	.178E-04	3290	.151E-04	.171E-04
58	2.7	0.0	0.0	4593	.187E-04	4064	.180E-04	3337	.153E-04	.174E-04
60	2.7	-60.0	0.0	3833	.150E-04	3333	.145E-04	2725	.124E-04	.140E-04
66	3.0	90.0	0.0	3298	.124E-04	2776	.120E-04	2267	.102E-04	.115E-04
67	3.0	45.0	0.0	4249	.170E-04	3718	.154E-04	3050	.139E-04	.158E-04
68	3.0	0.0	0.0	4568	.186E-04	4033	.179E-04	3323	.153E-04	.172E-04
69	3.0	-45.0	0.0	4044	.160E-04	3522	.155E-04	2880	.131E-04	.149E-04
70	3.0	-90.0	0.0	3192	.119E-04	2683	.116E-04	2203	.986E-05	.111E-04
75	3.3	90.0	0.0	3287	.124E-04	2757	.119E-04	2257	.101E-04	.115E-04
76	3.3	45.0	0.0	4190	.167E-04	3646	.161E-04	3010	.138E-04	.155E-04
77	3.3	0.0	0.0	4361	.176E-04	3826	.169E-04	3149	.144E-04	.163E-04
78	3.3	-45.0	0.0	3947	.156E-04	3414	.150E-04	2796	.127E-04	.144E-04
79	3.3	-90.0	0.0	3209	.120E-04	2689	.116E-04	2193	.981E-05	.111E-04
85	3.6	45.0	0.0	2880	.104E-04	2332	.995E-05	1903	.841E-05	.960E-05
86	3.6	0.0	0.0	4214	.169E-04	3668	.162E-04	3021	.138E-04	.156E-04
87	3.6	-45.0	0.0	3873	.152E-04	3332	.146E-04	2759	.125E-04	.141E-04
95	3.9	0.0	0.0	4042	.160E-04	3519	.155E-04	2859	.130E-04	.149E-04
104	4.2	0.0	0.0	3820	.150E-04	3272	.143E-04	2684	.122E-04	.138E-04

RUN # 331

STACK #1

STACK #2

STACK #3

475FT,270,TSID
40%,IN,BLEM311;17

			MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	
SAMPLE	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	TOTAL CONC. (1/M*M)
11	.9	0.0	0.0	1814	.419E-05	1099	.358E-05	830	.352E-05
16	1.2	15.0	0.0	2694	.759E-05	1864	.643E-05	1434	.638E-05
17	1.2	0.0	0.0	2878	.830E-05	2042	.709E-05	1577	.702E-05
18	1.2	-15.0	0.0	2835	.813E-05	1990	.690E-05	1542	.554E-05
23	1.5	30.0	0.0	3092	.913E-05	2207	.800E-05	1781	.647E-05
24	1.5	0.0	0.0	3570	.110E-04	2730	.965E-05	2131	.787E-05
25	1.5	-30.0	0.0	3458	.105E-04	2611	.921E-05	2037	.948E-05
29	1.8	60.0	0.0	2771	.789E-05	1961	.679E-05	1546	.674E-05
30	1.8	30.0	0.0	3590	.111E-04	2746	.971E-05	2158	.956E-05
31	1.8	0.0	0.0	4056	.129E-04	3188	.114E-04	2526	.112E-04
32	1.8	-30.0	0.0	3979	.126E-04	3131	.111E-04	2468	.109E-04
33	1.8	-60.0	0.0	3287	.988E-05	2496	.878E-05	1965	.861E-05
37	2.1	60.0	0.0	1644	.353E-05	963	.308E-05	763	.305E-05
38	2.1	30.0	0.0	3737	.116E-04	2926	.104E-04	2333	.102E-04
39	2.1	0.0	0.0	4344	.140E-04	3496	.125E-04	2795	.123E-04
40	2.1	-30.0	0.0	4205	.134E-04	3351	.120E-04	2679	.118E-04
41	2.1	-60.0	0.0	3763	.117E-04	2951	.105E-04	2333	.103E-04
46	2.4	60.0	0.0	3121	.924E-05	2387	.837E-05	1902	.818E-05
47	2.4	30.0	0.0	3813	.119E-04	3038	.108E-04	2428	.106E-04
48	2.4	0.0	0.0	4278	.137E-04	3433	.123E-04	2745	.121E-04
49	2.4	-30.0	0.0	4200	.134E-04	3376	.121E-04	2698	.118E-04
50	2.4	-60.0	0.0	3813	.119E-04	2989	.106E-04	2388	.104E-04
57	2.7	30.0	0.0	3851	.121E-04	3079	.109E-04	2485	.107E-04
58	2.7	0.0	0.0	3571	.110E-04	2810	.995E-05	2260	.975E-05
66	3.0	90.0	0.0	2739	.776E-05	2047	.711E-05	1637	.693E-05
67	3.0	45.0	0.0	3569	.110E-04	2820	.998E-05	2255	.975E-05
68	3.0	0.0	0.0	4074	.129E-04	3290	.117E-04	2646	.115E-04
69	3.0	-45.0	0.0	3985	.126E-04	3178	.113E-04	2542	.111E-04
70	3.0	-90.0	0.0	3261	.978E-05	2491	.876E-05	1991	.861E-05
75	3.3	90.0	0.0	2731	.773E-05	2048	.711E-05	1638	.692E-05
76	3.3	45.0	0.0	3433	.104E-04	2697	.953E-05	2165	.931E-05
77	3.3	0.0	0.0	4001	.126E-04	3229	.115E-04	2588	.112E-04
78	3.3	-45.0	0.0	3936	.124E-04	3147	.112E-04	2515	.110E-04
79	3.3	-90.0	0.0	3367	.102E-04	2600	.916E-05	2063	.897E-05
85	3.6	45.0	0.0	2514	.689E-05	1836	.632E-05	1474	.617E-05
86	3.6	0.0	0.0	3912	.123E-04	3161	.113E-04	2550	.110E-04
87	3.6	-45.0	0.0	3878	.122E-04	3113	.111E-04	2500	.108E-04
95	3.9	0.0	0.0	3820	.119E-04	3078	.109E-04	2480	.107E-04
104	4.2	0.0	0.0	3708	.115E-04	2972	.105E-04	2398	.103E-04
113	4.5	0.0	0.0	3482	.106E-04	2758	.975E-05	2215	.951E-05

RUN # 332

475FT,270,TS:F
40%,OUT,BLEM32:117

	STACK #1			STACK #2			STACK #3			
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE		
VEL. AT STACK HT	1.32 M/S	10.20 M/S	1.32 M/S	10.20 M/S	1.32 M/S	10.20 M/S	1.32 M/S	10.20 M/S		
EXIT VEL.	1.02 M/S	8.77 M/S	1.01 M/S	8.75 M/S	1.11 M/S	9.58 M/S				
VOL. FLOW	.15E+03M3/S	.12E+03M3/S	.16E+03M3/S	.12E+03M3/S	.15E+03M3/S	.12E+03M3/S				
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05					
BACKGROUND	.98E+03		.38E+03		.30E+03					
CALIBRATION FACTOR	.40E-02		.21E-02		.15E-02					
STACK HEIGHT	48.26 CM	144.78 M	48.26 CM	144.78 M	48.26 CM	144.78 M				
STACK DIAMETER	1.38 CM	4.14 M	1.41 CM	4.23 M	1.32 CM	3.96 M				
SAMPLE FT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
11	.9	0.0	0.0	2517	.595E-05	2068	.628E-05	1496	.464E-05	.563E-05
16	1.2	15.0	0.0	3196	.858E-05	2800	.900E-05	2110	.701E-05	.821E-05
17	1.2	0.0	0.0	3192	.856E-05	2811	.905E-05	2129	.708E-05	.824E-05
18	1.2	-15.0	0.0	3209	.863E-05	2858	.922E-05	2150	.716E-05	.835E-05
23	1.5	30.0	0.0	3578	.101E-04	3146	.103E-04	2405	.814E-05	.951E-05
24	1.5	0.0	0.0	3893	.113E-04	3514	.117E-04	2723	.937E-05	.108E-04
25	1.5	-30.0	0.0	3890	.113E-04	3519	.117E-04	2710	.932E-05	.108E-04
29	1.8	60.0	0.0	3445	.954E-05	2976	.966E-05	2284	.748E-05	.897E-05
30	1.8	30.0	0.0	3490	.971E-05	3031	.986E-05	2353	.794E-05	.918E-05
31	1.8	-30.0	0.0	4227	.126E-04	3827	.128E-04	2976	.103E-04	.119E-04
32	1.8	-30.0	0.0	4295	.128E-04	3889	.131E-04	3045	.106E-04	.122E-04
33	1.8	-60.0	0.0	3421	.945E-05	2993	.972E-05	2334	.787E-05	.902E-05
37	2.1	60.0	0.0	3044	.799E-05	2535	.802E-05	1961	.643E-05	.749E-05
38	2.1	30.0	0.0	4154	.123E-04	3680	.123E-04	2876	.996E-05	.115E-04
39	2.1	0.0	0.0	4223	.125E-04	3791	.127E-04	2968	.103E-04	.119E-04
40	2.1	-30.0	0.0	4432	.134E-04	3982	.134E-04	3117	.109E-04	.126E-04
41	2.1	-60.0	0.0	4054	.119E-04	3619	.121E-04	2844	.984E-05	.113E-04
46	2.4	60.0	0.0	3835	.110E-04	3309	.109E-04	2597	.889E-05	.103E-04
47	2.4	30.0	0.0	4322	.129E-04	3804	.127E-04	3001	.104E-04	.120E-04
48	2.4	0.0	0.0	4406	.133E-04	3922	.132E-04	3078	.107E-04	.124E-04
49	2.4	-30.0	0.0	4414	.133E-04	3946	.133E-04	3114	.109E-04	.125E-04
50	2.4	-60.0	0.0	4219	.125E-04	3752	.125E-04	2941	.102E-04	.118E-04
57	2.7	30.0	0.0	4343	.130E-04	3815	.128E-04	2991	.104E-04	.121E-04
58	2.7	0.0	0.0	4249	.126E-04	3734	.125E-04	2951	.103E-04	.118E-04
60	2.7	-60.0	0.0	4199	.125E-04	3705	.124E-04	2910	.101E-04	.116E-04
66	3.0	90.0	0.0	3364	.922E-05	2769	.889E-05	2167	.723E-05	.845E-05
67	3.0	45.0	0.0	4236	.126E-04	3675	.123E-04	2913	.101E-04	.117E-04
68	3.0	0.0	0.0	4518	.137E-04	3929	.134E-04	3141	.110E-04	.127E-04
69	3.0	-45.0	0.0	4343	.130E-04	3809	.128E-04	3009	.105E-04	.121E-04
70	3.0	-90.0	0.0	3807	.109E-04	3283	.108E-04	2592	.887E-05	.102E-04
75	3.3	90.0	0.0	3238	.874E-05	2654	.846E-05	2102	.697E-05	.806E-05
76	3.3	45.0	0.0	4103	.121E-04	3532	.117E-04	2810	.971E-05	.112E-04
77	3.3	0.0	0.0	4482	.135E-04	3927	.132E-04	3122	.109E-04	.126E-04
78	3.3	-45.0	0.0	4336	.130E-04	3797	.127E-04	3013	.105E-04	.121E-04
79	3.3	-90.0	0.0	3786	.109E-04	3235	.106E-04	2561	.875E-05	.101E-04
85	3.6	45.0	0.0	2997	.781E-05	2419	.759E-05	1910	.623E-05	.721E-05
86	3.6	0.0	0.0	4387	.132E-04	3815	.128E-04	3039	.106E-04	.122E-04
87	3.6	-45.0	0.0	4344	.130E-04	3806	.127E-04	3175	.111E-04	.123E-04
95	3.9	0.0	0.0	4220	.125E-04	3642	.121E-04	2917	.101E-04	.116E-04
104	4.2	0.0	0.0	4098	.121E-04	3526	.117E-04	2824	.976E-05	.112E-04
113	4.5	0.0	0.0	3491	.972E-05	2908	.941E-05	2320	.782E-05	.898E-05

RUN # 333

STACK #1

STACK #2

STACK #3

250FT,198,TSIB
100%,IN,BLEM33;117

	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE
VEL. AT STACK HT	1.63 M/S	14.04 M/S	1.63 M/S	14.04 M/S	1.63 M/S	14.04 M/S
EXIT VEL.	2.97 M/S	25.57 M/S	2.62 M/S	22.61 M/S	2.56 M/S	22.08 M/S
VOL. FLOW	.35E+03M3/S	.27E+03M3/S	.37E+03M3/S	.29E+03M3/S	.35E+03M3/S	.27E+03M3/S
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05	
BACKGROUND	.12E+04		.32E+03		.46E+03	
CALIBRATION FACTOR	.41E-02		.22E-02		.15E-02	
STACK HEIGHT	25.40 CM	76.20 M	25.40 CM	76.20 M	25.40 CM	76.20 M
STACK DIAMETER	1.22 CM	3.66 M	1.34 CM	4.02 M	1.32 CM	3.96 M

SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	RAW (AREA)	CONCENTRATION (1/M*M)	TOTAL CONC. (1/M*M)
1	2.7	240.0	0.0	1862	.154E-05	1847	.270E-05	2246	.384E-05	.270E-05
2	2.7	225.0	0.0	2129	.211E-05	2318	.366E-05	2791	.501E-05	.360E-05
3	2.7	210.0	0.0	2594	.312E-05	3109	.527E-05	3719	.700E-05	.514E-05
4	2.7	195.0	0.0	2570	.307E-05	3046	.514E-05	3540	.662E-05	.495E-05
5	2.7	180.0	0.0	3969	.609E-05	5024	.916E-05	5678	.112E-04	.883E-05
6	2.7	165.0	0.0	4808	.790E-05	6143	.114E-04	6834	.137E-04	.110E-04
7	2.7	150.0	0.0	6137	.108E-04	8037	.153E-04	8779	.179E-04	.147E-04
8	2.7	135.0	0.0	6594	.118E-04	8521	.163E-04	9247	.189E-04	.157E-04
9	2.7	120.0	0.0	7948	.147E-04	10325	.199E-04	10915	.224E-04	.191E-04
10	2.7	105.0	0.0	8717	.163E-04	10974	.213E-04	11395	.235E-04	.204E-04
11	2.7	90.0	0.0	10015	.191E-04	12424	.242E-04	12571	.260E-04	.231E-04
12	2.7	75.0	0.0	10799	.208E-04	12941	.253E-04	12754	.264E-04	.242E-04
13	2.7	60.0	0.0	11949	.233E-04	13731	.269E-04	13070	.271E-04	.258E-04
14	2.7	45.0	0.0	12337	.242E-04	13635	.267E-04	12547	.259E-04	.256E-04
15	2.7	30.0	0.0	12906	.254E-04	13819	.270E-04	12344	.255E-04	.260E-04
16	2.7	15.0	0.0	10487	.202E-04	10817	.209E-04	9348	.191E-04	.201E-04
17	2.7	0.0	0.0	13351	.264E-04	13259	.259E-04	11084	.228E-04	.250E-04
18	2.7	-15.0	0.0	12910	.254E-04	12351	.241E-04	9925	.203E-04	.233E-04
19	2.7	-30.0	0.0	12653	.248E-04	11642	.226E-04	9141	.186E-04	.220E-04
20	2.7	-45.0	0.0	11788	.230E-04	10534	.204E-04	7838	.158E-04	.197E-04
21	2.7	-60.0	0.0	11106	.215E-04	9617	.185E-04	6993	.140E-04	.180E-04
22	2.7	-75.0	0.0	6374	.113E-04	5132	.938E-05	3568	.668E-05	.911E-05
23	2.7	-90.0	0.0	9004	.170E-04	7395	.140E-04	5082	.993E-05	.136E-04
24	2.7	-105.0	0.0	7598	.139E-04	6098	.113E-04	4083	.778E-05	.110E-04
25	2.7	-120.0	0.0	6141	.108E-04	4769	.864E-05	3242	.598E-05	.846E-05
27	2.7	-150.0	0.0	4102	.638E-05	2881	.481E-05	1989	.329E-05	.482E-05
28	2.7	-165.0	0.0	3206	.444E-05	2120	.326E-05	1436	.210E-05	.326E-05
29	2.7	-180.0	0.0	2765	.349E-05	1722	.245E-05	1195	.152E-05	.250E-05
30	2.7	-195.0	0.0	2230	.233E-05	1333	.166E-05	948	.106E-05	.168E-05
31	2.7	-210.0	0.0	1857	.153E-05	1050	.108E-05	792	.723E-06	.111E-05
32	2.7	-225.0	0.0	1619	.101E-05	863	.703E-06	698	.521E-06	.744E-06
33	2.7	-240.0	0.0	1489	.730E-06	782	.539E-06	641	.399E-06	.555E-06

RUN # 334

250FT,190,TS1A
100%,IN,BLEM341117

	STACK #1			STACK #2			STACK #3		
	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	MODEL	PROTOTYPE	
VEL. AT STACK HT	1.26 M/S	14.04 M/S	1.26 M/S	14.04 M/S	1.26 M/S	14.04 M/S			
EXIT VEL.	2.31 M/S	25.57 M/S	2.04 M/S	22.57 M/S	1.79 M/S	22.00 M/S			
VOL. FLOW	.27E-03M ³ /S	.27E+03M ³ /S	.29E-03M ³ /S	.29E+03M ³ /S	.27E-03M ³ /S	.27E+03M ³ /S			
SOURCE STRENGTH	.10E+06		.53E+05		.36E+05				
BACKGROUND	.63E+03		.21E+03		.16E+03				
CALIBRATION FACTOR	.41E-02		.22E-02		.15E-02				
SD2 FLUX		.850E+03 (GM/S)		.105E+04 (GM/S)		.220E+03 (GM/S)			
STACK HEIGHT	25.40 CM	76.20 M	25.40 CM	76.20 M	25.40 CM	76.20 M			
STACK DIAMETER	1.22 CM	3.66 M	1.34 CM	4.02 M	1.32 CM	3.96 M			

SAMPLE PT	X (KM)	Y (M)	Z (M)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	RAW (AREA)	CONCENTRATION (GM/M**3)	TOTAL CONC. (GM/M**3)
1	2.7	240.0	0.0	729	.124E-04	553	.514E-04	578	.141E-04	.783E-04
2	2.7	225.0	0.0	761	.168E-04	651	.664E-04	676	.173E-04	.100E-03
3	2.7	210.0	0.0	805	.225E-04	766	.837E-04	816	.220E-04	.128E-03
4	2.7	195.0	0.0	812	.234E-04	766	.837E-04	812	.218E-04	.129E-03
5	2.7	180.0	0.0	972	.442E-04	1144	.144E-03	1250	.364E-04	.224E-03
6	2.7	165.0	0.0	1189	.724E-04	1552	.202E-03	1647	.495E-04	.324E-03
7	2.7	150.0	0.0	1529	.117E-03	2135	.290E-03	2200	.706E-04	.477E-03
8	2.7	135.0	0.0	1794	.151E-03	2441	.336E-03	2564	.800E-04	.567E-03
9	2.7	120.0	0.0	2347	.223E-03	3232	.455E-03	3322	.107E-03	.784E-03
10	2.7	105.0	0.0	2696	.238E-03	3690	.524E-03	3720	.120E-03	.912E-03
11	2.7	90.0	0.0	3282	.344E-03	4460	.640E-03	4554	.146E-03	.113E-02
12	2.7	75.0	0.0	3787	.410E-03	4922	.710E-03	4902	.158E-03	.128E-02
13	2.7	60.0	0.0	4445	.495E-03	5590	.810E-03	5512	.178E-03	.148E-02
14	2.7	45.0	0.0	5116	.583E-03	6046	.879E-03	5557	.179E-03	.164E-02
15	2.7	30.0	0.0	5498	.632E-03	6419	.935E-03	5758	.186E-03	.175E-02
16	2.7	15.0	0.0	4659	.523E-03	5003	.722E-03	4223	.137E-03	.138E-02
17	2.7	0.0	0.0	6261	.731E-03	6505	.948E-03	5455	.176E-03	.186E-02
18	2.7	-15.0	0.0	6336	.741E-03	6212	.904E-03	4925	.158E-03	.180E-02
19	2.7	-30.0	0.0	6238	.728E-03	5948	.864E-03	4539	.146E-03	.174E-02
20	2.7	-45.0	0.0	5781	.669E-03	5312	.768E-03	3924	.125E-03	.156E-02
21	2.7	-60.0	0.0	5416	.622E-03	4779	.680E-03	3455	.110E-03	.142E-02
22	2.7	-75.0	0.0	3627	.389E-03	2895	.404E-03	1926	.588E-04	.852E-03
23	2.7	-90.0	0.0	3718	.401E-03	2974	.415E-03	1997	.612E-04	.878E-03
24	2.7	-105.0	0.0	3336	.351E-03	2471	.340E-03	1574	.472E-04	.739E-03
25	2.7	-120.0	0.0	2705	.269E-03	1864	.249E-03	1221	.354E-04	.554E-03
26	2.7	-135.0	0.0	1899	.165E-03	1467	.189E-03	960	.227E-04	.381E-03
27	2.7	-150.0	0.0	1943	.170E-03	1143	.140E-03	714	.186E-04	.329E-03
28	2.7	-165.0	0.0	1606	.127E-03	871	.995E-04	503	.116E-04	.238E-03
29	2.7	-180.0	0.0	1368	.956E-04	730	.783E-04	402	.821E-05	.182E-03
30	2.7	-195.0	0.0	1173	.703E-04	583	.562E-04	335	.598E-05	.132E-03
31	2.7	-210.0	0.0	1030	.517E-04	478	.404E-04	271	.385E-05	.959E-04
32	2.7	-225.0	0.0	641	.117E-05	182	.000E+00	160	.146E-06	.134E-05
33	2.7	-240.0	0.0	830	.257E-04	363	.230E-04	225	.233E-05	.511E-04