DISPERSION OF VAPOR FROM LNG SPILLS AT ENERGY TERMINAL SERVICE CORPORATION: RELEASES DURING STABLE ATMOSPHERIC CONDITIONS, SIMULATION IN A WIND TUNNEL

by

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EXECUTIVE SUMMARY

A 1:250 scale model of Energy Terminal Service Corporation (ETSC) facility at Staten Island was placed in the Meteorological Wind Tunnel to study the dense gas cloud behavior resulting from an accidental LNG release under neutral and stable stability. A total of two wind speeds, three LNG release locations, one wind direction, two boiloff rates for unlimited spill duration, and one vapor barrier fence height were investigated. The experimental measurements resulted in the following conclusions:

- Stable atmospheric stratification reduced plume dilution and increased the surface areas intercepted by the flammable cloud.
- Measurements made over the same model in the Meteorological Wind Tunnel using a different tracer detection system differ only marginally from earlier measurements made in the Environmental Wind Tunnel under equivalent release conditions.
- The plant boundary concentration levels change with stratification to exceed a 5 percent mean level for Run 104: LNG boiloff area D/2 at 7000 gpm and 2.90 m/sec wind speed. It is strongly expected, however, that the wind-tunnel side walls exaggerate plume channeling for D/2 releases.
- In all other stratified cases the isocontours of concentration increased in area but did not exceed 5 percent mean outside the plant boundary. Indeed most runs were qualitatively similar to their neutral flow counterpart cases.
- Stratified flow cases Nos. 108, 111 and 112 exceed mean concentration levels of 2.5 percent at plant boundaries.

However in comparable situations under neutral conditions for 10-minute duration releases, peak concentrations never exceeded 5 percent, i.e. the LFL, and 10-minute mean concentrations never exceeded 2.5 percent.

- The LNG plume dispersion was enhanced by an increase in the wind speed.

ACKNOWLEDGMENT

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

Symbol	Definition	
A	Area	$[L^2]$
C_p	Specific heat capacity at constant pressure	$[L^2t^{-2}T^{-1}]$
D	Source diameter	[L]
g	Gravitational acceleration	$[Lt^{-2}]$
k	Thermal conductivity	$[mLT^{-1}t^{-3}]$
L	Length	[L]
m	Mass	[m]
$\dot{m}$	Mass flow rate	[m/t]
M	Molecular weight	$[mn^{-1}]$
n	Mole	[n]
c	Exponent of velocity distribution power law	
P	Pressure	$[mL^{-1}t^{-2}]$
Q	Volumetric rate of gas flow	$[L^3t^{-1}]$
T	Temperature	[T]
ΔT	Temperature difference across some reference layer	[T]
t	Time	[t]
U	Velocity	$[Lt^{-1}]$
u_*	Friction velocity	$[Lt^{-1}]$
$\forall$	Volume	$[L^3]$
W	Plume vertical velocity	$[Lt^{-1}]$
x	General downwind coordinate	[L]
y	General lateral coordinate	[L]
z	General vertical coordinate	[L]
z_o	Surface roughness parameter	[L]

LIST OF SYMBOLS (Continued)

Symbol	Definition	
α	Power law exponent	[-]
δ	Boundary layer thickness	[L]
ν	Kinematic viscosity	$[L^3\ t^{-1}]$
$\Delta\rho$	Density difference between source gas and air	$[ML^{-3}]$
ρ	Density	$[ML^{-3}]$
χ	Mole fraction of gas component	
Ω	Angular velocity of earth = 0.726×10^{-4} (radians/sec)	$[t^{-1}]$
λ	Wave length	[L]
Λ	Integral length scale of turbulence	[L]

Subscripts

a	Air
Ar	Argon
g	Gas
i	Cartesian index
LNG	Liquified Natural Gas
LFL	Lower Flammability Limit
m	Model conditions
o	Reference conditions
p	Prototype conditions

1.0 INTRODUCTION

Results from measurements over a model of the Energy Terminal Service Corporation (ETSC) facility on Staten Island suggest that under neutral stratification conditions credible LNG spills (3500 gpm for 10-minute duration) will not result in mean concentrations which exceed 2.5 percent or peak concentrations which exceed 5.0 percent (lower flammability limit, LFL) at plant boundaries. Vapor barrier fence heights of at least 4.88 m (16 feet) were recommended. Aravamudan and Drake (1981) report that atmospheric stability are moderately stable to stable (E & F categories) 25 percent of the time at the ETSC site. It is possible that the concentration limits may be exceeded when the approach flow is stably stratified. Additional measurements are reported herein to examine the influence of stable atmospheric stratification on the dispersion of gases released near the plant site. Only situations stipulated as critical or near critical in the earlier report by Kothari and Meroney (1980) are examined.

Simulation of stable stratification required the use of the Meteorological Wind Tunnel at Colorado State University. The unique facility can reproduce atmospheric stabilities ranging from Pasquil-Gifford category B through F. Since this wind tunnel has a width of only 2 meters, the 1:250 scale model constructed during the earlier study was sectioned to fit for a 215° approach direction.

A 1:250 scale model of the Energy Terminal Service Corporation (ETSC) facility LNG storage tank numbers 3 and 5 and surroundings were placed in the Meteorological Wind Tunnel (MWT) to determine the dispersion of LNG vapor plume under stable stability and two wind speeds. Three areas; process, one-half process, and one-half dike; and two

different spill rates for unlimited spill duration were investigated. The tests were performed with one vapor barrier fence height acting as a holdup device to the negatively buoyant plume and also acting to enhance dispersion. The meteorological and source conditions for the various tests are summarized in Table 1.

The methods employed in the physical modeling of atmospheric and plume motion have been previously discussed in Chapter 2 of the earlier report by Kothari and Meroney. The details of model construction and experimental measurements are described in Chapter 2. Chapter 3 discusses the test program and results obtained, and Chapter 4 contains the conclusion of the study.

2.0 DATA ACQUISITION AND ANALYSIS

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

2.1 Wind-Tunnel Facilities

All concentration measurements were performed in the Meteorological Wind Tunnel (MWT). A schematic of the tunnel is shown in Figure 1. This tunnel is designed to study atmospheric flow phenomena. It has special features such as adjustable ceiling, rotating turntables, transparent boundary walls, and a long test section to permit reproduction of micrometeorological behavior at lower scales. Wind speeds of 0.10 to 36 m/s and a boundary-layer thickness up to 1 m at downstream distance of 10 m can be obtained with the use of the vortex generators and trip at the entrance of the test section and surface roughness on the floor. Thermal stratification in the MWT is provided by the heating and cooling systems in the return section passage and the test section floor. From mid wind-tunnel test section to the end of the test section a permanently installed set of cooling panels may be used to lower floor temperature to 0°C. The free stream temperature may be raised to a level near 80°C as prescribed by a bulk Richardson number criteria. The vortex generators at the test section entrance were followed by 10 m of a false floor covered with a set of 12 roll-bond aluminum panels. These panels were connected to the facility refrigeration system and cooled to approximately 0°C. A flexible test section roof facilitates an adjustment in test section height to obtain a zero longitudinal pressure gradient.

2.2 Model

A 1:250 scale model of the Energy Service Terminal Corporation facility was constructed from masonite sheet. The LNG tanks (number 3 and 5), process area buildings and vaporizers were constructed from Plexiglas. The vapor barrier fence and dike were also constructed to a scale of 1:250. The masonite plate was cut in the dike and process area and replaced with cardboard plate with numerous holes of approximately 2.54 cm (1 in.) diameter. A fine metallic mesh grid was glued above the cardboard in the dike and the process area. The dike area under the cardboard was divided into 33 smaller areas of approximately 17.8 cm x 17.8 cm (7 in. x 7 in.) size. The process area was divided into six areas. Each area was separated and sealed with weather strips (see Figure 6).

The source gas, a carbon-dioxide-ethane mixture was stored in a high pressure cylinder and passed through a flowmeter and then directed into a manifold having multiple outlet ports. Sixteen equal length tygon tubes having inside diameter of 0.16 cm (1/16 in.) were connected to the manifold outlet. The tygon tubes from this manifold were fed through the wind tunnel, one to each of the 16 smaller areas under the cardboard plate. The gas passed through the flowmeter and into the manifold. The gas divided evenly into the 16 tygon tubes and passed into each of the smaller areas under the cardboard. The gas exited through the cardboard holes and fine metallic grid with an even surface distribution.

During the process area releases, the source gas from a high pressure cylinder was measured through a flowmeter and directed into the wind tunnel through a tygon tube of inside diameter 2.5 cm (1 in.).

This tygon tube was connected to a brass tube running parallel to the process area fence and at the center of the process area. Holes of diameter 0.16 cm (1/16 in.) were drilled at approximately 3.0 cm distances along the length of the tubes. Each hole was facing downward towards the wind-tunnel floor. The source gas was directed from the flowmeter and tygon tube to the brass tube. The gas was subsequently emitted out of each of the small holes on the brass tube. The gas exited through the cardboard holes and fine metallic grid with even distribution. A schematic of the ETSC model installed in the MWT is shown in Figure 2.

2.3 Wind Profiles and Turbulence Measurements

Measurements of mean velocity and turbulence intensity were accomplished with a single hot-film anemometer with film axis horizontal. The instrumentation used was a temperature compensated Datametrics constant temperature anemometer model 800-LV. The output of the constant temperature anemometer was directed to an on-line data acquisition system consisting of a Hewlett-Packard 21 MX Computer, disc unit, card reader, printer, Digi-Data digital tape drive and a Preston Scientific Analog-digital converter. The data was processed immediately into mean velocity and approximate turbulence intensity at each corresponding height and stored on the computer disc for printout or further analysis.

Temperatures were measured with a Yellowsprings Model 44004, fenal glass-coated head thermistor. Manufacturer specifications suggest an accuracy of ±0.2°C for this type thermistor.

2.4 Concentration Measurements

Although local concentrations of methane produced during an LNG spill are time dependent it was not possible to use the aspirated

katherometer probe used during the earlier measurements (Kothari and Meroney, 1981) in a thermally varying environment. Hence a flame ionization detection (FID) chromatograph was used to measure concentrations which result during unlimited duration spills.

Thirty-six samples were taken at model ground level over the grid noted in Figure 2. Two additional samples were taken at ground level and over the model to establish background concentration levels. The test procedure consisted of: 1) setting the proper tunnel wind speed, 2) releasing a material mixture of source gas (4 percent ethane and 96 percent carbon dioxide) of the required density from the release areas, 3) withdraw samples from the tunnel at locations designated and 4) analyze the samples with a flame ionization gas chromatograph (FIGC).

The procedure for analyzing air samples from the tunnel was as follows: 1) a 2 cc sample volume drawn from the wind tunnel is introduced into the flame ionization detector (FID), 2) the output from the electrometer (in microvolts) is sent to the Hewlett Packard 3380 Integrator, 3) a digital record is integrated and an ethane concentration determined by multiplying the integrated signal (μvs) times a calibration factor (ppm/μvs), and 4) a summary of the integrator analysis (ethane concentration, peak height, integrated voltage, etc.) is printed out on the integrator at the wind tunnel. Prior to any data collection a known concentration of propane is introduced into the FID to determine the calibration factor.

The FID operates on the principle that the electrical conductivity of a gas is directly proportional to the concentration of charged particles within the gas. The ions in this case are formed by the effluent gas being mixed in the FID with hydrogen and then burned in

air. The ions and electrons formed enter an electrode gap and decrease the gap resistance. The resulting voltage drop is amplified by an electrometer and fed to the HP3380A integrator. When no effluent gas is flowing, a carrier gas (nitrogen) flows through the FID. Due to certain impurities in the carrier some ions and electrons are formed creating a background voltage or zero shift. When the effluent gas enters the FID the voltage increases above this zero shift in proportion to the degree of ionization or correspondingly the amount of tracer gas present. Since the chromatograph[2] used in this study features a temperature control on the flame and electrometer, there is very low zero drift. In case of any zero drift the HP3380A which integrates the effluent peak also subtracts out the zero drift.

The lower limit of measuremnt (approximately 0.5 ppm or an equivalent methane concentration of 40 ppm) is imposed by the instrument sensitivity and the background concentration of ethane within the air in the wind tunnel. Background concentrations were measured and subtracted from all data quoted herein.

The wind-tunnel concentration data for all tests in this report are presented in both percent of model source strength and in terms of prototype methane concentration.

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[2]A Hewlett-Packard 5700 gas chromatograph was used in this study.

3.0 TEST PROGRAM

The test program examined LNG spill behavior in the presence of vapor fences. The program utilized a continuous or unlimited spill duration. The continuous spill rate results in a conservative estimate of the expected concentrations. A total of two wind speeds, three different release locations, one fence height, one wind direction and two boiloff rates were examined in the wind tunnel.

A summary of all tests simulated in the laboratory is presented in Table 1. All dimensions reported in the following discussions have been converted to equivalent full-scale values appropriate to the Energy Terminal Service Corporation facility with the origin at the center of the line joining the axis of tank numbers 3 and 5. The positive axis is in the direction of the prevailing wind. A right-hand coordinate system is followed throughout the report.

3.1 Approach Velocities

The approach flow velocity profiles were measured upstream of the model. The flow situations were performed in the MWT and the characteristic mean velocity, turbulence, and temperature profiles are shown in Figures 6 to 12.

3.2 Concentration Measurement Results for LNG Spill Rates of 7000 gpm and 3500 gpm and Unlimited Time Duration: Neutral Flow

The experimental measurements of concentration were performed for one wind direction, 215°, two wind speeds, 4.46 m/sec (10 mph) and 2.44 m/sec (6.5 mph), three boiloff areas, D/2, P*, and P*/2, one fence height 4.88 m (16 ft), with LNG spills of 7000 and 3500 gpm and unlimited time duration. The concentration measurements were performed with an ethane-carbon dioxide mixture at room temperature and various

downwind positions. Figure 2 shows the concentration measurement locations. Figures 4 and 5 show the various release areas and their identification.

For each position and run computer disc files were created and concentration data were stored for further analysis. In order to extract the data from each file name, the following file name convention is used throughout the report:

1. The first alphanumeric letter on each file indicates rake position,
2. next digit indicates the replication,
3. next two digits indicate run number, and
4. last two digits relate sampling position for the particular rake position.

The mean concentration for the various measurement locations and conditions are given in Appendix A, and location of the mean concentration isopleths are displayed on Figures 24 to 36.

Neutral Runs 113 to 124 should be compared with equivalent runs presented in the companion report by Kothari and Meroney (1981). Column two in Table 1 indicates the comparable run number from the EWT neutral stratification experiments. In each case the concentration contours were qualitatively similar. In five of the seven comparable runs results are quantitatively equivalent. Measurements during Runs 119 and 120 were slightly higher than their earlier counterpart experiment. The velocity profiles displayed in Figures 6 and 7 suggest that the MWT approach flow has developed over a smoother ground surface than earlier EWT results. Surface turbulence levels are definitively less. The

reduced mixing associated with lower modeled turbulence could explain the slight increase in concentration levels. It is evident, however, that the dispersion fields are basically similar since the entrainment is dominated by fence and tank wake turbulence.

3.3 Concentration Measurements Results with LNG Spill Rate of 7000 gpm and 3500 gpm and Unlimited Time Duration: Stable Flow

These tests were also performed with a carbon dioxide-ethane mixture as a simulation gas. For each position and run, the disc files were created and concentration data were stored for further analysis. It should be noted that the convention to extract data from each file name is the same as noted in Section 3.2.

The mean concentration magnitudes are given in Appendix A. Location of the mean concentration isopleths are displayed in Figures 13 to 24.

As expected stable atmospheric stratification reduced plume dilution and increased surface areas intercepted by the flammable cloud. For all P* and P*/2 area releases the concentration contains are only slightly perturbed from the neutral case. One might reasonably expect that finite duration releases will produce mean concentrations below 2.5 percent based on earlier experience recorded by Kothari and Meroney (1981).

Table 1 summarizes those cases where the unlimited time duration releases result in values at plant boundaries exceeding 5, 2.5 or 1.0 percent methane.

Run 104 displays unusually high downwind concentrations. One must note however that releases from the D/2 area are constrained by the wind tunnel left wall to advect direcly downwind. In previous

neutral experiments in the EWT gases dispersed laterally. These high concentrations are likely to be anomalous due to the limited wind tunnel cross-section size.

4.0 CONCLUSIONS

A 1:250 scale model of the Energy Terminal Service Corporation (ETSC) facility LNG storage tanks (numbers 3 and 5) and surroundings was placed in the Meteorological Wind Tunnel (MWT) at Colorado State University to determine the dispersion of LNG vapor plumes under stable stability approach flow. Two wind speeds at 6.1 m above ground were simulated: 2.90 and 4.46 m/sec, approaching from the SW (215°) wind direction. Three areas divided between process and dike; and two different spill rates for unlimited spill duration (3500 and 7000 gpm) were investigated. One fence height (4.88 m) acting as a vapor barrier was examined.

The experimental measurement program revealed the following plume behavior:

1. Maximum concentrations at property boundaries were observed for a wind direction of 215° and during the LNG spills in the process area. Higher concentrations exist when a given spill rate quantity is released in smaller spill areas.

2. The LNG plume dispersion was enhanced by an increase in the wind speed during unlimited duration spills. This conforms to experience for passive gas dispersion. Peak plume concentrations during 10-minute spills measured were only slightly influenced by wind speed.

3. Stable atmospheric stratification reduced plume dilution and increased the surface areas intercepted by the flammable cloud.

4. Measurements made over the same model in the Meteorological Wind Tunnel using a different tracer detection system differ only marginally from earlier measurements made in the Environmental Wind Tunnel under equivalent release conditions.

5. The plant boundary concentration levels change with stratification to exceed a 5 percent mean level for Run 104: LNG boil-off area D/2 at 7000 gpm and 2.90 m/sec wind speed. It is strongly expected, however, that the wind-tunnel side walls exaggerate plume channeling for D/2 releases.

6. In all other stratified cases the isocontours of concentration increased in area but did not exceed 5 percent mean outside the plant boundary. Indeed most runs were qualitatively similar to their neutral flow counterpart cases.

7. Stratified flow cases Nos. 108, 111 and 112 exceed mean concentration levels of 2.5 percent at plant boundaries. However in comparable situations under neutral conditions for 10-minute duration releases peak concentrations never exceeded 5 percent, in the LFL and 10-minute mean concentrations never exceeed 2.5 percent.

REFERENCES

Aravamudan, K. and Drake, E. (1981) "Analysis of Vapor Fence Effectiveness in Limiting Dispersion Hazard Zones," A. D. Little Report C-83881, prepared for ETSC, New Jersey, 32 pp.

Kothari, K. M. and Meroney, R. N. (1981) "Dispersion of Vapor from LNG Spills at Energy Terminal Service Corporation: Simulation in a Wind Tunnel," Report CER80-81KMK-RNM59, prepared for Energy Terminal Services Corporation, New Jersey, by Colorado State University, Civil Engineering Department, Fort Collins, Colorado, 200 pp.

TABLE 1. SUMMARY OF TESTS: MWT

RUN NUMBER	COMPARABLE RUN NUMBER	WIND DIRECTION (degree)	LNG BOILOFF AREA	FENCE HEIGHT (m)	LNG SPILL RATE GPM	LNG SPILL DURATION (min)	WIND SPEED (m/s)	STRATIFICATION	CONCENTRATION VALUE EXCEEDED AT PLANT BOUNDARY: 5% MEAN	2.5% MEAN	1% MEAN	CHANGE FROM COMPARABLE
101	113	215	D/2	4.88	3500	U	4.46	ST	N	N	N	S
102	46,114	215	D/2	4.88	3500	U	2.90	ST	N	N	Y	S,E
103	115	215	D/2	4.88	7000	U	4.46	ST	N	N	N	S
104	44,116	215	D/2	4.88	7000	U	2.90	ST	Y	Y	Y	E
105	117	215	P*	4.88	3500	U	4.46	ST	N	N	Y	S
106	118	215	P*	4.88	3500	U	2.90	ST	N	N	Y	S,E
107	32,119	215	P*	4.88	7000	U	4.46	ST	N	N	Y	S
108	33,120	215	P*	4.88	7000	U	2.90	ST	N	Y	Y	S
109	121	215	P*/2	4.88	3500	U	4.46	ST	N	N	N	S
110	47,122	215	P*/2	4.88	3500	U	2.90	ST	N	N	Y	S
111	41,123	215	P*/2	4.88	7000	U	4.46	ST	N	Y	Y	S
112	39,124	215	P*/2	4.88	7000	U	2.90	ST	N	Y	Y	S
113	-	215	D/2	4.88	3500	U	4.46	NU	N	N	N	-
114	46	215	D/2	4.88	3500	U	2.90	NU	N	N	N	V
115	-	215	D/2	4.88	7000	U	4.46	NU	N	N	N	-
116	44	215	D/2	4.88	7000	U	2.90	NU	N	N	Y	V
117	-	215	P*	4.88	3500	U	4.46	NU	N	N	Y	-
118	-	215	P*	4.88	3500	U	2.90	NU	N	Y	Y	-
119	32	215	P*	4.88	7000	U	4.46	NU	N	Y	Y	~V
120	33	215	P*	4.88	7000	U	4.46	NU	Y	Y	Y	~V
121	-	215	P*/2	4.88	3500	U	4.46	NU	N	N	Y	-
122	47	215	P*/2	4.98	3500	U	2.90	NU	N	N	Y	V
123	41	215	P*/2	4.88	7000	U	4.46	NU	N	Y	Y	V
124	39	215	P*/2	4.88	7000	U	2.90	NU	N	Y	Y	V

ST: Stable
NU: Neutral
N: No
Y: Yes

S: Similar to Neutral Case
E: Exceeds Transport of Neutral Case
V: Meteorological and Environmental Tunnel Results Equivalent
-: No Comparable

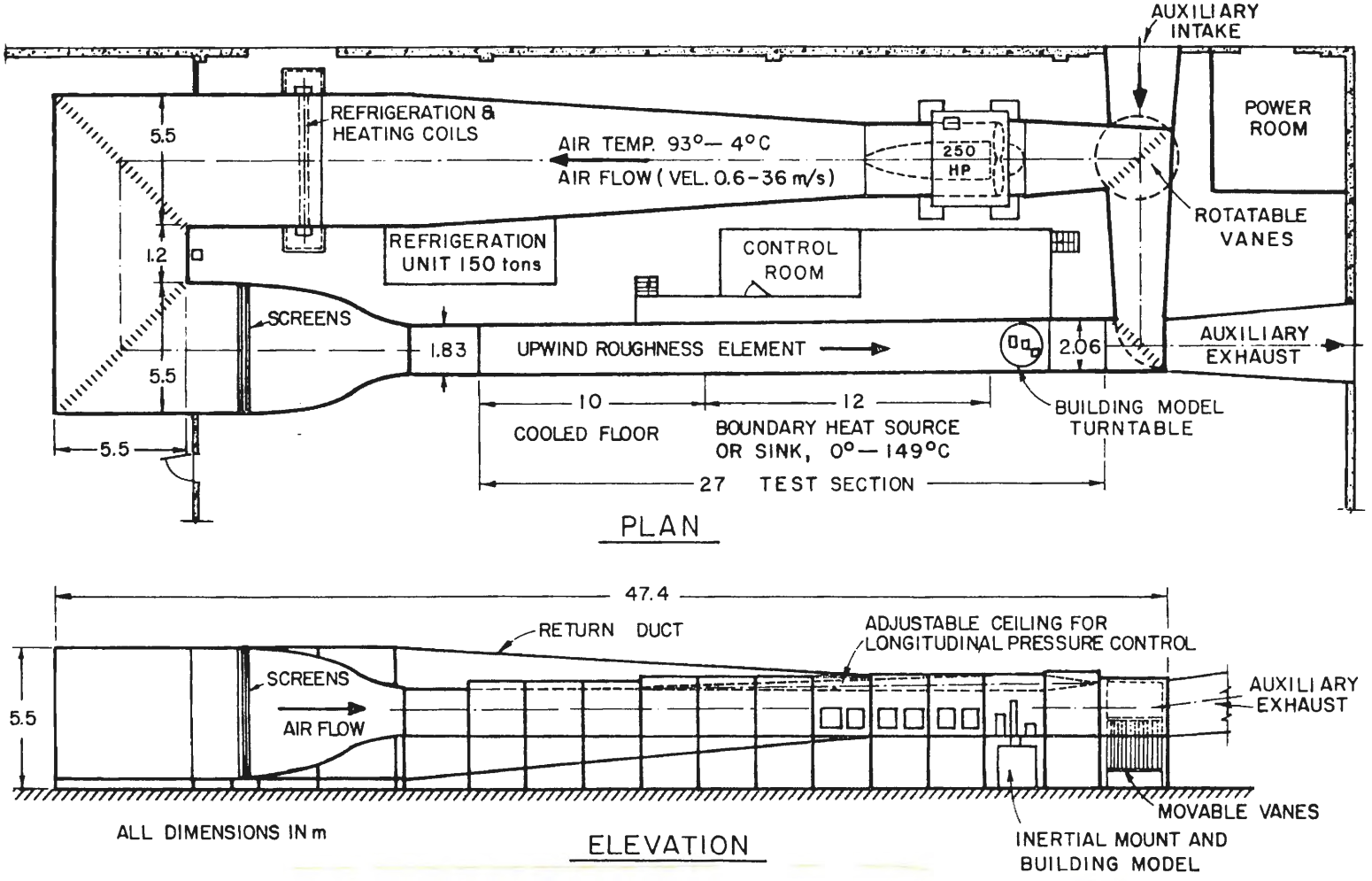

Figure 1. Meteorological Wind Tunnel.

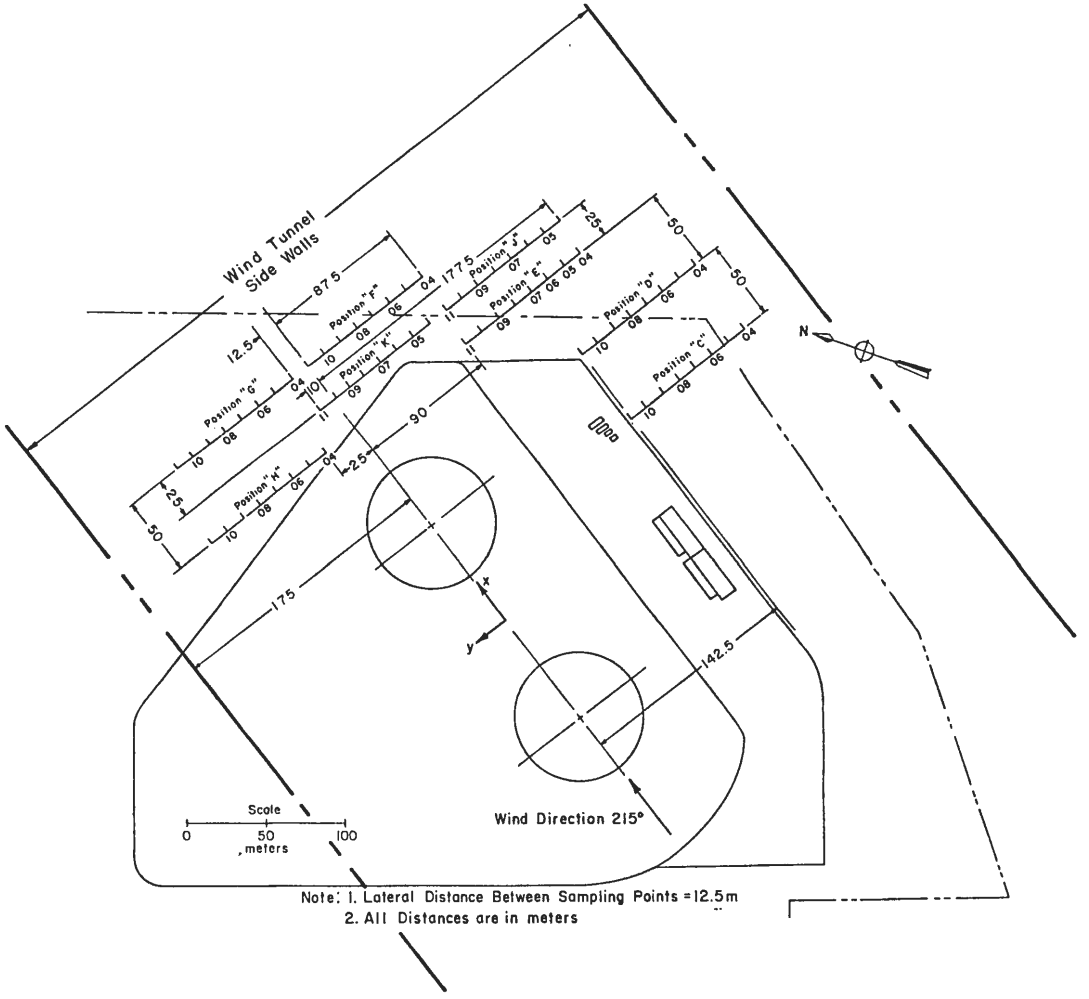

Figure 2. Concentration Measurement Locations for Wind Direction of 215°

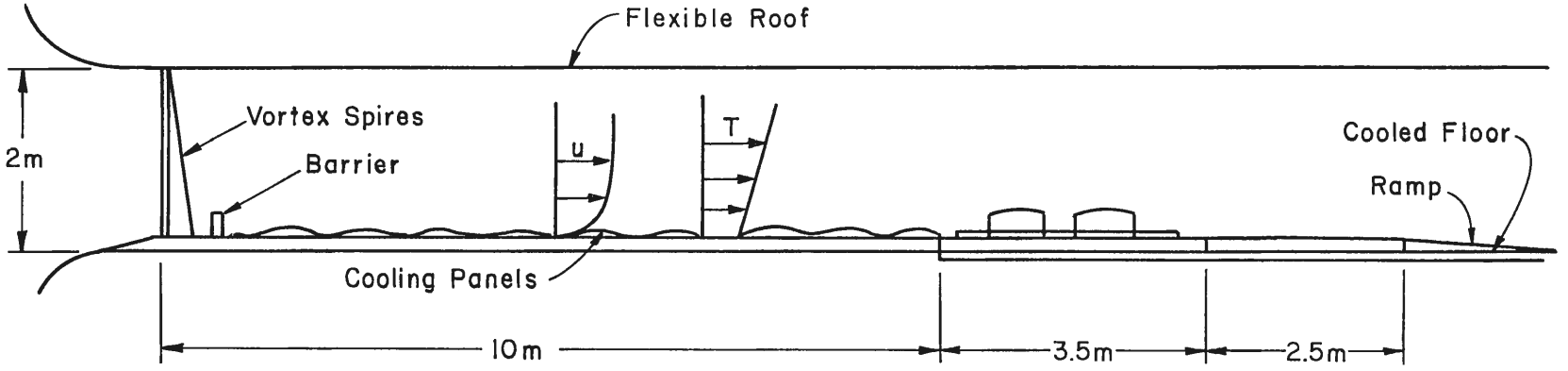

Figure 3. Meteorological Wind Tunnel Schematic for ETSC Model

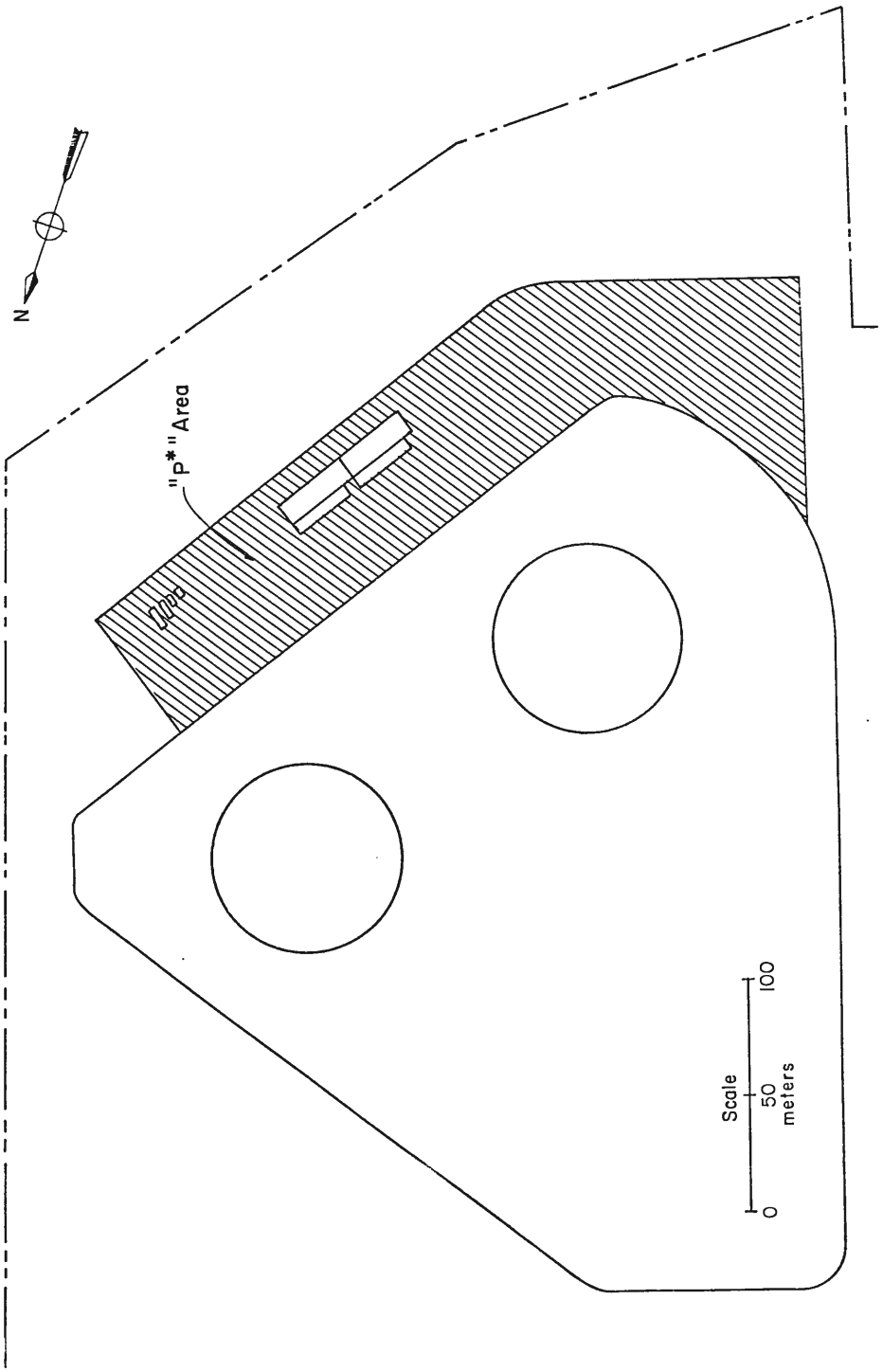

Figure 4. LNG Release Area "P*"

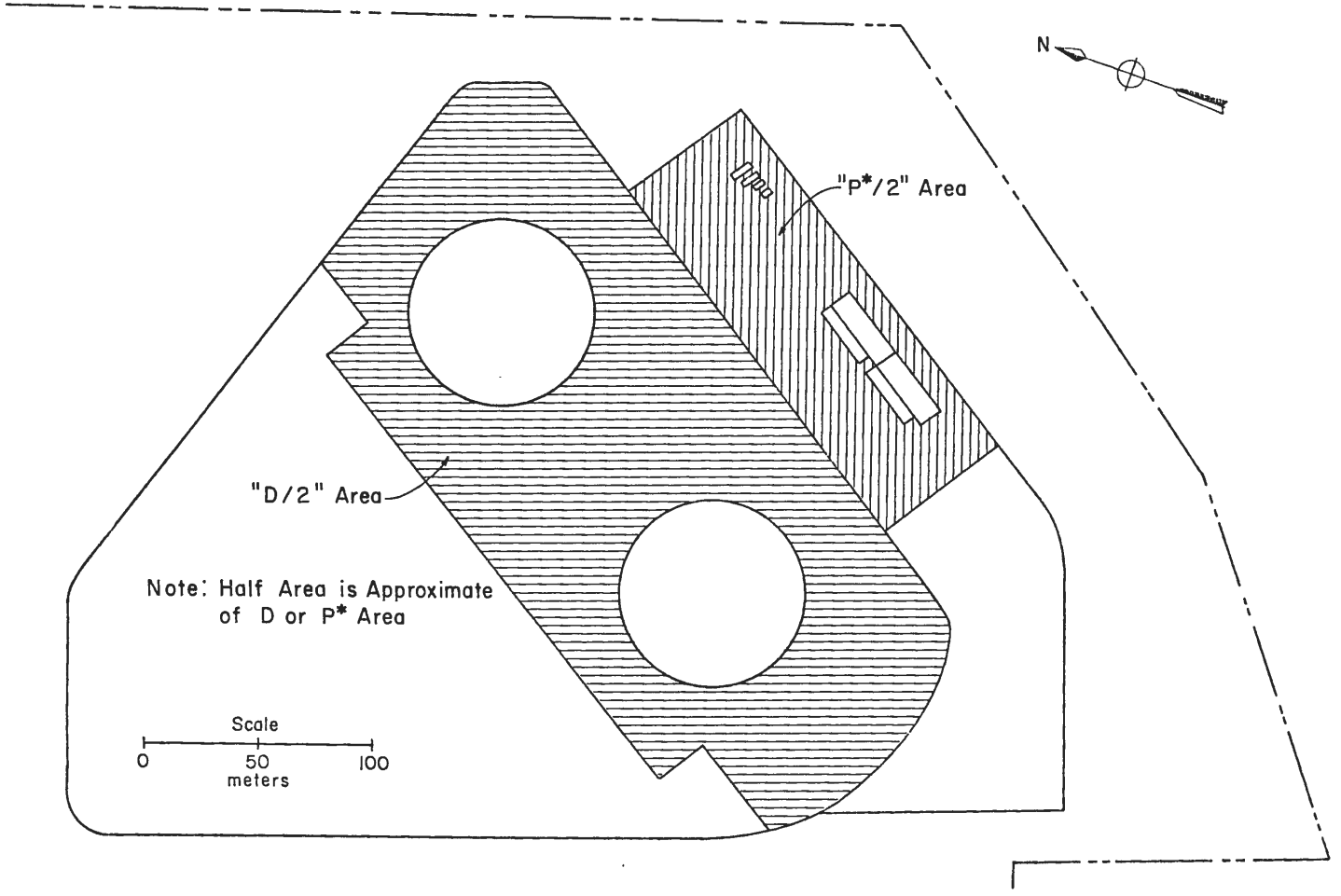

Figure 5. LNG Release Area "P*/2" and "D/2"

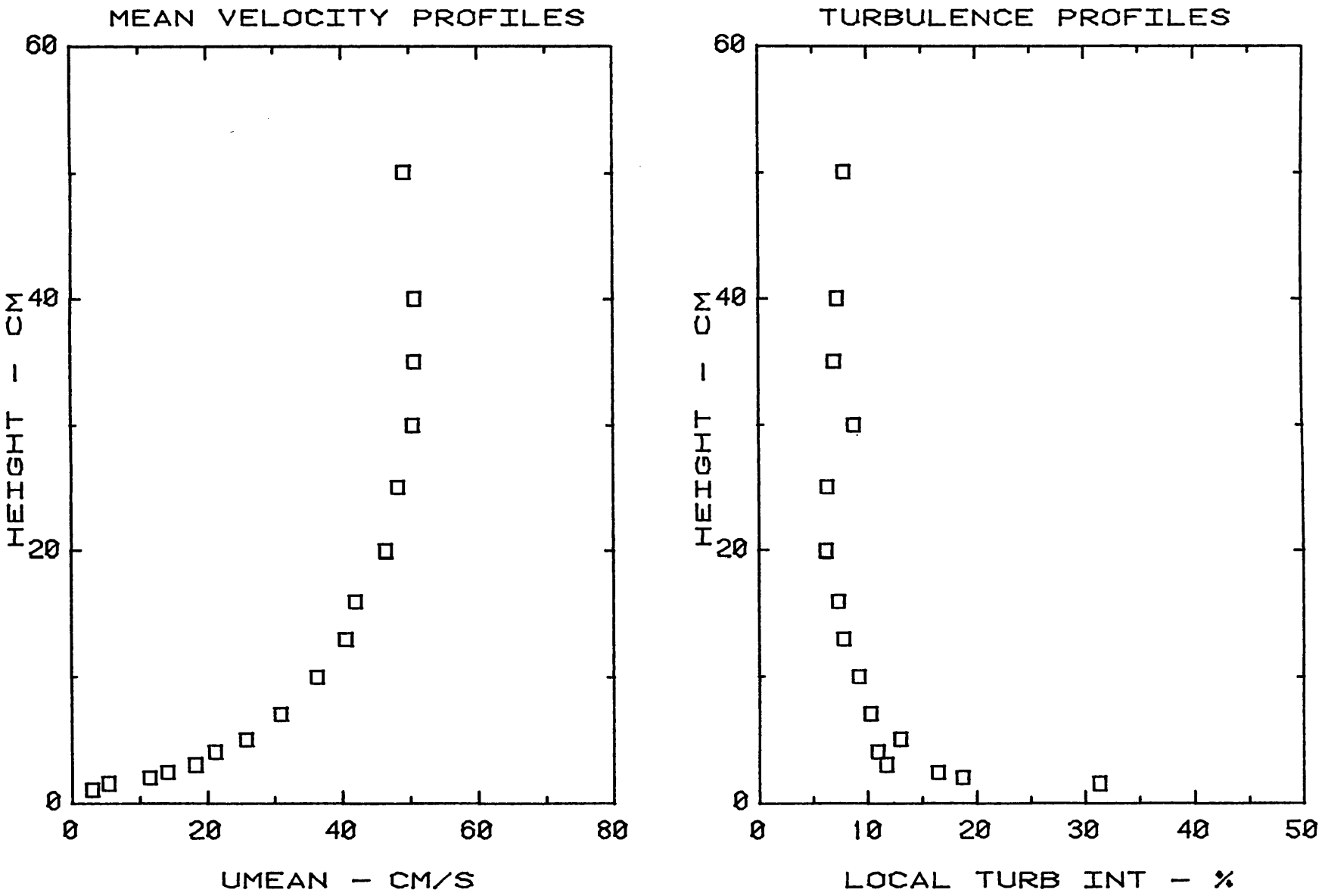

Figure 6. Model Mean Velocity and Turbulence Profiles for Reference Velocity at 6.5 mph, Neutral

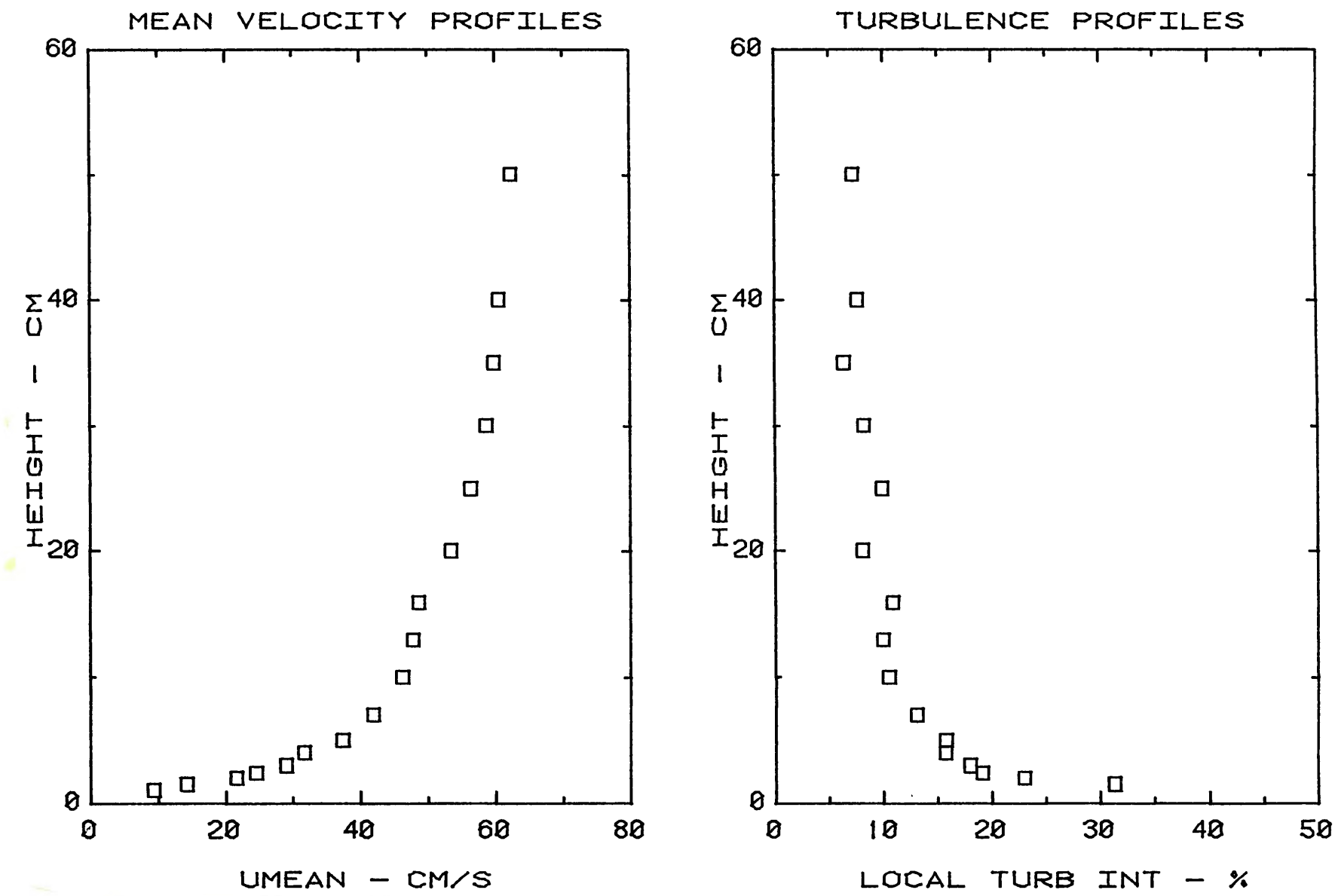

Figure 7. Model Mean Velocity and Turbulence Profiles for Reference Velocity at 10 mph, Neutral

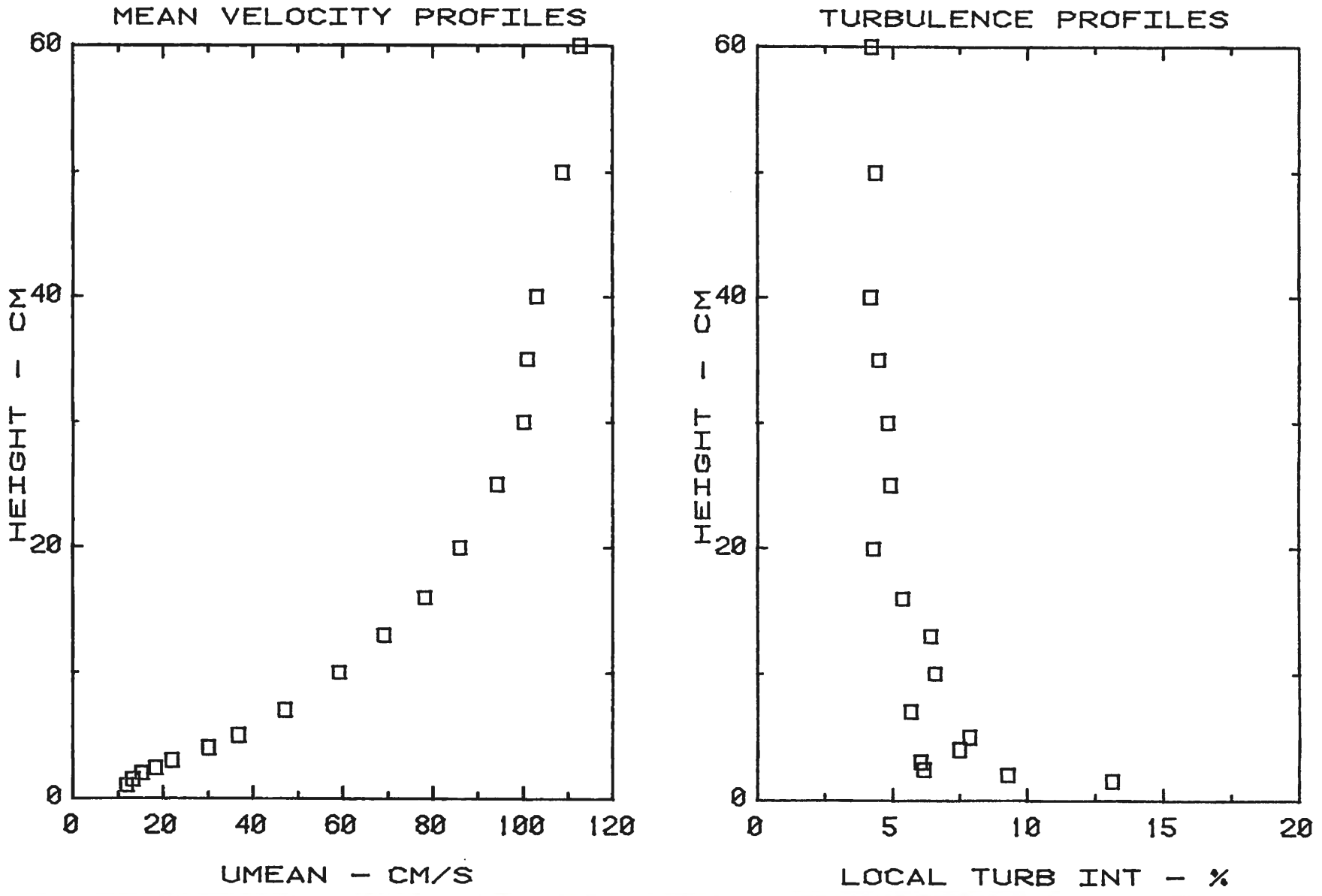

Figure 8. Model Mean Velocity and Turbulence Profiles for Reference Velocity at 6.5 mph, Stable

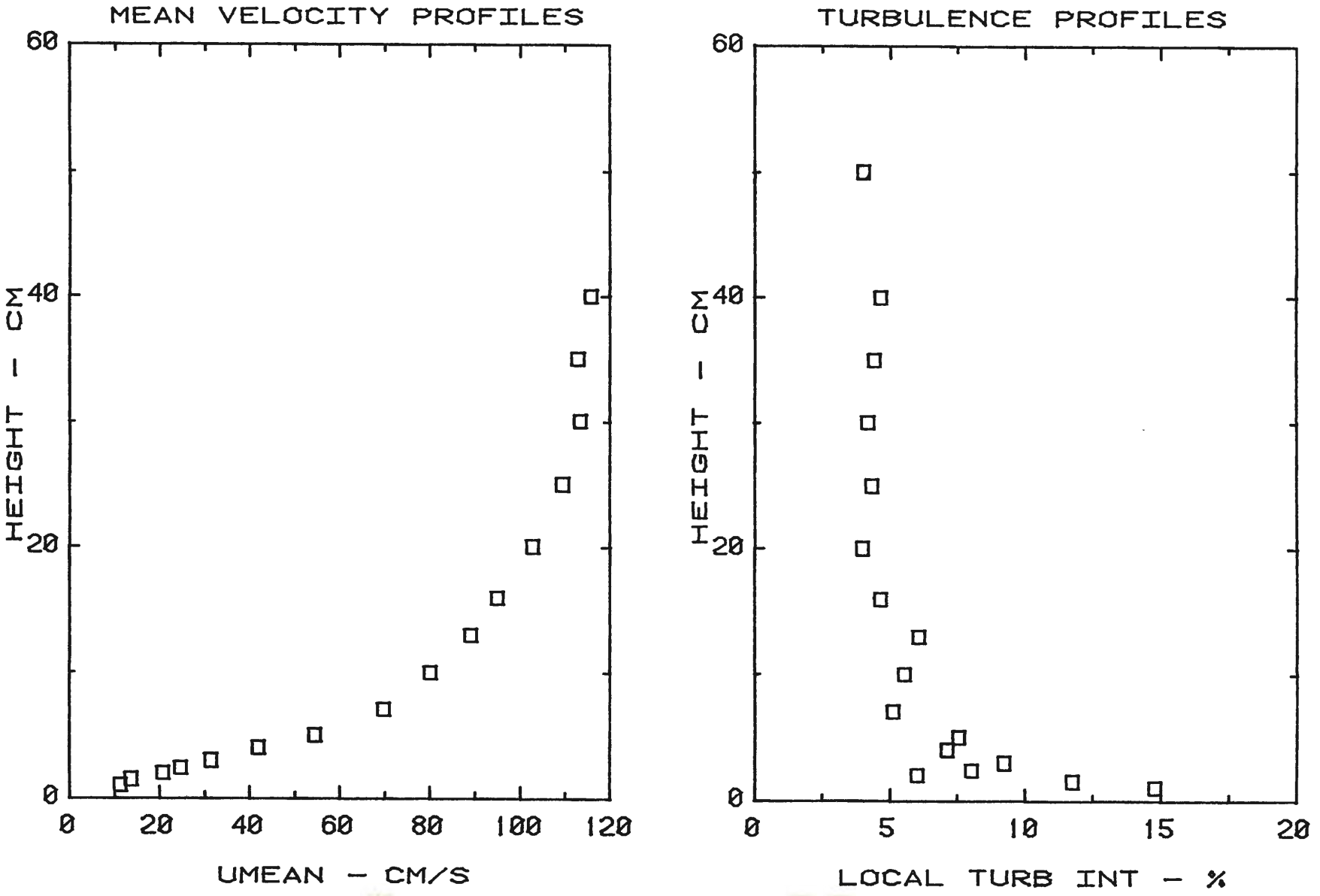

Figure 9. Model Mean Velocity and Turbulence Profiles for Reference Velocity at 10 mph, Stable

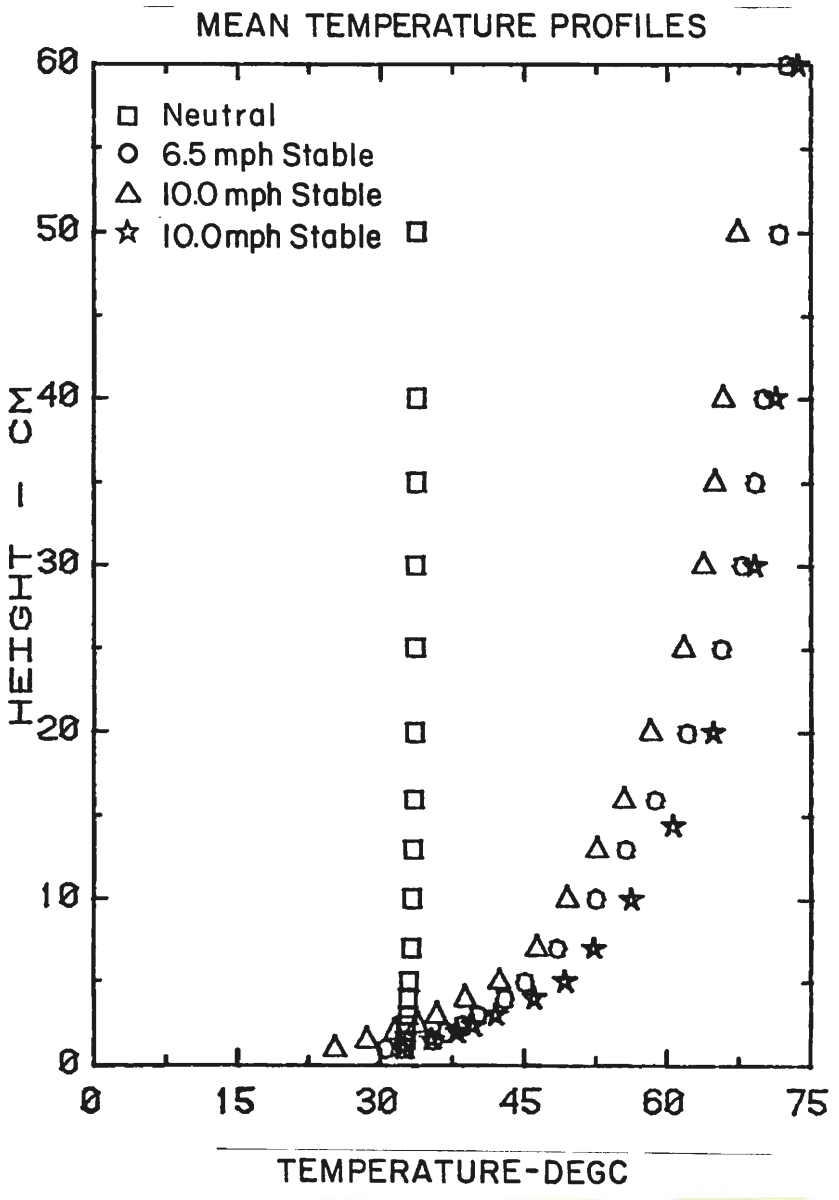

Figure 10. Model Temperature Profiles

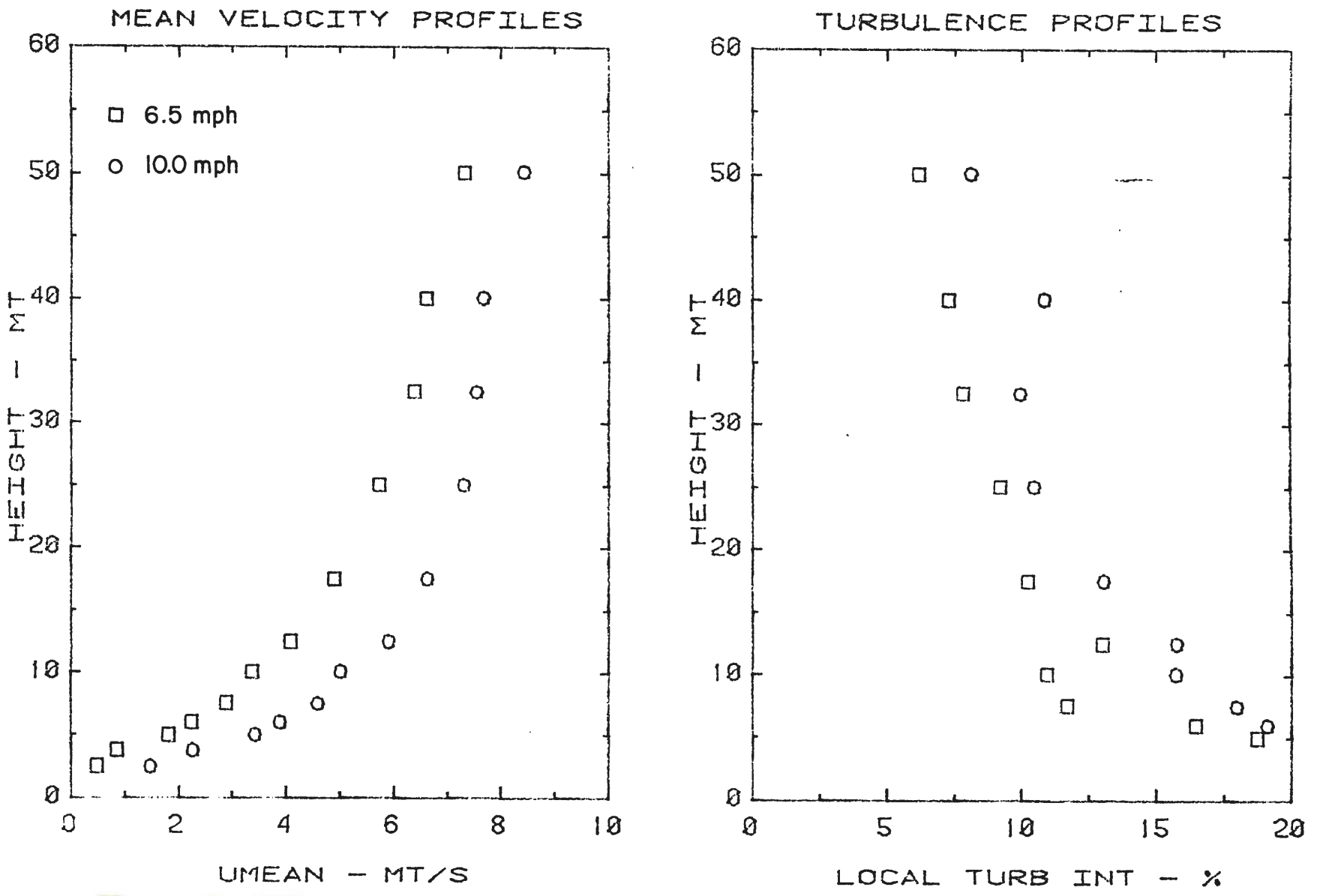

Figure 11. Mean Velocity and Turbulence Profiles for Neutral Stratification Prototype Scale

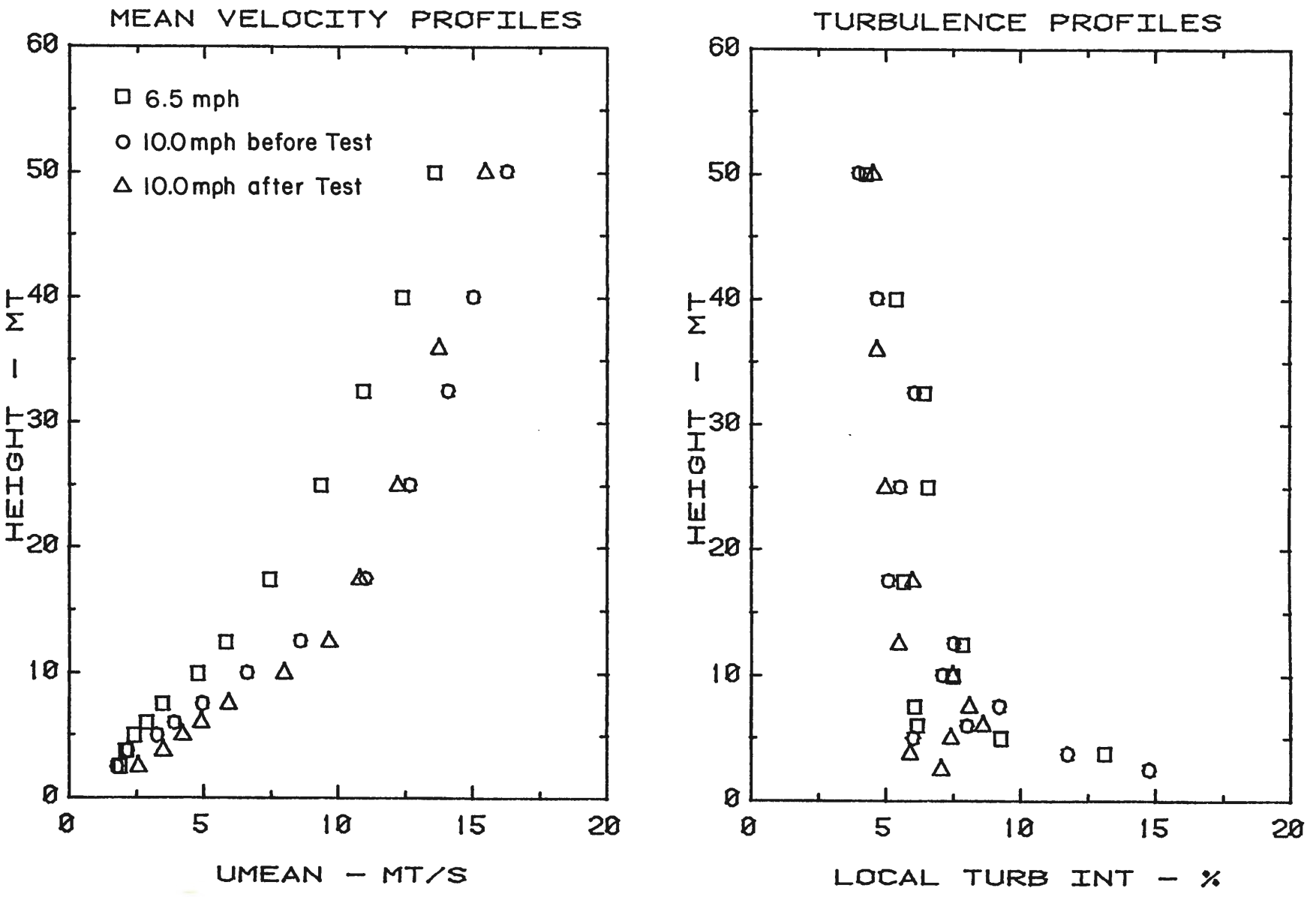

Figure 12. Mean Velocity and Turbulence Profiles for Stable Stratification Prototype Scale

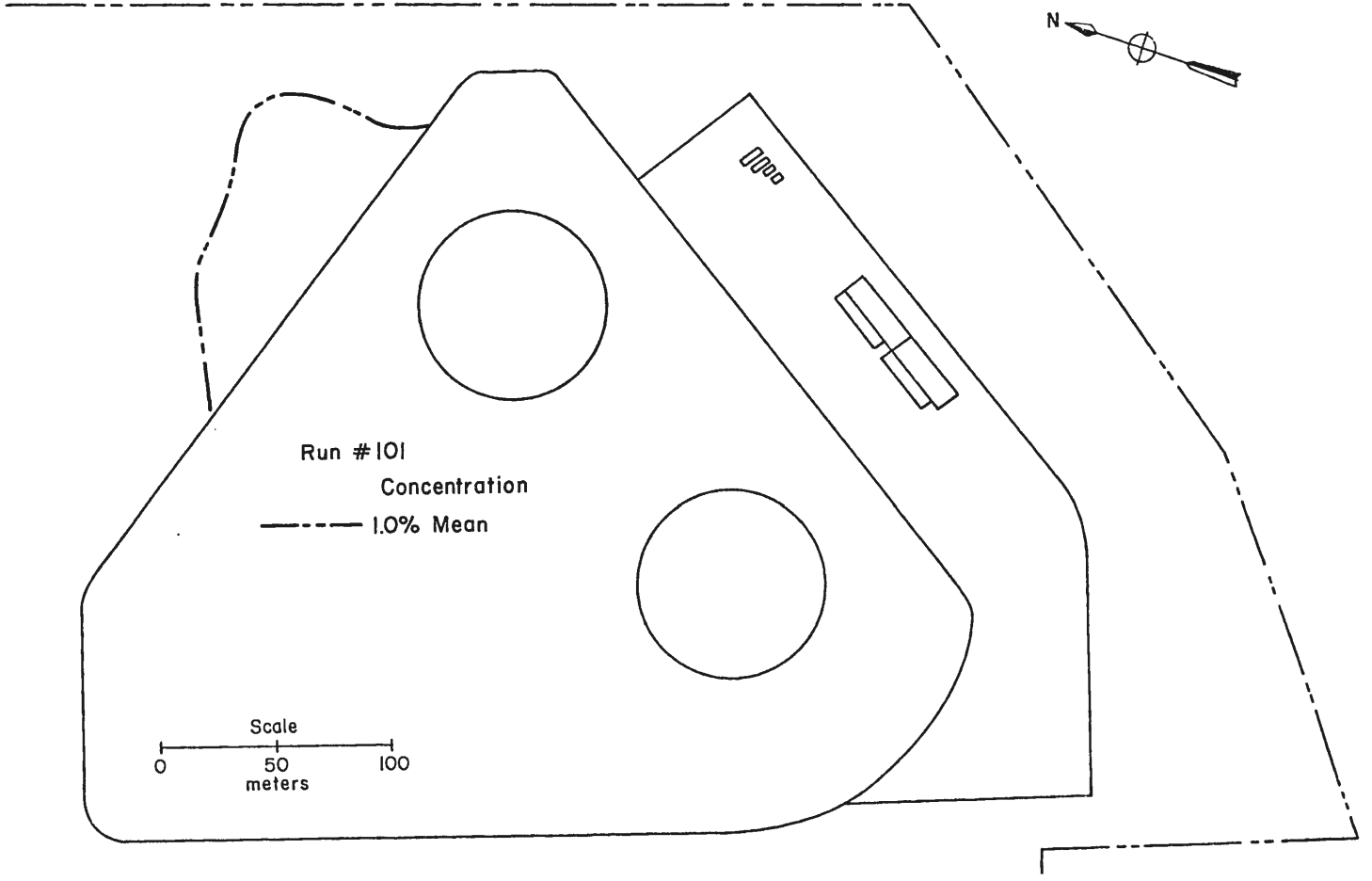

Figure 13. Concentration Isopleths

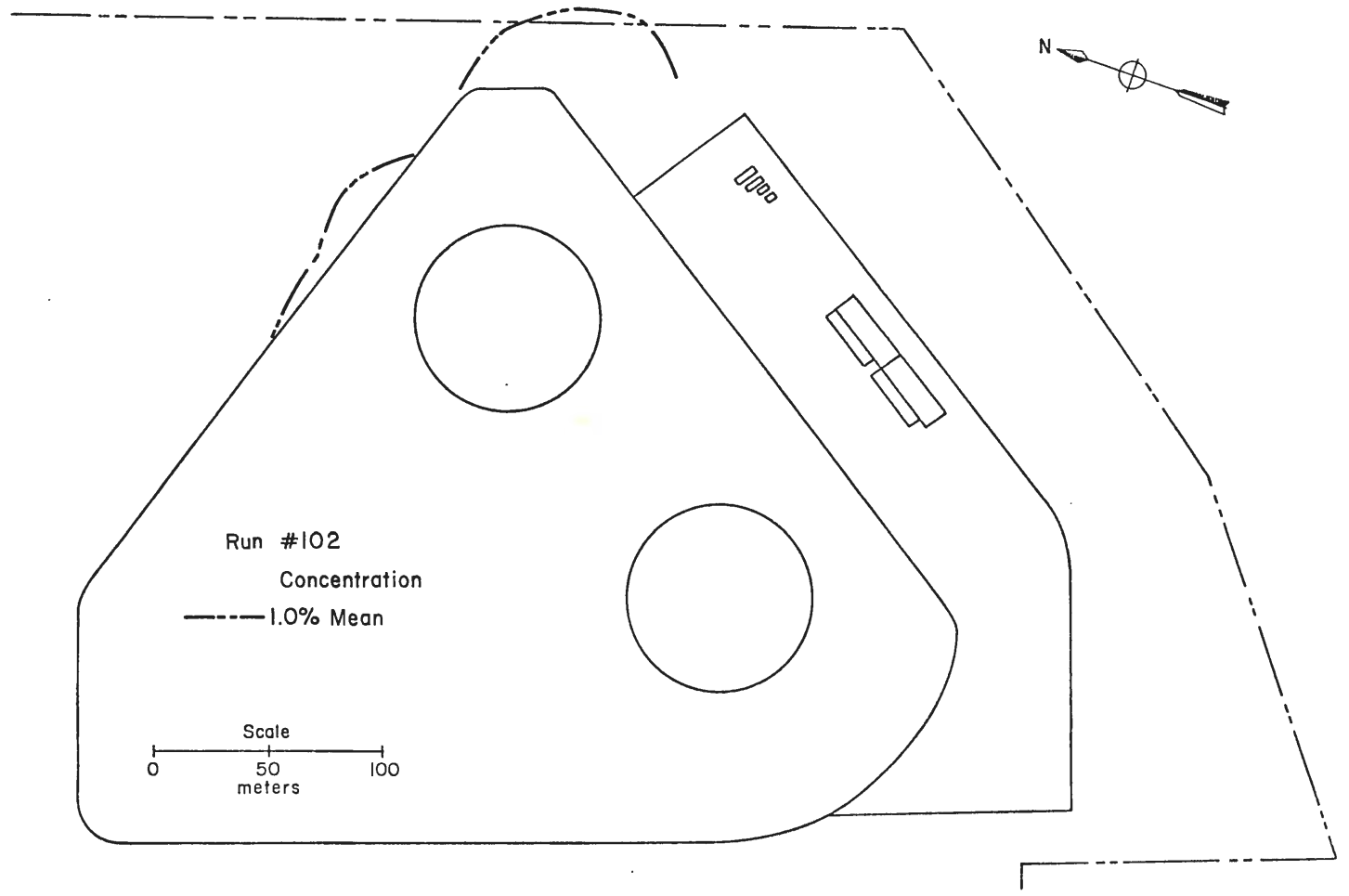

Figure 14. Concentration Isopleths

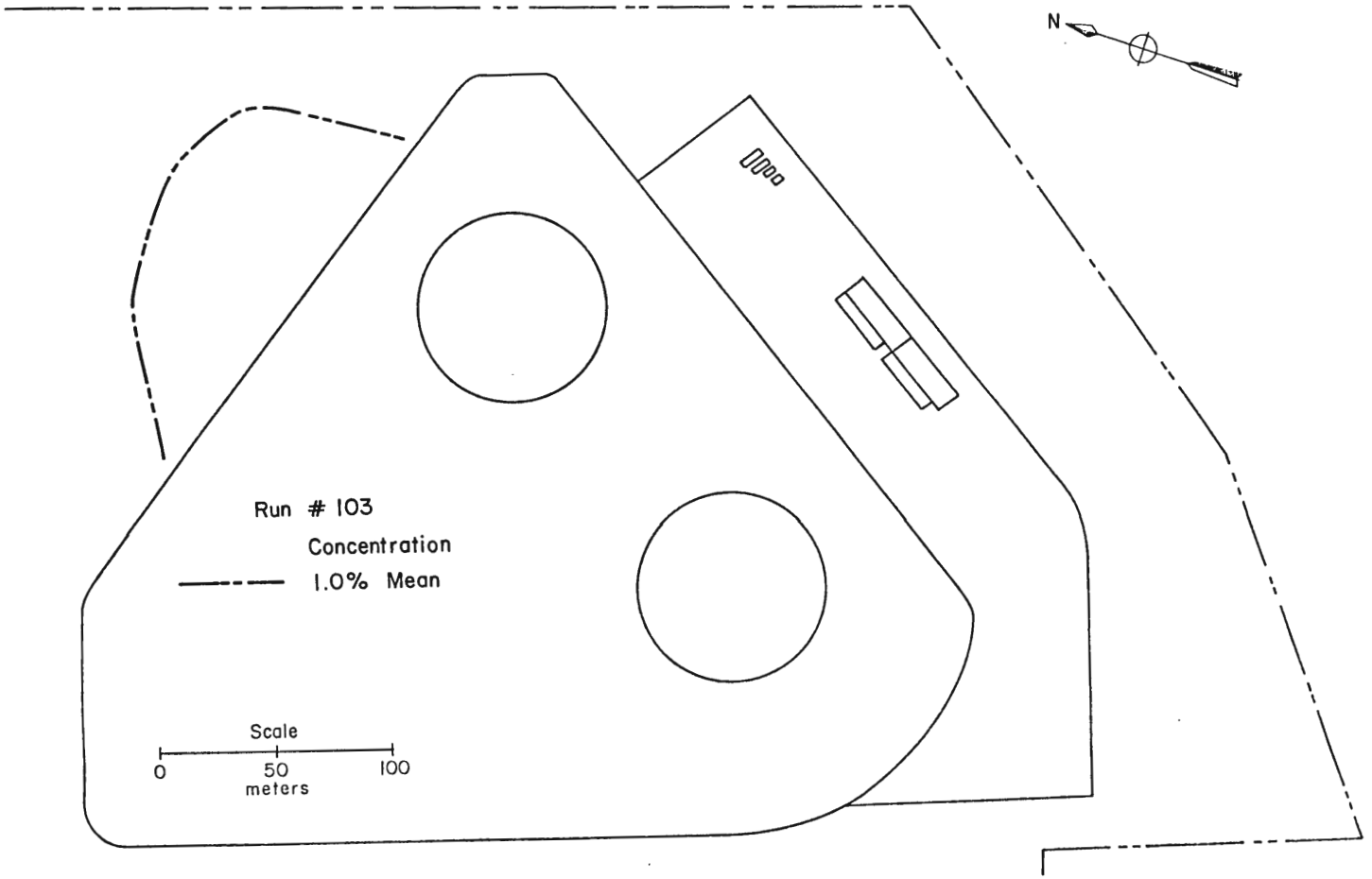

Figure 15. Concentration Isopleths

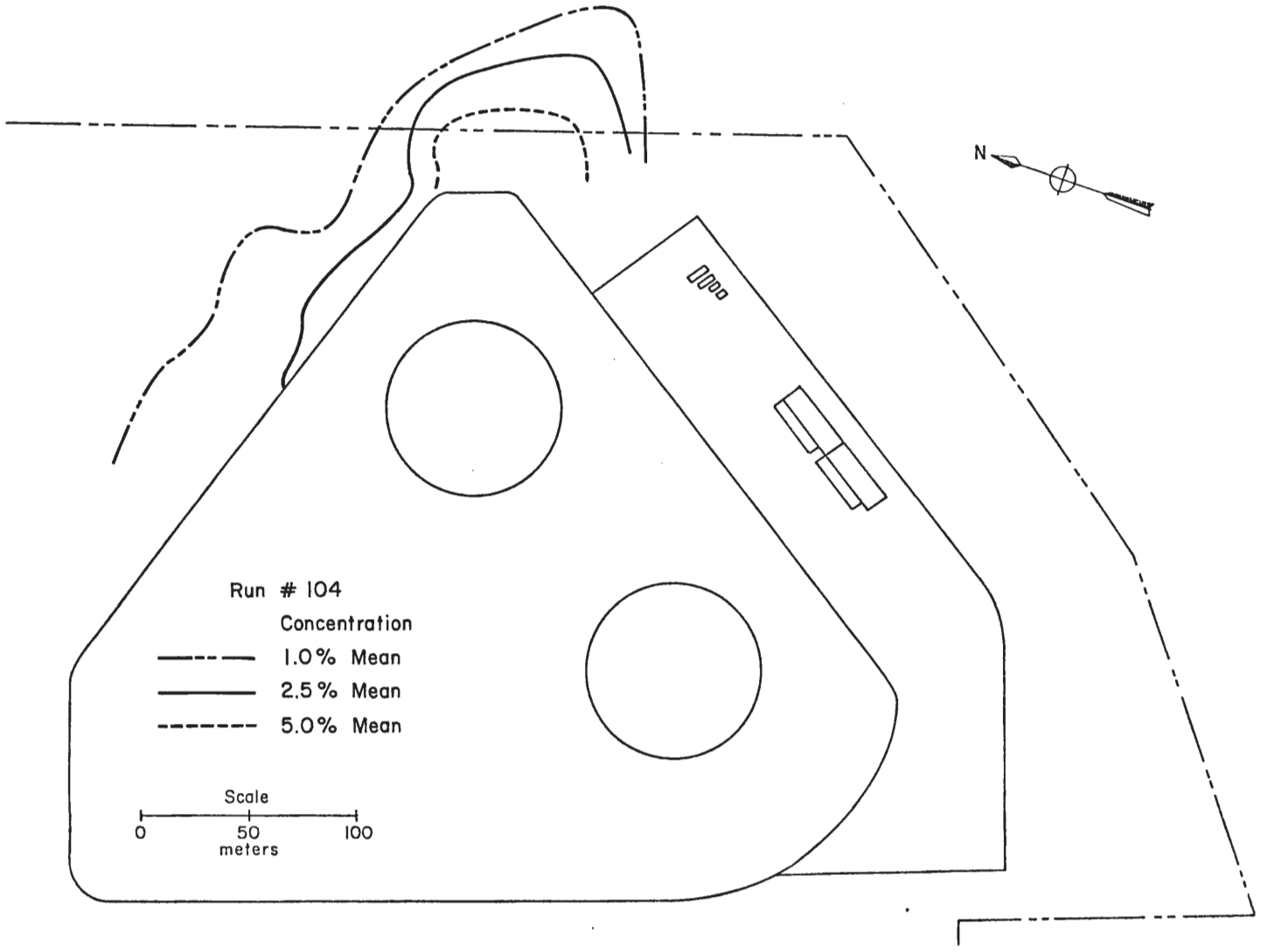

Figure 16. Concentration Isopleths

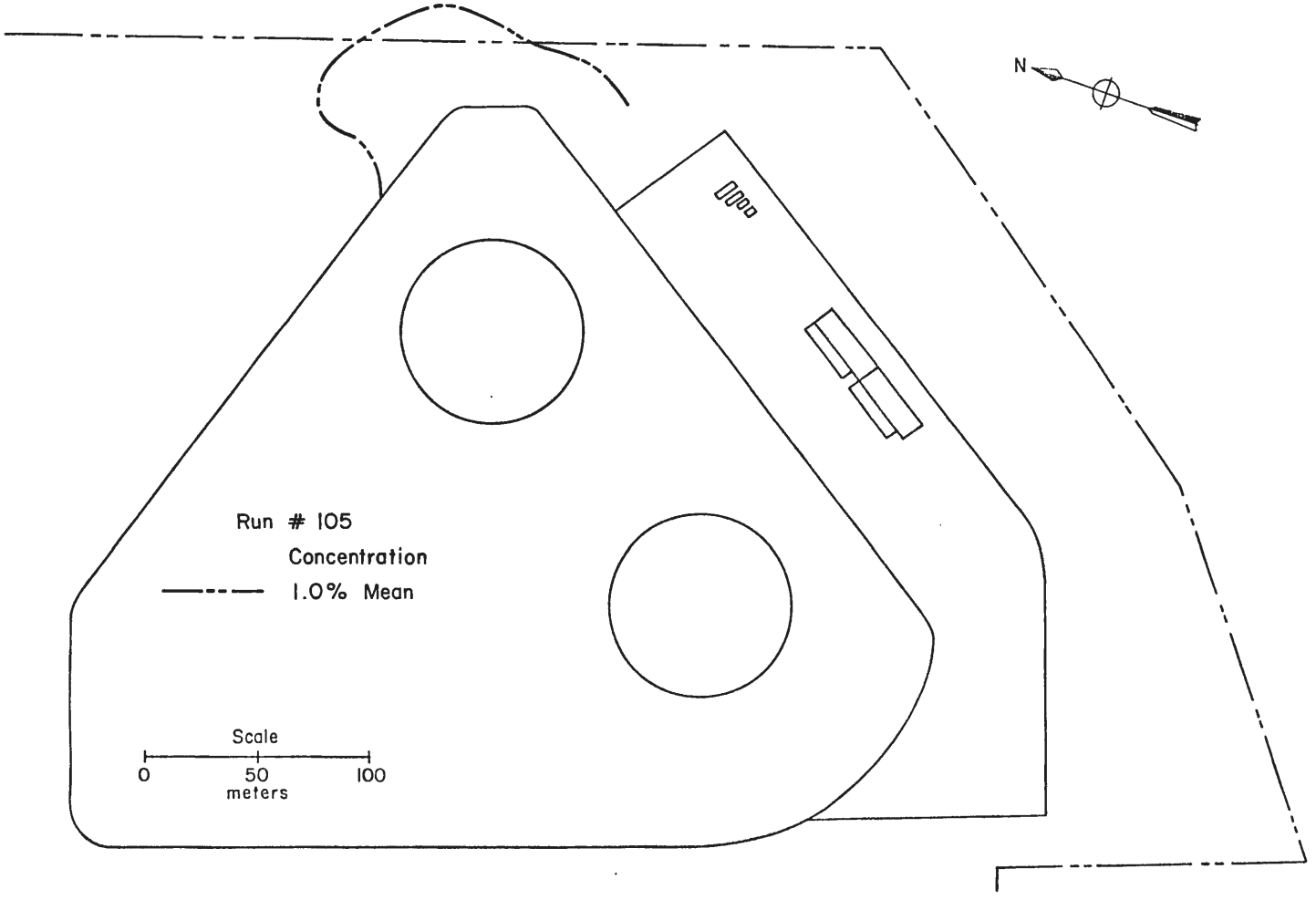

Figure 17. Concentration Isopleths

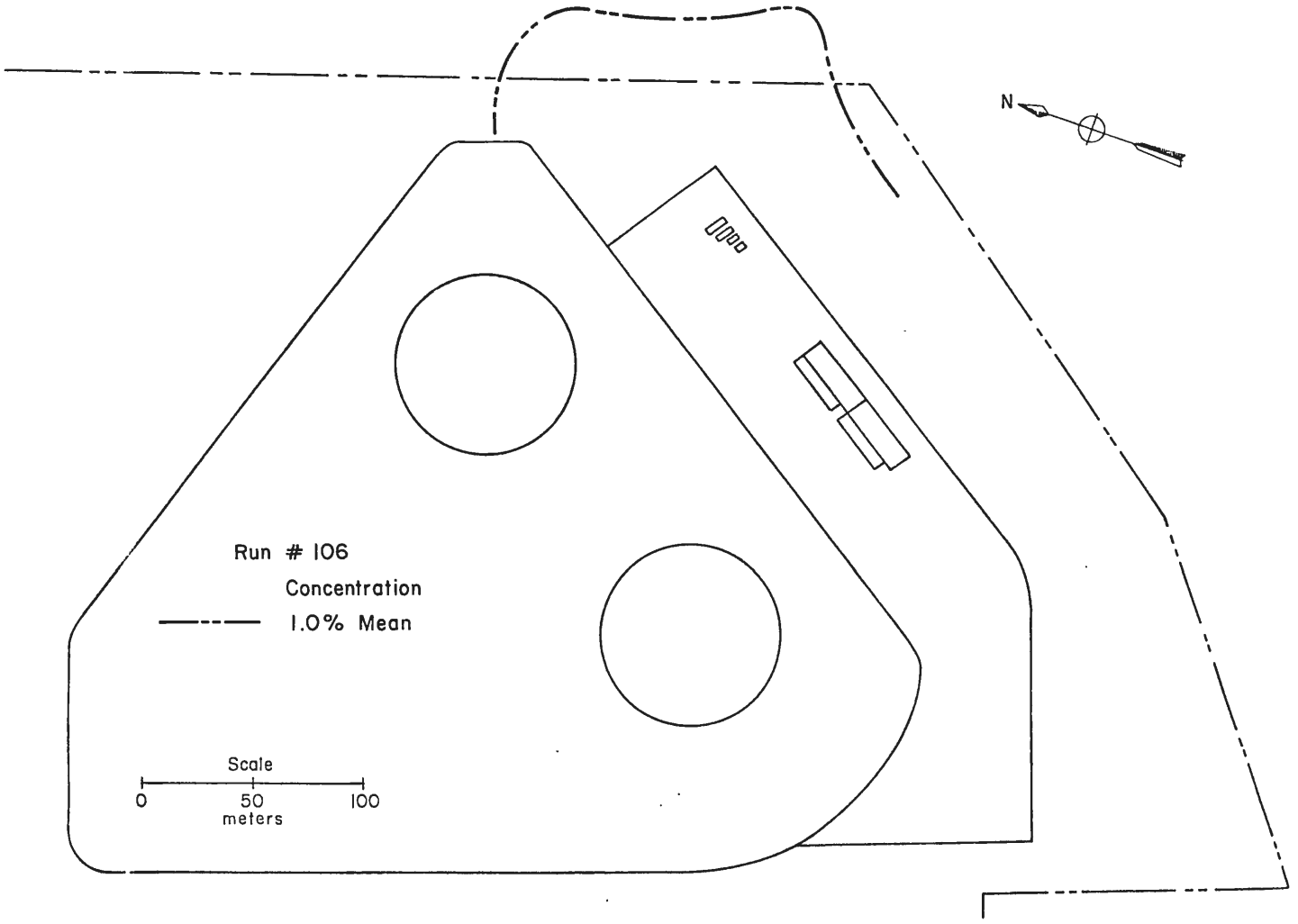

Figure 18. Concentration Isopleths

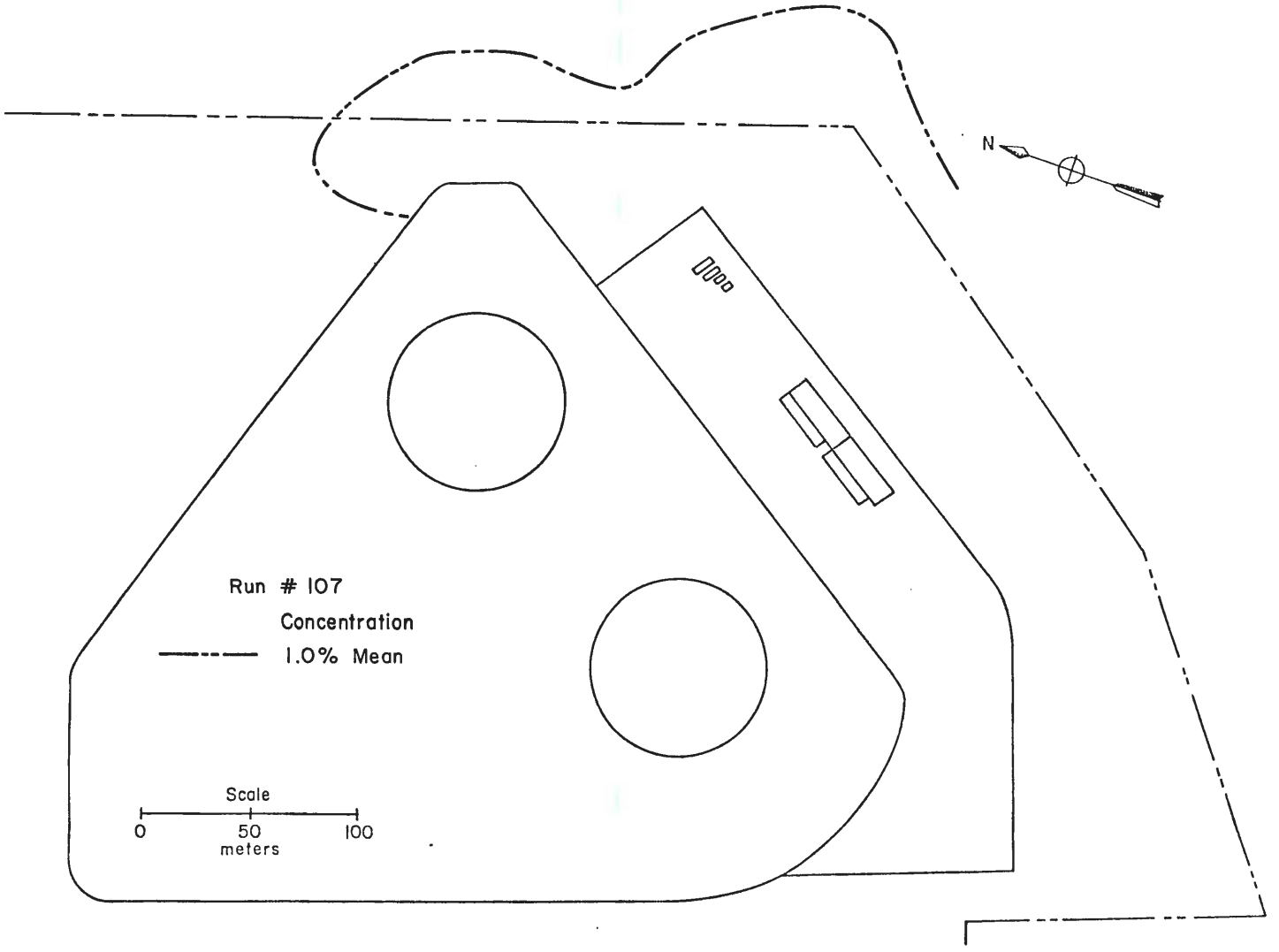

Figure 19. Concentration Isopleths

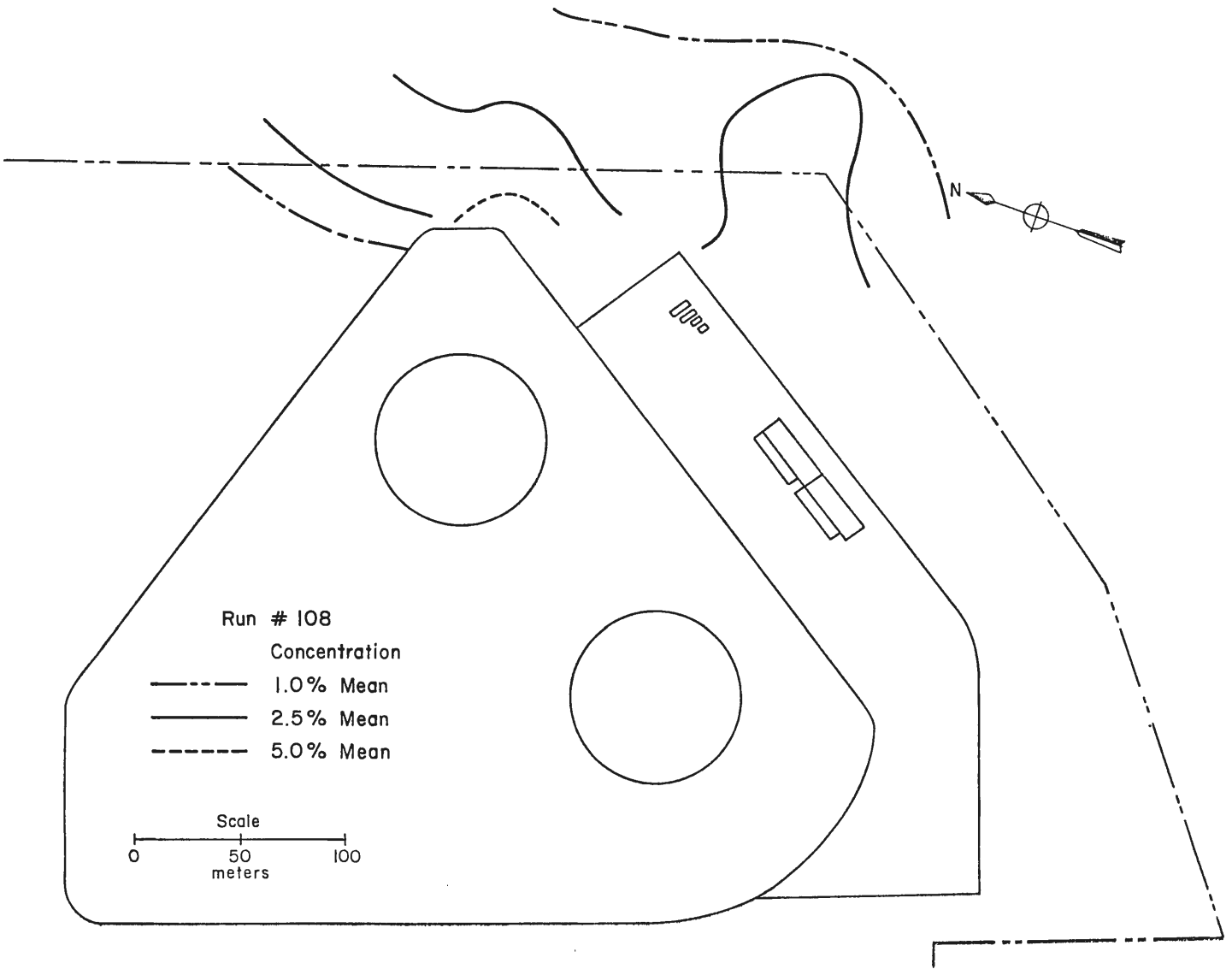

Figure 20. Concentration Isopleths

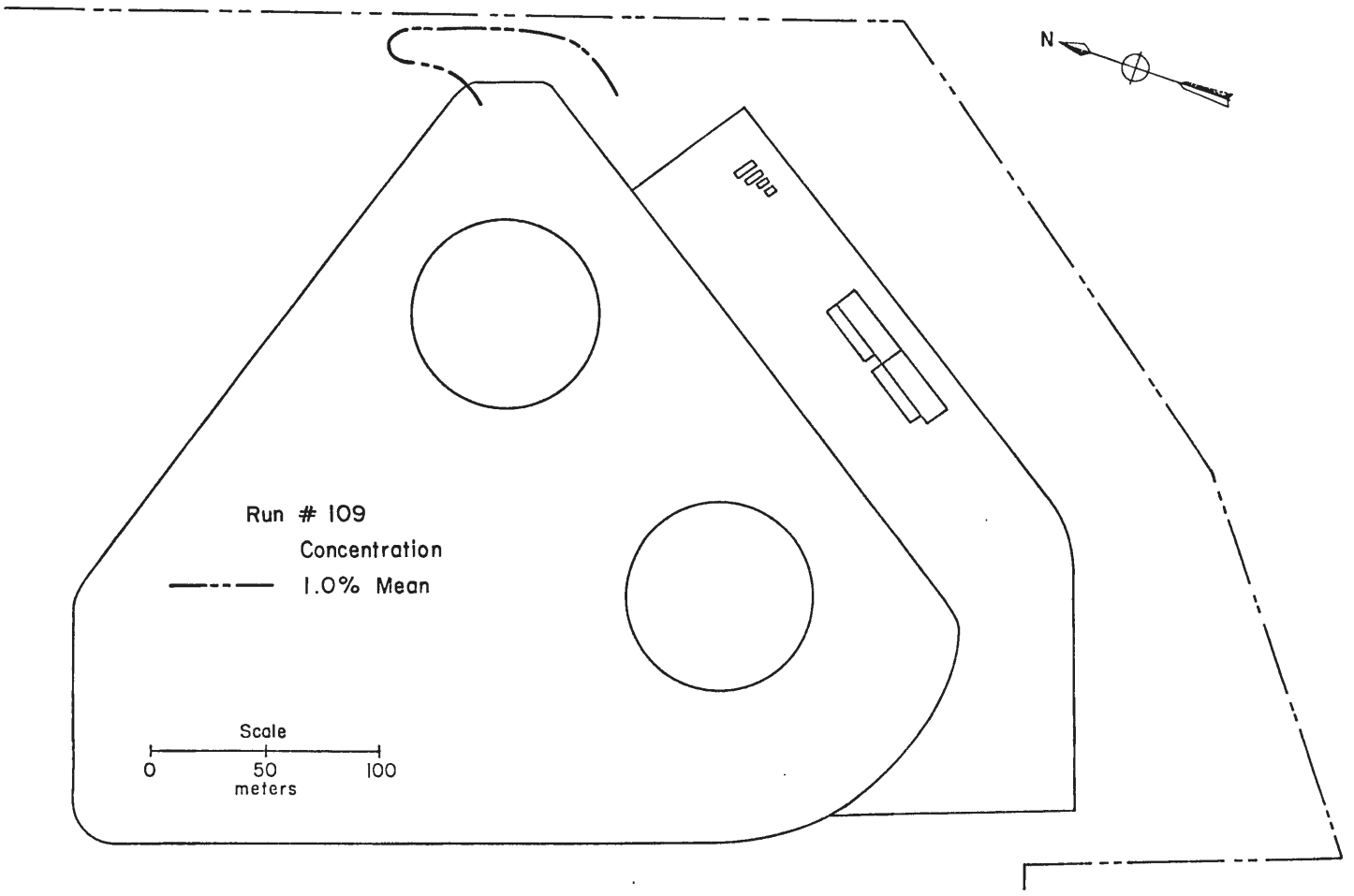

Figure 21. Concentration Isopleths

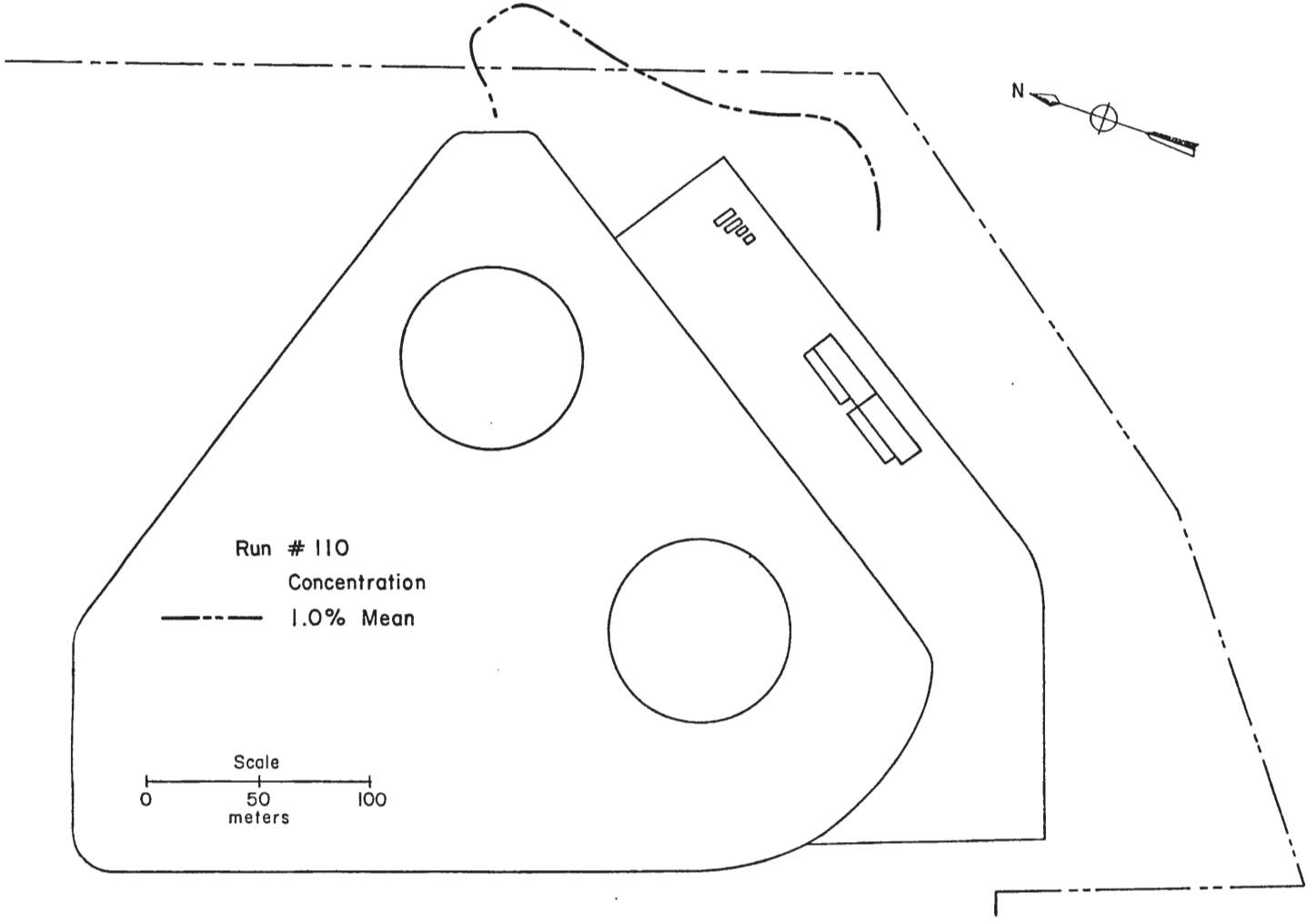

Figure 22. Concentration Isopleths

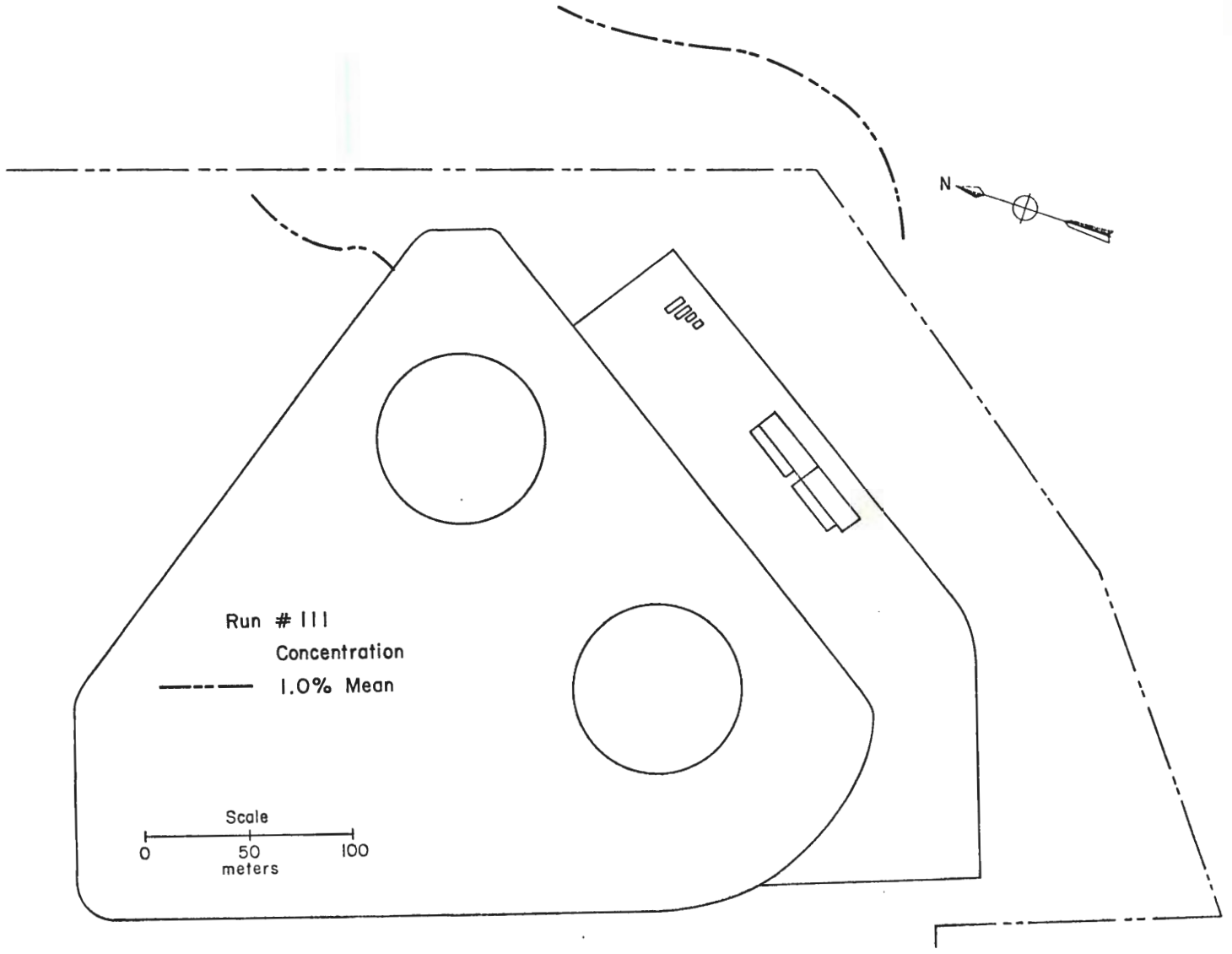

Figure 23. Concentration Isopleths

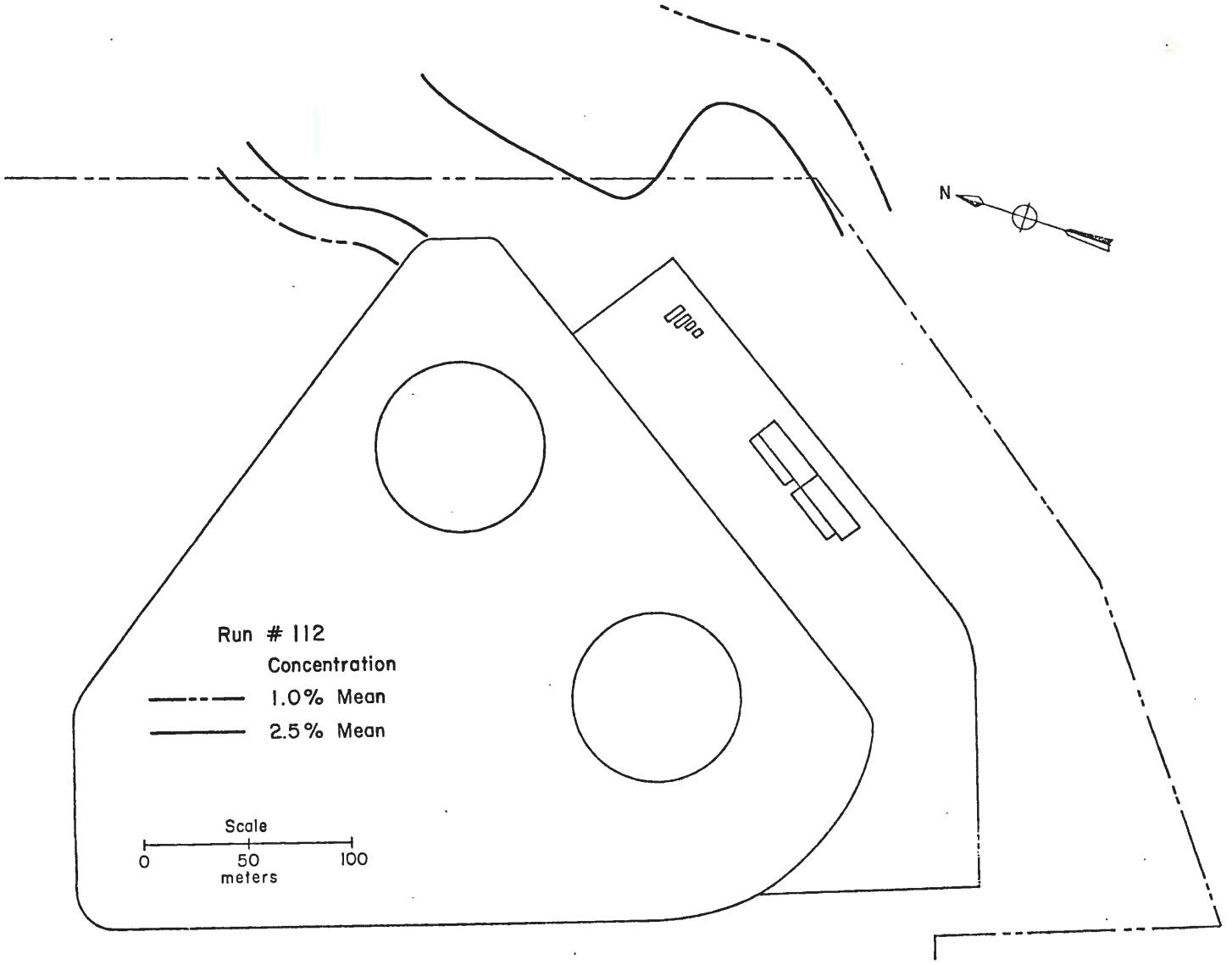

Figure 24. Concentration Isopleths

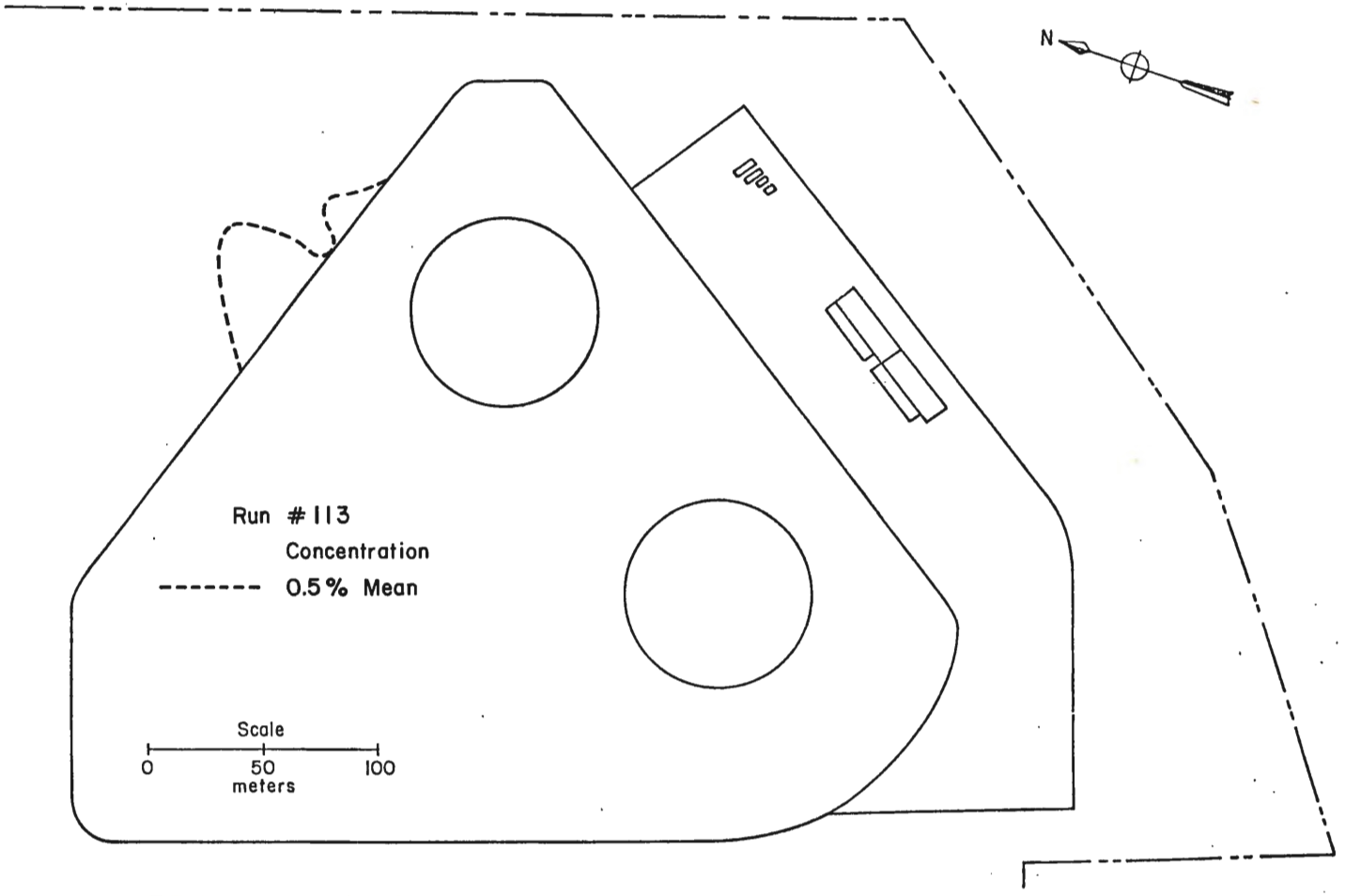

Figure 25. Concentration Isopleths

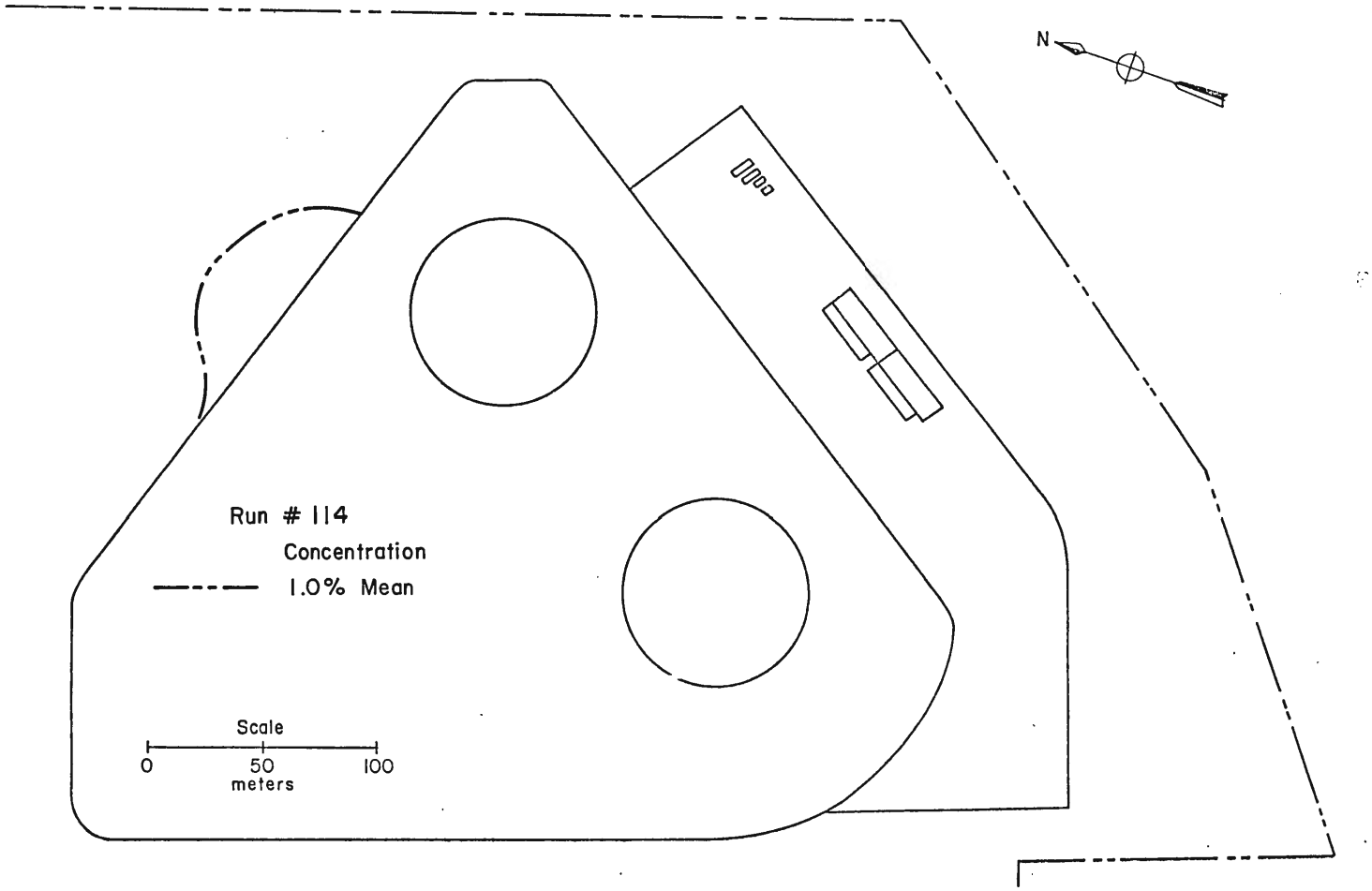

Figure 26. Concentration Isopleths

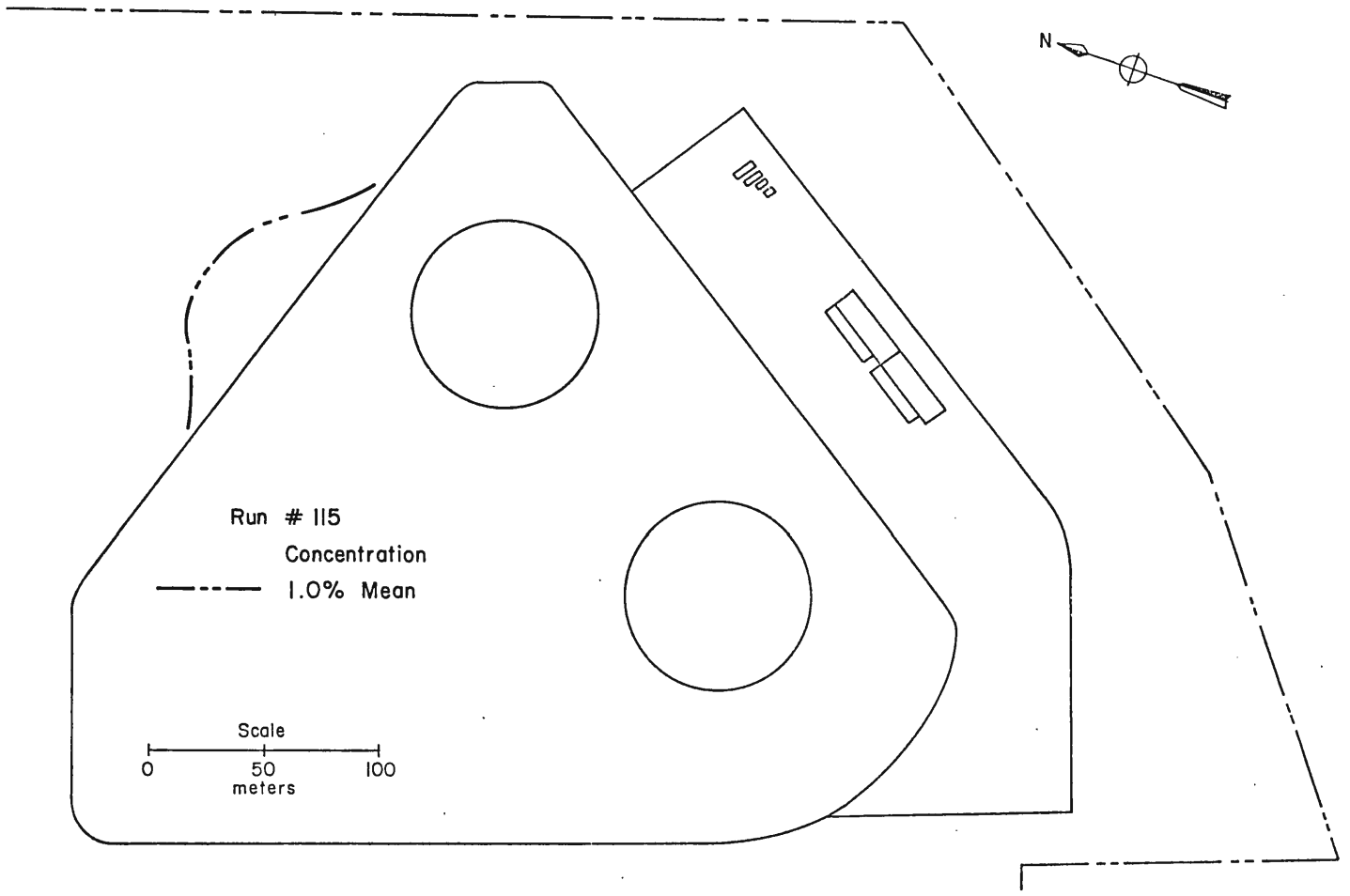

Figure 27. Concentration Isopleths

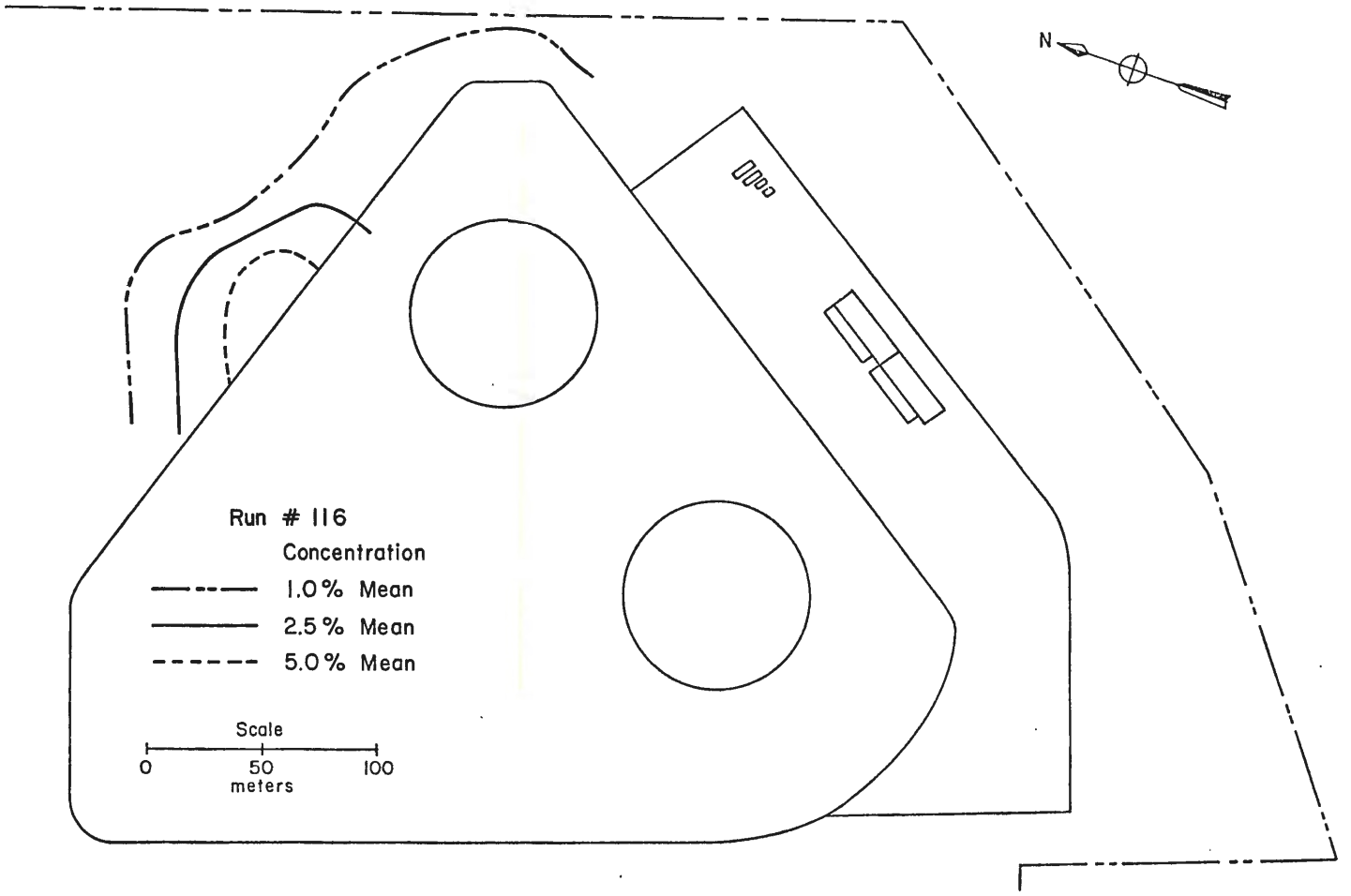

Figure 28. Concentration Isopleths

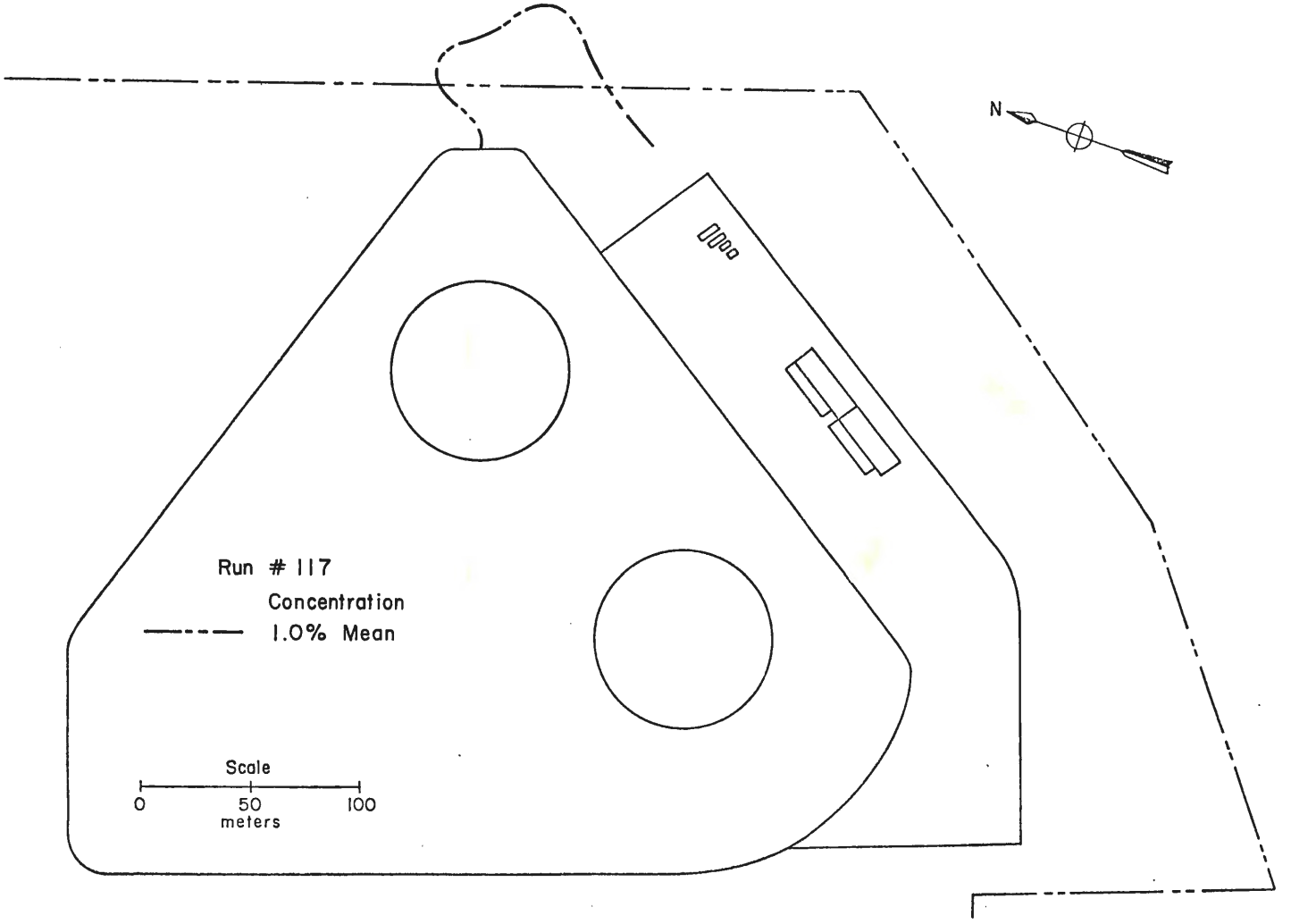

Figure 29. Concentration Isopleths

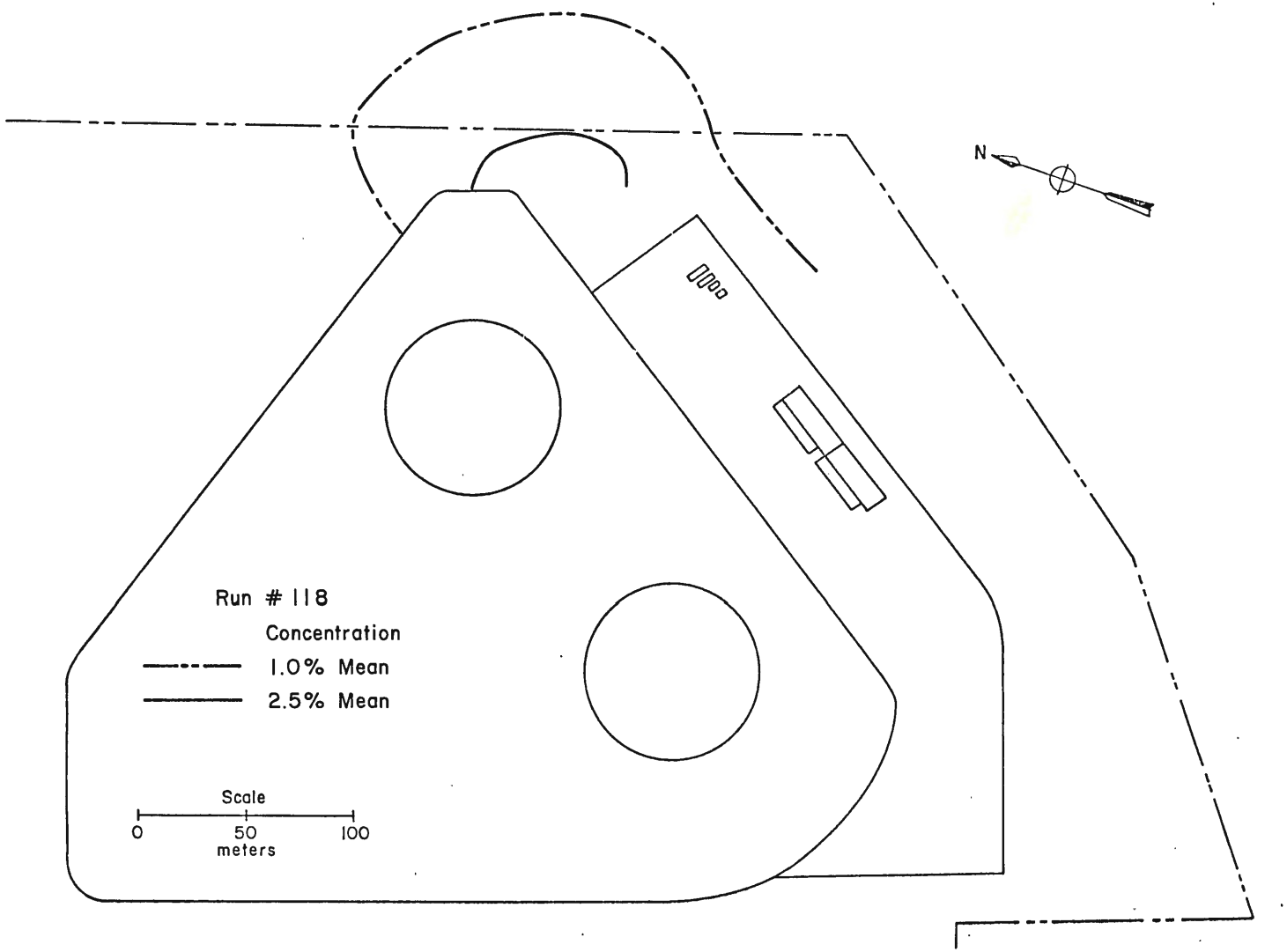

Figure 30. Concentration Isopleths

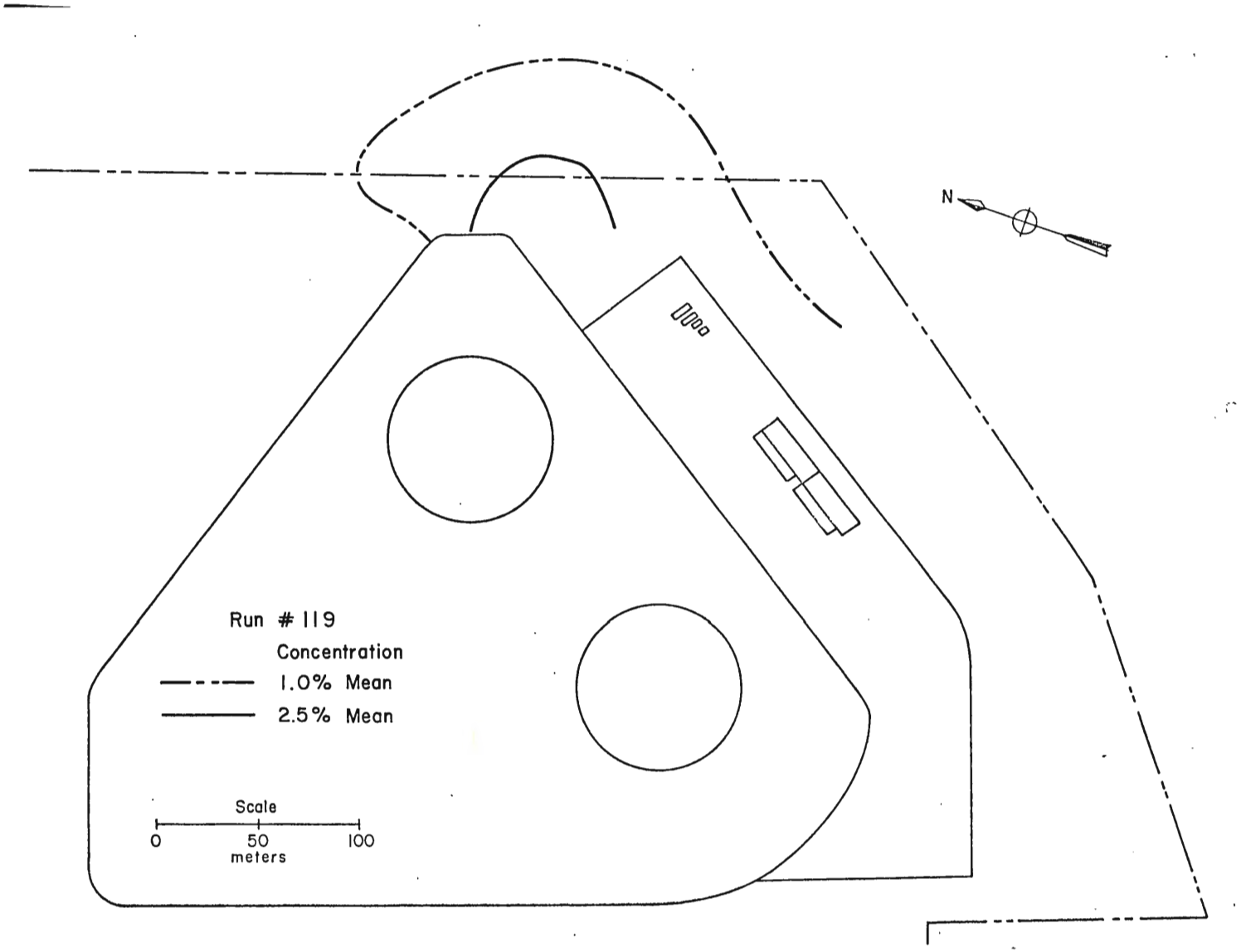

Figure 31. Concentration Isopleths

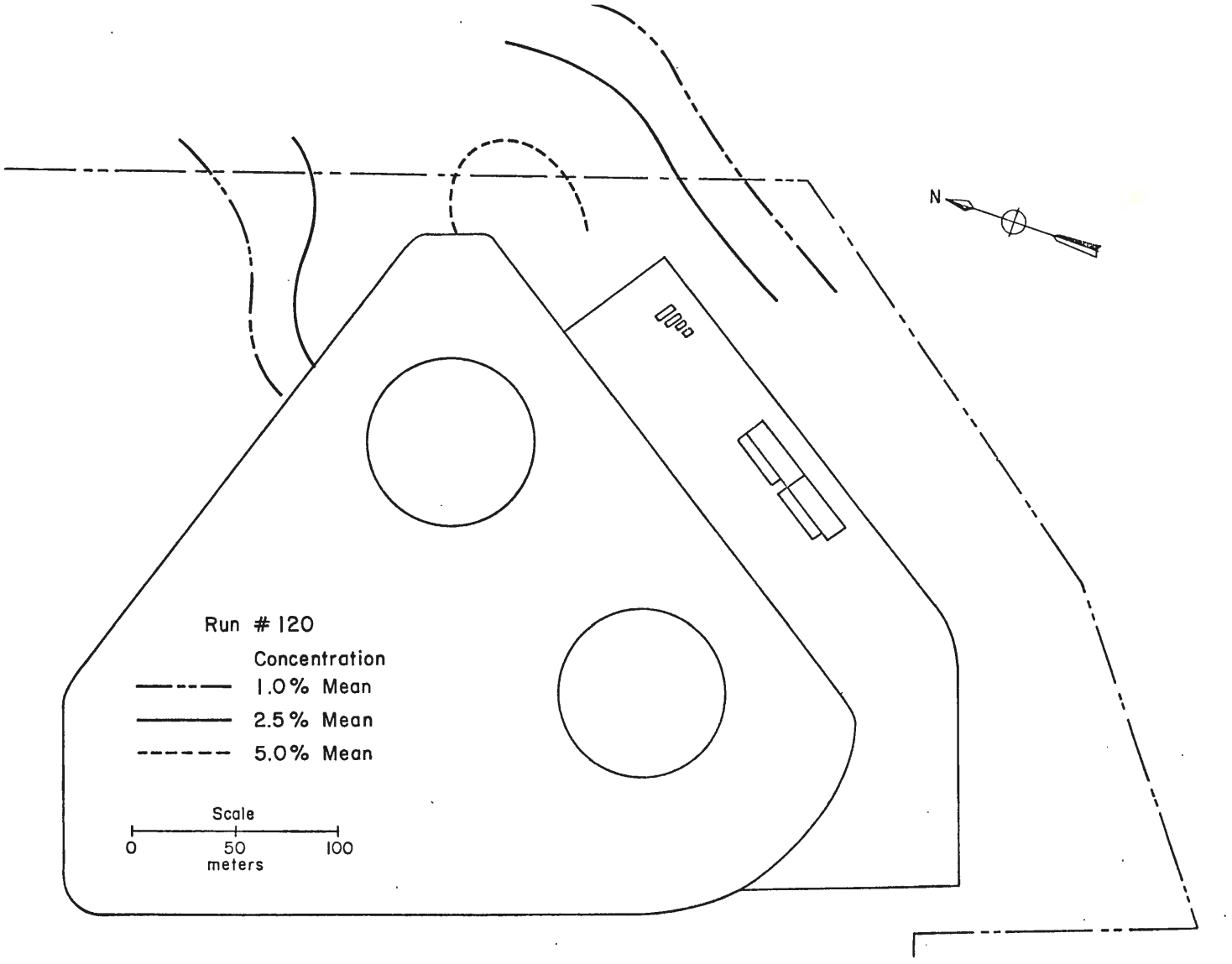

Figure 32. Concentration Isopleths

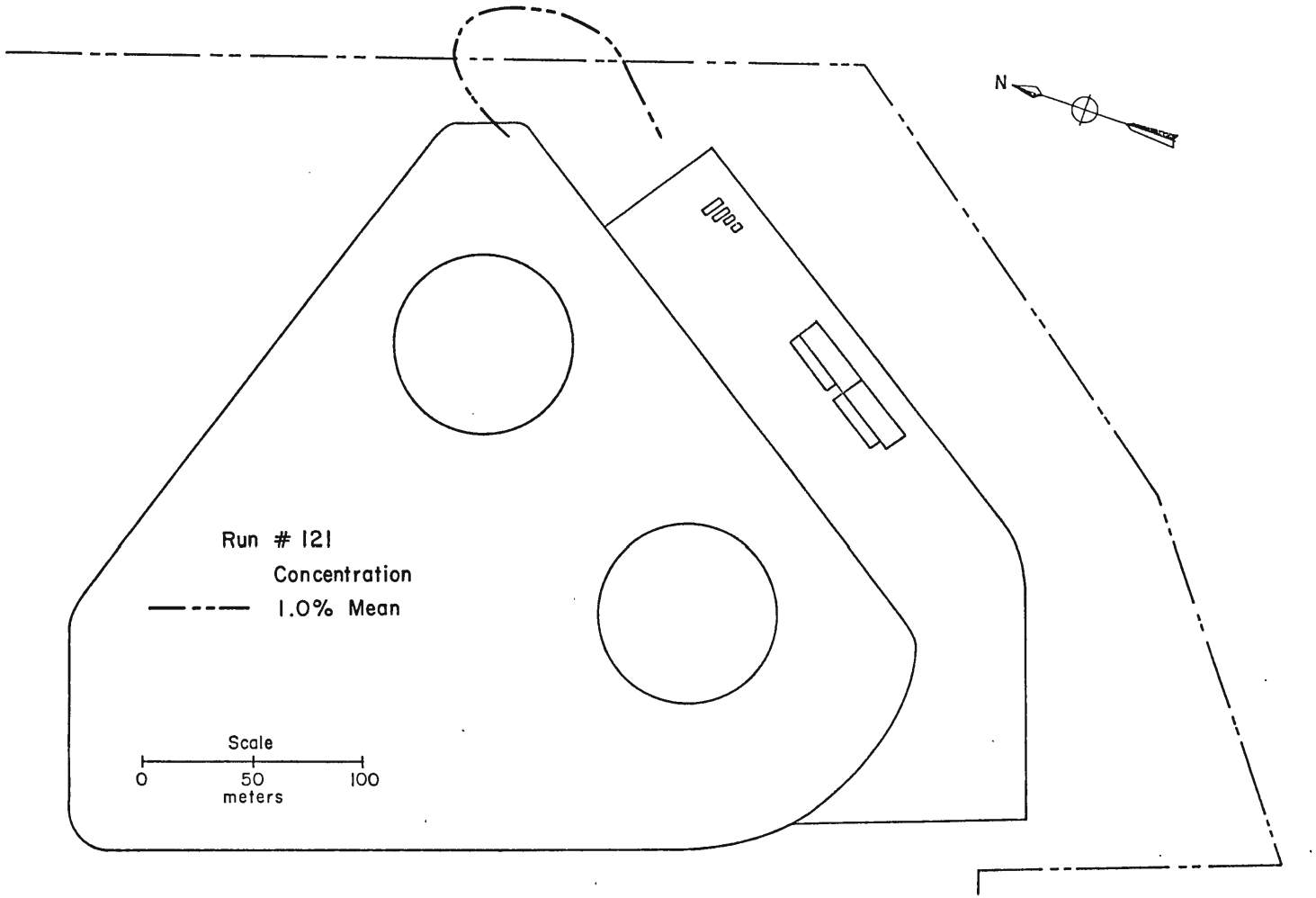

Figure 33. Concentration Isopleths

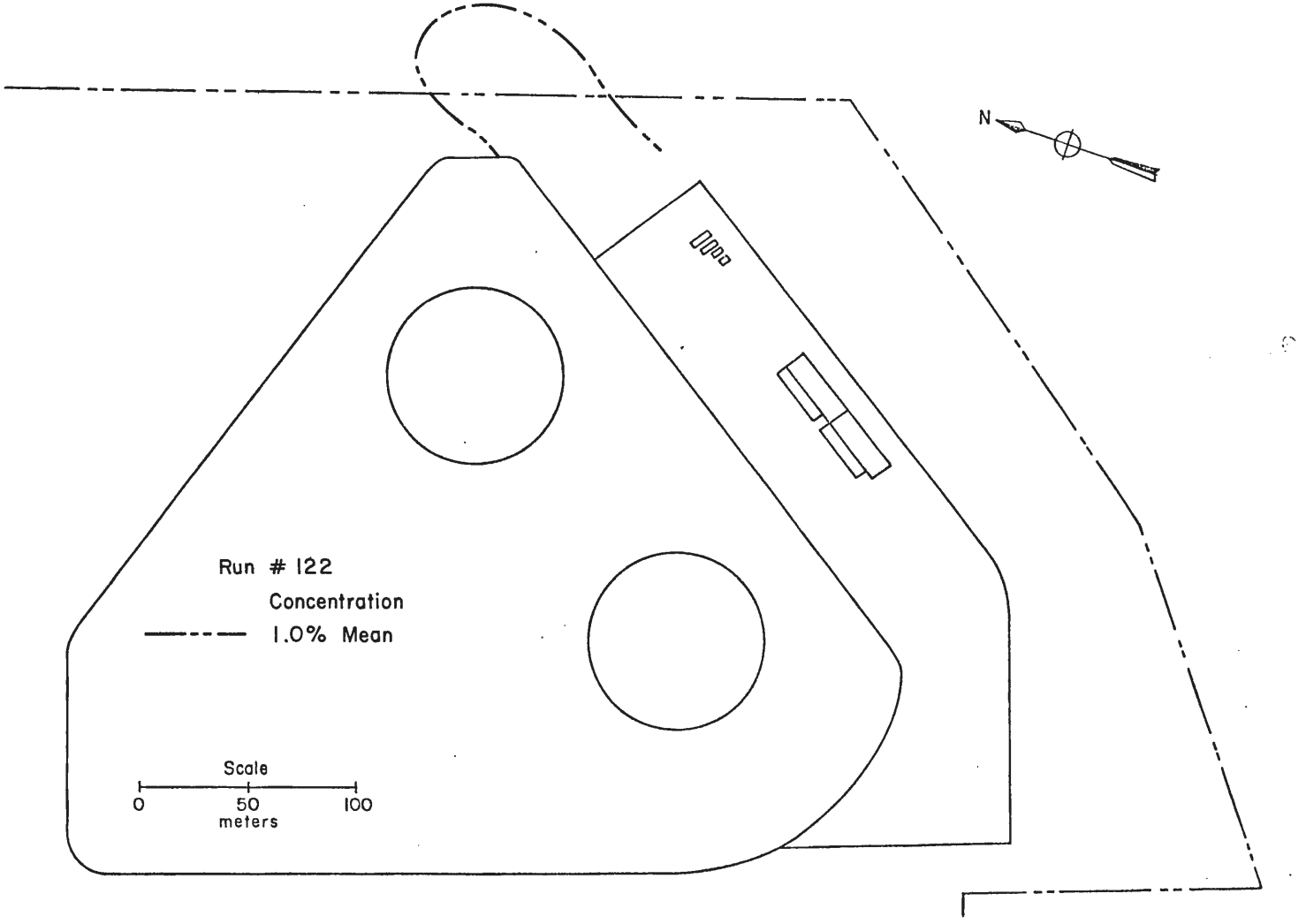

Figure 34. Concentration Isopleths

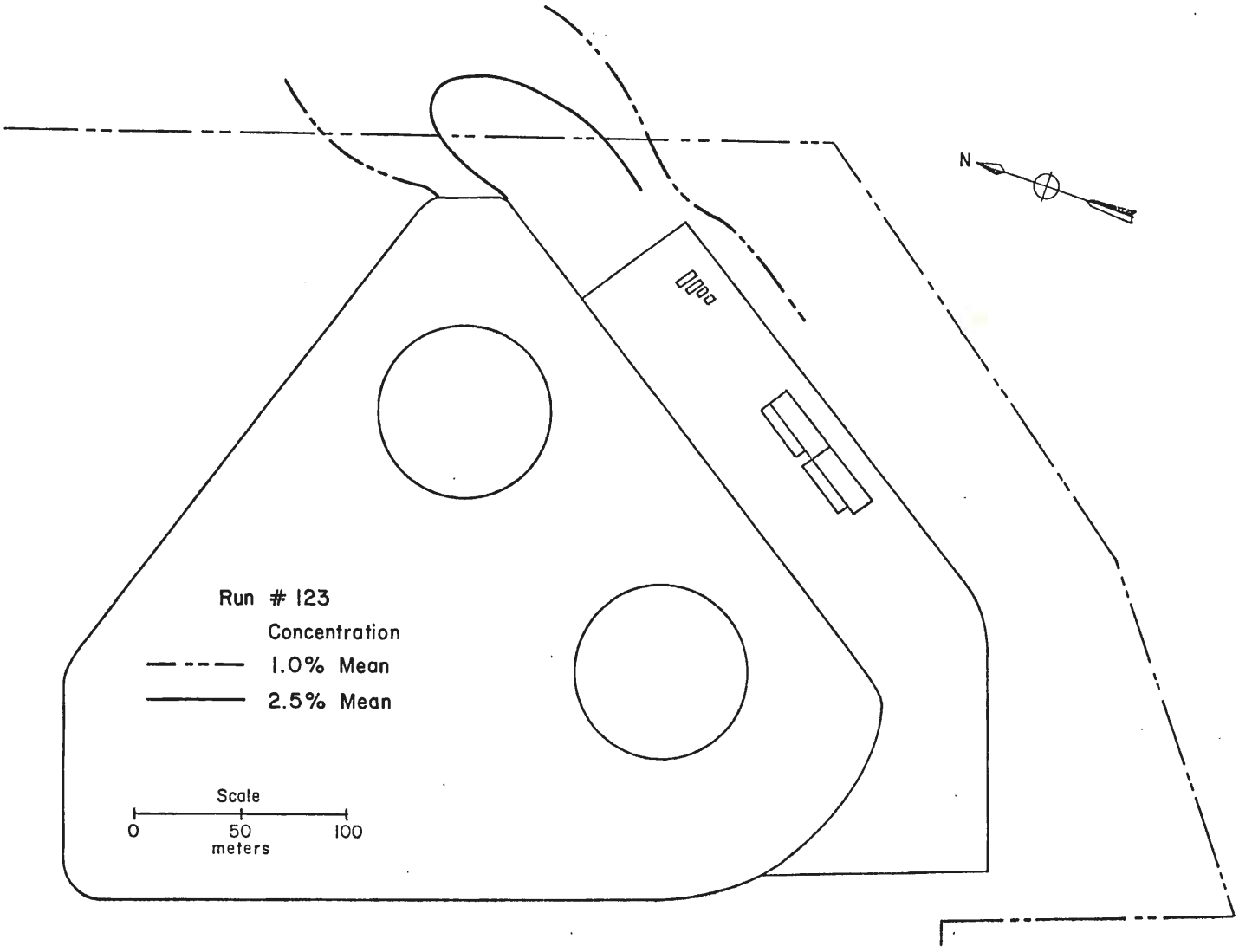

Figure 35. Concentration Isopleths

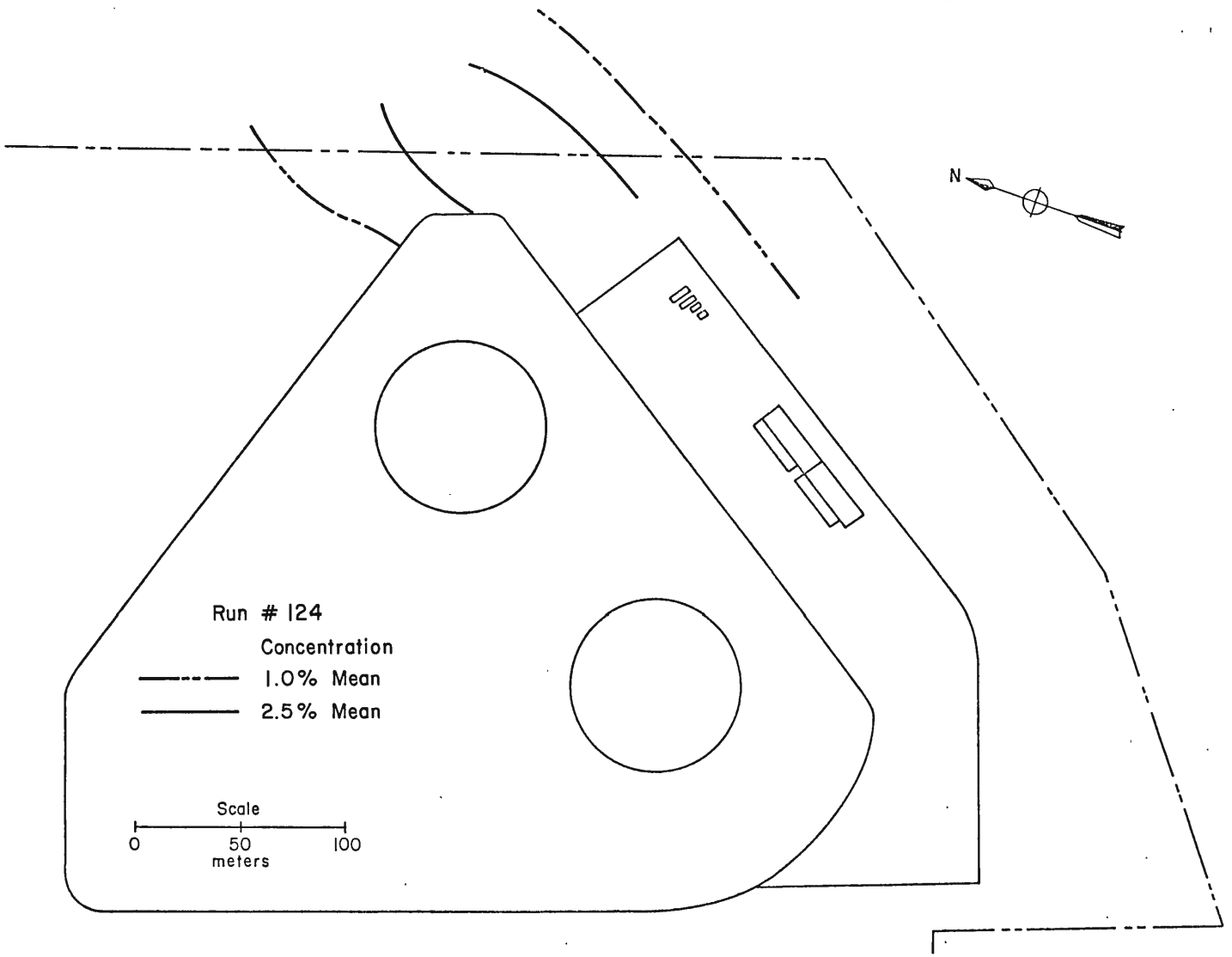

Figure 36. Concentration Isopleths

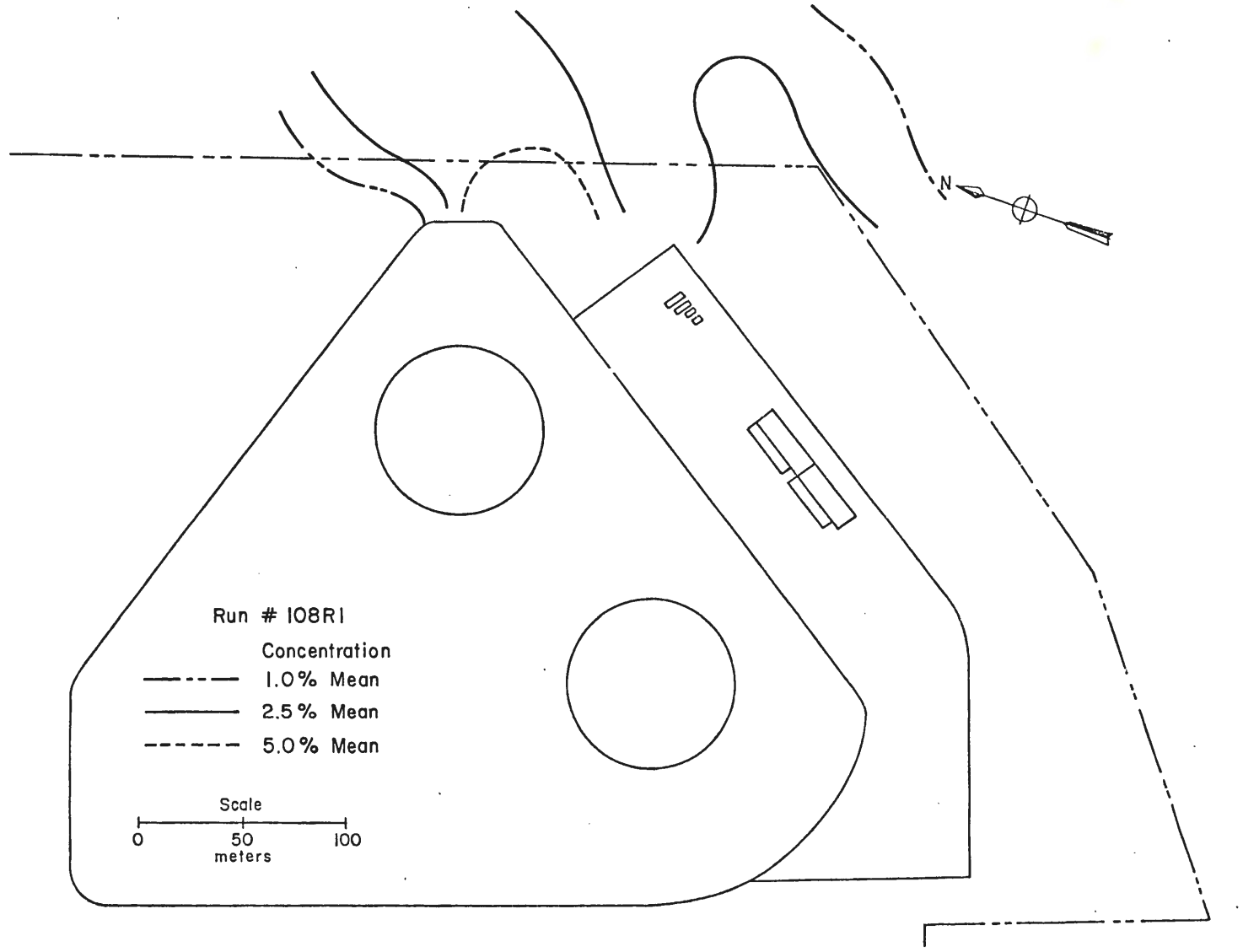

Figure 37. Concentration Isopleths

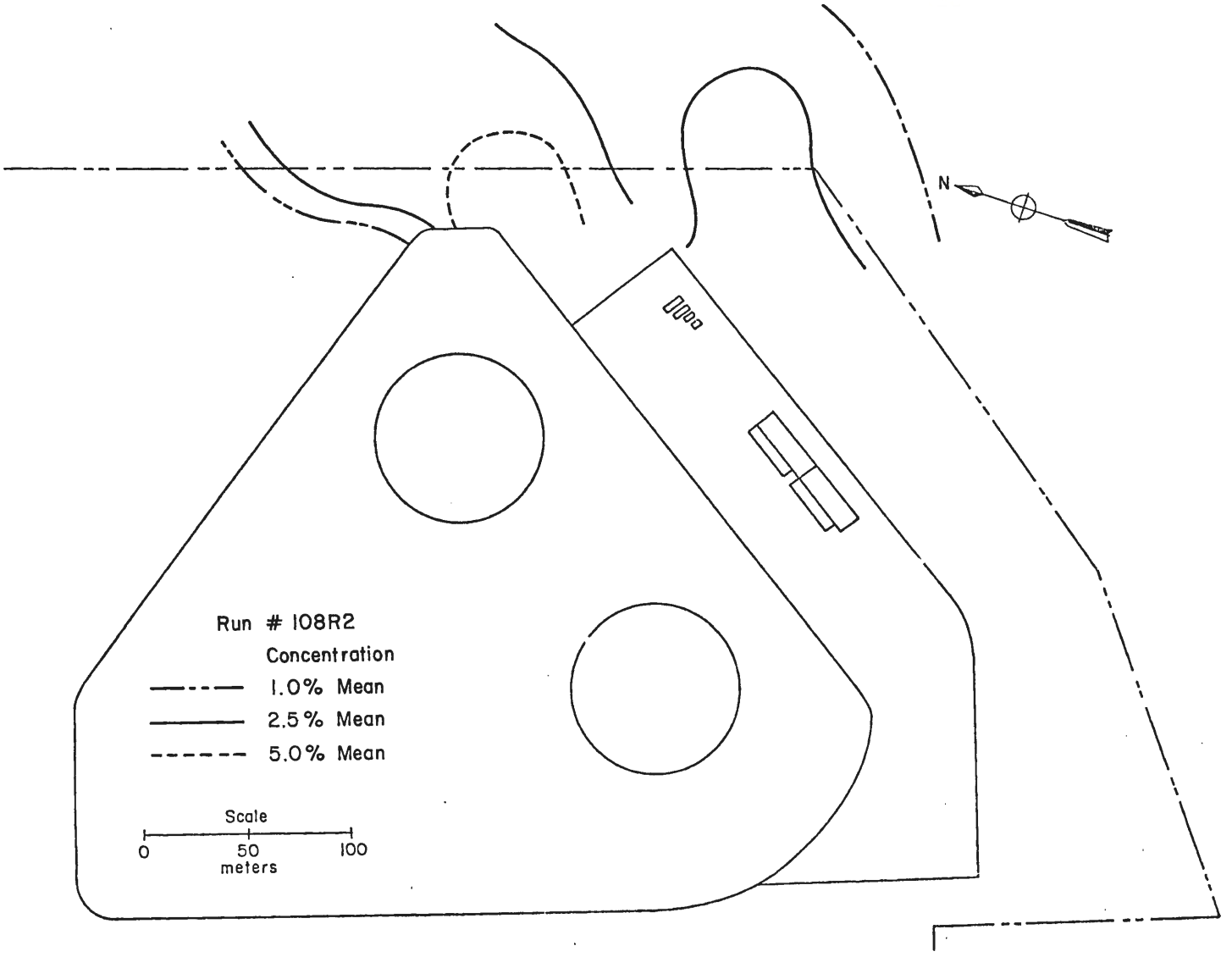

Figure 38. Concentration Isopleths

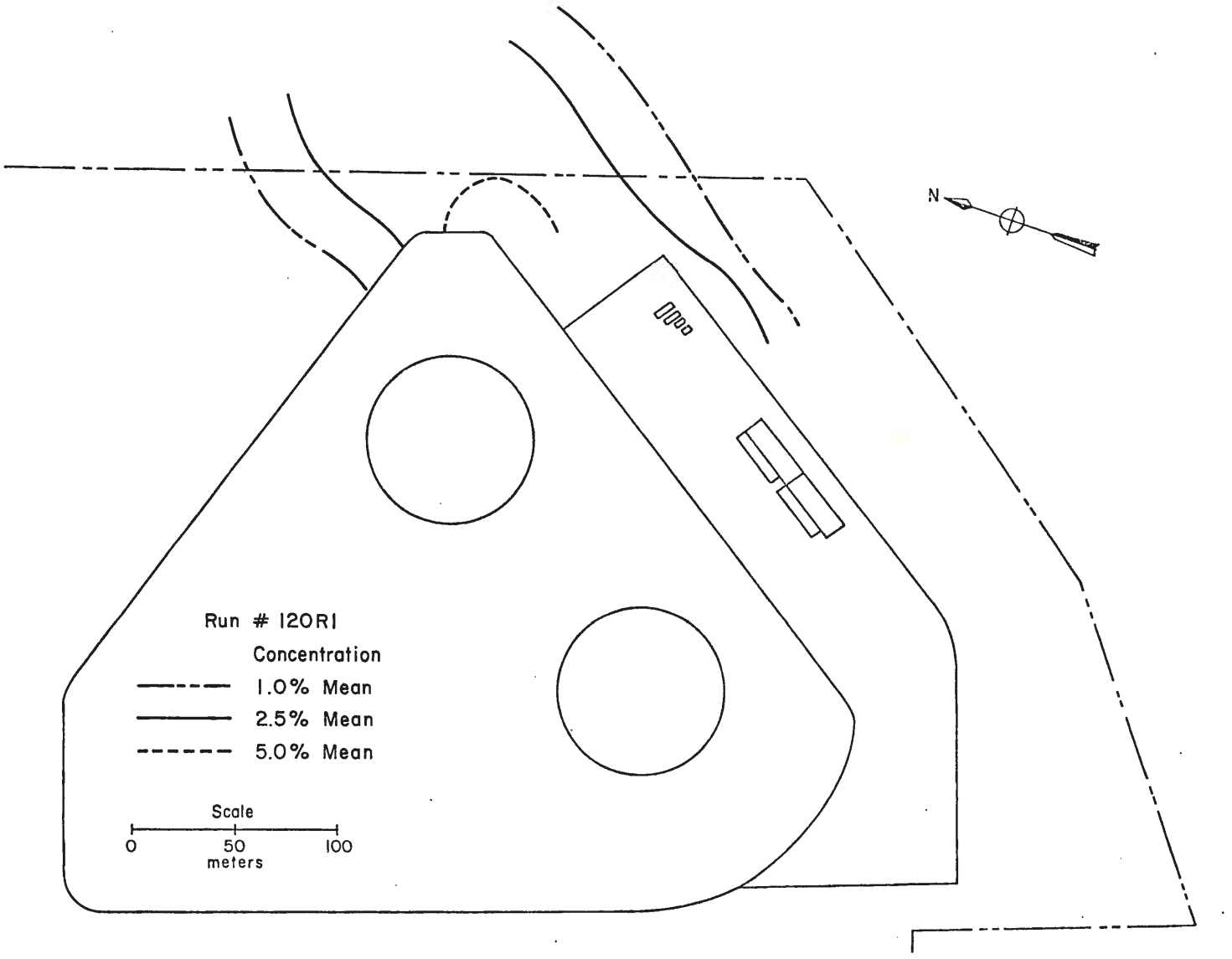

Figure 39. Concentration Isopleths

APPENDIX A

CONCENTRATION DATA WITH LNG SPILL RATES OF 7000 gpm AND 3500 gpm FOR UNLIMITED TIME DURATION

RUN NO. = 101
WIND DIRECTION = 215.
LNG BOILOFF AREA = D/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C010110	16265.0	.024	50.00	-155.00	0.00	.065
C010108	18381.0	.033	50.00	-180.00	0.00	.090
C010106	16060.0	.023	50.00	-205.00	0.00	.062
C010104	16674.0	.026	50.00	-230.00	0.00	.069
D010110	19178.0	.037	100.00	-155.00	0.00	.099
D010108	15918.0	.022	100.00	-180.00	0.00	.060
D010106	16363.0	.024	100.00	-205.00	0.00	.066
D010104	19490.0	.038	100.00	-230.00	0.00	.103
E010111	31638.0	.092	150.00	-90.00	0.00	.248
E010109	28996.0	.080	150.00	-115.00	0.00	.216
F010107	17225.0	.028	150.00	-140.00	0.00	.076
E010106	16483.0	.025	150.00	-152.50	0.00	.067
F010105	13697.0	.013	150.00	-165.00	0.00	.034
F010104	15921.0	.022	150.00	-177.50	0.00	.060
J010104	13545.0	.012	175.00	-177.50	0.00	.032
J010105	19868.0	.040	175.00	-165.00	0.00	.107
J010106	17666.0	.030	175.00	-152.50	0.00	.081
J010107	21089.0	.045	175.00	-140.00	0.00	.122
J010109	20040.0	.041	175.00	-115.00	0.00	.110
J010111	46685.0	.158	175.00	-90.00	0.00	.426
K010105	31347.0	.090	175.00	-65.00	0.00	.244
K010107	67070.0	.248	175.00	-40.00	0.00	.668
K010109	66133.0	.244	175.00	-15.00	0.00	.657
K010111	91270.0	.355	175.00	10.00	0.00	.954
F010104	24525.0	.060	200.00	-87.50	0.00	.163
F010106	32177.0	.094	200.00	-62.50	0.00	.254
F010108	30956.0	.089	200.00	-37.50	0.00	.240
F010110	33250.0	.099	200.00	-12.50	0.00	.267
G010104	88516.0	.343	200.00	12.50	0.00	.921
G010106	100973.0	.398	200.00	37.50	0.00	1.068
G010108	72384.0	.272	200.00	62.50	0.00	.731
G010110	87154.0	.337	200.00	87.50	0.00	.905
H010104	97901.0	.384	150.00	25.00	0.00	1.032
H010106	93055.0	.363	150.00	50.00	0.00	.975
H010108	0.0	0.000	150.00	75.00	0.00	0.000
H010110	91992.0	.358	150.00	100.00	0.00	.962

RUN NO. = 102
WIND DIRECTION = 215.
LNG BOILOFF AREA = D/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C010210	36570.0	.032	50.00	-155.00	0.00	.085
C010208	30341.0	.004	50.00	-180.00	0.00	.011
C010206	36113.0	.030	50.00	-205.00	0.00	.080
C010204	30052.0	.003	50.00	-230.00	0.00	.007
D010210	36756.0	.032	100.00	-155.00	0.00	.087
D010208	31180.0	.008	100.00	-180.00	0.00	.021
D010206	36358.0	.031	100.00	-205.00	0.00	.083
D010204	30403.0	.004	100.00	-230.00	0.00	.012
E010211	207618.0	.787	150.00	-90.00	0.00	2.098
E010209	126317.0	.428	150.00	-115.00	0.00	1.148
E010207	84330.0	.242	150.00	-140.00	0.00	.652
F010206	24911.0	0.000	150.00	-152.50	0.00	0.000
F010205	10448.0	0.000	150.00	-165.00	0.00	0.000
E010204	42363.0	.057	150.00	-177.50	0.00	.154
J010204	13575.0	0.000	175.00	-177.50	0.00	0.000
J010205	51845.0	.099	175.00	-165.00	0.00	.267
J010206	41241.0	.052	175.00	-152.50	0.00	.141
J010207	58723.0	.129	175.00	-140.00	0.00	.349
J010209	67462.0	.168	175.00	-115.00	0.00	.453
J010211	68712.0	.173	175.00	-90.00	0.00	.467
K010205	108878.0	.351	175.00	-65.00	0.00	.942
K010207	65637.0	.160	175.00	-40.00	0.00	.431
K010209	67219.0	.167	175.00	-15.00	0.00	.450
K010211	73032.0	.192	175.00	10.00	0.00	.519
F010204	89971.0	.267	200.00	-87.50	0.00	.719
F010206	78144.0	.215	200.00	-62.50	0.00	.579
F010208	71003.0	.184	200.00	-37.50	0.00	.495
F010210	38413.0	.040	200.00	-12.50	0.00	.107
G010204	43960.0	.064	200.00	12.50	0.00	.173
G010206	51370.0	.097	200.00	37.50	0.00	.261
G010208	58031.0	.126	200.00	62.50	0.00	.341
G010210	89476.0	.265	200.00	87.50	0.00	.713
H010204	136972.0	.475	150.00	25.00	0.00	1.273
H010206	112832.0	.368	150.00	50.00	0.00	.989
H010208	90693.0	.270	150.00	75.00	0.00	.728
H010210	92003.0	.276	150.00	100.00	0.00	.743

RUN NO. = 103
WIND DIRECTION = 215.
LNG BOILOFF AREA = D/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C010310	13260.0	0.000	50.00	-155.00	0.00	0.000
C010308	18439.0	.017	50.00	-180.00	0.00	.047
C010306	12755.0	0.000	50.00	-205.00	0.00	0.000
C010304	810.0	0.000	50.00	-230.00	0.00	0.000
D010310	16670.0	.010	100.00	-155.00	0.00	.026
D010308	13667.0	0.000	100.00	-180.00	0.00	0.000
D010306	15386.0	.004	100.00	-205.00	0.00	.011
D010304	13063.0	0.000	100.00	-230.00	0.00	0.000
E010311	52527.0	.167	150.00	-90.00	0.00	.450
E010309	20985.0	.029	150.00	-115.00	0.00	.077
E010307	31600.0	.075	150.00	-140.00	0.00	.203
E010306	15450.0	.004	150.00	-152.50	0.00	.012
E010305	17062.0	.011	150.00	-165.00	0.00	.031
E010304	14239.0	0.000	150.00	-177.50	0.00	0.000
J010304	16665.0	.010	175.00	-177.50	0.00	.026
J010305	15142.0	.003	175.00	-165.00	0.00	.008
J010306	18353.0	.017	175.00	-152.50	0.00	.046
J010307	17550.0	.014	175.00	-140.00	0.00	.037
J010309	32520.0	.079	175.00	-115.00	0.00	.214
J010311	61351.0	.206	175.00	-90.00	0.00	.554
K010305	50000.0	.156	175.00	-65.00	0.00	.420
K010307	68470.0	.237	175.00	-40.00	0.00	.637
K010309	89291.0	.328	175.00	-15.00	0.00	.882
K010311	125455.0	.487	175.00	10.00	0.00	1.304
F010304	24903.0	.046	200.00	-87.50	0.00	.124
F010306	37598.0	.101	200.00	-62.50	0.00	.274
F010308	42764.0	.124	200.00	-37.50	0.00	.335
F010310	52270.0	.166	200.00	-12.50	0.00	.447
G010304	85277.0	.310	200.00	12.50	0.00	.835
G010306	120225.0	.464	200.00	37.50	0.00	1.243
G010308	138870.0	.545	200.00	62.50	0.00	1.461
G010310	106982.0	.406	200.00	87.50	0.00	1.089
H010304	178646.0	.720	150.00	25.00	0.00	1.922
H010306	114919.0	.440	150.00	50.00	0.00	1.181
H010308	134501.0	.526	150.00	75.00	0.00	1.410
H010310	131030.0	.511	150.00	100.00	0.00	1.369

RUN NO. = 104
WIND DIRECTION = 215.
LNG BOILOFF AREA = D/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C010410	8822.0	0.000	50.00	-155.00	0.00	0.000
C010408	33940.0	.019	50.00	-180.00	0.00	.052
C010406	8677.0	0.000	50.00	-205.00	0.00	0.000
C010404	29779.0	.001	50.00	-230.00	0.00	.002
D010410	41625.0	.053	100.00	-155.00	0.00	.144
D010408	34280.0	.021	100.00	-180.00	0.00	.056
D010406	19387.0	0.000	100.00	-205.00	0.00	0.000
D010404	29811.0	.001	100.00	-230.00	0.00	.003
E010411	693675.0	2.932	150.00	-90.00	0.00	7.547
E010409	428182.0	1.760	150.00	-115.00	0.00	4.618
E010407	248639.0	.967	150.00	-140.00	0.00	2.571
E010406	141422.0	.494	150.00	-152.50	0.00	1.323
E010405	61110.0	.139	150.00	-165.00	0.00	.375
E010404	23269.0	0.000	150.00	-177.50	0.00	0.000
J010404	57761.0	.124	175.00	-177.50	0.00	.335
J010405	130859.0	.447	175.00	-165.00	0.00	1.199
J010406	193041.0	.722	175.00	-152.50	0.00	1.927
J010407	243060.0	.942	175.00	-140.00	0.00	2.507
J010409	329128.0	1.322	175.00	-115.00	0.00	3.495
J010411	499255.0	2.073	175.00	-90.00	0.00	5.413
K010405	630624.0	2.653	175.00	-65.00	0.00	6.861
K010407	206436.0	.781	175.00	-40.00	0.00	2.082
K010409	152854.0	.544	175.00	-15.00	0.00	1.457
K010411	122175.0	.409	175.00	10.00	0.00	1.097
F010404	243739.0	.945	200.00	-87.50	0.00	2.515
F010406	184533.0	.684	200.00	-62.50	0.00	1.827
F010408	115357.0	.379	200.00	-37.50	0.00	1.017
F010410	80581.0	.225	200.00	-12.50	0.00	.606
G010404	86482.0	.251	200.00	12.50	0.00	.676
G010406	119092.0	.395	200.00	37.50	0.00	1.061
G010408	93325.0	.281	200.00	62.50	0.00	.757
G010410	92992.0	.280	200.00	87.50	0.00	.753
H010404	281687.0	1.113	150.00	25.00	0.00	2.952
H010406	173307.0	.634	150.00	50.00	0.00	1.696
H010408	165821.0	.601	150.00	75.00	0.00	1.609
H010410	196563.0	.737	150.00	100.00	0.00	1.968

RUN NO. = 105
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C010510	54549.0	.172	50.00	-155.00	0.00	.463
C010508	39893.0	.107	50.00	-180.00	0.00	.290
C010506	31229.0	.069	50.00	-205.00	0.00	.187
C010504	17005.0	.007	50.00	-230.00	0.00	.019
D010510	53005.0	.165	100.00	-155.00	0.00	.444
D010508	38395.0	.101	100.00	-180.00	0.00	.272
D010506	30762.0	.067	100.00	-205.00	0.00	.182
D010504	20868.0	.024	100.00	-230.00	0.00	.065
E010511	116045.0	.441	150.00	-90.00	0.00	1.184
E010509	95151.0	.350	150.00	-115.00	0.00	.940
E010507	78060.0	.275	150.00	-140.00	0.00	.739
E010506	44946.0	.130	150.00	-152.50	0.00	.349
E010505	72768.0	.252	150.00	-165.00	0.00	.677
E010504	65461.0	.220	150.00	-177.50	0.00	.591
J010504	42797.0	.120	175.00	-177.50	0.00	.324
J010505	42602.0	.119	175.00	-165.00	0.00	.322
J010506	47493.0	.141	175.00	-152.50	0.00	.379
J010507	52613.0	.163	175.00	-140.00	0.00	.440
J010509	67496.0	.228	175.00	-115.00	0.00	.615
J010511	86021.0	.310	175.00	-90.00	0.00	.833
K010505	123951.0	.476	175.00	-65.00	0.00	1.276
K010507	129698.0	.501	175.00	-40.00	0.00	1.343
K010509	97542.0	.360	175.00	-15.00	0.00	.968
K010511	31311.0	.070	175.00	10.00	0.00	.188
F010504	79843.0	.283	200.00	-87.50	0.00	.760
F010506	103297.0	.385	200.00	-62.50	0.00	1.035
F010508	112346.0	.425	200.00	-37.50	0.00	1.141
F010510	118227.0	.451	200.00	-12.50	0.00	1.209
G010504	101998.0	.380	200.00	12.50	0.00	1.020
G010506	29084.0	.060	200.00	37.50	0.00	.162
G010508	25438.0	.044	200.00	62.50	0.00	.119
G010510	19342.0	.017	200.00	87.50	0.00	.047
H010504	26333.0	.048	150.00	25.00	0.00	.129
H010506	19842.0	.019	150.00	50.00	0.00	.053
H010508	23491.0	.035	150.00	75.00	0.00	.096
H010510	20258.0	.021	150.00	100.00	0.00	.058

RUN NO. = 106
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C010610	111334.0	.447	50.00	-155.00	0.00	1.199
C010608	151961.0	.626	50.00	-180.00	0.00	1.675
C010606	87926.0	.344	50.00	-205.00	0.00	.923
C010604	60004.0	.220	50.00	-230.00	0.00	.593
D010610	107817.0	.431	100.00	-155.00	0.00	1.158
D010608	97675.0	.387	100.00	-180.00	0.00	1.038
D010606	128433.0	.522	100.00	-205.00	0.00	1.400
D010604	43511.0	.148	100.00	-230.00	0.00	.398
E010611	143776.0	.590	150.00	-90.00	0.00	1.579
F010609	125384.0	.509	150.00	-115.00	0.00	1.364
E010607	107691.0	.431	150.00	-140.00	0.00	1.156
E010606	105806.0	.423	150.00	-152.50	0.00	1.134
F010605	73895.0	.282	150.00	-165.00	0.00	.758
F010604	77302.0	.297	150.00	-177.50	0.00	.798
J010604	70475.0	.267	175.00	-177.50	0.00	.717
J010605	68709.0	.259	175.00	-165.00	0.00	.696
J010606	72393.0	.275	175.00	-152.50	0.00	.740
J010607	80097.0	.309	175.00	-140.00	0.00	.831
J010609	134233.0	.548	175.00	-115.00	0.00	1.468
J010611	95651.0	.378	175.00	-90.00	0.00	1.014
K010605	36688.0	.117	175.00	-65.00	0.00	.317
K010607	31447.0	.094	175.00	-40.00	0.00	.254
K010609	31130.0	.093	175.00	-15.00	0.00	.251
K010611	36426.0	.116	175.00	10.00	0.00	.314
F010604	96326.0	.381	200.00	-87.50	0.00	1.022
F010606	78907.0	.304	200.00	-62.50	0.00	.817
F010608	45915.0	.158	200.00	-37.50	0.00	.426
F010610	43795.0	.149	200.00	-12.50	0.00	.401
G010604	31551.0	.095	200.00	12.50	0.00	.256
G010606	36492.0	.117	200.00	37.50	0.00	.314
G010608	30290.0	.089	200.00	62.50	0.00	.241
G010610	36441.0	.116	200.00	87.50	0.00	.314
H010604	30362.0	.090	150.00	25.00	0.00	.242
H010606	69289.0	.261	150.00	50.00	0.00	.703
H010608	29421.0	.085	150.00	75.00	0.00	.230
H010610	36742.0	.118	150.00	100.00	0.00	.317

RUN NO. = 107
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C010710	146817.0	.560	50.00	-155.00	0.00	1.498
C010708	184466.0	.719	50.00	-180.00	0.00	1.921
C010706	164320.0	.634	50.00	-205.00	0.00	1.695
C010704	125131.0	.467	50.00	-230.00	0.00	1.253
D010710	101632.0	.368	100.00	-155.00	0.00	.987
D010708	123891.0	.462	100.00	-180.00	0.00	1.239
D010706	128590.0	.482	100.00	-205.00	0.00	1.292
D010704	133774.0	.504	100.00	-230.00	0.00	1.351
F010711	197630.0	.775	150.00	-90.00	0.00	2.068
F010709	127289.0	.477	150.00	-115.00	0.00	1.278
E010707	90031.0	.318	150.00	-140.00	0.00	.856
E010706	86061.0	.302	150.00	-152.50	0.00	.811
F010705	89594.0	.317	150.00	-165.00	0.00	.851
E010704	98641.0	.355	150.00	-177.50	0.00	.954
J010704	87469.0	.308	175.00	-177.50	0.00	.827
J010705	83079.0	.289	175.00	-165.00	0.00	.777
J010706	78537.0	.270	175.00	-152.50	0.00	.725
J010707	89410.0	.316	175.00	-140.00	0.00	.849
J010709	109389.0	.401	175.00	-115.00	0.00	1.075
J010711	165574.0	.639	175.00	-90.00	0.00	1.709
K010705	203674.0	.801	175.00	-65.00	0.00	2.136
K010707	171767.0	.665	175.00	-40.00	0.00	1.778
K010709	52608.0	.159	175.00	-15.00	0.00	.430
K010711	11511.0	0.000	175.00	10.00	0.00	0.000
F010704	106187.0	.387	200.00	-87.50	0.00	1.039
F010706	142384.0	.541	200.00	-62.50	0.00	1.448
F010708	174007.0	.675	200.00	-37.50	0.00	1.803
F010710	149574.0	.571	200.00	-12.50	0.00	1.529
G010704	48502.0	.142	200.00	12.50	0.00	.383
G010706	12050.0	0.000	200.00	37.50	0.00	0.000
G010708	5181.0	0.000	200.00	62.50	0.00	0.000
G010710	9209.0	0.000	200.00	87.50	0.00	0.000
H010704	4857.0	0.000	150.00	25.00	0.00	0.000
H010706	9757.0	0.000	150.00	50.00	0.00	0.000
H010708	0.0	0.000	150.00	75.00	0.00	0.000
H010710	9915.0	0.000	150.00	100.00	0.00	0.000

RUN NO. = 108
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C010810	271516.0	1.159	50.00	-155.00	0.00	3.072
C010808	338692.0	1.456	50.00	-180.00	0.00	3.839
C010806	322315.0	1.383	50.00	-205.00	0.00	3.652
C010804	189762.0	.798	50.00	-230.00	0.00	2.128
D010810	174662.0	.731	100.00	-155.00	0.00	1.952
D010808	225026.0	.954	100.00	-180.00	0.00	2.537
D010806	263170.0	1.122	100.00	-205.00	0.00	2.976
D010804	239104.0	1.016	100.00	-230.00	0.00	2.699
E010811	470790.0	2.039	150.00	-90.00	0.00	5.325
E010809	274856.0	1.174	150.00	-115.00	0.00	3.110
E010807	139990.0	.578	150.00	-140.00	0.00	1.548
E010806	134671.0	.555	150.00	-152.50	0.00	1.486
E010805	137280.0	.566	150.00	-165.00	0.00	1.516
E010804	149073.0	.618	150.00	-177.50	0.00	1.654
J010804	125835.0	.516	175.00	-177.50	0.00	1.382
J010805	117445.0	.479	175.00	-165.00	0.00	1.284
J010806	113375.0	.461	175.00	-152.50	0.00	1.236
J010807	130187.0	.535	175.00	-140.00	0.00	1.433
J010809	249734.0	1.063	175.00	-115.00	0.00	2.821
J010811	396113.0	1.709	175.00	-90.00	0.00	4.488
K010805	413987.0	1.788	175.00	-65.00	0.00	4.690
K010807	159943.0	.666	175.00	-40.00	0.00	1.781
K010809	8267.0	0.000	175.00	-15.00	0.00	0.000
K010811	32716.0	.105	175.00	10.00	0.00	.283
F010804	222069.0	.941	200.00	-87.50	0.00	2.502
F010806	344463.0	1.481	200.00	-62.50	0.00	3.904
F010808	363613.0	1.566	200.00	-37.50	0.00	4.121
F010810	198137.0	.835	200.00	-12.50	0.00	2.225
G010804	31660.0	.100	200.00	12.50	0.00	.270
G010806	34747.0	.114	200.00	37.50	0.00	.307
G010808	30458.0	.095	200.00	62.50	0.00	.256
G010810	33716.0	.109	200.00	87.50	0.00	.294
H010804	28319.0	.085	150.00	25.00	0.00	.230
H010806	33179.0	.107	150.00	50.00	0.00	.288
H010808	27528.0	.082	150.00	75.00	0.00	.221
H010810	33411.0	.108	150.00	100.00	0.00	.291

RUN NO. = 109
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C010910	47250.0	.169	50.00	-155.00	0.00	.456
C010908	46397.0	.165	50.00	-180.00	0.00	.446
C010906	28413.0	.089	50.00	-205.00	0.00	.241
C010904	21020.0	.058	50.00	-230.00	0.00	.156
D010910	42262.0	.148	100.00	-155.00	0.00	.399
D010908	40360.0	.140	100.00	-180.00	0.00	.377
D010906	33708.0	.112	100.00	-205.00	0.00	.301
D010904	29773.0	.095	100.00	-230.00	0.00	.256
E010911	95221.0	.373	150.00	-90.00	0.00	1.001
E010909	63210.0	.237	150.00	-115.00	0.00	.638
E010907	42791.0	.150	150.00	-140.00	0.00	.405
E010906	40953.0	.142	150.00	-152.50	0.00	.384
E010905	38678.0	.133	150.00	-165.00	0.00	.358
E010904	38928.0	.134	150.00	-177.50	0.00	.361
J010904	36630.0	.124	175.00	-177.50	0.00	.335
J010905	38441.0	.132	175.00	-165.00	0.00	.355
J010906	37887.0	.129	175.00	-152.50	0.00	.349
J010907	48521.0	.175	175.00	-140.00	0.00	.470
J010909	54941.0	.202	175.00	-115.00	0.00	.543
J010911	75007.0	.287	175.00	-90.00	0.00	.772
K010905	95024.0	.372	175.00	-65.00	0.00	.999
K010907	85202.0	.330	175.00	-40.00	0.00	.888
K010909	35728.0	.120	175.00	-15.00	0.00	.324
K010911	11551.0	.018	175.00	10.00	0.00	.047
F010904	52137.0	.190	200.00	-87.50	0.00	.512
F010906	67752.0	.256	200.00	-62.50	0.00	.689
F010908	106607.0	.421	200.00	-37.50	0.00	1.130
F010910	77502.0	.298	200.00	-12.50	0.00	.800
G010904	31784.0	.103	200.00	12.50	0.00	.279
G010906	17934.0	.045	200.00	37.50	0.00	.121
G010908	28102.0	.088	200.00	62.50	0.00	.237
G010910	31420.0	.102	200.00	87.50	0.00	.275
H010904	27041.0	.083	150.00	25.00	0.00	.225
H010906	30564.0	.098	150.00	50.00	0.00	.265
H010908	40729.0	.141	150.00	75.00	0.00	.381
H010910	34148.0	.113	150.00	100.00	0.00	.306

RUN NO. = 110
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C011010	91830.0	.387	50.00	-155.00	0.00	1.038
C011008	94682.0	.399	50.00	-180.00	0.00	1.071
C011006	67015.0	.277	50.00	-205.00	0.00	.745
C011004	18753.0	.064	50.00	-230.00	0.00	.173
D011010	75217.0	.313	100.00	-155.00	0.00	.842
D011008	83157.0	.348	100.00	-180.00	0.00	.936
D011006	86205.0	.362	100.00	-205.00	0.00	.972
D011004	27503.0	.103	100.00	-230.00	0.00	.277
E011011	153990.0	.661	150.00	-90.00	0.00	1.766
E011009	107850.0	.457	150.00	-115.00	0.00	1.226
E011007	68438.0	.283	150.00	-140.00	0.00	.762
E011006	70448.0	.292	150.00	-152.50	0.00	.786
E011005	67459.0	.279	150.00	-165.00	0.00	.750
E011004	70736.0	.293	150.00	-177.50	0.00	.789
J011004	71575.0	.297	175.00	-177.50	0.00	.799
J011005	61883.0	.254	175.00	-165.00	0.00	.684
J011006	60251.0	.247	175.00	-152.50	0.00	.665
J011007	64731.0	.267	175.00	-140.00	0.00	.718
J011009	92200.0	.388	175.00	-115.00	0.00	1.042
J011011	106008.0	.449	175.00	-90.00	0.00	1.205
K011005	52787.0	.214	175.00	-65.00	0.00	.577
K011007	9402.0	.023	175.00	-40.00	0.00	.061
K011009	7002.0	.012	175.00	-15.00	0.00	.033
K011011	5479.0	.005	175.00	10.00	0.00	.014
F011004	82919.0	.347	200.00	-87.50	0.00	.933
F011006	86213.0	.362	200.00	-62.50	0.00	.972
F011008	64140.0	.264	200.00	-37.50	0.00	.711
F011010	13479.0	.041	200.00	-12.50	0.00	.110
G011004	7922.0	.016	200.00	12.50	0.00	.043
G011006	6658.0	.011	200.00	37.50	0.00	.028
G011008	45315.0	.181	200.00	62.50	0.00	.488
G011010	26264.0	.097	200.00	87.50	0.00	.262
H011004	10879.0	.029	150.00	25.00	0.00	.079
H011006	25162.0	.092	150.00	50.00	0.00	.249
H011008	30260.0	.115	150.00	75.00	0.00	.309
H011010	5299.0	.005	150.00	100.00	0.00	.012

RUN NO. = 111
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C011110	151164.0	.604	50.00	-155.00	0.00	1.616
C011108	176705.0	.712	50.00	-180.00	0.00	1.902
C011106	162513.0	.652	50.00	-205.00	0.00	1.743
C011104	129473.0	.512	50.00	-230.00	0.00	1.371
D011110	108847.0	.424	100.00	-155.00	0.00	1.138
D011108	136744.0	.543	100.00	-180.00	0.00	1.453
D011106	139275.0	.553	100.00	-205.00	0.00	1.482
D011104	132641.0	.525	100.00	-230.00	0.00	1.407
E011111	179743.0	.725	150.00	-90.00	0.00	1.936
E011109	124828.0	.492	150.00	-115.00	0.00	1.319
E011107	91058.0	.349	150.00	-140.00	0.00	.937
F011106	91159.0	.349	150.00	-152.50	0.00	.938
E011105	99366.0	.384	150.00	-165.00	0.00	1.031
E011104	136400.0	.541	150.00	-177.50	0.00	1.450
J011104	97551.0	.376	175.00	-177.50	0.00	1.011
J011105	88665.0	.339	175.00	-165.00	0.00	.910
J011106	82358.0	.312	175.00	-152.50	0.00	.838
J011107	115692.0	.453	175.00	-140.00	0.00	1.216
J011109	103157.0	.400	175.00	-115.00	0.00	1.074
J011111	176308.0	.711	175.00	-90.00	0.00	1.898
K011105	223700.0	.912	175.00	-65.00	0.00	2.427
K011107	170426.0	.686	175.00	-40.00	0.00	1.832
K011109	45846.0	.157	175.00	-15.00	0.00	.423
K011111	10982.0	.009	175.00	10.00	0.00	.024
F011104	119621.0	.470	200.00	-87.50	0.00	1.260
F011106	122991.0	.484	200.00	-62.50	0.00	1.298
F011108	169995.0	.684	200.00	-37.50	0.00	1.827
F011110	146118.0	.583	200.00	-12.50	0.00	1.559
G011104	39405.0	.129	200.00	12.50	0.00	.349
G011106	10438.0	.006	200.00	37.50	0.00	.017
G011108	29359.0	.087	200.00	62.50	0.00	.234
G011110	59834.0	.216	200.00	87.50	0.00	.582
H011104	31438.0	.096	150.00	25.00	0.00	.258
H011106	36680.0	.118	150.00	50.00	0.00	.318
H011108	0.0	0.000	150.00	75.00	0.00	0.000
H011110	36364.0	.117	150.00	100.00	0.00	.314

RUN NO. = 112
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C011210	270592.0	1.156	50.00	-155.00	0.00	3.064
C011208	318919.0	1.369	50.00	-180.00	0.00	3.616
C011206	253527.0	1.081	50.00	-205.00	0.00	2.868
C011204	103194.0	.417	50.00	-230.00	0.00	1.119
D011210	178217.0	.748	100.00	-155.00	0.00	1.996
D011208	232762.0	.989	100.00	-180.00	0.00	2.628
D011206	259657.0	1.108	100.00	-205.00	0.00	2.938
D011204	156311.0	.651	100.00	-230.00	0.00	1.741
F011211	444315.0	1.923	150.00	-90.00	0.00	5.032
F011209	265334.0	1.133	150.00	-115.00	0.00	3.003
E011207	138768.0	.574	150.00	-140.00	0.00	1.536
E011206	136205.0	.563	150.00	-152.50	0.00	1.506
E011205	152641.0	.635	150.00	-165.00	0.00	1.698
E011204	169780.0	.711	150.00	-177.50	0.00	1.898
J011204	146035.0	.606	175.00	-177.50	0.00	1.621
J011205	138266.0	.572	175.00	-165.00	0.00	1.530
J011206	120006.0	.491	175.00	-152.50	0.00	1.316
J011207	131056.0	.540	175.00	-140.00	0.00	1.446
J011209	210777.0	.892	175.00	-115.00	0.00	2.374
J011211	363747.0	1.567	175.00	-90.00	0.00	4.125
K011205	418016.0	1.807	175.00	-65.00	0.00	4.737
K011207	162600.0	.679	175.00	-40.00	0.00	1.814
K011209	13026.0	.019	175.00	-15.00	0.00	.051
K011211	7049.0	0.000	175.00	10.00	0.00	0.000
F011204	196928.0	.831	200.00	-87.50	0.00	2.214
F011206	316087.0	1.357	200.00	-62.50	0.00	3.584
F011208	360965.0	1.555	200.00	-37.50	0.00	4.094
F011210	202690.0	.856	200.00	-12.50	0.00	2.281
G011204	23264.0	.064	200.00	12.50	0.00	.173
G011206	7294.0	0.000	200.00	37.50	0.00	0.000
G011208	6201.0	0.000	200.00	62.50	0.00	0.000
G011210	6982.0	0.000	200.00	87.50	0.00	0.000
H011204	5505.0	0.000	150.00	25.00	0.00	0.000
H011206	10282.0	.007	150.00	50.00	0.00	.018
H011208	5073.0	0.000	150.00	75.00	0.00	0.000
H011210	0.0	0.000	150.00	100.00	0.00	0.000

RUN NO. = 113
WIND DIRECTION = 215.
LNG BOILOFF AREA = D/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C011310	4772.0	0.000	50.00	-155.00	0.00	0.000
C011308	4098.0	0.000	50.00	-180.00	0.00	0.000
C011306	4973.0	0.000	50.00	-205.00	0.00	0.000
C011304	4538.0	0.000	50.00	-230.00	0.00	0.000
D011310	3934.0	0.000	100.00	-155.00	0.00	0.000
D011308	4455.0	0.000	100.00	-180.00	0.00	0.000
D011306	4284.0	0.000	100.00	-205.00	0.00	0.000
D011304	4795.0	0.000	100.00	-230.00	0.00	0.000
E011311	24146.0	.057	150.00	-90.00	0.00	.154
E011309	14561.0	.017	150.00	-115.00	0.00	.045
E011307	5573.0	0.000	150.00	-140.00	0.00	0.000
E011306	5123.0	0.000	150.00	-152.50	0.00	0.000
E011305	4263.0	0.000	150.00	-165.00	0.00	0.000
E011304	5483.0	0.000	150.00	-177.50	0.00	0.000
J011304	4633.0	0.000	175.00	-177.50	0.00	0.000
J011305	5863.0	0.000	175.00	-165.00	0.00	0.000
J011306	4885.0	0.000	175.00	-152.50	0.00	0.000
J011307	7003.0	0.000	175.00	-140.00	0.00	0.000
J011309	12013.0	.006	175.00	-115.00	0.00	.017
J011311	27631.0	.072	175.00	-90.00	0.00	.194
K011305	5581.0	0.000	175.00	-65.00	0.00	0.000
K011307	23136.0	.053	175.00	-40.00	0.00	.143
K011309	22609.0	.051	175.00	-15.00	0.00	.137
K011311	25310.0	.062	175.00	10.00	0.00	.167
F011304	12538.0	.008	200.00	-87.50	0.00	.023
F011306	16163.0	.024	200.00	-62.50	0.00	.064
F011308	19909.0	.039	200.00	-37.50	0.00	.106
F011310	19733.0	.039	200.00	-12.50	0.00	.104
G011304	25330.0	.062	200.00	12.50	0.00	.168
G011306	20529.0	.042	200.00	37.50	0.00	.113
G011308	28091.0	.074	200.00	62.50	0.00	.199
G011310	25076.0	.061	200.00	87.50	0.00	.165
H011304	54924.0	.186	150.00	25.00	0.00	.502
H011306	39372.0	.121	150.00	50.00	0.00	.326
H011308	78238.0	.284	150.00	75.00	0.00	.764
H011310	46052.0	.149	150.00	100.00	0.00	.402

RUN NO. = 114
WIND DIRECTION = 215.
LNG BOILOFF AREA = D/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C011410	3950.0	0.000	50.00	-155.00	0.00	0.000
C011408	3473.0	0.000	50.00	-180.00	0.00	0.000
C011406	3902.0	0.000	50.00	-205.00	0.00	0.000
C011404	17931.0	.037	50.00	-230.00	0.00	.100
D011410	3103.0	0.000	100.00	-155.00	0.00	0.000
D011408	5247.0	0.000	100.00	-180.00	0.00	0.000
D011406	0.0	0.000	100.00	-205.00	0.00	0.000
D011404	20001.0	.046	100.00	-230.00	0.00	.124
E011411	33747.0	.105	150.00	-90.00	0.00	.283
E011409	20276.0	.047	150.00	-115.00	0.00	.127
E011407	3958.0	0.000	150.00	-140.00	0.00	0.000
E011406	6441.0	0.000	150.00	-152.50	0.00	0.000
E011405	3460.0	0.000	150.00	-165.00	0.00	0.000
F011404	7218.0	0.000	150.00	-177.50	0.00	0.000
J011404	3508.0	0.000	175.00	-177.50	0.00	0.000
J011405	7252.0	0.000	175.00	-165.00	0.00	0.000
J011406	3579.0	0.000	175.00	-152.50	0.00	0.000
J011407	5587.0	0.000	175.00	-140.00	0.00	0.000
J011409	11076.0	.007	175.00	-115.00	0.00	.020
J011411	27584.0	.078	175.00	-90.00	0.00	.212
K011405	0.0	0.000	175.00	-65.00	0.00	0.000
K011407	34140.0	.107	175.00	-40.00	0.00	.288
K011409	28371.0	.082	175.00	-15.00	0.00	.221
K011411	34328.0	.108	175.00	10.00	0.00	.290
F011404	11731.0	.010	200.00	-87.50	0.00	.027
F011406	23675.0	.062	200.00	-62.50	0.00	.166
F011408	26988.0	.076	200.00	-37.50	0.00	.205
F011410	26651.0	.074	200.00	-12.50	0.00	.201
G011404	24142.0	.064	200.00	12.50	0.00	.172
G011406	30192.0	.090	200.00	37.50	0.00	.242
G011408	33216.0	.103	200.00	62.50	0.00	.277
G011410	52485.0	.186	200.00	87.50	0.00	.500
H011404	60696.0	.221	150.00	25.00	0.00	.595
H011406	141309.0	.569	150.00	50.00	0.00	1.522
H011408	215621.0	.889	150.00	75.00	0.00	2.366
H011410	105213.0	.413	150.00	100.00	0.00	1.108

RUN NO. = 115
WIND DIRECTION = 215.
LNG BOILOFF AREA = D/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C011510	6109.0	0.000	50.00	-155.00	0.00	0.000
C011508	7058.0	.001	50.00	-180.00	0.00	.004
C011506	3827.0	0.000	50.00	-205.00	0.00	0.000
C011504	7518.0	.003	50.00	-230.00	0.00	.009
D011510	5370.0	0.000	100.00	-155.00	0.00	0.000
D011508	8202.0	.006	100.00	-180.00	0.00	.017
D011506	3940.0	0.000	100.00	-205.00	0.00	0.000
D011504	7897.0	.005	100.00	-230.00	0.00	.013
E011511	57155.0	.212	150.00	-90.00	0.00	.570
E011509	30793.0	.101	150.00	-115.00	0.00	.273
E011507	8732.0	.008	150.00	-140.00	0.00	.023
E011506	6240.0	0.000	150.00	-152.50	0.00	0.000
E011505	4731.0	0.000	150.00	-165.00	0.00	0.000
E011504	8884.0	.009	150.00	-177.50	0.00	.025
J011504	4309.0	0.000	175.00	-177.50	0.00	0.000
J011505	6499.0	0.000	175.00	-165.00	0.00	0.000
J011506	6882.0	.001	175.00	-152.50	0.00	.002
J011507	11151.0	.019	175.00	-140.00	0.00	.050
J011509	25893.0	.080	175.00	-115.00	0.00	.217
J011511	46432.0	.167	175.00	-90.00	0.00	.449
K011505	0.0	0.000	175.00	-65.00	0.00	0.000
K011507	48827.0	.177	175.00	-40.00	0.00	.476
K011509	40764.0	.143	175.00	-15.00	0.00	.385
K011511	41535.0	.146	175.00	10.00	0.00	.394
F011504	25013.0	.077	200.00	-87.50	0.00	.207
F011506	42800.0	.151	200.00	-62.50	0.00	.408
F011508	43273.0	.153	200.00	-37.50	0.00	.414
F011510	36893.0	.126	200.00	-12.50	0.00	.341
G011504	34283.0	.116	200.00	12.50	0.00	.312
G011506	41704.0	.147	200.00	37.50	0.00	.396
G011508	54545.0	.201	200.00	62.50	0.00	.541
G011510	57848.0	.215	200.00	87.50	0.00	.578
H011504	101717.0	.399	150.00	25.00	0.00	1.071
H011506	108412.0	.427	150.00	50.00	0.00	1.145
H011508	141071.0	.564	150.00	75.00	0.00	1.510
H011510	119358.0	.473	150.00	100.00	0.00	1.268

RUN NO. = 116
WIND DIRECTION = 215.
LNG BOILOFF AREA = D/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C011610	5700.0	.008	50.00	-155.00	0.00	.021
C011608	4201.0	.001	50.00	-180.00	0.00	.004
C011606	7902.0	.017	50.00	-205.00	0.00	.047
C011604	4093.0	.001	50.00	-230.00	0.00	.002
D011610	6013.0	.009	100.00	-155.00	0.00	.025
D011608	4490.0	.003	100.00	-180.00	0.00	.007
D011606	8969.0	.022	100.00	-205.00	0.00	.059
D011604	4384.0	.002	100.00	-230.00	0.00	.006
E011611	88638.0	.365	150.00	-90.00	0.00	.981
E011609	42980.0	.168	150.00	-115.00	0.00	.454
E011607	9616.0	.025	150.00	-140.00	0.00	.067
E011606	6056.0	.009	150.00	-152.50	0.00	.025
E011605	10277.0	.027	150.00	-165.00	0.00	.074
E011604	4962.0	.005	150.00	-177.50	0.00	.012
J011604	10316.0	.028	175.00	-177.50	0.00	.075
J011605	5616.0	.007	175.00	-165.00	0.00	.020
J011606	7976.0	.018	175.00	-152.50	0.00	.047
J011607	10816.0	.030	175.00	-140.00	0.00	.081
J011609	39778.0	.155	175.00	-115.00	0.00	.417
J011611	72882.0	.297	175.00	-90.00	0.00	.799
K011605	9883.0	.026	175.00	-65.00	0.00	.070
K011607	82626.0	.339	175.00	-40.00	0.00	.912
K011609	65175.0	.264	175.00	-15.00	0.00	.710
K011611	53219.0	.213	175.00	10.00	0.00	.572
F011604	63261.0	.256	200.00	-87.50	0.00	.688
F011606	57825.0	.232	200.00	-62.50	0.00	.626
F011608	66564.0	.270	200.00	-37.50	0.00	.727
F011610	91691.0	.378	200.00	-12.50	0.00	1.016
G011604	44778.0	.176	200.00	12.50	0.00	.475
G011606	64213.0	.260	200.00	37.50	0.00	.699
G011608	59403.0	.239	200.00	62.50	0.00	.644
G011610	126153.0	.527	200.00	87.50	0.00	1.411
H011604	176144.0	.742	150.00	25.00	0.00	1.981
H011606	375562.0	1.602	150.00	50.00	0.00	4.214
H011608	501639.0	2.145	150.00	75.00	0.00	5.593
H011610	250486.0	1.063	150.00	100.00	0.00	2.821

RUN NO. = 117
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C011710	74205.0	.277	50.00	-155.00	0.00	.745
C011708	41049.0	.138	50.00	-180.00	0.00	.372
C011706	4987.0	0.000	50.00	-205.00	0.00	0.000
C011704	8780.0	.002	50.00	-230.00	0.00	.006
D011710	61011.0	.222	100.00	-155.00	0.00	.597
D011708	41277.0	.139	100.00	-180.00	0.00	.374
D011706	6812.0	0.000	100.00	-205.00	0.00	0.000
D011704	9462.0	.005	100.00	-230.00	0.00	.014
E011711	94231.0	.361	150.00	-90.00	0.00	.970
E011709	117455.0	.459	150.00	-115.00	0.00	1.230
E011707	72524.0	.270	150.00	-140.00	0.00	.726
E011706	57665.0	.208	150.00	-152.50	0.00	.559
E011705	48446.0	.169	150.00	-165.00	0.00	.455
E011704	47284.0	.164	150.00	-177.50	0.00	.442
J011704	38797.0	.128	175.00	-177.50	0.00	.346
J011705	46023.0	.159	175.00	-165.00	0.00	.428
J011706	56286.0	.202	175.00	-152.50	0.00	.544
J011707	71846.0	.267	175.00	-140.00	0.00	.719
J011709	113705.0	.443	175.00	-115.00	0.00	1.188
J011711	104327.0	.403	175.00	-90.00	0.00	1.083
K011705	26034.0	.075	175.00	-65.00	0.00	.202
K011707	15861.0	.032	175.00	-40.00	0.00	.087
K011709	11801.0	.015	175.00	-15.00	0.00	.041
K011711	9076.0	.004	175.00	10.00	0.00	.010
F011704	79534.0	.299	200.00	-87.50	0.00	.805
F011706	91976.0	.352	200.00	-62.50	0.00	.945
F011708	31814.0	.099	200.00	-37.50	0.00	.267
F011710	14176.0	.025	200.00	-12.50	0.00	.068
G011704	33521.0	.106	200.00	12.50	0.00	.287
G011706	17554.0	.039	200.00	37.50	0.00	.106
G011708	29466.0	.089	200.00	62.50	0.00	.241
G011710	35064.0	.113	200.00	87.50	0.00	.304
H011704	31243.0	.097	150.00	25.00	0.00	.261
H011706	35094.0	.113	150.00	50.00	0.00	.304
H011708	29403.0	.089	150.00	75.00	0.00	.240
H011710	35019.0	.113	150.00	100.00	0.00	.303

RUN NO. = 118
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C011810	194850.0	.816	50.00	-155.00	0.00	2.176
C011808	38084.0	.141	50.00	-180.00	0.00	.379
C011806	30120.0	.106	50.00	-205.00	0.00	.287
C011804	5517.0	.000	50.00	-230.00	0.00	.001
D011810	141120.0	.585	100.00	-155.00	0.00	1.564
D011808	52648.0	.203	100.00	-180.00	0.00	.548
D011806	30644.0	.109	100.00	-205.00	0.00	.293
D011804	27544.0	.095	100.00	-230.00	0.00	.257
E011811	253829.0	1.070	150.00	-90.00	0.00	2.841
E011809	246574.0	1.039	150.00	-115.00	0.00	2.759
E011807	143324.0	.594	150.00	-140.00	0.00	1.590
E011806	114263.0	.469	150.00	-152.50	0.00	1.257
E011805	94648.0	.384	150.00	-165.00	0.00	1.032
E011804	58752.0	.230	150.00	-177.50	0.00	.618
J011804	91568.0	.371	175.00	-177.50	0.00	.997
J011805	89834.0	.364	175.00	-165.00	0.00	.977
J011806	138177.0	.572	175.00	-152.50	0.00	1.531
J011807	159128.0	.662	175.00	-140.00	0.00	1.770
J011809	181182.0	.757	175.00	-115.00	0.00	2.021
J011811	184823.0	.773	175.00	-90.00	0.00	2.062
K011805	34268.0	.124	175.00	-65.00	0.00	.335
K011807	92755.0	.376	175.00	-40.00	0.00	1.010
K011809	69760.0	.277	175.00	-15.00	0.00	.745
K011811	51920.0	.200	175.00	10.00	0.00	.539
F011804	190524.0	.798	200.00	-87.50	0.00	2.127
F011806	175335.0	.732	200.00	-62.50	0.00	1.954
F011808	118866.0	.489	200.00	-37.50	0.00	1.310
F011810	80514.0	.323	200.00	-12.50	0.00	.869
G011804	32776.0	.118	200.00	12.50	0.00	.318
G011806	23790.0	.079	200.00	37.50	0.00	.213
G011808	17336.0	.051	200.00	62.50	0.00	.139
G011810	38112.0	.141	200.00	87.50	0.00	.379
H011804	25462.0	.086	150.00	25.00	0.00	.233
H011806	9437.0	.017	150.00	50.00	0.00	.046
H011808	35619.0	.130	150.00	75.00	0.00	.350
H011810	45425.0	.172	150.00	100.00	0.00	.464

RUN NO. = 119
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C011910	189658.0	.764	50.00	-155.00	0.00	2.039
C011908	93405.0	.360	50.00	-180.00	0.00	.967
C011906	5263.0	0.000	50.00	-205.00	0.00	0.000
C011904	7923.0	.001	50.00	-230.00	0.00	.003
D011910	146881.0	.585	100.00	-155.00	0.00	1.564
D011908	100952.0	.392	100.00	-180.00	0.00	1.052
D011906	12192.0	.019	100.00	-205.00	0.00	.052
D011904	8901.0	.005	100.00	-230.00	0.00	.014
F011911	279531.0	1.141	150.00	-90.00	0.00	3.026
F011909	265666.0	1.083	150.00	-115.00	0.00	2.875
E011907	166104.0	.665	150.00	-140.00	0.00	1.778
E011906	138891.0	.551	150.00	-152.50	0.00	1.475
F011905	113982.0	.446	150.00	-165.00	0.00	1.197
F011904	94462.0	.364	150.00	-177.50	0.00	.979
J011904	87717.0	.336	175.00	-177.50	0.00	.903
J011905	110103.0	.430	175.00	-165.00	0.00	1.154
J011906	131020.0	.518	175.00	-152.50	0.00	1.388
J011907	163527.0	.654	175.00	-140.00	0.00	1.749
J011909	211395.0	.855	175.00	-115.00	0.00	2.279
J011911	225529.0	.915	175.00	-90.00	0.00	2.434
K011905	178801.0	.719	175.00	-65.00	0.00	1.918
K011907	63388.0	.234	175.00	-40.00	0.00	.630
K011909	32811.0	.106	175.00	-15.00	0.00	.285
K011911	29690.0	.093	175.00	10.00	0.00	.250
F011904	184798.0	.744	200.00	-87.50	0.00	1.985
F011906	178264.0	.716	200.00	-62.50	0.00	1.913
F011908	148862.0	.593	200.00	-37.50	0.00	1.586
F011910	49219.0	.175	200.00	-12.50	0.00	.470
G011904	29113.0	.090	200.00	12.50	0.00	.243
G011906	20233.0	.053	200.00	37.50	0.00	.143
G011908	35004.0	.115	200.00	62.50	0.00	.310
G011910	9359.0	.007	200.00	87.50	0.00	.019
H011904	17121.0	.040	150.00	25.00	0.00	.107
H011906	29133.0	.090	150.00	50.00	0.00	.243
H011908	29550.0	.092	150.00	75.00	0.00	.248
H011910	11619.0	.017	150.00	100.00	0.00	.045

RUN NO. = 120
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C012010	376169.0	1.599	50.00	-155.00	0.00	4.207
C012008	174923.0	.732	50.00	-180.00	0.00	1.953
C012006	7502.0	.010	50.00	-205.00	0.00	.027
C012004	5208.0	.000	50.00	-230.00	0.00	.001
D012010	273844.0	1.158	100.00	-155.00	0.00	3.069
D012008	197579.0	.829	100.00	-180.00	0.00	2.210
D012006	14235.0	.039	100.00	-205.00	0.00	.106
D012004	5289.0	.001	100.00	-230.00	0.00	.002
E012011	607768.0	2.597	150.00	-90.00	0.00	6.721
E012009	484902.0	2.067	150.00	-115.00	0.00	5.398
E012007	347931.0	1.477	150.00	-140.00	0.00	3.894
E012006	251382.0	1.061	150.00	-152.50	0.00	2.817
E012005	219369.0	.923	150.00	-165.00	0.00	2.456
E012004	187763.0	.787	150.00	-177.50	0.00	2.099
J012004	174514.0	.730	175.00	-177.50	0.00	1.948
J012005	215591.0	.907	175.00	-165.00	0.00	2.414
J012006	254206.0	1.073	175.00	-152.50	0.00	2.849
J012007	312401.0	1.324	175.00	-140.00	0.00	3.500
J012009	410434.0	1.747	175.00	-115.00	0.00	4.584
J012011	451854.0	1.925	175.00	-90.00	0.00	5.038
K012005	33528.0	.122	175.00	-65.00	0.00	.330
K012007	268601.0	1.135	175.00	-40.00	0.00	3.010
K012009	164711.0	.688	175.00	-15.00	0.00	1.837
K012011	86490.0	.351	175.00	10.00	0.00	.942
F012004	360669.0	1.532	200.00	-87.50	0.00	4.035
F012006	359795.0	1.528	200.00	-62.50	0.00	4.026
F012008	325147.0	1.379	200.00	-37.50	0.00	3.641
F012010	193816.0	.813	200.00	-12.50	0.00	2.167
G012004	93368.0	.380	200.00	12.50	0.00	1.021
G012006	60288.0	.238	200.00	37.50	0.00	.640
G012008	55612.0	.217	200.00	62.50	0.00	.586
G012010	67066.0	.267	200.00	87.50	0.00	.718
H012004	245364.0	1.035	150.00	25.00	0.00	2.749
H012006	93044.0	.379	150.00	50.00	0.00	1.017
H012008	24449.0	.083	150.00	75.00	0.00	.224
H012010	159937.0	.667	150.00	100.00	0.00	1.783

RUN NO. = 121
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C012110	49283.0	.165	50.00	-155.00	0.00	.443
C012108	7349.0	0.000	50.00	-180.00	0.00	0.000
C012106	3853.0	0.000	50.00	-205.00	0.00	0.000
C012104	3204.0	0.000	50.00	-230.00	0.00	0.000
D012110	40406.0	.127	100.00	-155.00	0.00	.343
D012108	10782.0	.003	100.00	-180.00	0.00	.008
D012106	0.0	0.000	100.00	-205.00	0.00	0.000
D012104	5358.0	0.000	100.00	-230.00	0.00	0.000
E012111	134694.0	.523	150.00	-90.00	0.00	1.401
E012109	137309.0	.534	150.00	-115.00	0.00	1.430
E012107	66526.0	.237	150.00	-140.00	0.00	.638
E012106	42942.0	.138	150.00	-152.50	0.00	.372
E012105	23858.0	.058	150.00	-165.00	0.00	.156
E012104	13679.0	.015	150.00	-177.50	0.00	.041
J012104	13300.0	.013	175.00	-177.50	0.00	.036
J012105	25415.0	.064	175.00	-165.00	0.00	.174
J012106	40001.0	.126	175.00	-152.50	0.00	.339
J012107	68363.0	.245	175.00	-140.00	0.00	.658
J012109	111160.0	.424	175.00	-115.00	0.00	1.139
J012111	108414.0	.413	175.00	-90.00	0.00	1.108
K012105	0.0	0.000	175.00	-65.00	0.00	0.000
K012107	23878.0	.058	175.00	-40.00	0.00	.156
K012109	14608.0	.019	175.00	-15.00	0.00	.051
K012111	11340.0	.005	175.00	10.00	0.00	.014
F012104	96430.0	.362	200.00	-87.50	0.00	.974
F012106	89398.0	.333	200.00	-62.50	0.00	.895
F012108	49536.0	.166	200.00	-37.50	0.00	.446
F012110	21728.0	.049	200.00	-12.50	0.00	.132
G012104	13459.0	.014	200.00	12.50	0.00	.038
G012106	10401.0	.001	200.00	37.50	0.00	.004
G012108	6931.0	0.000	200.00	62.50	0.00	0.000
G012110	6809.0	0.000	200.00	87.50	0.00	0.000
H012104	8467.0	0.000	150.00	25.00	0.00	0.000
H012106	6427.0	0.000	150.00	50.00	0.00	0.000
H012108	5565.0	0.000	150.00	75.00	0.00	0.000
H012110	7739.0	0.000	150.00	100.00	0.00	0.000

RUN NO. = 122
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 3500.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C012210	50985.0	.173	50.00	-155.00	0.00	.465
C012208	18657.0	.035	50.00	-180.00	0.00	.096
C012206	6021.0	0.000	50.00	-205.00	0.00	0.000
C012204	10284.0	0.000	50.00	-230.00	0.00	0.000
D012210	21929.0	.049	100.00	-155.00	0.00	.133
D012208	1680.0	0.000	100.00	-180.00	0.00	0.000
D012206	6036.0	0.000	100.00	-205.00	0.00	0.000
D012204	10176.0	0.000	100.00	-230.00	0.00	0.000
F012211	158582.0	.629	150.00	-90.00	0.00	1.682
E012209	138841.0	.545	150.00	-115.00	0.00	1.460
E012207	69140.0	.250	150.00	-140.00	0.00	.672
F012206	52695.0	.180	150.00	-152.50	0.00	.485
F012205	32962.0	.096	150.00	-165.00	0.00	.259
F012204	25642.0	.065	150.00	-177.50	0.00	.176
J012204	23973.0	.058	175.00	-177.50	0.00	.157
J012205	32902.0	.096	175.00	-165.00	0.00	.259
J012206	79026.0	.292	175.00	-152.50	0.00	.784
J012207	67507.0	.243	175.00	-140.00	0.00	.653
J012209	110645.0	.426	175.00	-115.00	0.00	1.142
J012211	120887.0	.469	175.00	-90.00	0.00	1.258
K012205	59496.0	.209	175.00	-65.00	0.00	.562
K012207	34203.0	.101	175.00	-40.00	0.00	.274
K012209	48410.0	.162	175.00	-15.00	0.00	.436
K012211	38044.0	.118	175.00	10.00	0.00	.317
F012204	129049.0	.504	200.00	-87.50	0.00	1.350
F012206	99487.0	.378	200.00	-62.50	0.00	1.016
F012208	73598.0	.269	200.00	-37.50	0.00	.722
F012210	30027.0	.084	200.00	-12.50	0.00	.226
G012204	47331.0	.157	200.00	12.50	0.00	.423
G012206	56540.0	.196	200.00	37.50	0.00	.528
G012208	10046.0	0.000	200.00	62.50	0.00	0.000
G012210	31945.0	.092	200.00	87.50	0.00	.248
H012204	12631.0	.010	150.00	25.00	0.00	.027
H012206	30814.0	.087	150.00	50.00	0.00	.235
H012208	31540.0	.090	150.00	75.00	0.00	.243
H012210	33409.0	.098	150.00	100.00	0.00	.265

RUN NO. = 123
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 23.50 CM/SEC (10.0 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C012310	99204.0	.389	50.00	-155.00	0.00	1.043
C012308	11294.0	.019	50.00	-180.00	0.00	.053
C012306	3714.0	0.000	50.00	-205.00	0.00	0.000
C012304	7387.0	.003	50.00	-230.00	0.00	.008
D012310	83451.0	.322	100.00	-155.00	0.00	.867
D012308	20289.0	.057	100.00	-180.00	0.00	.155
D012306	3979.0	0.000	100.00	-205.00	0.00	0.000
D012304	8153.0	.006	100.00	-230.00	0.00	.017
F012311	346719.0	1.428	150.00	-90.00	0.00	3.767
F012309	294470.0	1.208	150.00	-115.00	0.00	3.200
E012307	142771.0	.571	150.00	-140.00	0.00	1.530
F012306	80064.0	.308	150.00	-152.50	0.00	.829
E012305	44223.0	.158	150.00	-165.00	0.00	.425
F012304	20705.0	.059	150.00	-177.50	0.00	.159
J012304	20919.0	.060	175.00	-177.50	0.00	.162
J012305	48486.0	.176	175.00	-165.00	0.00	.473
J012306	85025.0	.329	175.00	-152.50	0.00	.884
J012307	143891.0	.576	175.00	-140.00	0.00	1.542
J012309	233851.0	.954	175.00	-115.00	0.00	2.537
J012311	264269.0	1.082	175.00	-90.00	0.00	2.870
K012305	0.0	0.000	175.00	-65.00	0.00	0.000
K012307	81273.0	.313	175.00	-40.00	0.00	.842
K012309	41335.0	.146	175.00	-15.00	0.00	.393
K012311	31596.0	.105	175.00	10.00	0.00	.283
F012304	227031.0	.925	200.00	-87.50	0.00	2.462
F012306	205516.0	.835	200.00	-62.50	0.00	2.225
F012308	144452.0	.578	200.00	-37.50	0.00	1.548
F012310	66826.0	.253	200.00	-12.50	0.00	.680
G012304	34137.0	.115	200.00	12.50	0.00	.311
G012306	24631.0	.075	200.00	37.50	0.00	.204
G012308	41965.0	.148	200.00	62.50	0.00	.400
G012310	15058.0	.035	200.00	87.50	0.00	.095
H012304	48853.0	.177	150.00	25.00	0.00	.477
H012306	11932.0	.022	150.00	50.00	0.00	.060
H012308	36290.0	.124	150.00	75.00	0.00	.336
H012310	18424.0	.049	150.00	100.00	0.00	.133

RUN NO. = 124
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*/2
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C012410	124282.0	.505	50.00	-155.00	0.00	1.353
C012408	28796.0	.100	50.00	-180.00	0.00	.269
C012406	4308.0	0.000	50.00	-205.00	0.00	0.000
C012404	8144.0	.012	50.00	-230.00	0.00	.033
D012410	102452.0	.412	100.00	-155.00	0.00	1.107
D012408	40971.0	.151	100.00	-180.00	0.00	.408
D012406	5089.0	0.000	100.00	-205.00	0.00	0.000
D012404	8346.0	.013	100.00	-230.00	0.00	.035
E012411	402269.0	1.684	150.00	-90.00	0.00	4.425
E012409	329551.0	1.376	150.00	-115.00	0.00	3.633
E012407	157671.0	.647	150.00	-140.00	0.00	1.728
E012406	96721.0	.388	150.00	-152.50	0.00	1.042
E012405	66301.0	.259	150.00	-165.00	0.00	.697
E012404	42593.0	.158	150.00	-177.50	0.00	.427
J012404	42859.0	.159	175.00	-177.50	0.00	.430
J012405	74232.0	.293	175.00	-165.00	0.00	.787
J012406	101215.0	.407	175.00	-152.50	0.00	1.093
J012407	158378.0	.650	175.00	-140.00	0.00	1.736
J012409	259958.0	1.080	175.00	-115.00	0.00	2.867
J012411	301219.0	1.256	175.00	-90.00	0.00	3.322
K012405	4437.0	0.000	175.00	-65.00	0.00	0.000
K012407	129363.0	.526	175.00	-40.00	0.00	1.410
K012409	64976.0	.253	175.00	-15.00	0.00	.682
K012411	47362.0	.179	175.00	10.00	0.00	.481
F012404	222144.0	.920	200.00	-87.50	0.00	2.448
F012406	242647.0	1.007	200.00	-62.50	0.00	2.676
F012408	190821.0	.787	200.00	-37.50	0.00	2.099
F012410	92046.0	.368	200.00	-12.50	0.00	.989
G012404	51118.0	.195	200.00	12.50	0.00	.524
G012406	39171.0	.144	200.00	37.50	0.00	.388
G012408	32749.0	.117	200.00	62.50	0.00	.314
G012410	25591.0	.086	200.00	87.50	0.00	.233
H012404	50026.0	.190	150.00	25.00	0.00	.512
H012406	18579.0	.056	150.00	50.00	0.00	.152
H012408	14974.0	.041	150.00	75.00	0.00	.111
H012410	45545.0	.171	150.00	100.00	0.00	.460

RUN NO. = 125
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C012510	276049.0	1.206	50.00	-155.00	0.00	3.194
C012508	330806.0	1.448	50.00	-180.00	0.00	3.819
C012506	354366.0	1.552	50.00	-205.00	0.00	4.086
C012504	189244.0	.823	50.00	-230.00	0.00	2.193
D012510	184083.0	.800	100.00	-155.00	0.00	2.134
D012508	206379.0	.899	100.00	-180.00	0.00	2.392
D012506	312297.0	1.366	100.00	-205.00	0.00	3.608
D012504	212431.0	.925	100.00	-230.00	0.00	2.462
F012511	659824.0	2.900	150.00	-90.00	0.00	7.470
F012509	504805.0	2.216	150.00	-115.00	0.00	5.772
F012507	281099.0	1.228	150.00	-140.00	0.00	3.252
F012506	165610.0	.719	150.00	-152.50	0.00	1.919
F012505	178080.0	.774	150.00	-165.00	0.00	2.064
F012504	173752.0	.755	150.00	-177.50	0.00	2.013
J012504	135826.0	.587	175.00	-177.50	0.00	1.571
J012505	172597.0	.749	175.00	-165.00	0.00	2.000
J012506	211499.0	.921	175.00	-152.50	0.00	2.451
J012507	239585.0	1.045	175.00	-140.00	0.00	2.775
J012509	430683.0	1.889	175.00	-115.00	0.00	4.946
J012511	0.0	0.000	175.00	-90.00	0.00	0.000
K012505	312726.0	1.368	175.00	-65.00	0.00	3.613
K012507	80548.0	.343	175.00	-40.00	0.00	.922
K012509	32010.0	.129	175.00	-15.00	0.00	.347
K012511	38117.0	.156	175.00	10.00	0.00	.420
F012504	393041.0	1.723	200.00	-87.50	0.00	4.523
F012506	392141.0	1.719	200.00	-62.50	0.00	4.513
F012508	270333.0	1.181	200.00	-37.50	0.00	3.129
F012510	95773.0	.410	200.00	-12.50	0.00	1.101
G012504	33426.0	.135	200.00	12.50	0.00	.364
G012506	39374.0	.161	200.00	37.50	0.00	.435
G012508	32839.0	.132	200.00	62.50	0.00	.357
G012510	38247.0	.156	200.00	87.50	0.00	.421
H012504	32428.0	.131	150.00	25.00	0.00	.352
H012506	38304.0	.157	150.00	50.00	0.00	.422
H012508	31775.0	.128	150.00	75.00	0.00	.345
H012510	38114.0	.156	150.00	100.00	0.00	.420

RUN NO. = 126
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = STABLE

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C012610	293821.0	1.154	50.00	-155.00	0.00	3.060
C012608	328730.0	1.308	50.00	-180.00	0.00	3.459
C012606	325627.0	1.295	50.00	-205.00	0.00	3.424
C012604	193069.0	.710	50.00	-230.00	0.00	1.895
D012610	201645.0	.747	100.00	-155.00	0.00	1.995
D012608	236870.0	.903	100.00	-180.00	0.00	2.403
D012606	268162.0	1.041	100.00	-205.00	0.00	2.765
D012604	224999.0	.851	100.00	-230.00	0.00	2.266
E012611	606417.0	2.534	150.00	-90.00	0.00	6.566
E012609	531234.0	2.202	150.00	-115.00	0.00	5.737
E012607	306240.0	1.209	150.00	-140.00	0.00	3.202
E012606	176700.0	.637	150.00	-152.50	0.00	1.704
E012605	144393.0	.495	150.00	-165.00	0.00	1.326
E012604	143107.0	.489	150.00	-177.50	0.00	1.311
J012604	162236.0	.573	175.00	-177.50	0.00	1.535
J012605	152702.0	.531	175.00	-165.00	0.00	1.423
J012606	192282.0	.706	175.00	-152.50	0.00	1.886
J012607	294558.0	1.158	175.00	-140.00	0.00	3.068
J012609	423213.0	1.726	175.00	-115.00	0.00	4.531
J012611	396608.0	1.608	175.00	-90.00	0.00	4.230
K012605	192915.0	.709	175.00	-65.00	0.00	1.893
K012607	9410.0	0.000	175.00	-40.00	0.00	0.000
K012609	48030.0	.069	175.00	-15.00	0.00	.187
K012611	37021.0	.021	175.00	10.00	0.00	.056
F012604	355787.0	1.428	200.00	-87.50	0.00	3.768
F012606	349841.0	1.402	200.00	-62.50	0.00	3.700
F012608	210004.0	.784	200.00	-37.50	0.00	2.092
F012610	58778.0	.117	200.00	-12.50	0.00	.315
G012604	32409.0	.000	200.00	12.50	0.00	.001
G012606	37552.0	.023	200.00	37.50	0.00	.062
G012608	31055.0	0.000	200.00	62.50	0.00	0.000
G012610	37345.0	.022	200.00	87.50	0.00	.060
H012604	31665.0	0.000	150.00	25.00	0.00	0.000
H012606	36589.0	.019	150.00	50.00	0.00	.051
H012608	31166.0	0.000	150.00	75.00	0.00	0.000
H012610	36950.0	.020	150.00	100.00	0.00	.055

RUN NO. = 127
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C012710	279025.0	1.108	50.00	-155.00	0.00	2.938
C012708	54727.0	.156	50.00	-180.00	0.00	.420
C012706	4175.0	0.000	50.00	-205.00	0.00	0.000
C012704	3178.0	0.000	50.00	-230.00	0.00	0.000
D012710	211931.0	.823	100.00	-155.00	0.00	2.193
D012708	79427.0	.261	100.00	-180.00	0.00	.707
D012706	4757.0	0.000	100.00	-205.00	0.00	0.000
D012704	3443.0	0.000	100.00	-230.00	0.00	0.000
E012711	485323.0	1.983	150.00	-90.00	0.00	5.184
E012709	419201.0	1.702	150.00	-115.00	0.00	4.471
E012707	277463.0	1.101	150.00	-140.00	0.00	2.921
E012706	186504.0	.715	150.00	-152.50	0.00	1.909
E012705	138554.0	.512	150.00	-165.00	0.00	1.371
E012704	87185.0	.294	150.00	-177.50	0.00	.790
J012704	92068.0	.314	175.00	-177.50	0.00	.845
J012705	138588.0	.512	175.00	-165.00	0.00	1.371
J012706	188571.0	.724	175.00	-152.50	0.00	1.932
J012707	261722.0	1.034	175.00	-140.00	0.00	2.747
J012709	334688.0	1.344	175.00	-115.00	0.00	3.550
J012711	378771.0	1.531	175.00	-90.00	0.00	4.032
K012705	3898.0	0.000	175.00	-65.00	0.00	0.000
K012707	242367.0	.952	175.00	-40.00	0.00	2.532
K012709	106942.0	.378	175.00	-15.00	0.00	1.014
K012711	72973.0	.233	175.00	10.00	0.00	.628
F012704	292271.0	1.164	200.00	-87.50	0.00	3.084
F012706	310671.0	1.242	200.00	-62.50	0.00	3.287
F012708	273176.0	1.083	200.00	-37.50	0.00	2.873
F012710	185804.0	.712	200.00	-12.50	0.00	1.901
G012704	83277.0	.277	200.00	12.50	0.00	.745
G012706	53990.0	.153	200.00	37.50	0.00	.412
G012708	47054.0	.123	200.00	62.50	0.00	.333
G012710	38457.0	.087	200.00	87.50	0.00	.235
H012704	90507.0	.308	150.00	25.00	0.00	.828
H012706	33959.0	.068	150.00	50.00	0.00	.183
H012708	8000.0	0.000	150.00	75.00	0.00	0.000
H012710	76736.0	.249	150.00	100.00	0.00	.671

RUN NO. = 12R
WIND DIRECTION = 215.
LNG BOILOFF AREA = P*
FENCE HEIGHT = .0196M (16.00FT)
LNG SPILL RATE = 7000.00 GPM CONTINUOUS
WIND SPEED AT 0.024 M (20 FT) HEIGHT = 15.30 CM/SEC (6.5 MPH)
STRATIFICATION RI(BULK) = NEUTRAL

.....MODEL CONDITION.....			.....PROTOTYPE CONDITION.....			
FILE NAME	ELECTROMETER VOLTAGE (UV-SEC)	MEAN CONC (%)	POSITION X (M)	Y (M)	Z (M)	MEAN CONC (%)
C012810	120569.0	.481	50.00	-155.00	0.00	1.290
C012808	24680.0	.074	50.00	-180.00	0.00	.201
C012806	4030.0	0.000	50.00	-205.00	0.00	0.000
C012804	7834.0	.003	50.00	-230.00	0.00	.008
D012810	97649.0	.384	100.00	-155.00	0.00	1.031
D012808	37178.0	.127	100.00	-180.00	0.00	.344
D012806	4456.0	0.000	100.00	-205.00	0.00	0.000
D012804	8219.0	.005	100.00	-230.00	0.00	.012
F012811	225301.0	.925	150.00	-90.00	0.00	2.462
F012809	202470.0	.829	150.00	-115.00	0.00	2.208
F012807	131223.0	.526	150.00	-140.00	0.00	1.410
F012806	94077.0	.369	150.00	-152.50	0.00	.990
F012805	65800.0	.249	150.00	-165.00	0.00	.670
F012804	38942.0	.135	150.00	-177.50	0.00	.364
J012804	41154.0	.144	175.00	-177.50	0.00	.389
J012805	67354.0	.255	175.00	-165.00	0.00	.687
J012806	91216.0	.357	175.00	-152.50	0.00	.958
J012807	126989.0	.508	175.00	-140.00	0.00	1.362
J012809	165702.0	.673	175.00	-115.00	0.00	1.797
J012811	185763.0	.758	175.00	-90.00	0.00	2.022
K012805	0.0	0.000	175.00	-65.00	0.00	0.000
K012807	88267.0	.344	175.00	-40.00	0.00	.925
K012809	41865.0	.147	175.00	-15.00	0.00	.397
K012811	35847.0	.122	175.00	10.00	0.00	.328
F012804	146007.0	.589	200.00	-87.50	0.00	1.576
F012806	144651.0	.583	200.00	-62.50	0.00	1.561
F012808	116188.0	.463	200.00	-37.50	0.00	1.240
F012810	70057.0	.267	200.00	-12.50	0.00	.718
G012804	31182.0	.102	200.00	12.50	0.00	.275
G012806	24516.0	.074	200.00	37.50	0.00	.199
G012808	18898.0	.050	200.00	62.50	0.00	.135
G012810	15071.0	.034	200.00	87.50	0.00	.091
H012804	30293.0	.098	150.00	25.00	0.00	.265
H012806	10610.0	.015	150.00	50.00	0.00	.040
H012808	6084.0	0.000	150.00	75.00	0.00	0.000
H012810	22718.0	.066	150.00	100.00	0.00	.178