



INSTITUTE FOR DEFENSE ANALYSES

Testing of IDA's *CBStrike* Model

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May 2011

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IDA Document D-4209

Log: H 11-000867





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About This Publication

This work was conducted by the Institute for Defense Analyses (IDA) under contract DASW01-04-C-0003, Task DM-6-3192, "Support for Validation and Verification of IDA's *CBStrike* Model" for the Joint Program Executive Office for Chemical and Biological Defense. The views, opinions, and findings should not be construed as representing the official position of either the Department of Defense or the sponsoring organization.

Acknowledgments

The authors wish to thank Dr. Jeffrey H. Grotte of the Institute for Defense Analyses for his careful review of this document, Ms. Beth Johnson who edited this document, and Mrs. Barbara Varvaglione who produced this document. The authors also wish to acknowledge the input of Mr. Nafis Upshur, the creator of *CBStrike*.

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INSTITUTE FOR DEFENSE ANALYSES

IDA Document D-4209

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Scott L. Weinrich
Alison E. Lawrence

Executive Summary

CBStrike is a modeling tool developed by the Institute for Defense Analyses (IDA) that simulates the effects of chemical or biological attacks on specific force laydowns that may include detection, collection, and identification systems. The core functionality of *CBStrike* consists of the ability to:

- Calculate ambient aerosol concentrations
- Calculate doses of biological agent inhaled by personnel including an option for personnel to don masks in response to detector alarm
- Determine the number of personnel that will become casualties
- Model stationary point detector operation
- Model stationary collector operation
- Calculate concentrations of liquid samples produced by collectors
- Model identifier operation

Several versions of *CBStrike* have been developed that include additional custom features that have been incorporated to address specific needs of different studies conducted by IDA. These custom features include the ability to:

- Model operation of a detection system mounted on an unmanned aerial system (UAS)
- Model standoff detector operation
- Model detectors with different detection thresholds within the same simulation
- Allow multiple detector/collector associations
- Report the time at which a specified number of casualties is exceeded during a simulation
- Model localized donning of masks
- Model the ability of post-exposure prophylaxis to reduce casualties

The core functionality of *CBStrike* has undergone testing to ensure *CBStrike* is operating as intended. All custom features, except the ability to model localized masking and administration of post-exposure prophylaxis, have also been tested. The localized

masking and administration of post-exposure prophylaxis features were not tested because they have not been employed in any IDA study.

The testing of *CBStrike* involved systematically varying each *CBStrike* input parameter individually and comparing the resulting *CBStrike* output to independent calculations. Independent calculations were performed using *Wolfram Mathematica*[®] 6.0.¹ All *CBStrike* outputs potentially affected by changes in individual input parameter values were examined and compared to these independent calculations.

All tests of individual inputs demonstrate that *CBStrike* is operating as intended and all calculations are performed correctly. The *CBStrike* outputs from each test matched those from the independent calculations.

¹ Wolfram Research, Inc., *Mathematica*[®], Version 6.0, Champaign, IL (2007).

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1. Introduction

CBStrike is a modeling tool developed by the Institute for Defense Analyses (IDA) to stage chemical or biological attacks against specific force laydowns and detection and identification system employments using the biological agent concentration data generated by external transport and dispersion models. Several versions of *CBStrike* have been utilized in a variety of studies performed by IDA.^{1,2} Among the different *CBStrike* variations, there is a core functionality common to all as well as a set of custom features that are unique to each version. The core functionality of *CBStrike* includes the ability to:

- Calculate ambient aerosol concentrations
- Calculate doses of biological agent inhaled by personnel including an option for personnel to don masks in response to detector alarm
- Determine the number of personnel that will become casualties
- Model stationary point detector operation
- Model stationary collector operation
- Calculate concentrations of liquid samples produced by collectors
- Model identifier operation

Aside from the core functionality, custom features were incorporated in order to address needs of specific studies for which they were created. For instance, one study examined the effectiveness of including biological detection systems on unmanned aerial systems (UAS) and required *CBStrike* to model a proposed method of intercepting and searching for biological aerosol clouds. In another study, the effectiveness of using the Joint Biological Standoff Detection System (JBSDS) to trigger sample collection is being investigated and the ability to model a generic standoff detection system was required. Another study prioritizes biological agents by the importance of their detection. This study requires *CBStrike* to report the time at which a specified number of casualties is

¹ Jeffrey H. Grotte, Margaret C. Hebner, Nafis J. Upshur, Scott L. Weinrich, September 2010, *Sensor Shield and Responsive Unmanned Aerial System: An Analysis of Two Biological Detection Concepts*, IDA Paper P-4637 (Alexandria, VA: Institute for Defense Analyses).

² Alison E. Lawrence, Scott L. Weinrich, Jeffrey H. Grotte, Douglas P. Schultz, Nafis J. Upshur, W. M. Christenson, Eleanor L. Schwartz, Meagan L. Prophet, and John N. Bombardt, June 2010, *Joint Biological Tactical Detection System Analysis of Materiel Alternatives: Phase I (U)* IDA Paper P-4558 (Alexandria, VA: Institute for Defense Analyses).

exceeded. Although not yet utilized, the ability to associate multiple detectors with individual collectors was included in another version of *CBStrike*. This allowed detection by any one of the associated detectors to trigger sample collection. In addition, detection by an individual detector was required to trigger sample collection in multiple collectors. *CBStrike* also includes the capability to model prophylaxis administration. Finally, the capability to associate personnel with specific detectors was included in *CBStrike* so that masking in response to detector alarm could be localized within a large force laydown. All of these versions of *CBStrike* have undergone testing of their common core functionality. All custom features, except the ability to model localized masking and administration of post-exposure prophylaxis, have also been tested. The localized masking and administration of post-exposure prophylaxis features were not tested because they have not been employed in any IDA study.

2. *CBStrike* Operation Overview

The versions of *CBStrike* examined accept chemical or biological concentration data from *VLSTRACK* 3.2.1 in the form of the puff tracking file outputs (*VLSTRACK* .trk files).³ *CBStrike* uses the data in these puff tracking files to calculate concentrations at personnel, detector, and collector locations for every specified time step. Using these ambient aerosol concentrations, the doses acquired by exposed personnel, the casualty rate, and the total number of casualties at each personnel location are calculated. If detectors are included in the simulation, the concentrations at each detector location are compared to the detector's threshold to determine if and when the detector would alarm. Upon a detector alarm, a warning may be issued to personnel who may then don masks in an attempt to reduce their exposure to the biological agent aerosol. In addition to detectors, collectors may be included which are designed to sample the air for suspended biological aerosols and generate a liquid sample that can subsequently be analyzed by an identifier. Collectors may have two modes of operation: continuous or triggered. Triggered collection involves initiating collector operation only after a detector alarms in response to the presence of a biological aerosol. The collector only operates for a fixed period of time after being triggered by the detector alarm and then the sample is delivered to the identifier for analysis. Alternatively, a collector may operate continuously and a sample may be periodically sent for analysis by the identifier. Regardless of the method of collector operation, each collector is assigned to a particular identifier and the samples obtained from all collectors assigned to a particular identifier enter a queue to be analyzed. The identifier compares the liquid sample concentration to the identification threshold for the specific agent. If the liquid sample concentration exceeds the identification threshold, then the agent in the sample is positively identified.

³ *VLSTRACK*, which stands for vapor, liquid and solid tracking, is a Gaussian plume transport and dispersion model.

3. Testing Methodology

The general testing procedure involved varying individual *CBStrike* inputs and comparing results in *CBStrike* outputs to results obtained by manual independent calculations using *Wolfram Mathematica*[®] 6. The independent calculations were as explicit as possible to ensure clarity in the calculations of biological aerosol concentrations, doses acquired by personnel, and the concentrations of the liquid samples analyzed by identifiers. The *Mathematica*[®] scripts used to perform these calculations are provided in Appendix A.

For each *CBStrike* input, several values of the input parameter were tested. Table 1 shows the values of each input that were tested. While each input was tested individually, all the other inputs were set to the values that are highlighted in yellow in Table 1.

Four primary types of *CBStrike* outputs were used to verify correct operation: ambient aerosol concentrations at detector locations, the doses acquired by personnel, the concentration of agent in the liquid sample generated by the collector, and the times of detection and identification. Whenever possible, all *CBStrike* outputs affected by changes in a particular feature or input were examined. For instance, if varying the time over which a collector acquires a sample to test the implementation of this input, both the concentration of liquid sample and the time at which the identification result is obtained would be examined because both outputs would be affected.

CBStrike reports aerosol concentrations, doses acquired by personnel, liquid sample concentrations, casualty rates, and total numbers of casualties to a precision of 4 decimal places. When these *CBStrike* outputs were compared to independent calculations, the results were considered to “match” if they were in complete agreement at this level of precision.

Table 1. Input Parameter Values Tested

Input Parameter	Parameter Values Evaluated				
Simulation Start Time (s)	-1	0	10	25	
Simulation End Time (s)	15	24	60	70	
CBStrike Time Step (s)	1	5	10		
Attack Point Placement	Manual	Random			
Puff Cutoff ^A	5 σ	5.9 σ			
Conversion Factor for Aerosol Concentrations and Liquid Sample Concentrations	0.1	0.9	1	10	
Conversion Factor for Liquid Sample Concentrations Only	0.0001	0.01	1	100	
Concentration Interpolation Method	Lower Step	Linear	Upper Step		
Breathing Height (m)	1	2	3		
Breathing Rate (m ³ /min)	0.015	0.030	0.045		
Inhaled Particle Sizes (μ m)	0-5	5-5.5	5.5-10	0-100,000	
Median Effective Dose (μ g)	0.001	1	1,000		
Probit Slope	0.5	1.4	2		
Warning Delay (s)	0	1	10		
Mask Delay (s)	0	5	10		
Masking Factor	0.5	0.8	1		
Detection Threshold (μ g/m ³)	1,000	3,000	5,000	7,500	12,000
Detector Duration (s)	0	1	2	3	
Number of Detections to Warn	1	2			
Network Delay (s)	0	1	10		
Detector Reset	active	inactive			
Collector Delay (s)	0	10	30		
Collector Flow Rate (m ³ /min)	0.015	0.3	1		
Collection Duration (s)	5	10	30		
Collection Efficiency ^B	50% all sizes	100% all sizes	50% > 5 μ m 100% < 5 μ m	50% > 6 μ m 100% < 6 μ m	
Extraction Efficiency	0.2	0.5	1		
Sample Volume (mL)	1	5	10	20	
Sample Transportation Time (s)	0	10	30		
Identification Threshold (μ g/mL)	1	3	6	7	
Sample Processing Time (s)	0	1	10	60	

^A σ is the lateral standard deviation of the agent puffs.

^B When particles are on the boundary between particle size ranges, *CBStrike* uses a collection efficiency equal to the average of the collection efficiencies of the adjacent particle sizes. For example, when the collection efficiency is 50% for particles greater than 5 μ m and 100% for particles less than 5 μ m, particles with a radius exactly equal to 5 μ m are collected with 75% efficiency.

4. General Test Scenario

This section details the aerosol cloud used for testing most of the *CBStrike* input parameters. The positions of personnel, detectors, and collectors used during most of the testing are also described.

A. Test Cloud

Typical puff tracking files generated by *VLSTRACK* are very large and generally include thousands of individual puffs. The use of such a large file unnecessarily complicates the process of ensuring that *CBStrike* is correctly performing calculations. As such, a small simplified cloud was created that would allow the individual features to be quickly and easily examined. This test cloud involves two stationary puffs whose masses increase linearly over the 60 second (s) duration of the cloud. The time steps in the puff tracking file were 1 s over the entire 60 s duration of the cloud. Figure 1 demonstrates the initial concentrations of biological agent in the test cloud around the release location. This cloud has the minimal complexity required to test most *CBStrike* functions. Two overlapping puffs were necessary to ensure that the contributions of multiple puffs are correctly summed to calculate the total concentration at any point in space. The linearly increasing concentration was the simplest concentration profile that would ensure that all outputs were unique to specific times. This approach makes it simple to confirm that simulation events are occurring at the correct time. For example, the dose acquired during each time step by personnel at a given location will be unique to that time step. With knowledge of the total dose acquired by personnel at a location, it is possible to determine the time period over which that dose was calculated and to ensure that events such as donning of masks are occurring at appropriate times. The puff tracking data for the test cloud is provided in Section A of Appendix C.

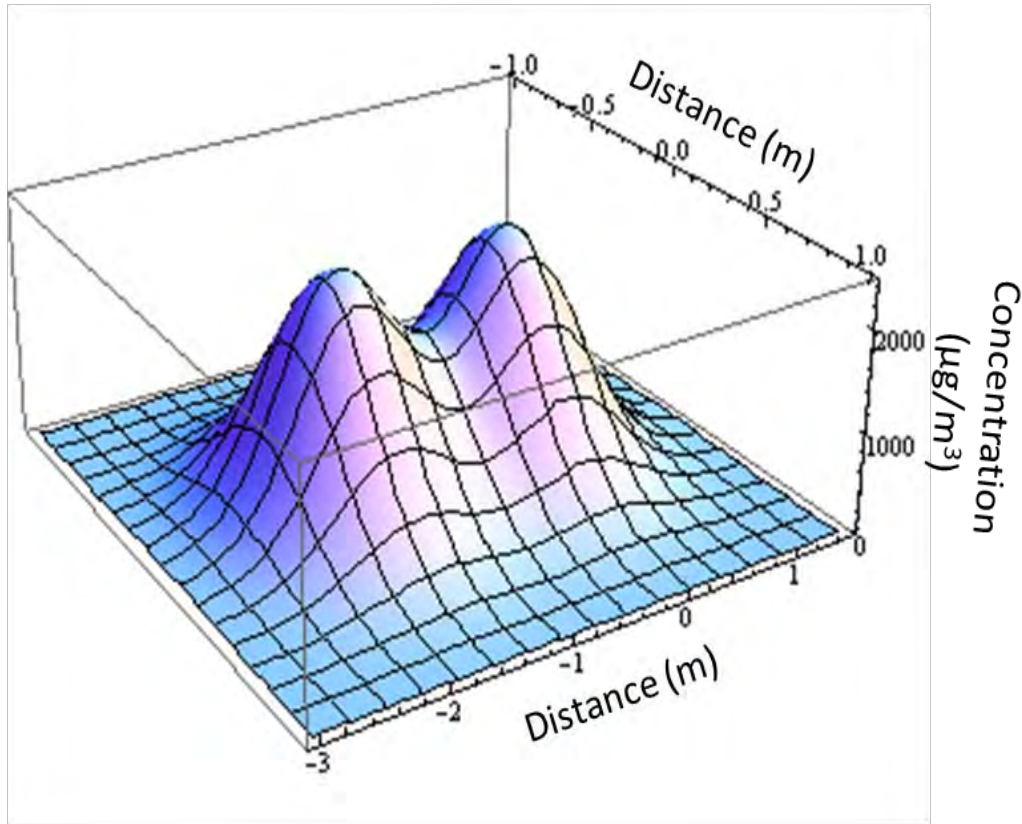


Figure 1. The Initial Spatial Concentration Profile of the Test Cloud Around the Specified Release Point at (0,0)

B. Personnel, Detector, Collector, and Identifier Positions

Personnel and collectors were positioned at 527 locations on a grid as shown in Figure 2. One hundred personnel were placed at each location. The breathing height and the collector intake height were 2 meters (m) unless otherwise specified. For each collector, a detector was placed at a height of 2 m at the center of one of the puffs in the test cloud. By placing 527 detectors at a single location, calculations of sample concentrations were simplified because all collectors begin sampling at the same time. The temporal concentration profile experienced by these detectors is given in Figure 3. The aerosol concentrations given in Figure 3 are expressed in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

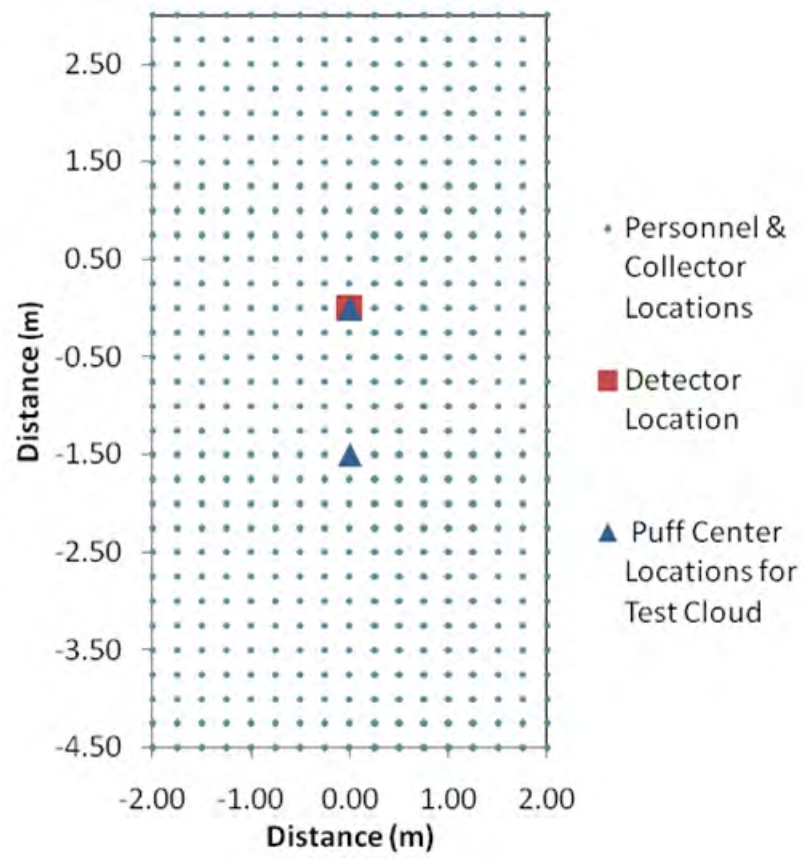


Figure 2. Locations of Detectors, Collectors, and Personnel Used in Testing

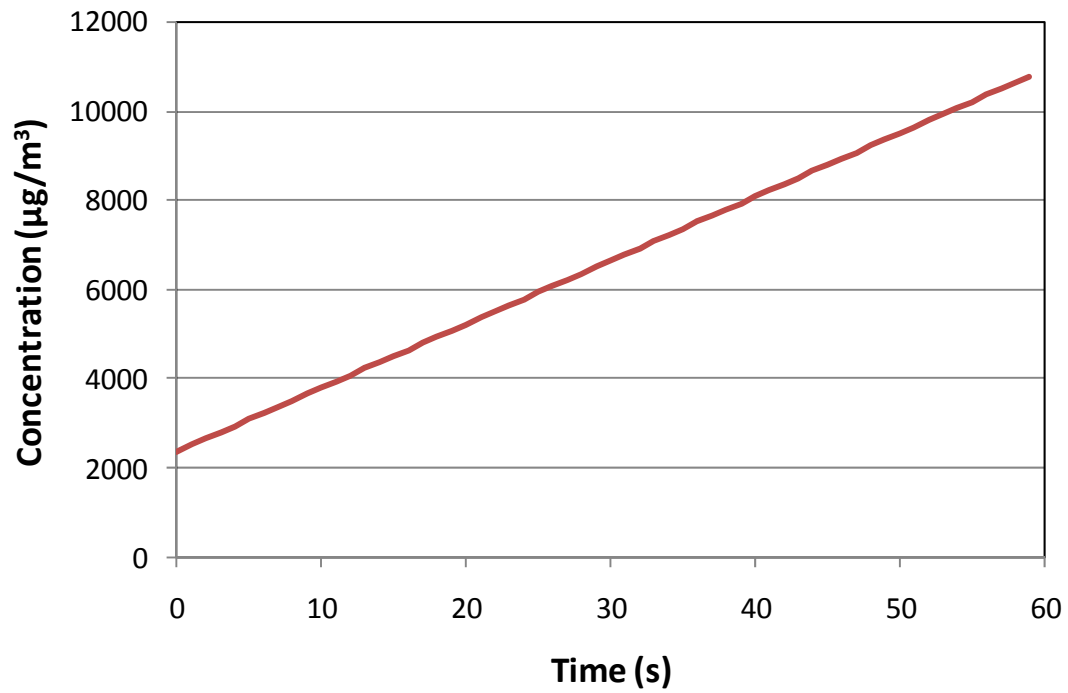


Figure 3. Biological Aerosol Concentration for the Test Cloud Experienced by the Detectors at a Height of 2 m at Coordinates (0,0)

5. *CBStrike* Testing Limitations

The testing of *CBStrike* was subject to several limitations necessary to constrain its scope. These limitations may have prevented some potential problems with *CBStrike* from being discovered.

Given that each input parameter was varied individually, this testing of *CBStrike* would not expose potential problems arising from the simultaneous variation of multiple input parameters. The testing procedure was restricted to variation in individual parameters because it was not feasible to test all combinations of input parameter values.

The testing of *CBStrike*'s core functionality involved only a single test cloud. This test cloud was used to simplify the independent calculations necessary to test *CBStrike*. Potential problems arising from the use of different and/or more complex clouds may not have been encountered in testing using the simplified test cloud.

The tested *CBStrike* input parameter values were arbitrarily selected such that they could be easily tested with the test cloud that was used. Given the finite range of values tested for each input parameter, it is possible that this testing may not reveal problems stemming from input parameter values well outside the tested range.

6. Testing of General Program Operation

The testing of input parameters affecting the general program operation are described in this section. These input parameters relate to the times at which calculations are performed during the simulation, the placement of attacks, and manner in which the aerosol concentrations are calculated.

A. Simulation Start Time

The simulation start time determines the time after the initial release of the agent at which *CBStrike* should begin the simulation. Typically, the simulation start time would be 0 s to ensure the entire lifetime of the cloud is captured in the simulation. If release point(s) are known to be very far from detectors, collectors, or personnel, then the start time may be set to a later time to reduce the total computational time required to perform the simulation.

Four simulation start times were tested: -1, 0, 10, and 25 s. Using the test cloud which yields non-zero concentrations at personnel locations immediately upon start of the simulation, it is expected that the dose received by personnel should decrease as the simulation start time is increased because the dose calculations are not beginning until after the personnel are already being exposed to agent. When a negative starting time is included, *CBStrike* interpolates between the zero concentration at -1 s and the non-zero concentration at 0 s. This causes personnel to acquire a non-zero dose during the interval between -1 s and 0 s. The independently calculated doses for each simulation start time were compared to the *CBStrike* dose outputs for personnel in the same locations. No differences were found between the independent calculations and the *CBStrike* output for each of the simulation start times tested. The doses acquired by personnel at each personnel location for each simulation start time are given in Section A.1. of Appendix B.

B. Simulation End Time

The simulation end time determines the time after the initial release of the agent at which *CBStrike* should stop performing calculations. Typically, the simulation end time would be expected to be no sooner than the last time given in the puff tracking input files. The simulation end time may be set to a time after the last time in the puff tracking file if it is expected that collection and identification processes may continue after the last time in the puff tracking file. If the cloud is known to persist well after it is no longer a hazard

to personnel and can no longer be detected or identified, then the simulation end time may be set to an earlier time than the last reported time in the puff tracking input file. Doing so reduces the total time required to perform the simulation.

Four simulation end times were tested: 15, 24, 60, and 70 s after the initial release of agent. Using the basic test cloud, it is expected that the dose received by personnel will decrease as the simulation end time is decreased from 60 s to 15 s because the dose calculations are ending while the hazard is still present at the personnel locations. The dose also decreases when the simulation end time is reduced from 70 s to 60 s because *CBStrike* interpolates between the last non-zero concentration occurring at 60 s and the concentration of zero at 61 s. This results in personnel acquiring a non-zero dose during the 60-61 s interval. The dose received by personnel at each location was calculated independently and compared to the *CBStrike* dose outputs for personnel in the same locations. No differences were found between the independent calculations and *CBStrike* for each of the simulation end times tested. The doses acquired by personnel at each personnel location for each simulation end time are given in Section A.2. of Appendix B.

C. *CBStrike* Time Step

The *CBStrike* time steps define the times at which *CBStrike* performs calculations. The *CBStrike* time steps are not required to remain constant throughout the simulation and may be defined individually for each specified time interval. The *CBStrike* time steps are not required to be the same as those used to generate the puff tracking file in *VLSTRACK*. Three *CBStrike* time steps were tested: 1, 5, and 10 s. The time over which a collector ingests air to collect a sample must be a minimum of one *CBStrike* time step. Thus, the time over which the collectors ingested air was 10 s when testing the 10 s *CBStrike* time step even though this time over which air is ingested was specified to be 5 s in the input files. The doses acquired by personnel at each personnel location and the concentrations of the liquid samples produced by collectors for each *CBStrike* time step matched independent calculations and are given in Section A.3. of Appendix B.

D. Attack Point Placement

CBStrike allows for the locations of the attack to be determined either by the user specifying each attack location or by *CBStrike* randomly selecting the attack locations within a user-defined rectangular region. Testing of the correct positioning of user-specified attack points relative to personnel, detector, and collector locations is implicit in all other testing performed in this study and therefore was not explicitly tested as an independent feature.

If random attack placement is selected, *CBStrike* will place attack points automatically by randomly placing them following a uniform probability distribution within a specified rectangular region referred to as an “attack box.” This random attack

point placement feature was tested by simply verifying that the correct number of attacks points was simulated and that their distribution across the attack box subjectively appeared to follow a uniform probability distribution. The random placement of 50 attack points is shown in Figure 4.

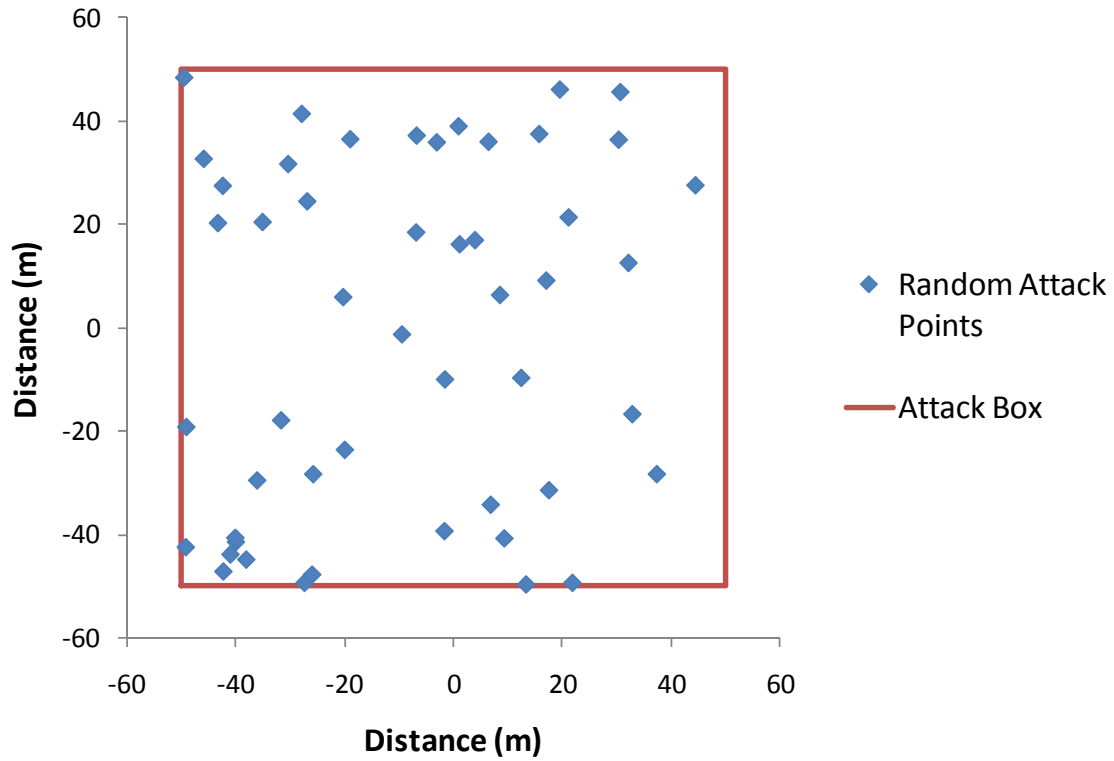


Figure 4. Illustrative Distribution of 50 Randomly Placed Attack Points

E. Puff Cutoff

The puff cutoff is an approximation performed by *VLSTRACK* to reduce the total time required to perform the simulations. The puff standard deviation, σ , determines the spatial distribution of the mass of a puff's biological material. In *VLSTRACK*, the puffs that are centered at a distance more than 5 times the puff's standard deviation away from a particular location are not used to calculate the concentration at that location.⁴ With *CBStrike*, the puff cutoff is user-adjustable.

Two puff cutoff values were tested: 5σ and 5.9σ . Figure 5 demonstrates the locations of the puff, puff cutoff boundary, and the personnel locations. The puff cutoff boundary is rectangular because the puff standard deviation is 0.3 m in one direction and 0.5 m in the other direction. The personnel locations within the region defined by the puff standard deviation cutoff receive a small, non-zero, dose which causes casualties to be reported for those locations. Personnel locations lying outside of the region defined by the puff standard deviation cutoff value acquired no dose and therefore no casualties were reported for these locations. Casualties were calculated using a 0.0001 μg median effective dose and 100 personnel were placed at each personnel location. The total numbers of casualties at each personnel location for each puff cutoff matched independent calculations and are given in Section A.4. of Appendix B.

⁴ Timothy J. Bauer, *Software Design Description for the Chemical/Biological Agent Vapor, Liquid, and Solid Tracking (VLSTRACK) Computer Model*, Version 3.0 (Dahlgren, VA: Dahlgren Division, Naval Surface Warfare Center), December 1998.

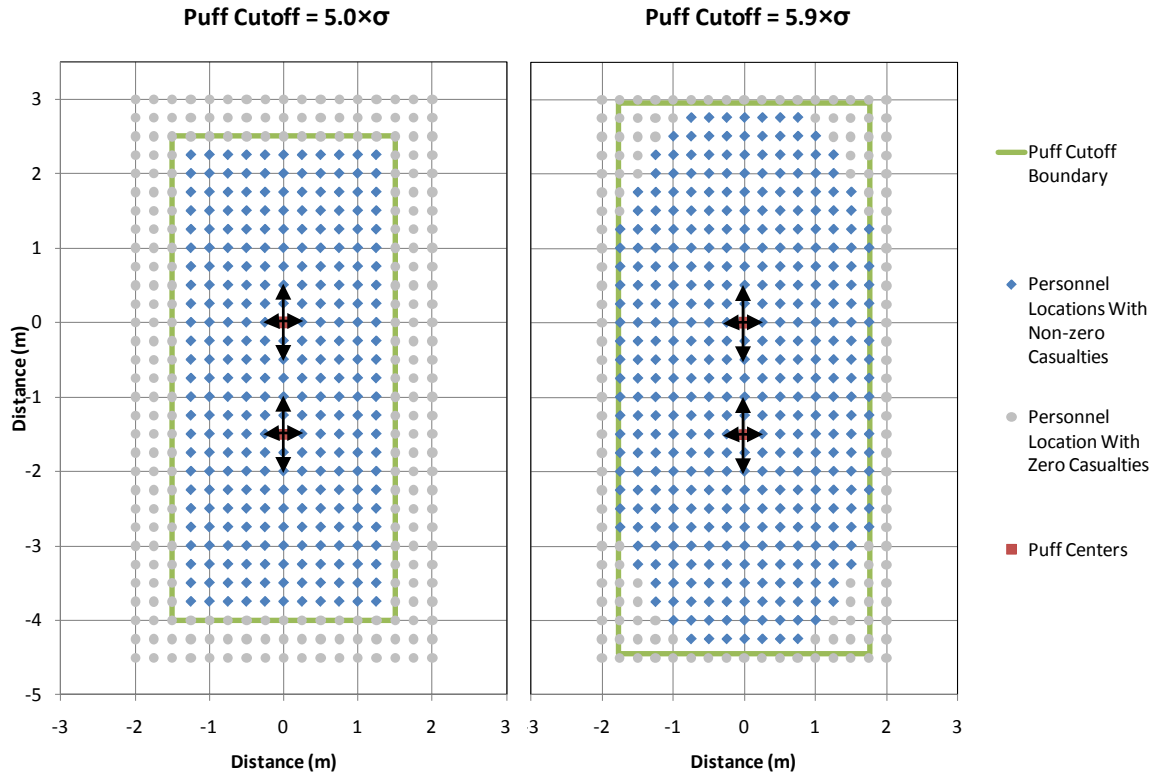


Figure 5. Casualties at Personnel Locations for Different Puff Cutoff Values

Length of the black arrows indicates the spatial standard deviation of the puffs in each direction.

For both puff sigma cutoff values tested, no casualties were reported for personnel locations outside of the puff cutoff boundary. For the 5.9 puff sigma cutoff, there are personnel locations for which there were no reported casualties despite being inside of the puff cutoff boundary. This occurs because the doses acquired by personnel at those locations are so low as to cause less than the minimum number of reportable casualties in *CBStrike* (0.0001 casualties).

F. Concentration Conversion Factor

1. Conversion Factor for Aerosol and Liquid Sample Concentration Calculations

The *VLSTRACK* puff tracking output expresses puff mass in units of micrograms (μg). *CBStrike* uses the puff masses to calculate ambient aerosol concentrations at specific locations and, unless a conversion factor is applied, the calculated concentrations will have units of micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). If the detection threshold used in *CBStrike* is specified in different units, a conversion factor must be applied to the concentration calculated by *CBStrike*. If the detection threshold is specified in units of $\mu\text{g}/\text{m}^3$, no unit conversion is necessary and a concentration conversion factor of 1 should be specified. This conversion factor will also be applied to the calculation of the concentrations of liquid samples produced by collectors. The calculation of doses acquired by personnel is not directly affected by this conversion factor, but the different conversion factor values may cause the detector to alarm at a different time which would indirectly affect the doses received by personnel. Four values for this conversion factor were tested: 0.1, 0.9, 1.0, and 10. No units are specified because this conversion factor can convert $\mu\text{g}/\text{m}^3$ to a variety of different units for quantifying concentrations. The doses acquired by personnel and the concentrations of liquid samples produced by collectors at each collector location match independent calculations and are given in Section A.5.a. of Appendix B.

2. Conversion Factor for Liquid Sample Concentration Calculations Only

An additional conversion factor can be specified that does not affect the calculation of the ambient aerosol concentrations experienced by detectors, but is included in the calculation of the concentrations of the liquid samples generated by collectors. Four values of this conversion factor were tested: 0.0001, 0.01, 1, and 100. No units are specified because this conversion factor can represent different conversions. The concentrations of liquid samples produced by collectors at each collector location match independent calculations and are given in Section A.5.b. of Appendix B.

G. Concentration Interpolation Method

CBStrike provides the option of an upper step interpolation, a lower step interpolation, or a linear interpolation. This interpolation is performed only when there is no time step in the *VLSTRACK* puff tracking file that matches a particular *CBStrike* time step.

Figure 6 demonstrates concentration profiles obtained using each interpolation method when the *CBStrike* time steps have 10 times the resolution of the *VLSTRACK* puff tracking file time steps, i.e., *CBStrike* time steps are 0.1 s and the puff tracking file time steps are 1s.

In Figure 6, the detector duration was equal to one *CBStrike* time step, 0.1 s. This causes the detector to alarm one *CBStrike* time step after the first time step for which the aerosol concentration exceeded the detection threshold. It should be noted that the upper step and lower step interpolation methods do not result in a true step-wise concentration profile because a first order linear interpolation is still performed between consecutive *CBStrike* time steps.

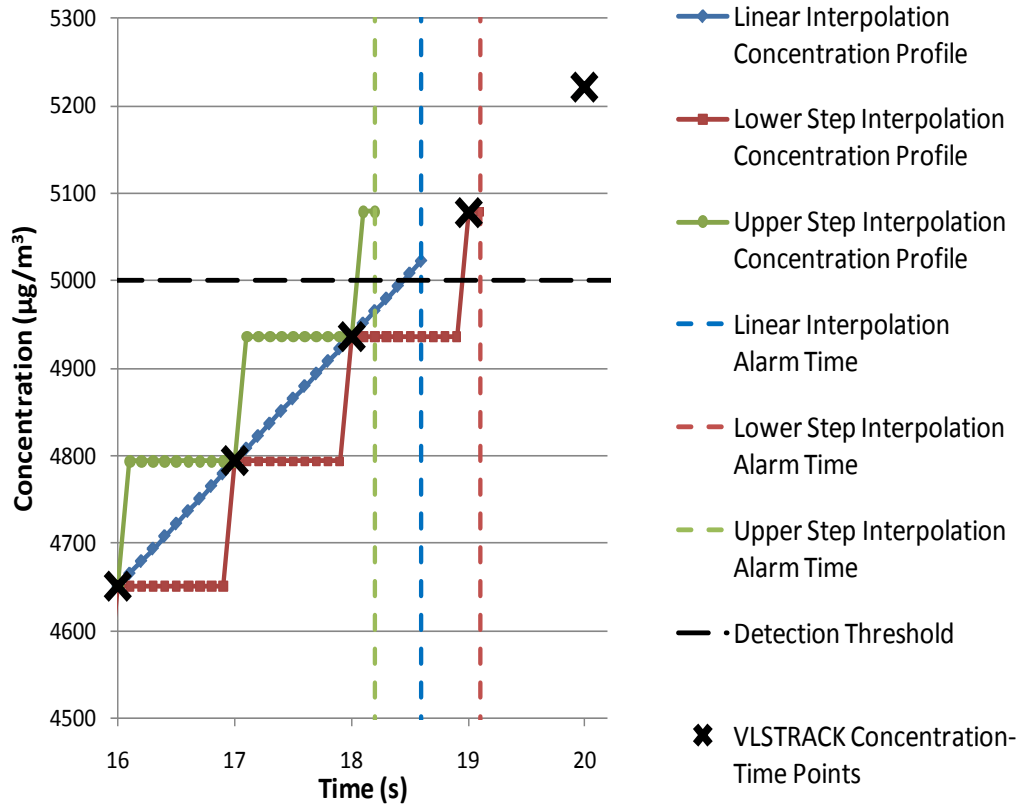


Figure 6. Time Series of Concentration for Different Interpolation Methods When *CBStrike* Time Steps Are Less than Those in *VLSTRACK* Puff Tracking File

The proper functioning of the interpolation process was tested by comparing the doses acquired by personnel to independent calculations of doses. The doses reported by *CBStrike* using any interpolation method matched those calculated independently. Interestingly, the doses acquired by personnel in this test are slightly lower when using upper step interpolation than with the other interpolation methods. This occurs because the detector alarms sooner when using the upper step interpolation method and the earlier warning provided to personnel allows them to don masks earlier. If no masking occurs, then upper step interpolation would give higher doses than the other interpolation methods. The doses acquired by personnel at each personnel location are given in Section A.6 of Appendix B.

7. Testing of Casualty Calculations

The testing of input parameters directly related to the calculation of doses acquired by exposed personnel and the resulting numbers of casualties are described in this section.

A. Breathing Height

The height above ground level at which personnel inhale air is defined by the breathing height parameter in *CBStrike*. Three breathing heights were tested: 1, 2, and 3 m. The dose received by personnel was calculated independently and compared to the *CBStrike* dose outputs for personnel in the same locations. Perfect agreement was found between the independent calculations and the *CBStrike* output for each of the breathing heights. Given that the puff centers of the test cloud were at a height of 2 m, the doses acquired by personnel were much higher with a breathing height of 2 m than they were at a breathing height of either 1 m or 3 m. The doses acquired by personnel at every personnel location for each breathing height are given in Section B.1. of Appendix B.

B. Breathing Rate

The volume of air inspired by individual personnel per unit time is defined by the breathing rate parameter in *CBStrike*. Three breathing rates were tested: 0.015 m³/min, 0.030 m³/min, and 0.045 m³/min. The dose received by personnel was calculated independently for each breathing rate. The independently calculated doses were compared to the corresponding personnel doses reported in the general *CBStrike* output file. Perfect agreement was found between the independent calculations and *CBStrike* for each of the breathing rates. As expected, the doses acquired by personnel increase linearly with the breathing rate. The doses acquired by personnel at every personnel location for each breathing rate are given in Section B.2. of Appendix B.

C. Inhaled Particle Size Range

CBStrike calculates the number of casualties based upon a dosage of particles with radii within a specified range. The upper and lower bounds of the inhaled particle radius range must be defined. Four particle radius ranges were tested: 0-5 µm, 5-5.5 µm, 5.5-10 µm, and 0-100,000 µm. Given that all the particles in the test cloud have a radius of 5.3 µm, all reported doses were zero when the particle radius range was specified to be either

0-5 μm or 5.5-10 μm . For particle radius ranges of 5-5.5 μm and 0-100000 μm , the doses acquired by personnel were calculated independently and matched the doses reported in the general *CBStrike* output file. The doses acquired by personnel at every personnel location for each inhaled particle size range are given in Section B.3. of Appendix B.

D. Median Effective Dose (ED_{50})

CBStrike calculates the number of casualties experienced at each personnel location using the dose received at each personnel location, the effective dose required to cause illness in 50% of the exposed population, and the probit slope. Three effective doses were tested: 0.001 μg , 1 μg , and 1000 μg . The fractional number of casualties experienced was calculated independently. The fractional number of casualties at each personnel location reported in the *CBStrike* output matched the independent calculations. As the median effective dose is increased, the casualty rate at each personnel location decreases because a higher dose is required to cause the same fractional number of casualties. The casualty rate at every personnel location for each median effective dose is given in Section B.4. of Appendix B.

E. Probit Slope

CBStrike calculates the number of casualties experienced at each personnel location using the dosage received at each personnel location, the effective dosage required to cause illness in 50% of the exposed population, and the probit slope. Three probit slope values were tested: 0.5, 1.4, and 2.0. The fractional number of casualties experienced was calculated independently and compared to those reported by *CBStrike* for personnel in corresponding locations. No differences were found between independently calculated doses and those reported by *CBStrike*. The casualty rate at every personnel location for each probit slope is given in Section B.5. of Appendix B.

F. Warning Delay

CBStrike allows for a delay between the time at which the detector detects the agent and the time at which a warning is issued. This delay can be used to represent the time required by the detector to issue an alarm and the time for the warning to be relayed to personnel. Three warning delays were tested: 0, 1, and 10 s. The doses acquired by personnel were calculated independently and matched the doses reported by *CBStrike*. Furthermore, the reported time at which warning was issued was also examined to ensure that it incorporated the warning delay. The reported detection time and warning times are shown in Table 2. Table 2 shows that the difference between the warning time and the detection time matched the warning delay. The doses acquired by personnel at every personnel location for each warning delay are given in Section B.6. of Appendix B.

Table 2. Reported Detection and Warning Times for Each Tested Warning Delay

		Input Warning Delay		
		0 s	1 s	10 s
	Warning Time	20 s	21 s	30 s
-	Detection Time	20 s	20 s	20 s
=	Resulting Warning Delay	0 s	1 s	10 s

G. Masking Delay

CBStrike allows for a delay between the time at which the warning is issued and the time at which the protection afforded by masking becomes effective. This delay represents the time required to don masks. Three masking delays were tested: 0, 5, and 10 s. The doses acquired by personnel were calculated independently using these masking delays and compared with the corresponding doses reported by *CBStrike*. The doses acquired by personnel increase as the masking delay increases because they are exposed for a longer period of time before protective masks are donned. The doses acquired by personnel at every personnel location for each masking delay match independent calculations and are given in Section B.7. of Appendix B.

H. Masking Factor

The degree of protection afforded by masking is defined by a masking factor whose value ranges from 0 to 1. A masking factor of 1 indicates complete protection while a masking factor of 0 indicates that the mask offers no protection. Three masking factors were tested: 0.5, 0.8, and 1.0. The doses acquired by personnel were checked against independent calculations to ensure that the masking factor was being applied properly within *CBStrike*'s dose calculations. As the masking factor increases, the doses acquired by personnel decreases. The doses acquired by personnel at every personnel location for each masking factor match independent calculations and are given in Section B.8. of Appendix B.

8. Testing of Agent Detection

This section details the testing of input parameters that directly affect the modeling of detector operation.

A. Detection Threshold

The detection threshold is the minimum ambient concentration required to cause a detector to issue an alarm. The correct application of the detection threshold was tested by examining the time at which an alarm was issued from a detector placed at the center of one of the puffs in the test cloud and the doses received by personnel who mask in response to detection. Four detection thresholds were tested: 1000, 3000, 5000, 7500, and 12,000 $\mu\text{g}/\text{m}^3$. *CBStrike* issues warning at the time step following the detection. For the 1000 $\mu\text{g}/\text{m}^3$ detection threshold, the warning was given immediately after the first time step because the concentration at the beginning of the simulation already exceeded the detection threshold. For the 3000, 5000, and 7500 $\mu\text{g}/\text{m}^3$ detection thresholds, the time at which the alarm was issued by the detector corresponded to one time step after the agent concentration at the center of the puff exceeded the detection threshold. The warning is delayed by one time step because *CBStrike* requires that the ambient aerosol concentration exceed the detection threshold for a minimum of one time step before the warning may be issued. Finally, no warning was issued for the 12,000 $\mu\text{g}/\text{m}^3$ detection threshold because the concentration at the detector never exceeded this threshold. The warning times matched independent calculations and are shown in Figure 7. The doses acquired by personnel at every personnel location for each detection threshold also matched independent calculations and are given in Section C.1. of Appendix B.

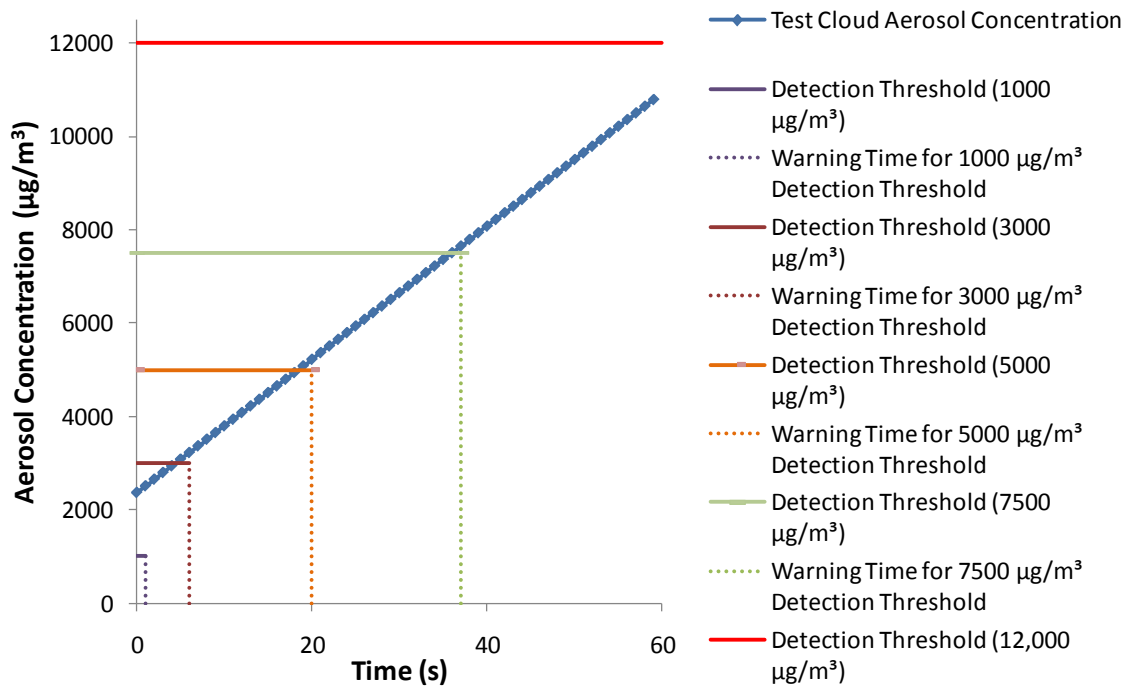


Figure 7. Time at Which the Detectors Alarm for Different Detection Thresholds

B. Detector Duration

The ambient concentration must exceed the detection threshold for a specified amount of time before an alarm is issued. This specified time is referred to as the “detector duration.” Four detector durations were tested: 0, 1, 2, and 3 s. The doses acquired by personnel who mask in response to detector warning were calculated independently and compared with the doses reported in *CBStrike* output. For each personnel location, the *CBStrike* dose output matched the corresponding independently calculated dose. It is important to note that *CBStrike* requires a minimum detector duration of 1 time step. Hence, the test of a 0 s detection yielded the same warning time as a 1 s detector duration. As shown in Figure 8, the time at which the warning was issued correctly included the time associated with the detector duration.

The detector duration affects when an alarm is issued and therefore when collectors begin collecting samples. Thus, the concentration of the liquid sample analyzed by the identifier was also calculated to verify that collector operation was triggered at the proper time. These independently calculated concentrations were compared with the liquid sample concentrations reported in the *CBStrike* detailed identifier output file and no discrepancies were found. The doses acquired by personnel at every personnel location for each detector duration matched independent calculations and are given in Section C.2. of Appendix B.

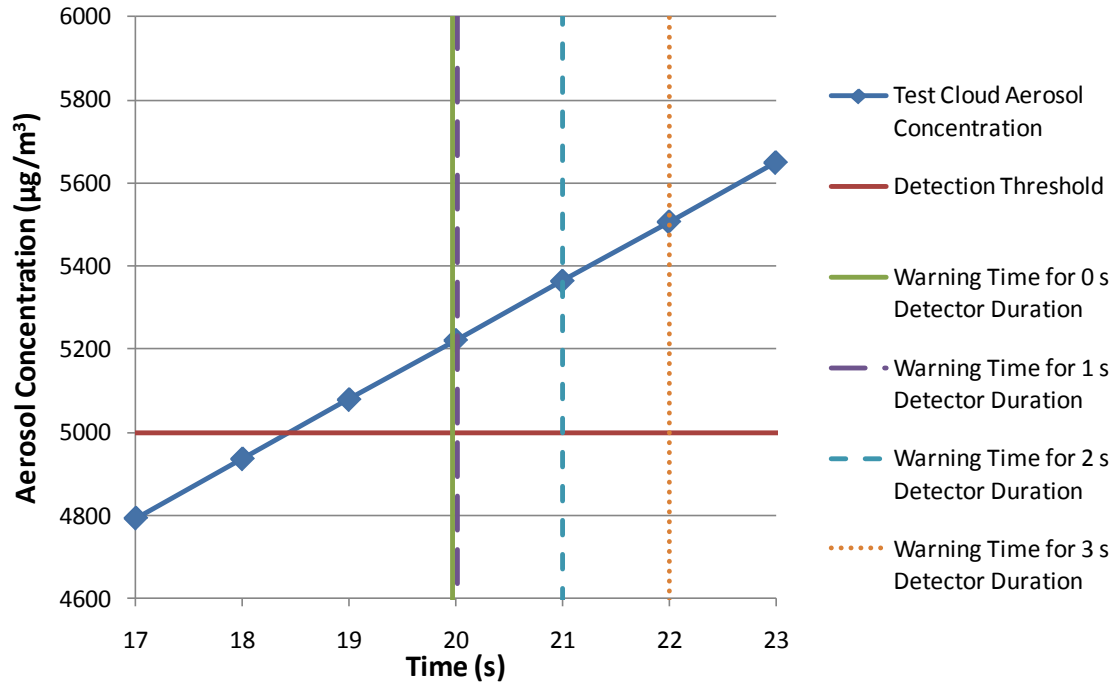


Figure 8. Times at Which Alarms Are Issued For Various Detector Durations

C. Number of Detections to Warn

CBStrike has the ability to model networked detector configurations in which multiple detector alarms are required before a warning is issued to personnel. The number of detector alarms required before a warning is issued was first tested by placing two detectors at the same location in the center of one of the puffs in the test cloud. In this test, two detector alarms were required for a warning to be issued. Both detectors alarmed and a warning was correctly issued.

In a second test, one detector was placed in the center of one of the puffs in the test cloud. Another detector was placed 1000 meters from the first detector where the ambient concentration would never exceed the detection threshold. Two detector alarms were required to issue a warning. In this test, no warning was issued because only a single detector alarmed.

D. Network Delay

The network delay is a delay between the time at which a sufficient number of detections have been made to issue a warning and the time at which that warning is actually issued to personnel. Three network delays were tested: 0, 1, and 10 s. The proper implementation of the network delay was verified by ensuring that the time at which the warning was issued to personnel was increased by the amount of time specified in the

network delay input. The doses acquired by personnel and the casualty rate at every personnel location for each network delay matched independent calculations and are given in Section C.3. of Appendix B.

E. Detector Reset

After issuing an alarm, a detector may either resume monitoring for biological attacks or stop monitoring for the remainder of the simulation. For the test of the detector reset option, only a single detector and collector were placed at the center of one of the puffs in the test cloud. The *CBStrike* output was examined to ensure that the reported numbers of detections and times at which those detections occur were correct. When the detector reset option was activated, multiple detections were reported for the detector, but a warning was issued only upon the first detection. The detector reported detections at every time step after the concentration at the detector location had exceeded the detection threshold. The detector may repeatedly trigger sample collection only if the collector is idle at that time. Thus, the times at which positive identifications are reported are spaced by larger intervals due to the time required for the collector to produce a sample. When the detector reset option was not activated, only a single detection was reported despite the detector being continually exposed to concentrations above its detection threshold.

9. Testing of Agent Collection and Identification

Testing of input parameters directly related to the operation of collectors and identifiers is described in this section.

A. Collector Delay

The collector delay is the delay between detector alarm and the time at which the collector begins ingesting air to acquire a sample. Three collector delays were tested: 0, 10, and 30 s. Table 3 shows the time differences between detection and identification reported by *CBStrike* for each tested collector delay. Table 4 shows the anticipated times between detection and identification for each tested collector delay. The differences in time between detection and identification reported by *CBStrike* match the anticipated values. In these tests, the concentration of the samples analyzed by the identifier increases as the collector delay increases because the concentration of the test cloud increases with time and the total collection time is held constant. The transportation time and sample processing time were set to zero so that identification occurs immediately after collection ceases. The concentrations of liquid samples produced by collectors at each collector location matched independent calculations and are given in Section D.1. of Appendix B.

Table 3. Detection and Agent Identification Time Reported by *CBStrike* for Various Collector Delays

		Input Collector Delay		
		0 s	10 s	30 s
	Time Of Agent Identification	25 s	35 s	55 s
-	Time of Detection	20 s	20 s	20 s
=	Total Time between Detection and Agent Identification	5 s	15 s	35 s

Table 4. Anticipated Time between Detection and Agent Identification for Various Collector Delays

	Collector Delay	0 s	10 s	30 s
+	Sample Collection Duration	5 s	5 s	5 s
+	Transportation Time	0 s	0 s	0 s
+	Sample Processing Time	0 s	0 s	0 s
=	Total Time between Warning and Agent Identification	5 s	15 s	35 s

B. Collector Flow Rate

The collector flow rate is the rate at which air is ingested by collectors. Three flow rates were tested, 0.015 m³/min, 0.3 m³/min, and 1.0 m³/min. The concentrations of the liquid samples provided by collectors were calculated independently and used to confirm that the sample concentrations reported in the detailed identifier output were correct. The reported sample concentrations were directly proportional to the collector flow rate. The concentrations of liquid samples produced by collectors at each collector location are given in Section D.2. of Appendix B.

C. Collection Duration

The collection duration represents the time over which a collector ingests air. The collection duration must be at least one *CBStrike* time step. For both continuous and triggered collection, 5, 10, and 30 s collection durations were tested. The time between detection and the time at which the sample is positively identified was examined to ensure that agent identification was appropriately delayed by the sample collection duration. Table 5 shows that the difference in warning times and agent identification times reported by *CBStrike* match the anticipated values for each collection duration given in Table 6. The concentrations of liquid samples produced by collectors at each collector location were also checked. They matched independent calculations and are given in Section D.3. of Appendix B.

Table 5. Warning and Agent Identification Time Reported by *CBStrike* for Various Collection Durations

		Input Collection Duration		
		5 s	10 s	30 s
	Time Of Agent Identification	25 s	30 s	50 s
-	Time of Warning	20 s	20 s	20 s
=	Total Time between Warning and Agent Identification	5 s	10 s	30 s

Table 6. Anticipated Time between Warning and Agent Identification for Various Collection Durations

		5 s	10 s	30 s
	Sample Collection Duration	5 s	10 s	30 s
+	Sample Transportation Time	0 s	0 s	0 s
+	Sample Processing Time	0 s	0 s	0 s
=	Total Time between Warning and Agent Identification	5 s	10 s	30 s

D. Collection Efficiency

The collection efficiency represents the retained fraction of the aerosolized agent ingested by the collector. A collection efficiency can be specified for each individual particle size range. Four different collection efficiency schemes were tested:

- 100% for all particle sizes,
- 50% for all particle sizes,
- 50% for particles > 5 micrometer (μm) in radius and 100% for particles < 5 μm in radius, and

- 50% for particles $> 6 \mu\text{m}$ in radius and 100% for particles $< 6 \mu\text{m}$ in radius.

The concentrations of the liquid samples provided by collectors were calculated independently and compared to those reported in the detailed identifier output file provided by *CBStrike*. The sample concentrations obtained from collectors using a 50% collection efficiency for all particle sizes were half that of those obtained when collectors had a 100% collection efficiency for all particle sizes. Compared to the sample concentrations obtained with 100% collection efficiency for all particles, the sample concentrations were reduced by half when the 50% collection efficiency applied only to particles $> 5 \mu\text{m}$ because all particles in the test cloud were $5.3 \mu\text{m}$. When the 50% collection efficiency applied only to particles $> 6 \mu\text{m}$, the sample concentrations matched those obtained with 100% collection efficiency for all particle sizes. The concentrations of liquid samples produced by collectors at each collector location matched independent calculations and are given in Section D.4. of Appendix B.

E. Extraction Efficiency

The extraction efficiency represents the fraction of agent retained by the collector that is extracted into a liquid sample. The extraction efficiency may range between 0 and 1. An extraction efficiency of 0 indicates that none of the collected biological agent is extracted into the liquid sample. An extraction efficiency of 1 indicates that all collected biological agent is transferred to the liquid sample. Three extraction efficiencies were tested: 0.2, 0.5, and 1. The concentrations of the liquid samples provided by collectors were calculated independently and compared to the sample concentrations reported in the detailed identifier output file provided by *CBStrike*. The sample concentrations increased linearly with the extraction efficiency and matched independent calculations. The concentrations of liquid samples produced by collectors at each collector location are given in Section D.5. of Appendix B.

F. Sample Volume

The volume of the liquid sample extracted from the collector was varied to ensure the proper calculation of the liquid sample concentration to be analyzed by the identifier. Four sample volumes were tested: 1, 5, 10, and 20 mL. The concentrations of the liquid samples provided by collectors were calculated independently and compared to the sample concentrations reported in the detailed identifier output file provided by *CBStrike*. The sample concentration varies inversely with sample volume. The concentrations of liquid samples produced by collectors at each collector location matched independent calculations and are given in Section D.6. of Appendix B.

G. Continuous Collector Operation

In *CBStrike*, collectors can be selected to either operate continuously or to only operate for a user-specified period of time following a detector alarm in response to the presence of a biological aerosol. When continuous collection is selected, the collector begins operating as soon as the simulation begins. For this test, a single collector was at the center of one of the puffs in the test cloud. The time at which the agent is positively identified is given in the general *CBStrike* output file and was examined to verify that samples were being periodically sent to the identifier and that the interval between samples being sent to the identifier corresponded to the collection duration. In addition, the concentration of biological agent in the samples analyzed by the identifier is reported in the detailed identifier output. The sample concentrations were verified by comparison to independent calculations. The concentrations of liquid samples produced by collectors at each collector location are given in Section D.7. of Appendix B.

H. Sample Transportation Time

A delay between the end of sample collection and the time at which a sample enters the queue for analysis by an identifier can be specified to account for the time required to transport a sample from the collector to the identifier. Three sample transportation times were tested: 0, 10, and 30 s. The actual sample transportation time used in the simulation was verified by examining the difference between the time at which positive identification of a sample was achieved and the time at which the detector issued a warning. Table 7 shows that the difference in warning times and agent identification times reported by *CBStrike* match the anticipated values in Table 8 for each sample transportation time.

Table 7. Warning and Agent Identification Time Reported by *CBStrike* for Various Sample Transportation Times

		Input Sample Transportation Time		
		0 s	10 s	30 s
	Time of Agent Identification	25 s	35 s	55 s
-	Time of Warning	20 s	20 s	20 s
=	Total Time between Warning and Agent Identification	5 s	15 s	35 s

Table 8. Anticipated Time between Warning and Agent Identification for Various Sample Transportation Times

		0 s	10 s	30 s
	Sample Transportation Time	0 s	10 s	30 s
+	Sample Collection Duration	5 s	5 s	5 s
+	Sample Processing	0 s	0 s	0 s
=	Total Time between Warning and Agent Identification	5 s	15 s	35 s

I. Identification Threshold

The identification threshold is the lowest concentration of biological agent in a liquid sample acquired from a collector that will yield a positive identification by an identifier. Four identification thresholds were tested: 1, 3, 6, and 7 micrograms per milliliter ($\mu\text{g/mL}$). Figure 9 shows the collector locations producing liquid samples with concentrations that exceed each of the tested thresholds. Note that the 7 $\mu\text{g/mL}$ identification threshold is not shown in Figure 9 because no collector location produced samples exceeding that threshold. The concentrations of liquid samples produced by collectors at each collector location matched independent calculations and are given in Section D.8. of Appendix B.

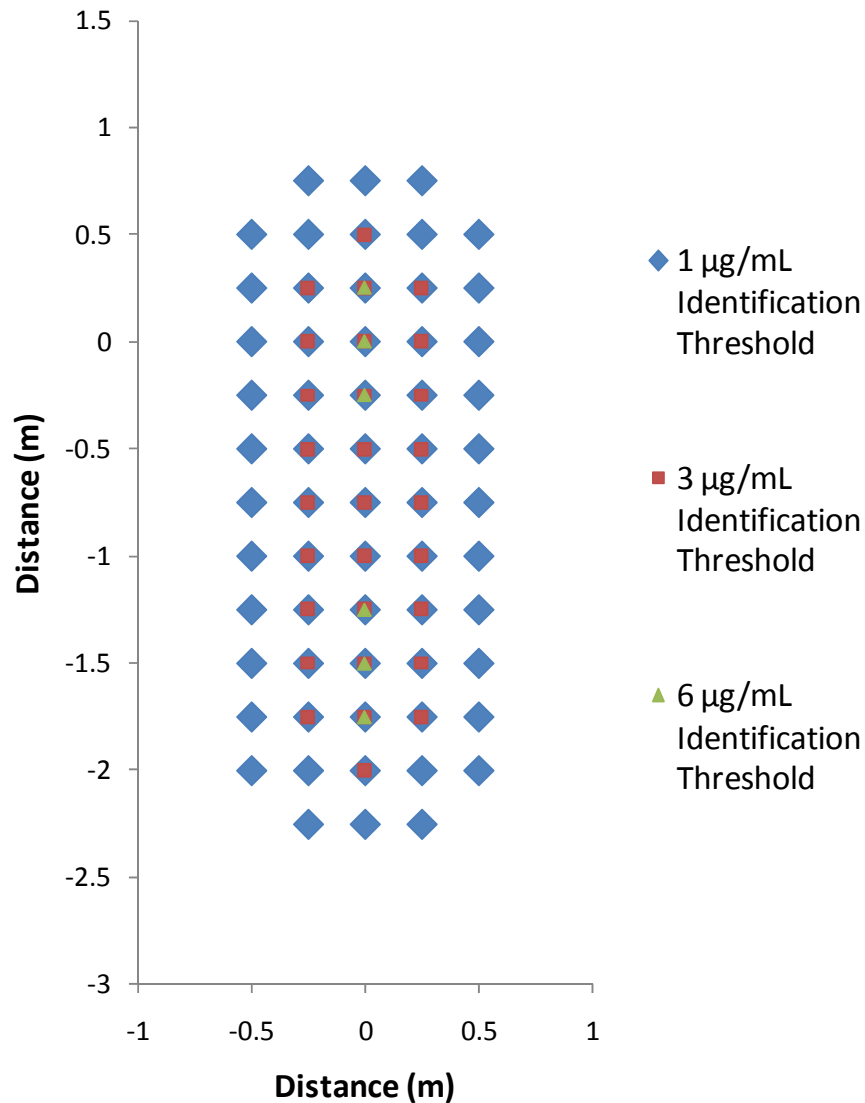


Figure 9. Collector Locations Providing Samples Exceeding Indicated Identification Threshold

J. Sample Processing Time

The time required for an identifier to process a single sample can be specified. Three sample processing times were tested: 0, 1, and 10 s. Using the *CBStrike* general output file, the time at which the warning was issued by the detector was compared with the time at which positive agent identification was obtained to verify that the sample processing time was properly included. Assuming that there is no transportation time for the sample, the delay between the warning time and the time of positive identification includes both the sample collection duration and the sample processing time. Table 9 shows that the difference in warning times and agent identification times reported by *CBStrike* match the anticipated values in Table 10 for each sample processing time.

Table 9. Warning and Agent Identification Time Reported by *CBStrike* for Various Sample Processing Times

		Input Sample Processing Time		
		0 s	1 s	10 s
	Time of Agent Identification	25 s	26 s	35 s
-	Time of Warning	20 s	20 s	20 s
=	Total Time between Warning and Agent Identification	5 s	6 s	15 s

Table 10. Anticipated Time between Warning and Agent Identification for Various Sample Processing Times

	Sample Processing Time	0 s	1 s	10 s
+	Sample Collection Duration	5 s	5 s	5 s
+	Sample Transportation Time	0 s	0 s	0 s
=	Total Time between Warning and Agent Identification	5 s	6 s	15 s

10. Testing of Custom Features

CBStrike has been tailored for use in specific studies by incorporating custom features that address these studies' unique needs. These individual custom features have been incorporated into individual versions of *CBStrike* and are not considered to be part of *CBStrike*'s core functionality.

A. Multiple Detection Thresholds and Multiple Detector/Collector Associations

CBStrike's core functionality requires that all detectors employed in a simulation have the same detection threshold. The ability to include multiple detectors with differing detection thresholds was incorporated into *CBStrike*. In addition, *CBStrike*'s core functionality requires a one-to-one association of detectors to collectors for those collectors in which triggered collection is employed. The ability to trigger an individual collector with multiple detectors and trigger multiple collectors with an individual detector was incorporated to allow more flexibility in modeling triggered detection concepts.

1. Multiple Detection Thresholds

Five detectors with differing thresholds were placed at the center of one of the puffs in the test cloud. Each detector was assigned a different detection threshold and a detector duration of 0 s. The reported time at which each detector alarmed was examined to ensure that each detector alarmed only after the ambient aerosol concentration exceeded its detection threshold for a minimum of one time step. The time at which each detector alarmed is given in Table 11 along with the ambient aerosol concentration at that time. The detector with a threshold of $1000 \mu\text{g}/\text{m}^3$ alarmed at the first time step following the start of the simulation because the ambient aerosol concentration far exceeded its detection threshold from the beginning of the simulation. The detector with a detection threshold of $12,000 \mu\text{g}/\text{m}^3$ did not alarm because the ambient aerosol concentration did not exceed its detection threshold.

Table 11. Detector Alarm Times When Multiple Detectors are Employed with Different Detection Thresholds

	Detection threshold ($\mu\text{g}/\text{m}^3$)				
	1000	3000	5000	7500	12,000
Time of Detector Alarm (s)	1	6	20	37	No Alarm
Ambient Aerosol Concentration at Time Step Preceding Detector Alarm ($\mu\text{g}/\text{m}^3$)	2368.23	3081.55	5078.85	7504.15	No Alarm

2. Individual Collector Assigned to Multiple Detectors

When a single collector is assigned to multiple detectors, only the first alarming detector will trigger sample collection. Subsequent detector alarms have no effect on the collector operation. This was tested by assigning a single collector to 527 detectors. The collector was located at (0 m, 0 m). The reported time at which the identifier positively identified the sample was consistent with the collection process being triggered by the earliest alarming detector. The concentration of the liquid sample was also consistent with collection being initiated by the earliest alarming detector. The time at which the liquid sample is produced and the concentration of biological agent in that sample are given in Section E.1. of Appendix B.

3. Multiple Collectors Assigned to Individual Detector

If multiple collectors are assigned to a single detector, all collectors assigned to the detector will begin simultaneously collecting samples upon a detector alarm. This was tested by assigning 527 collectors to a single detector. Each collector was assigned a unique identifier to ensure that all samples would be analyzed by an identifier simultaneously. Among the identifiers yielding positive identification, the reported times at which positive identification were achieved were identical, indicating that all collectors were collecting samples simultaneously. Furthermore, the reported times of positive agent identification and the liquid sample concentrations were consistent with the collection process being triggered at the correct time by the detector. The concentrations of the liquid samples produced at each collector location matched independent calculations and are given in Section E.2. of Appendix B.

4. Multiple Collectors Assigned to Multiple Detectors

Individual collectors can be assigned to multiple detectors while each of those detectors are themselves associated with other collectors. This allows for sample collection to be triggered for different but potentially overlapping sets of collectors depending upon which detector is the first to alarm. This was tested by assigning two

collectors to each of 527 detectors. Each collector was assigned a different identifier to ensure that the samples would be analyzed immediately upon the end of the collection process. The time at which the identifiers provided positive identification was the same for both collectors because both samples were collected in response to the earliest detector alarm. The times at which positive identifications were achieved and the liquid sample concentrations were consistent with the collection process being triggered by the earliest alarming detector. The time at which both liquid samples are produced and the concentration of biological agent in each sample matched independent calculations and are given in Section E.3. of Appendix B.

B. Casualty Limit

The casualty limit feature provides the ability to immediately terminate the simulation once a specified number of casualties have been reached. The time during the simulation at which this casualty limit is reached is reported in the general *CBStrike* output file. This feature allows requirements of detection systems to be established based upon the maximum number of allowable casualties in a scenario. Four different casualty limits were tested: 100, 3000, 5000, and 7000 casualties. For this test, the detectors were removed from the simulation so masking would not truncate personnel exposure. Also, the median effective dose was changed to 10 μg and the probit slope was changed to 10 to allow a more gradual increase in casualties as the dose increased throughout the simulation. The times at which these casualty limits are exceeded matched independent calculations and are given in Table 12.

Table 12. Times at Which Casualty Limits Are Exceeded

	Input Casualty Limit			
	100	3000	5000	7000
Casualty Limit Time	11	24	40	Inf ^A
Number of Casualties at Casualty Limit Time	125	3003	5033	Casualty Limit Not Exceeded

^A The 7000 casualty limit is never exceeded during the simulation and the casualty limit time is reported as "Inf" (infinite).

C. Standoff Detection Modeling

The ability to model the operation of standoff detection systems was incorporated in *CBStrike* as a custom feature. The standoff detection system is able to detect the presence of a biological aerosol at a distance from the detector location. This differs from the point detectors included in the core *CBStrike* functionality which are only able to detect biological aerosols in the immediate vicinity of the detector. The version of *CBStrike* that

includes this feature cannot model point detection systems. It can model collectors and identifiers.

The standoff detector inspects for a biological aerosol along a line in a single direction during any given time step. In order to detect biological aerosols in different directions, the standoff detector is able to scan along different lines through a specified scan angle and inspect for a biological aerosol in a different direction at every time step. At each time step, the standoff detector checks whether the concentration of the aerosol exceeds the detection threshold at discrete ranges. The discrete ranges at which the standoff detector checks the aerosol concentration and the detection threshold at each range must be specified by the user.

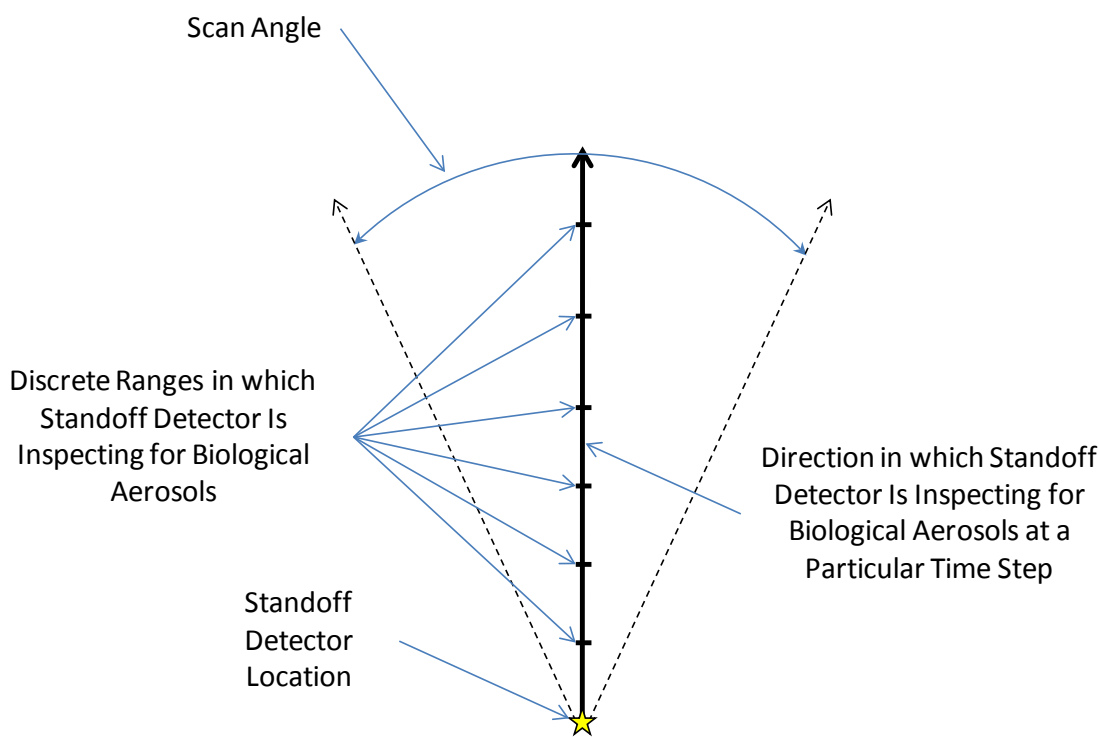


Figure 10. Standoff Detector Operation

Due to the time required to scan large angles, the duration of the test cloud described in Section 4.A. was extended to 720 s while maintaining the same rate at which the puff masses increased.

For each *CBStrike* input related to modeling standoff detectors, several values of the input parameter were tested. Table 13 shows the values of each standoff detector modeling input that were tested. While each input was tested individually, all the other inputs were set to default values that are highlighted yellow in Table 13. During testing,

attacks were placed at a range of 5000 m unless otherwise specified. Thus, the detection thresholds given in Table 13 correspond to a range of 5000 m.

Table 13. Standoff Detection Input Parameter Values Tested

Input Parameter	Parameter Values Evaluated				
Scan Angle (degrees)	0-360	0-370	10-370	85-95	90-90
Scan Rate (degrees/s)	0.5	1	5		
Elevation Angle (degrees)	0	1	5		
Detection Threshold @ 5000 m Range ($\mu\text{g}/\text{m}^3$)	1000	5000	75,000	104,000	
Warning Delay (s)	0	10	60		
Collector Delay (s)	0	10	60		

1. Scan Angle

In *CBStrike*, the region through which the standoff detector scans (the scan angle) is defined by a start and an end angle that must be specified. The start angle must be less than the end angle and the scanning always begins in the counterclockwise direction. An angle of zero degrees corresponds to the positive x-direction in the *CBStrike* coordinate system. Figure 11 demonstrates the standoff detector scan angle in relation to the specified start and end angles.

If the start and end angle are equal, then the standoff detector does not scan and only inspects for a biological aerosol in the direction specified. If the difference between the start angle and the end angle is non-zero and less than 360 degrees then, the standoff detector scans back and forth between the start angle and the end angle. If the difference between the start and stop angles is greater than or equal to 360 degrees, the standoff detector continues scanning counterclockwise throughout the simulation. Five scan angles were tested: 0 to 360, 0 to 370, 10 to 370, 85 to 95, and 90 to 90 degrees. Figure 12 shows the locations at which *CBStrike* reports to be checking aerosol concentrations for each scan angle. Figure 12 does not show the results for the 0-370 degree and 10-370 scan angle tests because the locations at which the standoff detector checks the aerosol concentration are identical to those reported for the 0-360 degree scan angle. The angle at which the standoff detector is directed during every time step matched independent calculations and is given in Section F.1. of Appendix B. The dose acquired by personnel who donned masks in response to detection and the casualty rate at every personnel location also matched independent calculations and is provided in Section F.1. of Appendix B.

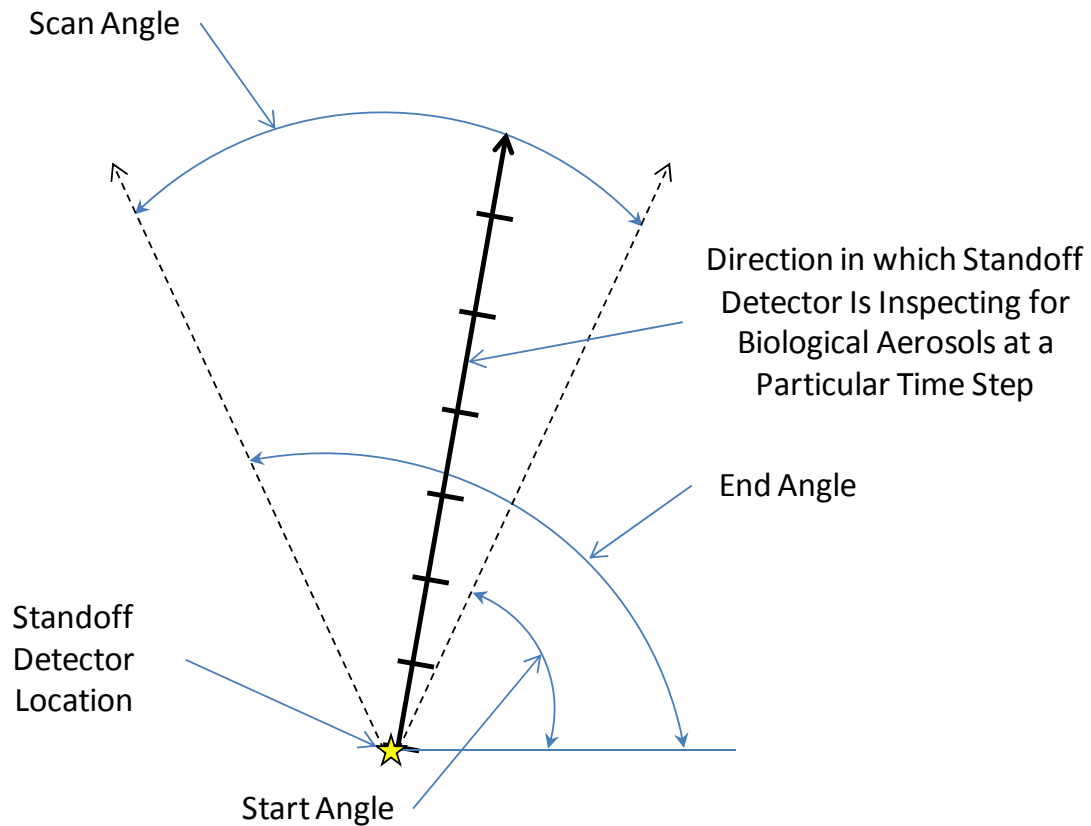


Figure 11. Standoff Detector Scan Angle

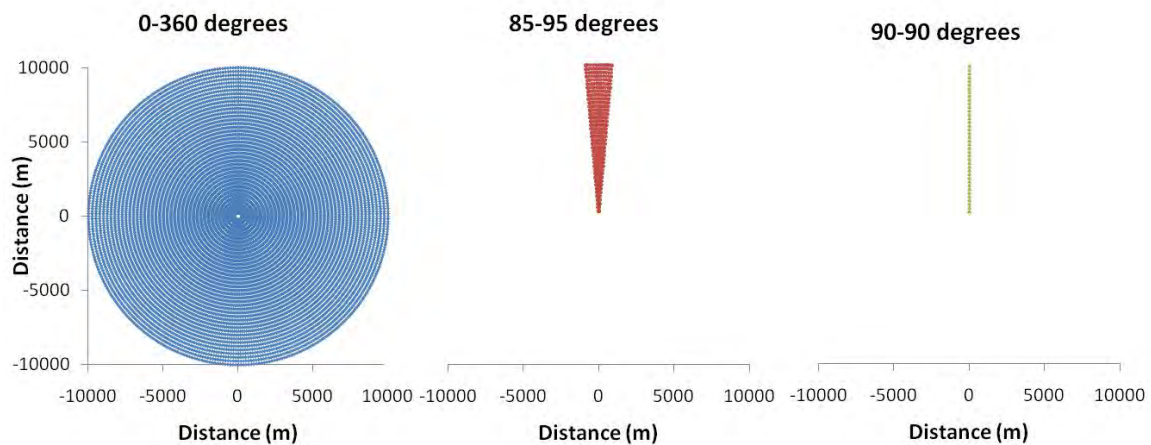


Figure 12. Locations at Which *CBStrike* Reports That Standoff Detector Checks Aerosol Concentration for Various Scan Angles

2. Scan Rate

The scan rate determines the angular speed at which the standoff detector scans through the scan angle. The standoff detector only inspects for the presence of a biological aerosol at concentrations greater than the detection threshold at discrete time steps. As such, the scan rate determines the angular distance between the directions in which the standoff detector inspects for biological aerosols. Three scan rates were tested: 0.5, 1, and 5 degrees/s. Figure 13 shows the locations reported by *CBStrike* in which the standoff detector checks to see if the biological aerosol concentration exceeds the detection threshold for each scan rate tested. In Figure 13, the scan angle was between 85 and 95 degrees for all tests. The angle in which the standoff detector is directed during every time step matched independent calculations and is given in Section F.2. of Appendix B. The doses acquired by personnel who donned masks in response to detection and the casualty rate at every personnel location matched independent calculations and are also provided in Section F.2. of Appendix B.

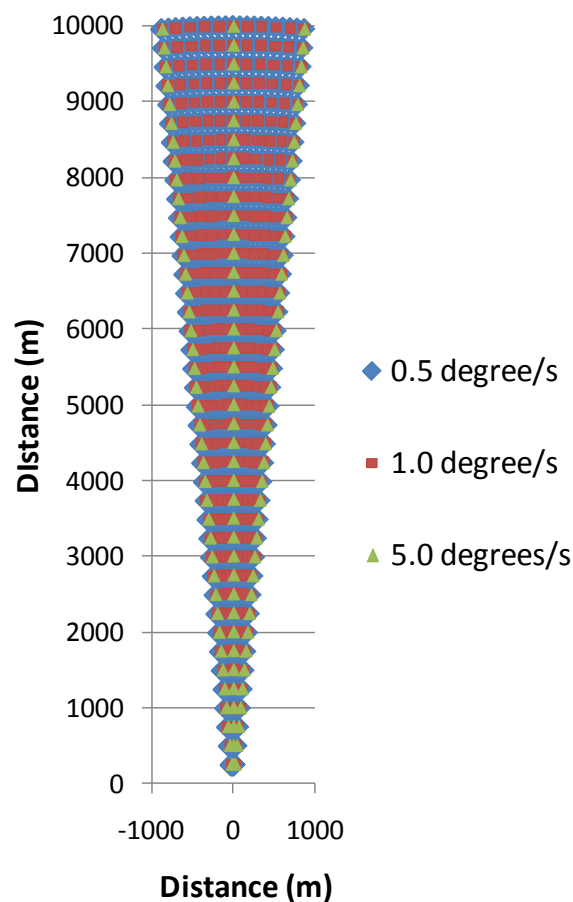


Figure 13. Locations Inspected for Presence of Biological Aerosols in Concentrations Above the Detection Threshold for Each Scan Rate Tested

3. Elevation Angle

The standoff detector can inspect for biological aerosols at an elevation above or below the elevation of the standoff detector. The user-specified elevation angle is the angle between the direction in which the standoff detector inspects for biological aerosols and a line parallel to the ground surface as shown in Figure 14. The elevation angle must be less than 90 degrees. Three elevation angles were tested: 0, 1, and 5 degrees. The location of the attack was made to coincide with the anticipated position at which the standoff detector would inspect for a biological aerosol in the 90 degree scan angle direction at a range of 5000 m for each tested elevation angle. The standoff detector properly detected the attack when using each tested elevation angle. The locations at which the attacks were placed is given in Table 14 for each elevation angle.

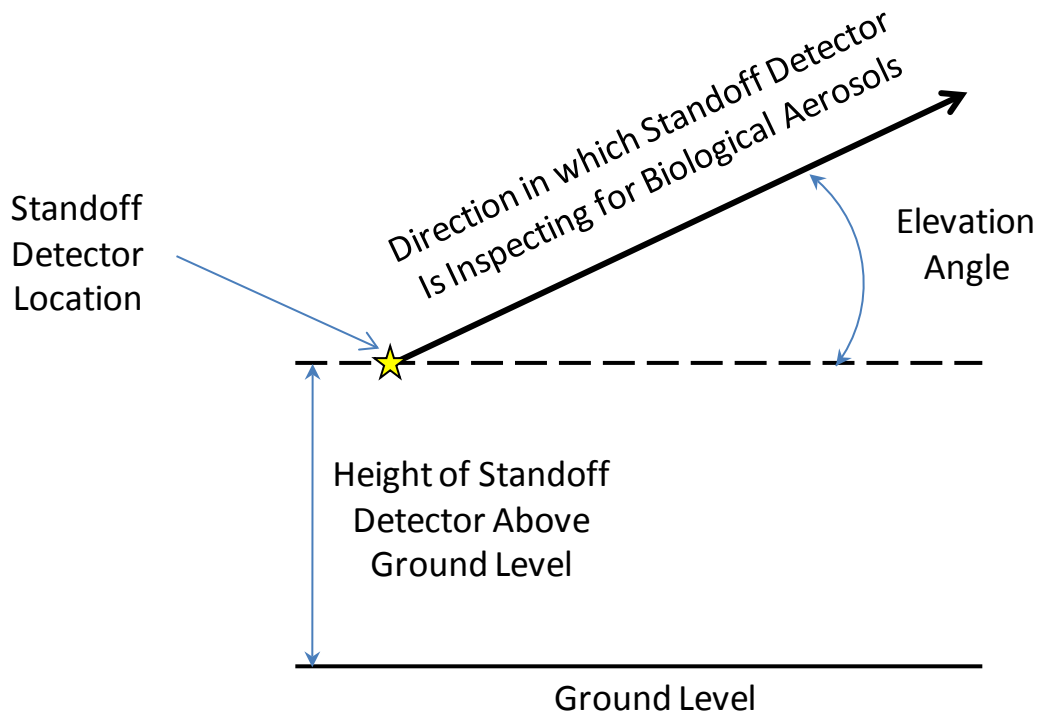


Figure 14. Depiction of Elevation Angle of Standoff Detectors

Table 14. Locations of Attacks Used to Test Each Elevation Angle

Elevation Angle (Degrees)	Attack Coordinates		
	x-coordinate (m)	y-coordinate (m)	z-coordinate (m)
0	0.0000	5000.0000	0.0000
1	0.0000	4999.2385	87.2620
5	0.0000	4980.9735	435.7787

4. Detection Threshold

The detection threshold must be specified for each range at which the standoff detector will check the aerosol concentration. Two different testing procedures were conducted to ensure that the standoff detector's range and threshold were properly implemented. First, the detection thresholds were varied while an attack was fixed at a particular range. Figure 15 shows the detection thresholds at each range for the four detection threshold profiles that were tested. The attack location was fixed at a range of 5000 m in the 90 degree scanning direction from the standoff detector. The standoff detector scanned between 85 and 95 degrees. The highest detection threshold was above the highest concentration reached by the test cloud and therefore did not yield a detection. Otherwise, the time at which *CBStrike* reported that the standoff detector yielded detection matched independent calculations for all detection thresholds.

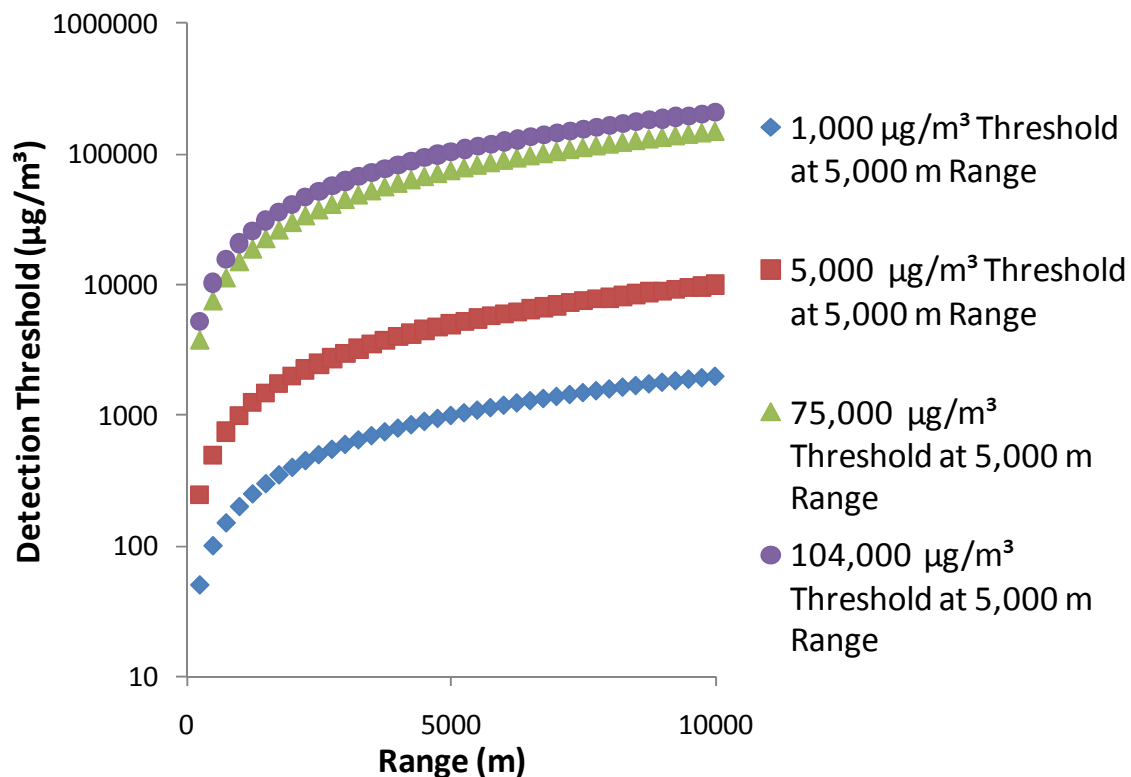


Figure 15. Standoff Detection Thresholds at Specific Ranges Used for Testing Involving Attacks Fixed at a Range of 5000 m

In the second testing procedure, the range of the attack was varied while the detection thresholds were fixed. Four attack ranges were tested: 250, 5000, 7500, and 10,000 m. Figure 16 shows the detection threshold at each range used in this testing. In this testing, the time at which the standoff detector detected the attack increased as the range of the attack increased because the detection threshold increased with range. Table

15 gives the times at which detection was achieved and the concentrations encountered by the standoff detector at those detection times for the specified attack ranges. Table 15 also demonstrates that the standoff detector only reports detections at times when it is directed in the direction of the attack, i.e., in the 90 degree direction.

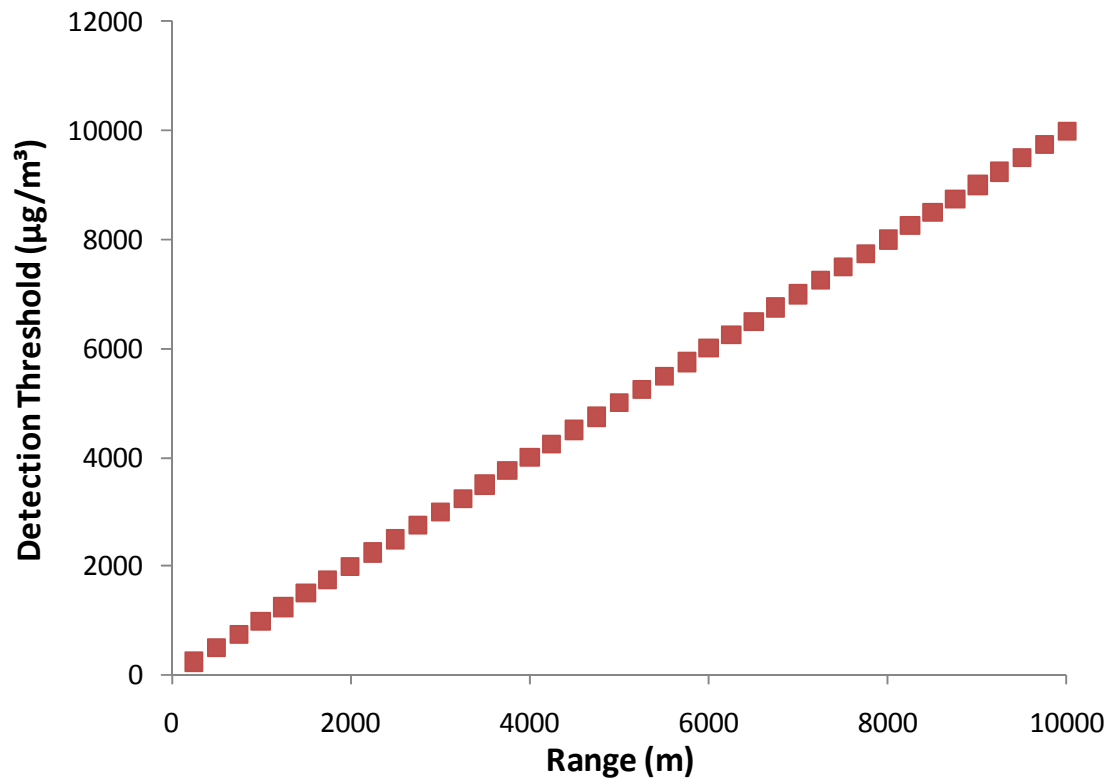


Figure 16. Standoff Detection Thresholds at Specific Ranges Used for Testing Involving Variable Attack Ranges

Table 15. Detection Data for Varied Attack Range Testing

Attack Range (m)	Detection Threshold at Attack Range (µg/m ³)	Detection Time (s)	Aerosol Concentration at Attack Range at Detection Time (µg/m ³)	Direction in which the Standoff Detector is Directed at Detection Time (degrees)
250	250	5	3081.55	90
5000	5000	27	6220.17	90
7500	7500	38	7789.48	90
10,000	10,000	60	10928.1	90

5. Warning Delay

The warning delay is the delay between the time at which the standoff detector alarms and the time at which personnel begin donning masks. Three warning delays were tested: 0, 10, and 60 s. Table 16 shows that the differences between the detection and warning times reported by *CBStrike* match the specified warning delay for each test. The doses acquired by personnel who don masks in response to warning and the casualty rate at every personnel location matched independent calculations and is provided in Section F.3. of Appendix B.

Table 16. Detection and Warning Times Reported by *CBStrike* for Standoff Detection Using Each Tested Warning Delay

		Input Warning Delay		
		0 s	10 s	60 s
	Warning Time	27 s	37 s	87 s
-	Detection Time	27 s	27 s	27 s
=	Resulting Warning Delay	0 s	10 s	60 s

6. Collector Delay

The standoff detector can trigger collectors to begin collecting samples. The collector delay is a delay between the time at which the standoff detector alarms and the time at which the triggered collectors begin collecting samples. Three collector delays were tested: 0, 10, and 60 s. Table 17 shows the detection and identification times reported by *CBStrike* for each tested collector delay and Table 18 shows the calculation of the anticipated time difference between detection and identification. The total time between detection and agent identification reported by *CBStrike* matched the anticipated values. For each collector delay, the concentrations of the liquid samples produced by collectors at every collector location matched independent calculations and are provided in Section F.4. of Appendix B.

Table 17. Detection and Agent Identification Times Reported by *CBStrike* for Various Sample Collector Delays

		Input Collector Delay		
		0 s	10 s	60 s
	Time of Agent Identification	32 s	42 s	92 s
-	Time of Detection	27 s	27 s	27 s
=	Total Time between Detection and Agent Identification	5 s	15 s	65 s

Table 18. Anticipated Time between Detection and Agent Identification for Various Collector Delays

	Collector Delay	0 s	10 s	60 s
+	Sample Collection Duration	5 s	5 s	5 s
+	Sample Processing	0 s	0 s	0 s
=	Total Time between Detection and Agent Identification	5 s	15 s	65 s

D. Unmanned Aerial System (UAS) Modeling

CBStrike has been equipped with the ability to model a single UAS tasked with biological detection. The UAS is assumed to respond to an unspecified cue that a release of biological warfare material has occurred. After a delay associated with preparation of the UAS for flight, the UAS proceeds directly to an intercept location along the downwind path of the release and then begins flying upwind in a search pattern.

The unspecified cue that directs the UAS to search for a biological aerosol is assumed to provide a probable release point, but the exact point of release may not be known with absolute certainty. Thus, a circular “uncertainty region” is assumed to exist within which the attack may have occurred. The actual release point used during simulations corresponds to the probable release point, but the size of the uncertainty region affects the path flown by the UAS.

Using a Cartesian coordinate system oriented with the wind bearing from the positive y-direction, the location of the intercept point in the crosswind direction (x_i) is the same as that of the agent release location (x_r), i.e., the intercept point is directly downwind from the release location. The location of the intercept point in the downwind direction must allow the UAS to arrive at the intercept point before the biological aerosol has passed. The UAS flight path for intercepting the biological aerosol is shown in Figure 17.

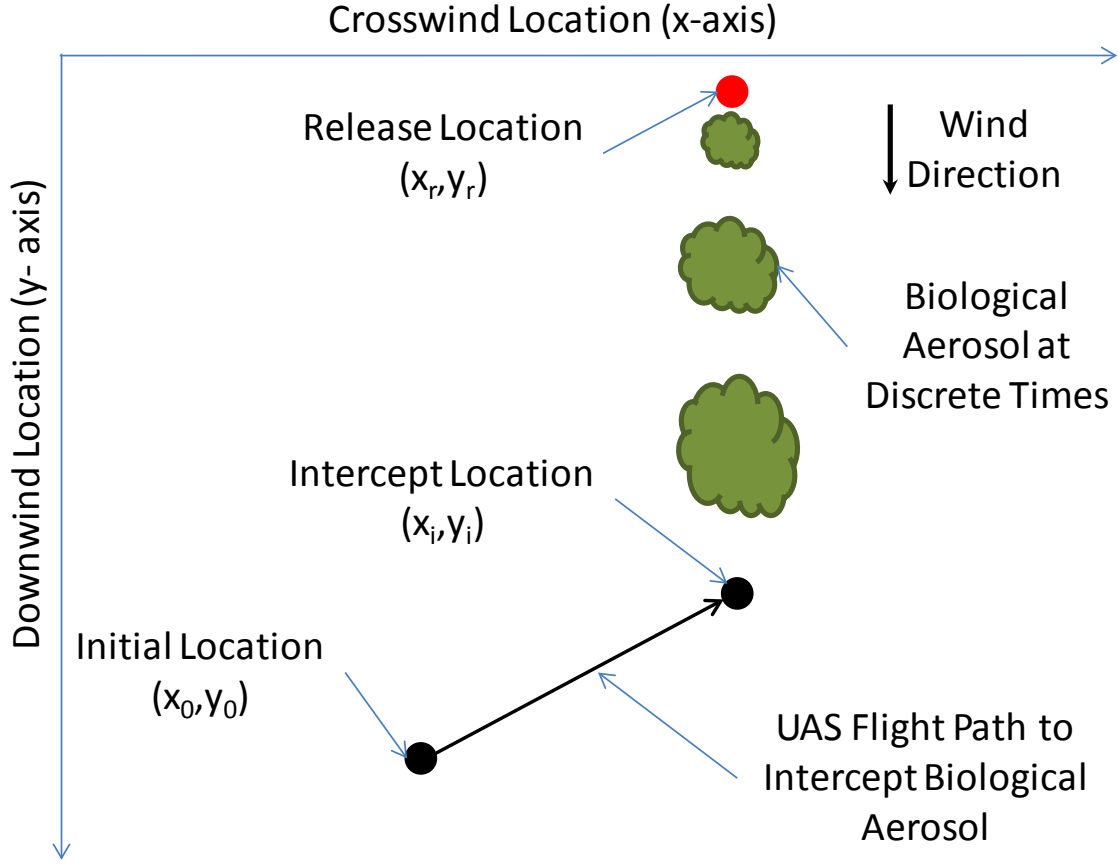


Figure 17. UAS Flight Path for Intercepting a Biological Aerosol Cloud

The time at which the UAS arrives at the intercept point and the downwind coordinate of the intercept point are dependent on the speed at which the biological aerosol is traveling (v_w), the speed of the UAS while traveling to the intercept point (v_u), the release location (x_r, y_r), the location of the UAS before launch (x_0, y_0), and the time delay between the beginning of agent release and the launch of the UAS (l). If it exists, the positive root of the quadratic equation given in Equation 1 represents the time at which the UAS arrives at the intercept location, t_i .

$$at^2 + bt + c \quad (1)$$

Where:

$$a = (v_w s)^2 - v_u^2$$

$$b = (2v_w s)(y_r - r_u - lv_w s - y_0)$$

$$c = (y_r - r_u - lv_w s - y_0)^2 + (x_r + x_0)^2$$

Using the time at which the UAS arrives at the intercept location, t_i , the downwind coordinate of the intercept location, y_i , is given in Equation 2.

$$y_i = (y_r - r_u - lv_w s - v_w s t_i) \quad (2)$$

Three different types of search patterns are possible depending on the uncertainty in the release location. If the release location is known with absolute certainty, the UAS flies directly upwind from the intercept location as shown in Figure 18. Otherwise, the UAS follows a serpentine path as demonstrated in Figure 19 if the uncertainty radius is greater than the turning radius of the UAS. Finally, Figure 20 shows the flight path of the UAS when the uncertainty radius of the release is less than the turning radius of the UAS.

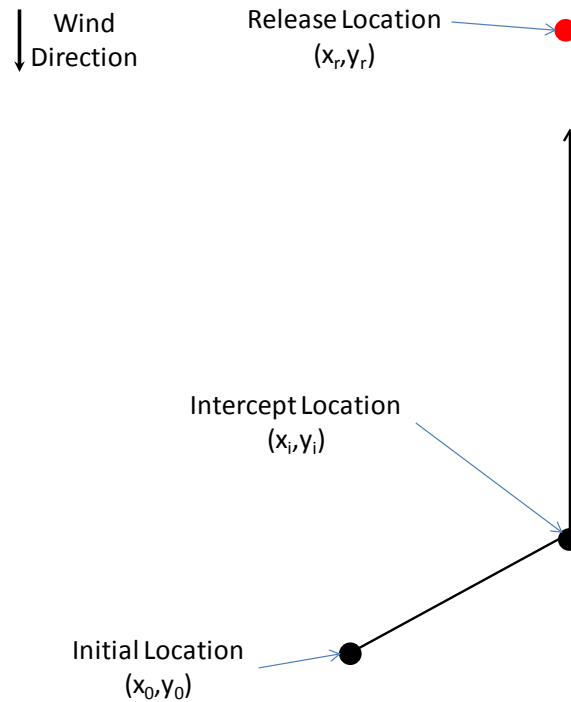


Figure 18. UAS Flight Path When the Exact Release Location Is Known

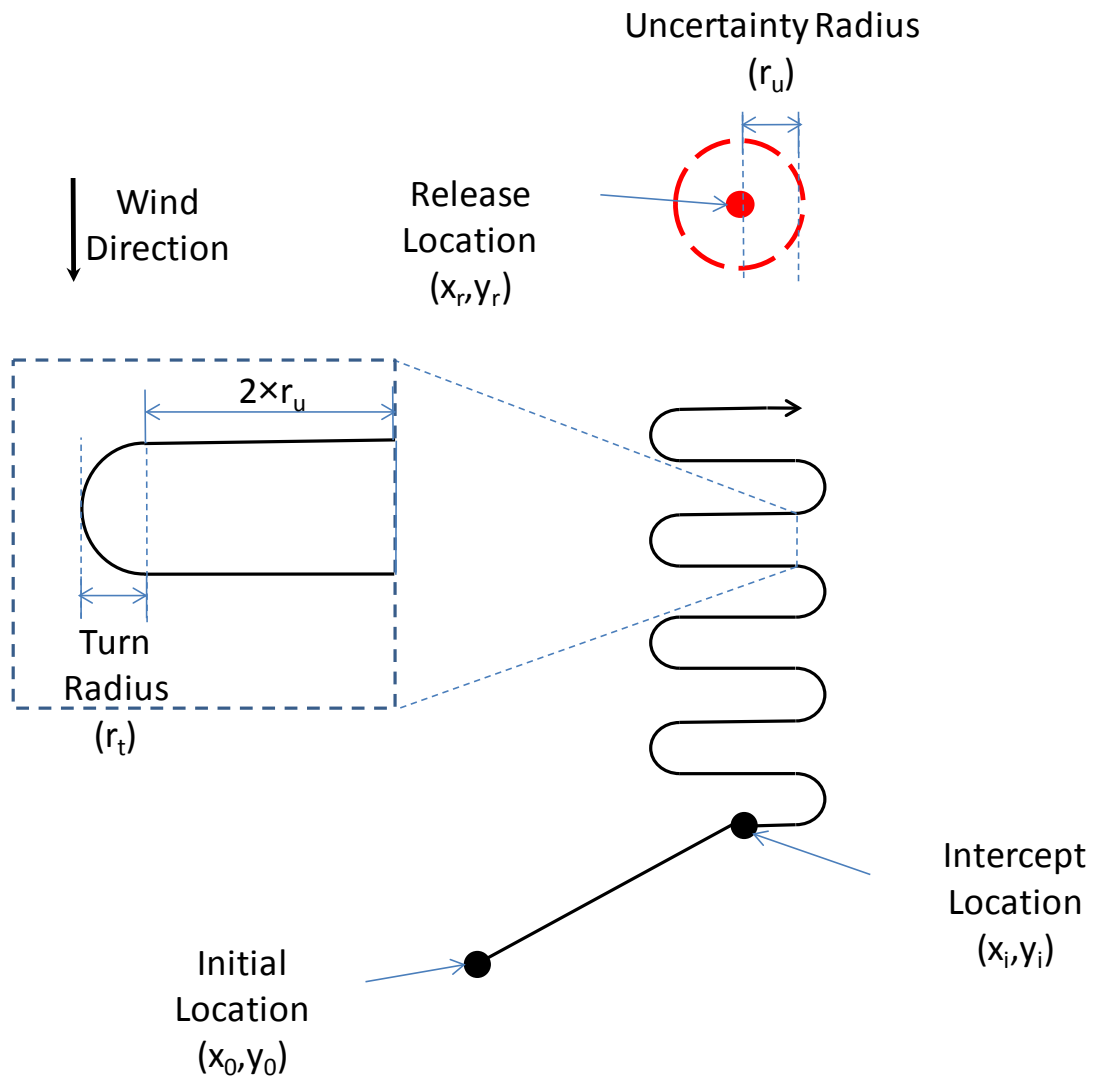


Figure 19. UAS Flight Path When the Uncertainty Radius of the Release Is Greater than the Turning Radius of the UAS

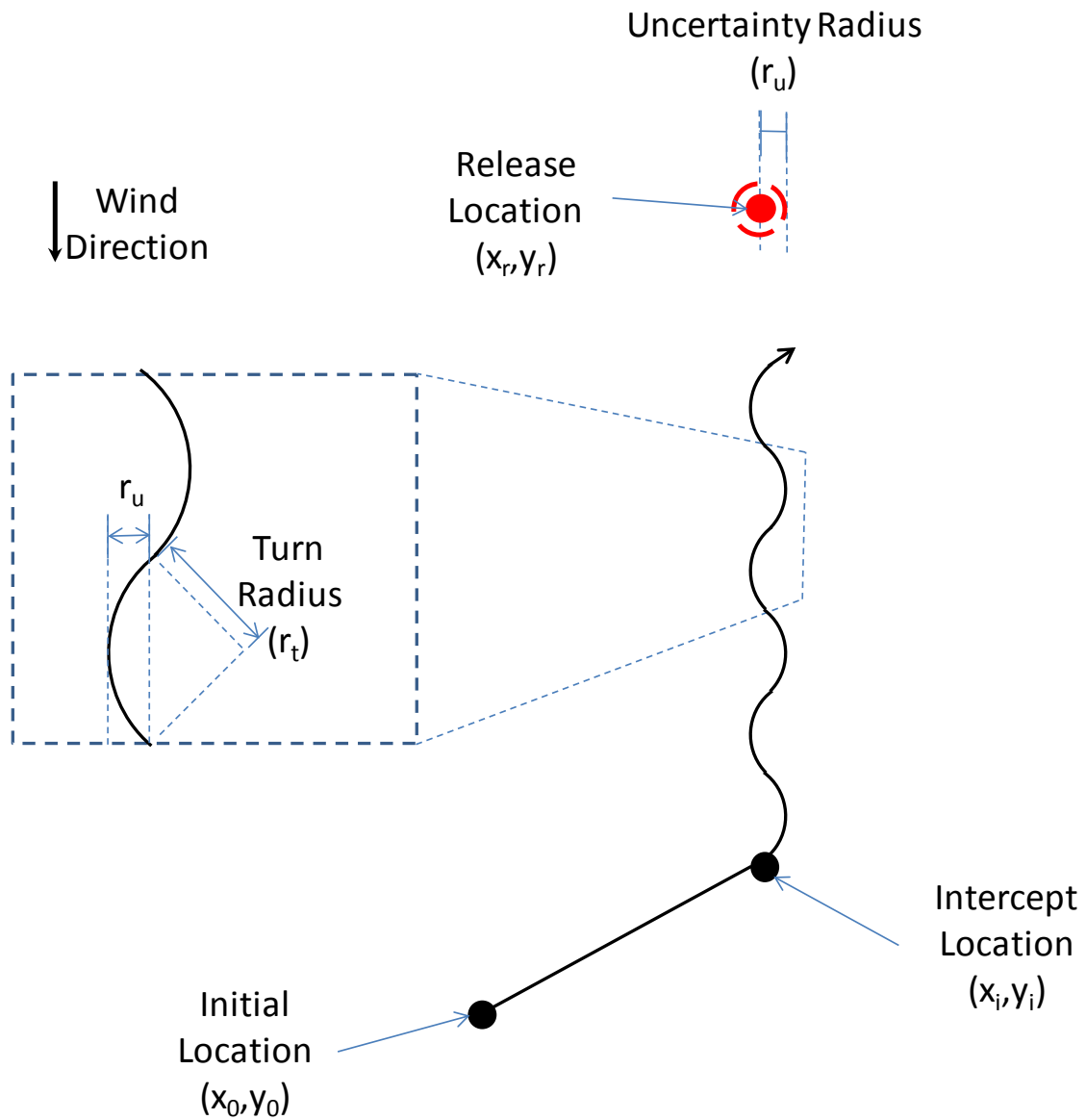


Figure 20. UAS Flight Path When the Uncertainty Radius of the Release Is Less than the Turning Radius of the UAS

A more complex test cloud was used to test the custom features of the UAS version of *CBStrike* than used in testing the core *CBStrike* capabilities. The first 5 minutes of a biological aerosol cloud generated by *VLSTRACK* 3.2.1 was used. Figure 21 shows the aerosol concentration at a height of 2 m during each minute of this test cloud. The puff tracking data for this test cloud is provided in Section B. of Appendix C.

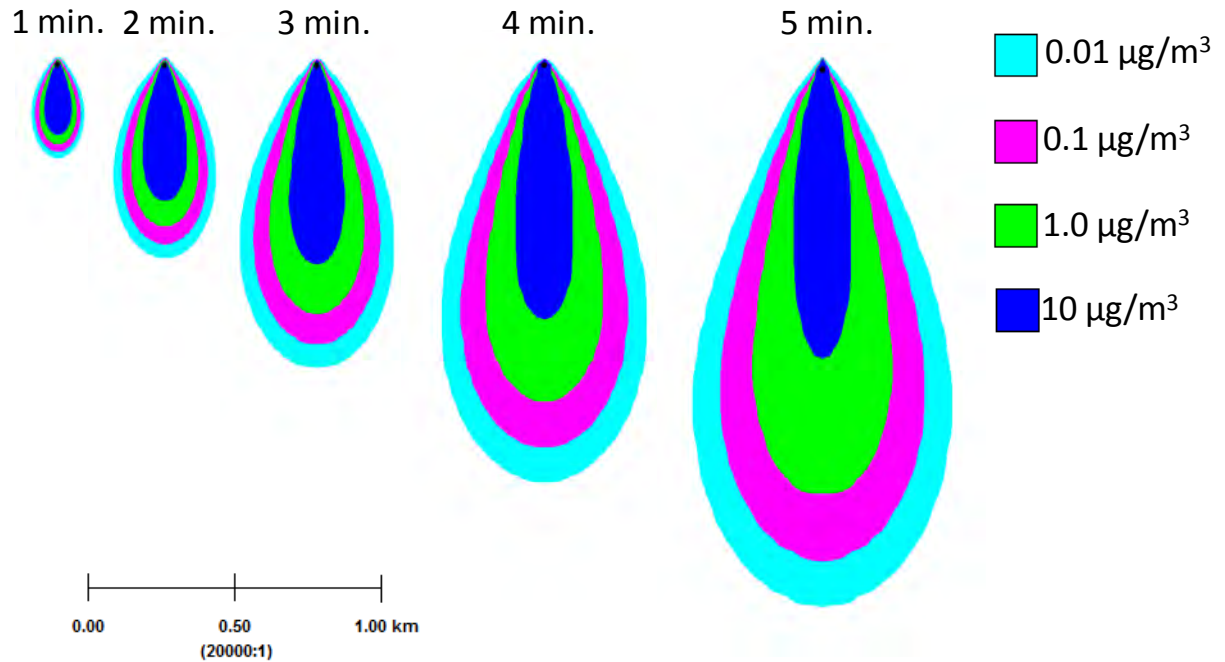


Figure 21. Aerosol Concentrations at Each Minute of the Test Cloud Used for Testing UAS Modeling

For each *CBStrike* input related to the UAS modeling, several values of the input parameter were tested. Table 19 shows the values of each UAS modeling input that were tested. While each input was tested individually, all the other inputs were set to default values that are highlighted yellow in Table 19.

Table 19. UAS Input Parameter Values Tested

Input Parameter	Parameter Values Evaluated			
USA Time Steps (s)	0.1	1	5	
Uncertainty Radius (m)	0	100	200	
UAS Initial Location	(-100 m, -100 m)	(0 m, 0m)	(100 m, 100 m)	
Launch Delay (s)	0	120	180	
Attitude (m)	0	2	5	20
Turning Radius (m)	50	150	250	
Dash Speed (m/s)	25	50	75	
Search Speed (m/s)	10	30	50	
Wind Speed (m/s)	1	2.8	5	
Wind Speed Safety Factor	1x	2x	3x	
Search Box Bounds	UAS Crosses Upwind Boundary	UAS Crosses Crosswind Boundary	UAS Intercept Point Outside of Boundary	
Detection Threshold ($\mu\text{g}/\text{m}^3$)	0.1	1	10	255
Detector Duration (s)	0.1	1	10	60
Warning Delay (s)	0	30	60	

1. UAS Time Steps

A set of time steps must be defined specifically for the UAS. These UAS time steps are independent from the general *CBStrike* time steps. At each of these discrete UAS time steps, the UAS detector compares the ambient aerosol concentration to its detection threshold to determine if issuance of an alarm is warranted. If the UAS is moving at high speeds while searching for the biological aerosol, the temporal resolution of the UAS time steps should be chosen to be sufficient to approximate continuous detection along the search path. Three UAS time steps were tested: 0.1 s, 1 s, and 5 s. Figure 22 shows the UAS positions at each UAS time step. The UAS position at each time step matched independent calculations. The aerosol concentrations to which the UAS is exposed at each position also matched independent calculations and are shown in Section G.1. of Appendix B.

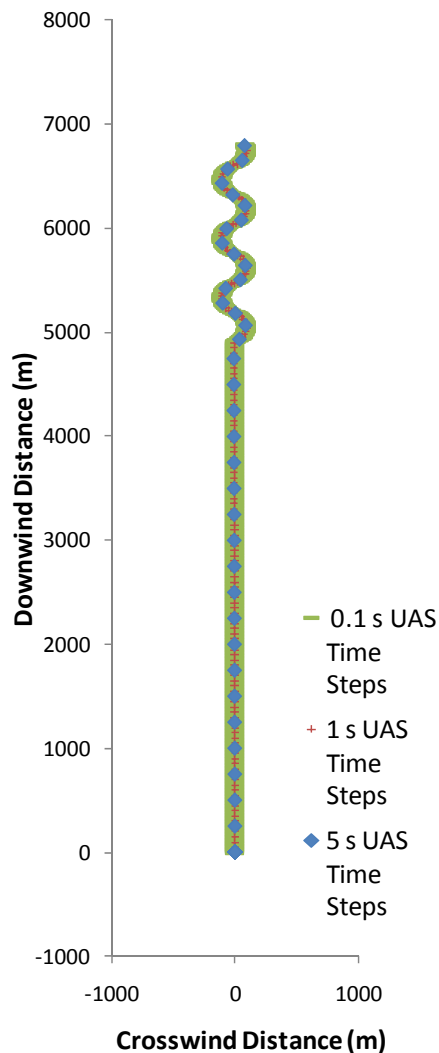


Figure 22. UAS Positions for Each UAS Time Step Tested

2. Uncertainty Radius

It is assumed that the unspecified cue that directs the UAS would provide a probable location of biological agent release. Given that the location of biological agent release might not be known with certainty, it is further assumed that there is a circular region around the probable release location within which the release actually occurs. The size of the region is defined by the uncertainty radius. Three uncertainty radii were tested: 0, 100, and 200 m. The flight path of the UAS for each tested uncertainty radius is shown in Figure 23. The flight paths for all of the uncertainty radii tested terminate before reaching the upwind edge of the search box because the simulation is limited to only 5 minutes. The aerosol concentrations encountered by the UAS along its flight path for each uncertainty radius matched independent calculations and are given in Section G.2. of Appendix B.

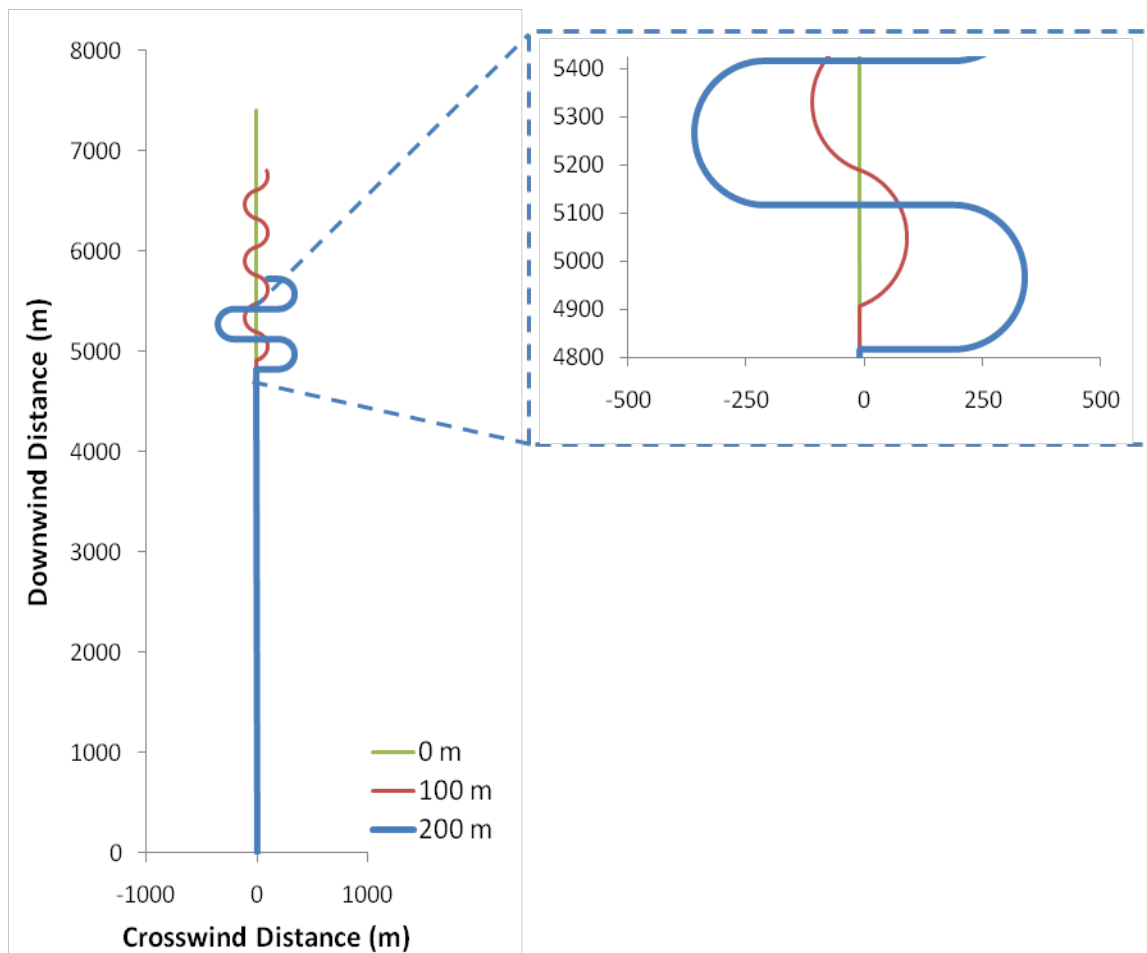


Figure 23. UAS Flight Path for 0, 100, and 200 m Uncertainty Radii

3. Initial Location

The initial location of the UAS is the point from which the UAS departs when traveling towards the intercept location. Three initial UAS locations were tested and their coordinates are (0 m, 0 m), (-100 m, -100 m), and (100 m, 100 m). Due to the differences in the distance the UAS will be required to travel to reach the cloud from these different initial locations, the intercept point differs slightly as shown in Figure 24. More time is required for the UAS to be in position to intercept the cloud when starting from a farther distance and the cloud will have traveled slightly farther downwind when the UAS is able to intercept it. Therefore, as the distance between the initial location of the UAS and the agent release location increases, the intercept point must occur farther downwind. The aerosol concentration encountered by the UAS along its flight path for each initial location matched independent calculations and is given in Section G.3. of Appendix B.

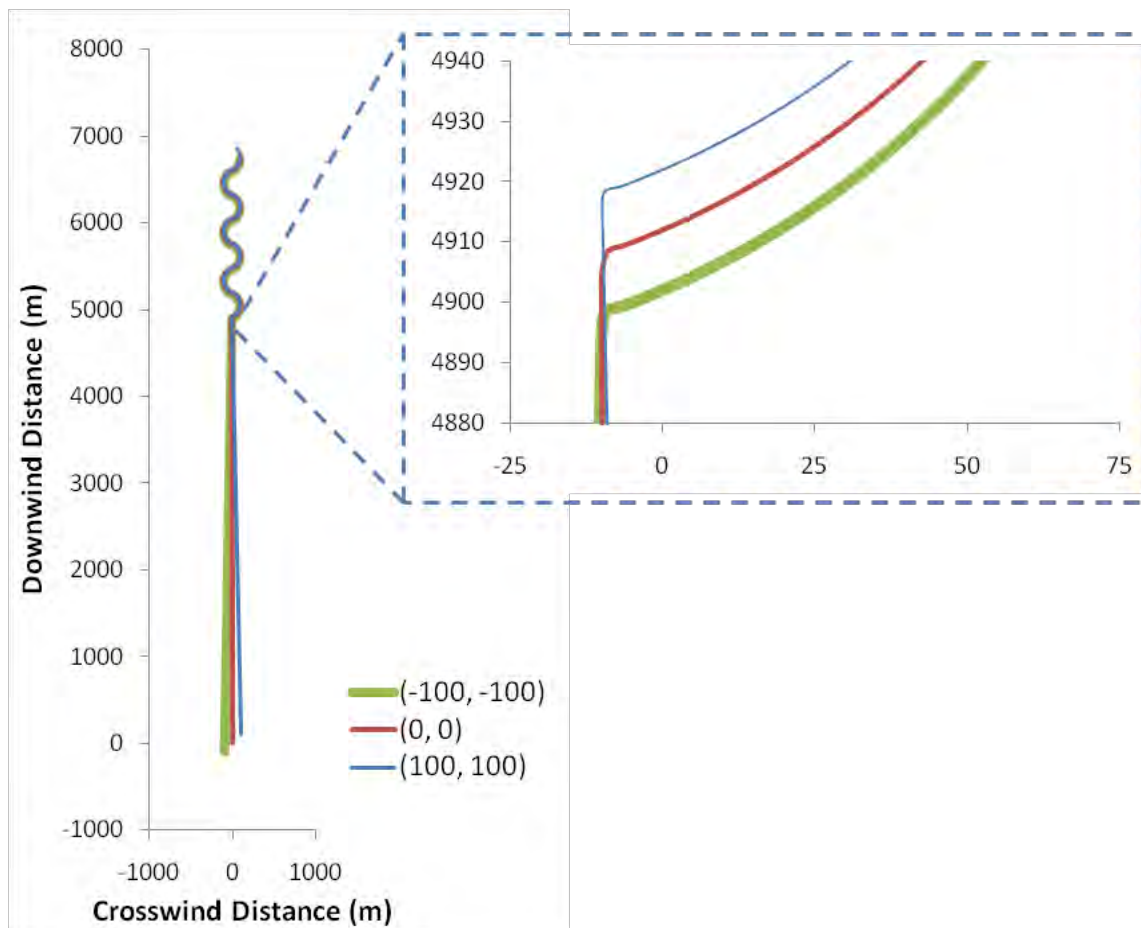


Figure 24. UAS Flight Path for Specified Initial Locations

4. Launch Delay

The launch delay is the period of time between the beginning of the release of biological material and the departure of the UAS from its initial location. Three launch delays were tested: 0, 120, and 180 s. Figure 25 shows the UAS flight paths for each tested launch delay. Shorter launch delays allow the intercept point for the UAS to be positioned farther upwind because the cloud has less time travel downwind before the UAS is able to begin searching. Shorter launch delays also allow the UAS to travel farther upwind before the simulation terminates. The aerosol concentrations encountered by the UAS along its flight path for each launch delay matched independent calculations and are given in Section G.4. of Appendix B.

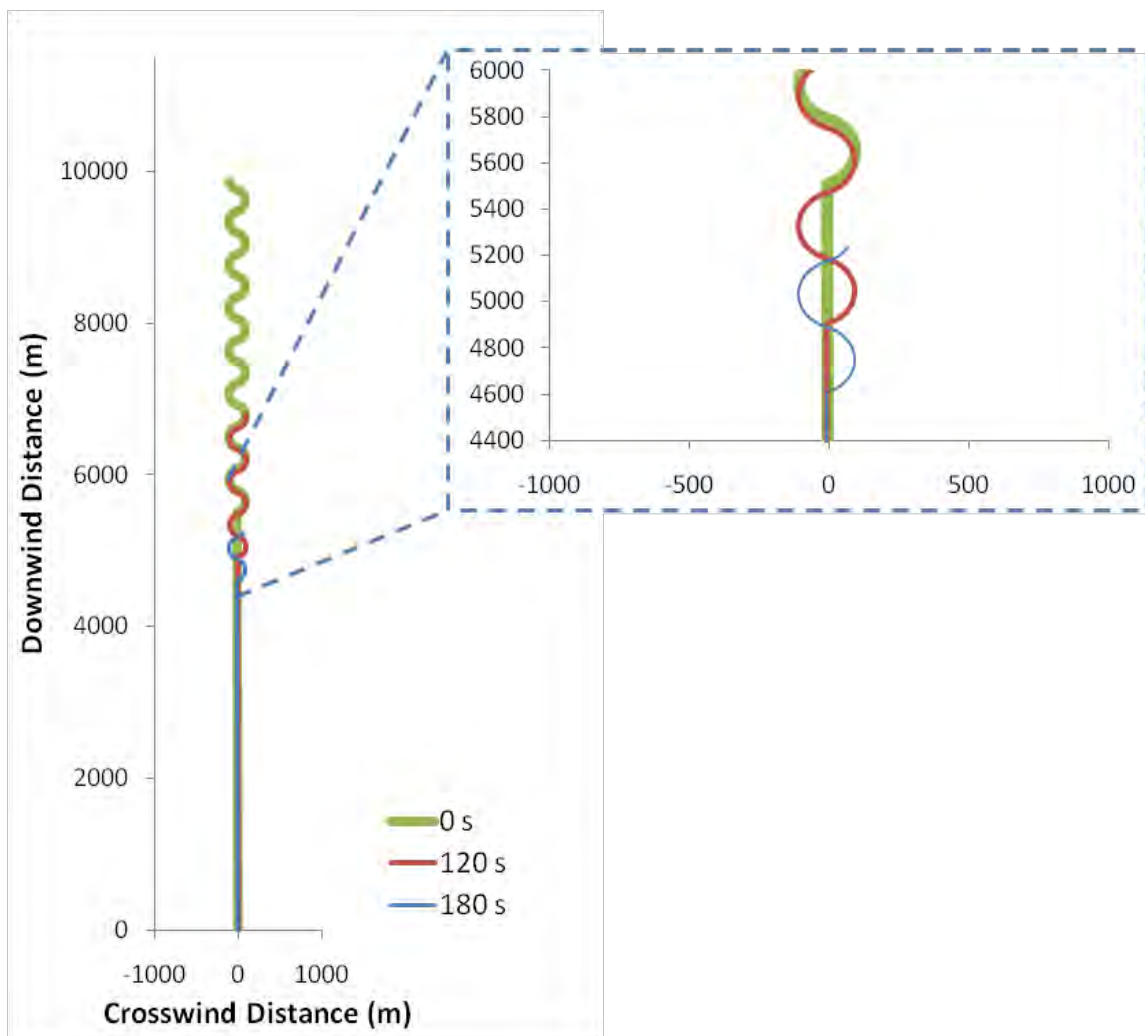


Figure 25. UAS Flight Path for Specified Launch Delays

5. Altitude

The altitude at which the UAS flies its search pattern must be specified. Four altitudes were tested: 0, 2, 5, and 20 m. For each altitude, the concentrations reported in the UAS detector debug output file were examined and matched concentrations calculated independently. The aerosol concentrations along the UAS flight path for each tested altitude are shown in Figure 26. The flight path of the UAS for every altitude test is given in Section G.5. of Appendix B.

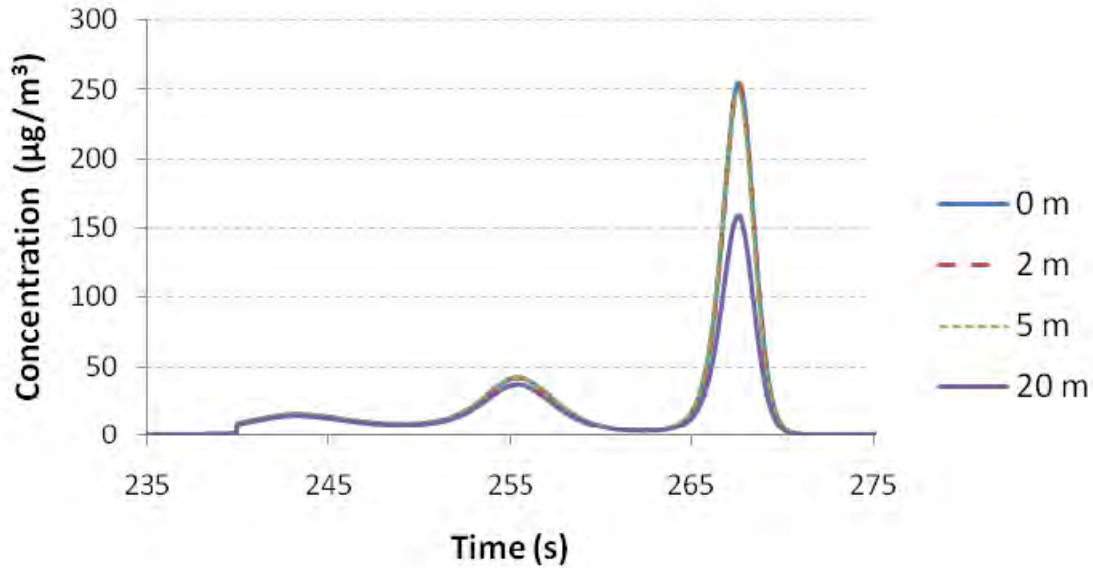


Figure 26. Aerosol Concentrations Along UAS Flight Path at Specified Altitude

6. Turning Radius

The turn radius is the radius of the turns made by the UAS while it is searching. Three turn radii were tested: 50, 150, and 250 m. For each turn radius, the UAS position reported in the detector debug file matched independent calculations. The concentrations encountered by the UAS along its flight path also matched independent calculations. The flight paths for each turning radius are shown in Figure 27. The aerosol concentrations encountered by the UAS along the flight paths for each turning radius are given in Section G.6. of Appendix B.

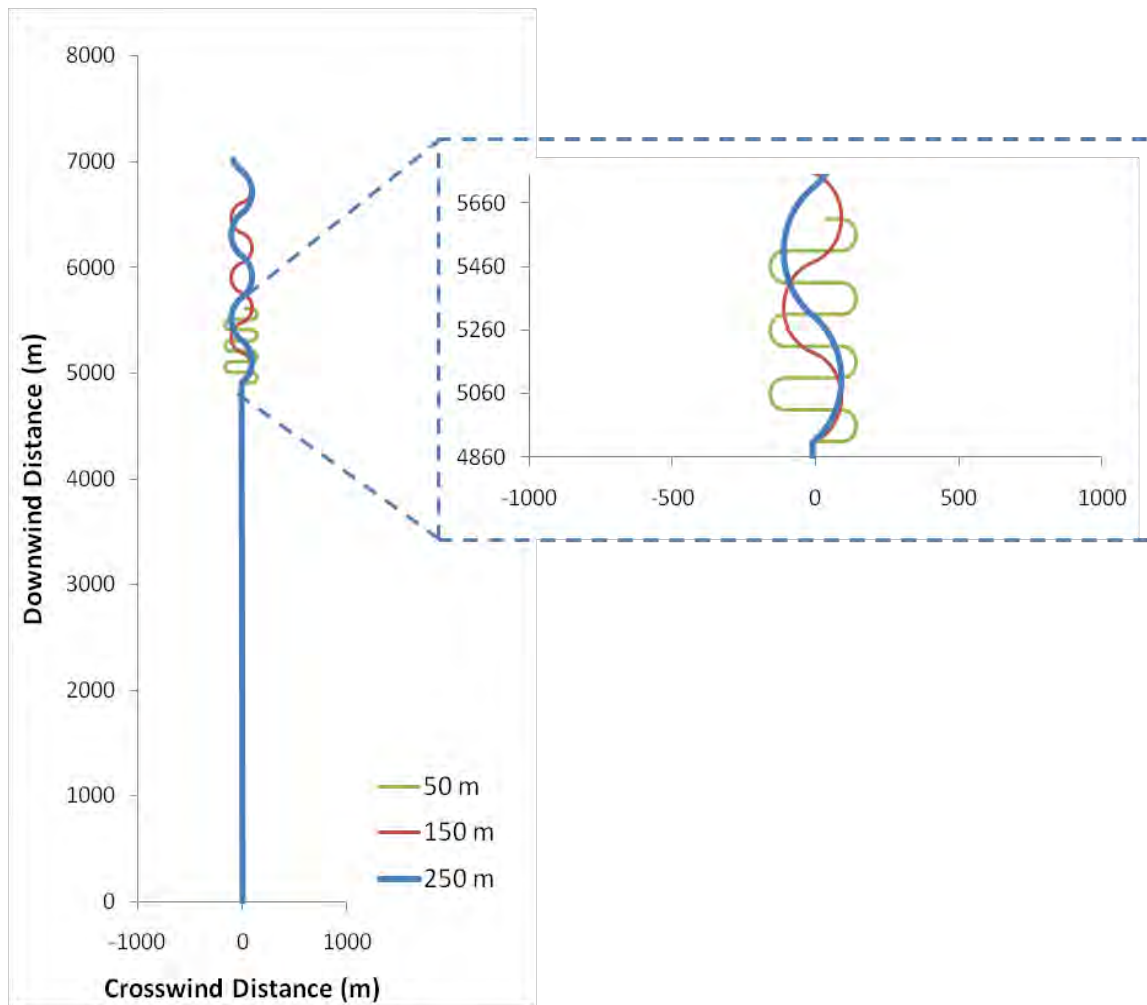


Figure 27. UAS Flight Path for Specified Turning Radii

7. Dash Speed

The dash speed is the speed at which the UAS travels from its point of departure to the intercept point. Three dash speeds were tested: 25, 50, and 75 m/s. The UAS positions reported in the detector debug output file matched those calculated independently. Figure 28 shows the flight paths for each tested dash speed. For the 25 m/s dash speed, the UAS reaches the intercept point and is just starting to search when the simulation ends. As expected, the intercept point occurs farther upwind as the dash speed increases. As the UAS dash speed is increased, the cloud has less time to travel downwind before the UAS begins searching and the UAS intercept point can occur farther upwind to meet the cloud. The aerosol concentrations encountered by the UAS along its flight path for each dash speed matched independent calculations and are given in Section G.7. of Appendix B.

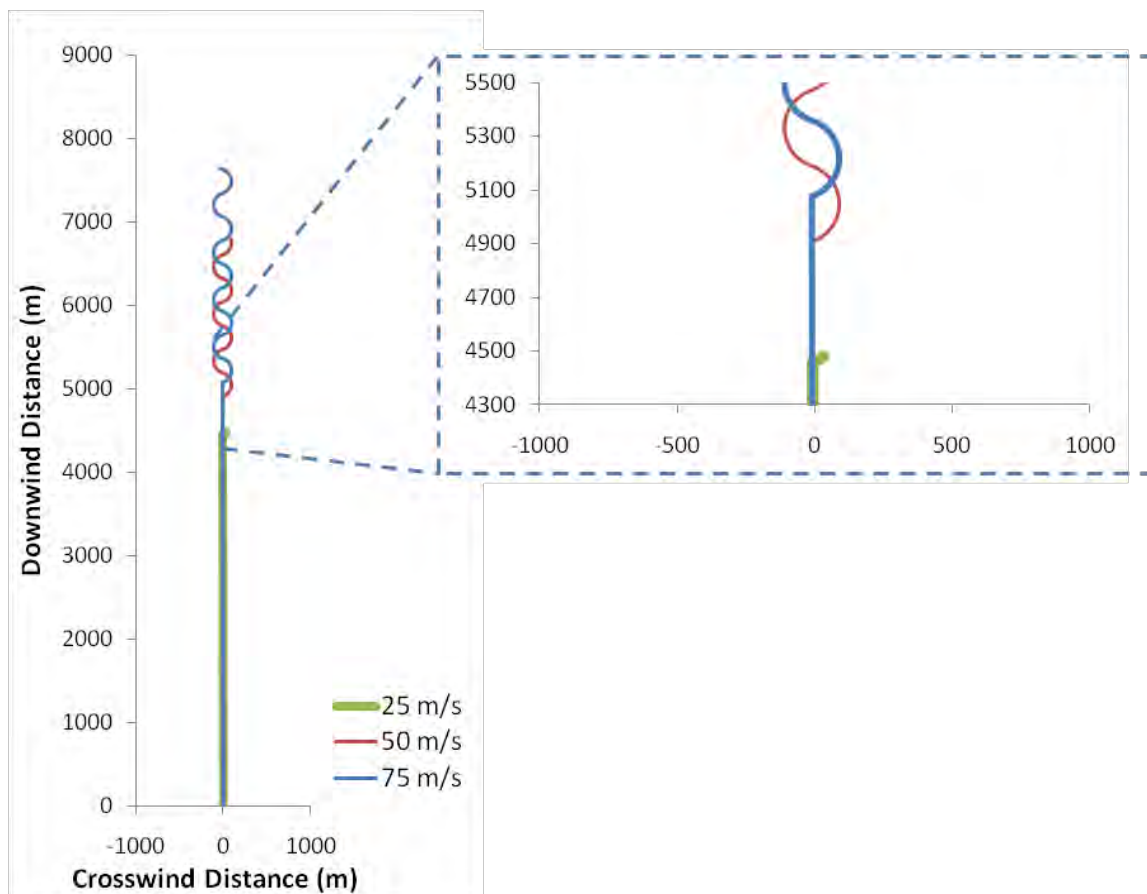


Figure 28. UAS Flight Path for Specified Dash Speeds

8. Search Speed

The search speed is the speed at which the UAS travels once it has begun following its search pattern after arriving at the intercept point. Three search speeds were tested: 10, 30, and 50 m/s. The flight path of the UAS for each tested search speed is shown in Figure 29. As expected, the flight path extends farther upwind as the search speed increase because the UAV is able to travel farther along its search path before the simulation ends. The aerosol concentrations encountered by the UAS along its flight path for each search speed matched independent calculations and are given in Section G.8. of Appendix B.

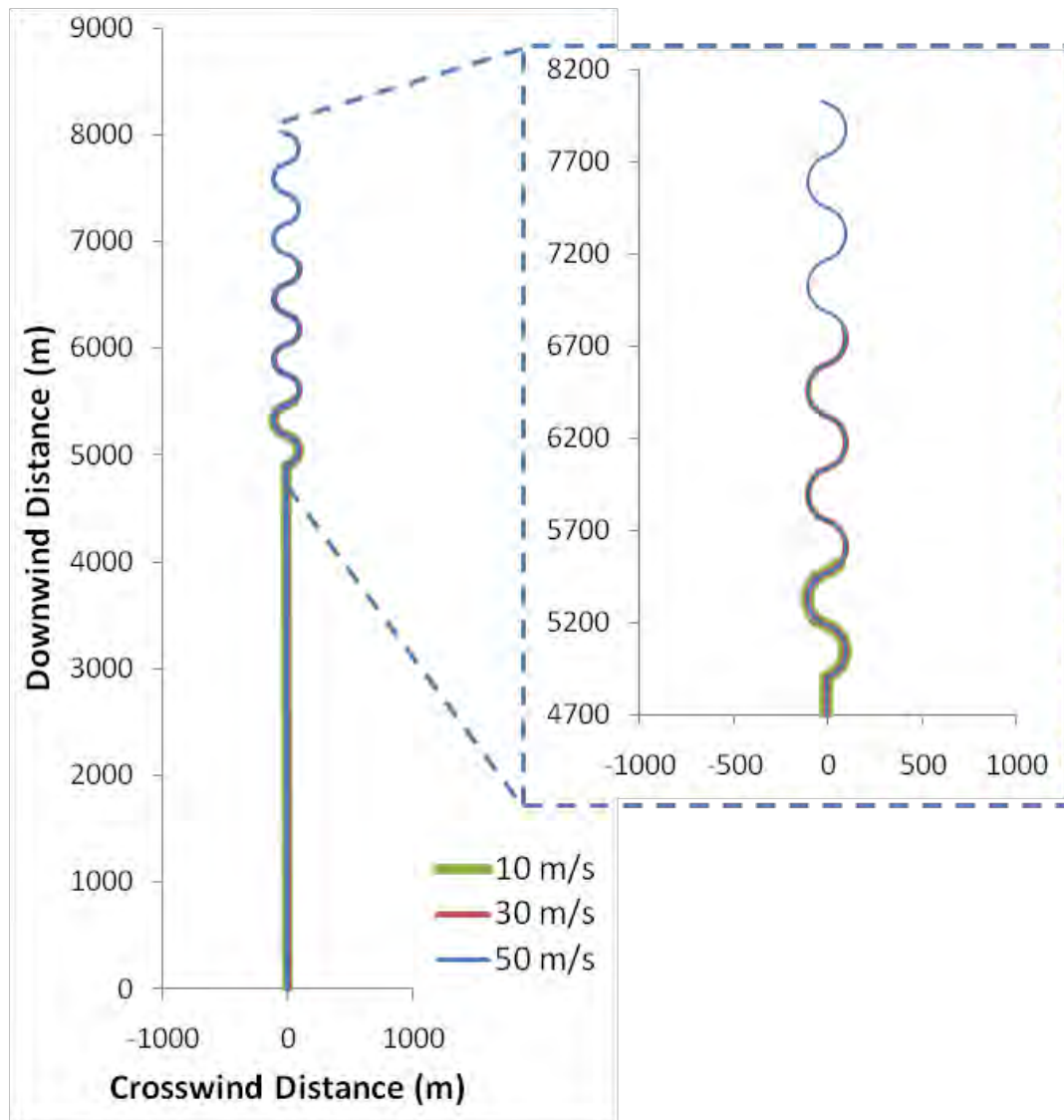


Figure 29. UAS Flight Path for Specified Search Speeds

9. Wind Speed

To determine the intercept point for the UAS, *CBStrike* uses the wind speed as an approximation of the speed at which the biological aerosol cloud is traveling downwind. Higher wind speeds indicate that the biological aerosol is traveling downwind more quickly; therefore, the intercept point must be placed farther downwind for the UAS search pattern to overlap the cloud. Three wind speeds were tested: 1, 2.8, and 5 m/s. Although the wind speed specified in *CBStrike* was varied, for the purposes of testing that the UAS was following the correct flight paths, it was not necessary to alter the wind speed specified in *VLSTRACK*. For purposes other than testing, the wind speed specified in *CBStrike* should match the wind speed used to generate the cloud in *VLSTRACK*. The flight paths for each tested wind speed matched independent calculations and are shown in Figure 30. Higher wind speeds cause the cloud to travel farther downwind before it can be intercepted by the UAS. Consequently, the UAS intercept point must also occur farther downwind to ensure that the UAS searches the entire length of the cloud as the UAS travels upwind. The aerosol concentration encountered by the UAS along its flight path for each specified wind speed matched independent calculations and is given in Section G.9. of Appendix B.

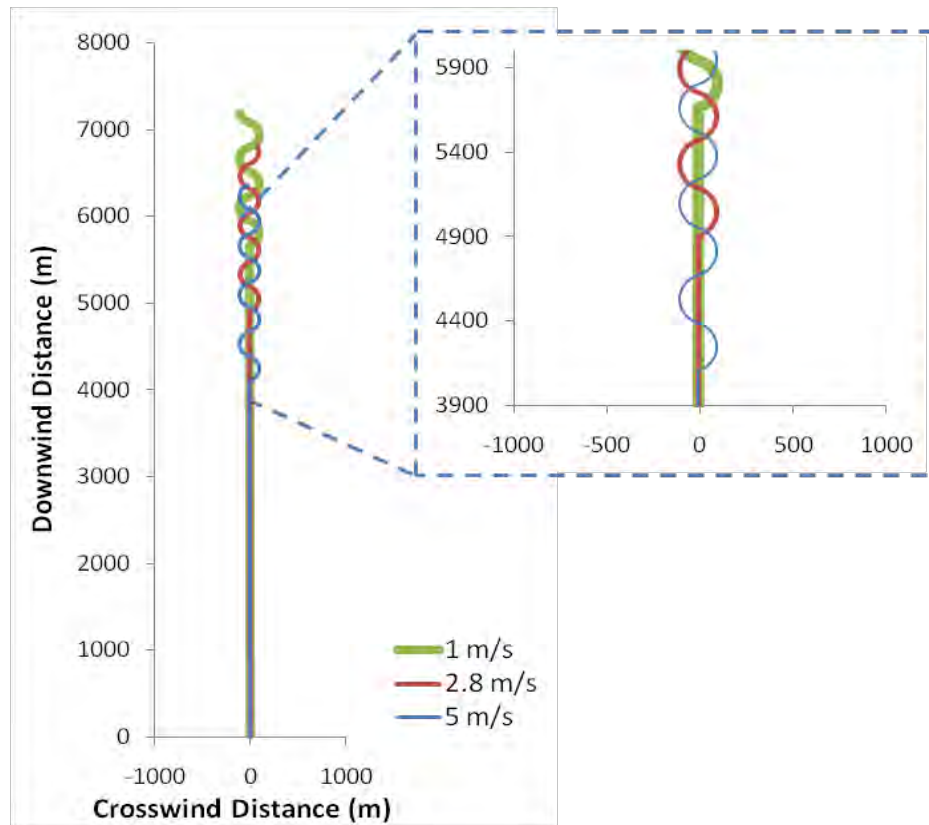


Figure 30. UAS Flight Path for Specified Wind Speeds

10. Wind Speed Safety Factor

The wind speed safety factor allows the UAS to begin searching at an intercept point farther downwind than the intercept point calculated using the wind speed. This increases the chances that the UAS passes through the entire agent cloud while searching. The wind speed safety factor effectively increases the speed at which the biological aerosol is estimated to travel in the calculation of the intercept point. Three wind speed safety factors were tested: 1x, 2x, and 3x. As shown in Figure 31, higher wind speed safety factors cause the intercept point to be positioned farther downwind. The aerosol concentrations encountered by the UAS along its flight path for each wind speed safety factor matched independent calculations and are given in Section G.10. of Appendix B.

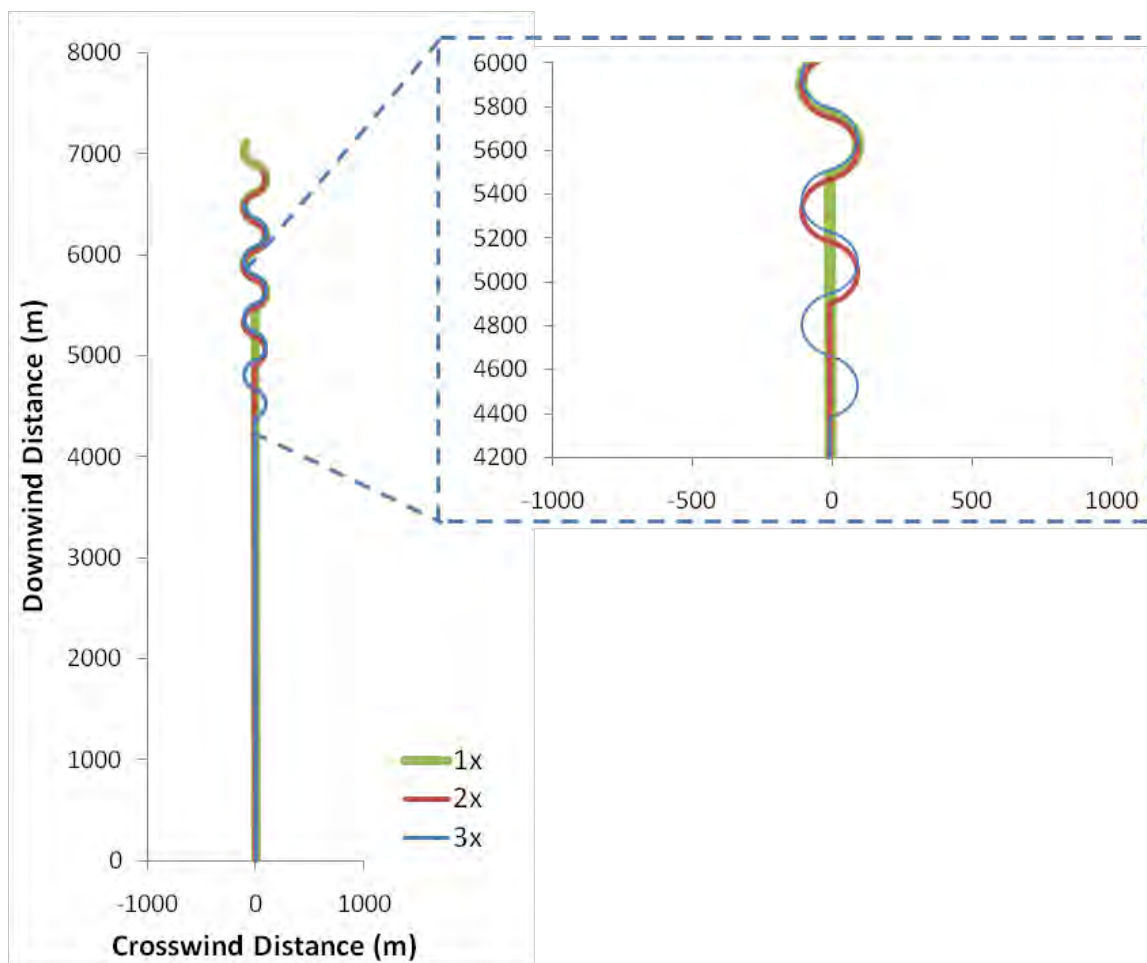


Figure 31. UAS Flight Path for Specified Wind Speed Safety Factors

11. Search Box Bounds

The area over which the UAS searches must be bounded. If the UAS's flight path crosses the search box bounds after it has reached the intercept point and begun flying its search pattern, the UAS operation will cease. This provides a convenient way to limit the upwind extent of the search pattern. Three search boxes were tested. One search box was wide enough to allow the UAS to not encounter the crosswind box boundary while searching, but the UAS eventually encountered the upwind search box boundary before the end of the simulation. Another search box was not wide enough to allow the UAS to search without encountering a crosswind box boundary. Finally, a search box was defined such that the intercept point of the UAS was not within the search box. The three search boxes tested are shown in Figure 32. When the UAS crossed a boundary while searching, it stopped searching at the next general *CBStrike* time step. This allowed the UAS to travel slightly outside of the search box between the time at which the UAS first crossed the box boundary and the next *CBStrike* time step. For the search box in which the UAS intercept point was not within the search box, the UAS stopped at the intercept point and did not begin searching. Hence, *CBStrike* correctly limited the UAS searching to the specified search box.

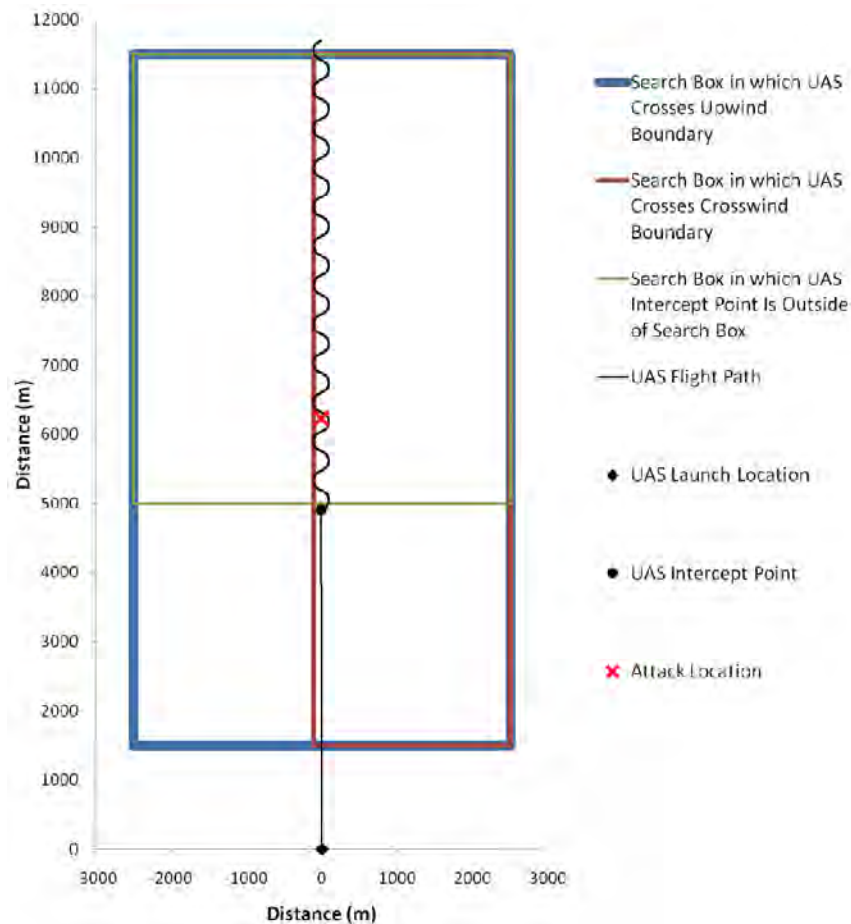


Figure 32. UAS Search Boxes

12. Detection Threshold

The detection threshold is the minimum concentration experienced over the specified detector duration necessary to yield a positive detection. Four detection thresholds were tested: 0.1, 1, 10 and 255 $\mu\text{g}/\text{m}^3$. Table 20 shows the detection times and the aerosol concentrations at the start of the detection interval that begins one time step before the reported detector alarm time. For the 0.1, 1, and 10 $\mu\text{g}/\text{m}^3$ detection thresholds, the time at which the alarm was issued by the UAS detector corresponded to one UAS time step after the agent concentration at the UAS exceeded the detection threshold because the detector duration was specified to be one UAS time step, i.e., 0.1 s. The time between UAS detection and warning of personnel is variable because *CBStrike* requires that personnel receive warning at the general *CBStrike* time step following UAS detection. In this test, the time between UAS detection and warning of personnel is only 3.3 s for the 0.1 $\mu\text{g}/\text{m}^3$ threshold, but it is 60 s for the 1 $\mu\text{g}/\text{m}^3$ threshold. The times at which the detector alarms and the subsequent time at which personnel receive warning matched independent calculations. Finally, no warning was issued for the 255 $\mu\text{g}/\text{m}^3$ detection threshold because the concentration at the UAS never exceeded this threshold.

Table 20. UAS Detector Alarm Times for Various UAS Detection Thresholds

	Input Detection Threshold ($\mu\text{g}/\text{m}^3$)			
	0.1	1	10	255
Time of Detector Alarm	236.7	240	240.4	No Alarm
Ambient Aerosol Concentration at UAS Time Step Preceding Detector Alarm	0.106694	1.040800	10.008600	No Alarm
Time at which Warning Is Issued to Personnel	240	300	300	No Warning

13. Detector Duration

The detector duration is the minimum interval of time over which the ambient biological aerosol concentration must exceed the specified detection threshold before a detection is achieved. Four detector durations were tested: 0.1, 1, 10, and 60 s. For each tested detector duration, Figure 33 shows the timeline from when the aerosol concentration first exceeds the detection threshold to the end of the detection interval. Figure 33 also shows the times at which the detector alarms. The alarm is issued by the UAS detector one UAS time step after the end of the detector interval unless the detector duration is equal to one UAS time step. If the detector duration is equal to one UAS time step, then the UAS detector will alarm immediately upon the end of the detection interval. For instance, the detector alarms 0.1 s after the aerosol concentration first exceeds the detection threshold when the detector duration is equal to the UAS time step, 0.1 s. For the 1 s detector duration, the detector alarms 1.1 s after the aerosol concentration first exceeds the detection threshold. The detector alarms 10.1 seconds after the aerosol concentration first exceeds the detection threshold when the detector duration is specified to be 10 s. When the detector duration is set to 60 s, no detection occurs because the UAS is moving through the cloud too fast for the concentration experienced by the UAS to remain above the threshold for the entire detector duration. The times at which *CBStrike* reports detector alarms matched independent calculations for each detector duration tested.

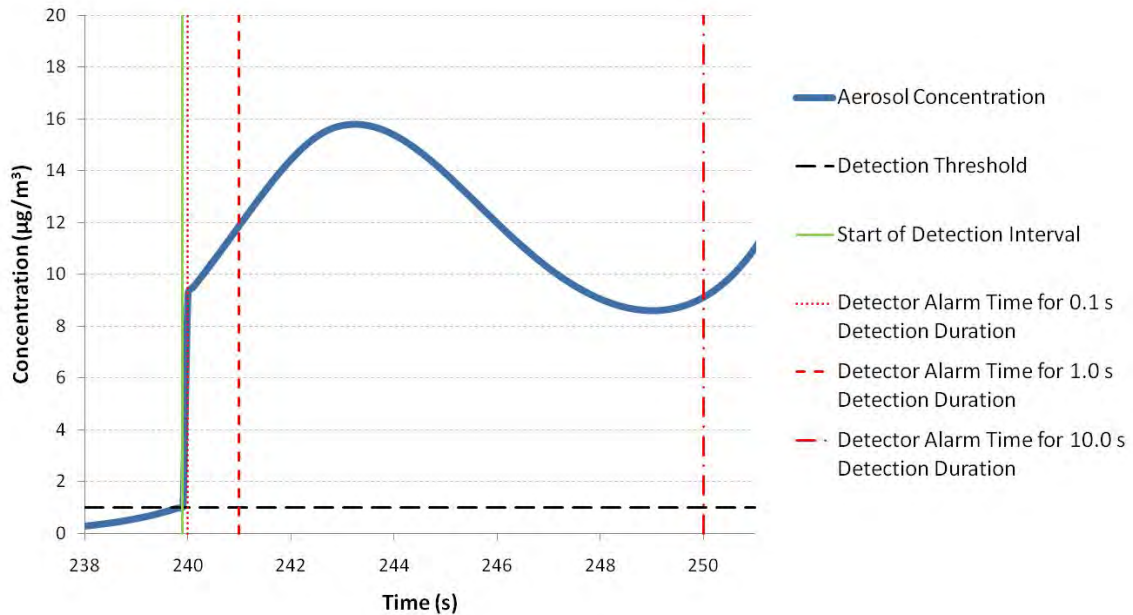


Figure 33. Detection Timeline for Each Detector Duration Tested

14. Warning Delay

The warning delay is the time between detector alarm and the issuance of warning to personnel. Three warning delays were tested: 0, 30, and 60 s. Table 21 provides the detection and warning times reported by *CBStrike* for each tested warning delay. The UAS detector may only alarm at general *CBStrike* time steps even though the UAS time steps may have a higher resolution. Warning of personnel occurs a minimum of one *CBStrike* time step after the UAS detector alarms. In this testing, the *CBStrike* time steps are 60 s in duration so the smallest amount of time between detector alarm and warning of personnel is 60 s even when the specified warning delay is 0 s. For non-zero warning delays, the warning delay is additional to this inherent single time step delay. Warning of personnel also must occur at general *CBStrike* time steps. Thus, warning delays that are less than a single general *CBStrike* time step result in a warning being issued at the next general *CBStrike* time step. As a result, the warning time reported by *CBStrike* for the 30 s and 60 s warning time tests are identical because the 30 s warning delay is less than the 60 s *CBStrike* time step. Figure 34 demonstrates the timeline between detector alarm and warning of personnel for the 30 s and 60 s warning delays.

Table 21. UAS Detection Times and Warning Times for Various UAS Warning Delays

		Input Warning Delay		
		0 s	30 s	60 s
	Warning Time	300 s	360 s	360 s
-	Detection Time	240 s	240 s	240 s
=	Resulting Warning Delay	60 s	120 s	120 s

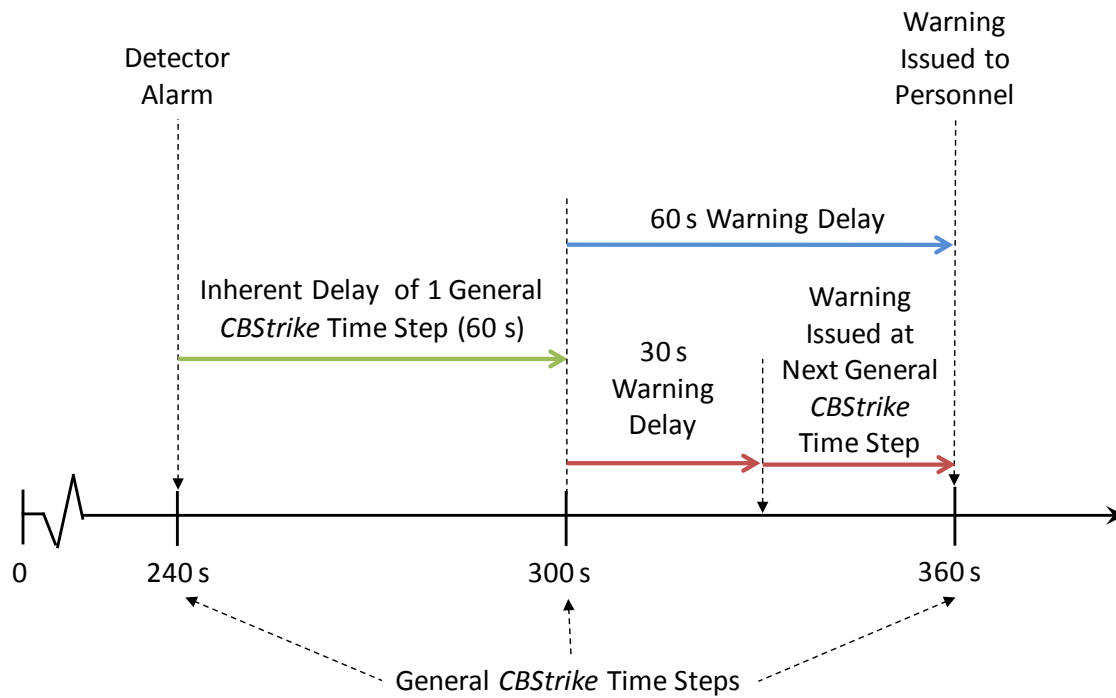


Figure 34. Timeline for 30 s and 60 s Warning Delays

E. Local Masking and Prophylaxis Administration

The local masking feature was incorporated to allow subsets of personnel to mask in response to alarms originating from specific detectors. This ability is achieved by associating specific detectors with specific groups of personnel. The same personnel can be included in more than one group.

The prophylaxis administration feature models the effect of both pre-exposure prophylaxis and post-exposure prophylaxis. The effect of pre-exposure prophylaxis is a user-specified constant casualty reduction factor. Post-exposure prophylaxis is initiated in response to positive agent identification by identification equipment or by medical diagnosis of the first person to become symptomatic. The user must specify a symptom onset time model. Two types of symptom onset time models may be specified: deterministic or stochastic. The deterministic model may be dose-dependent. The stochastic model is specified as a probability density function of symptom onset times from which a random draw is taken for each person expected to become a casualty without post-exposure prophylaxis. If the agent is not identified earlier by identification equipment, a diagnosis delay is added to the earliest symptom onset time to determine when the agent would be identified by medical diagnosis. If the user-specified model of post-exposure prophylaxis efficacy is time dependent, then the time of agent identification is used to determine the efficacy of post-exposure prophylaxis. The efficacy of the post-exposure prophylaxis is then used to determine the reduction in casualties among personnel that are not already symptomatic at the time prophylaxis is administered.

These features have not been used in any IDA study and have not been tested.

Appendix A

Mathematica[®] Scripts

This appendix provides the *Mathematica* scripts that were used to perform the independent calculations used to confirm the proper operation of *CBStrike*. Separate *Mathematica* scripts were used for testing the core functions of *CBStrike*, UAS modeling, standoff detector modeling, and the casualty limit function. Testing of the custom feature allowing multiple detection thresholds and multiple detector/collector associations was performed using the same *Mathematica* scripts used to test the core functions of *CBStrike*.

A. *Mathematica*[®] Script for Testing *CBStrike* Core Functions

The following *Mathematica*[®] script was used to test all of the core functions of *CBStrike*:

```
(*puff #1*)
(* x-coordinate of the puff center (m) *)
px1 = 0;

(* y-coordinate of the puff center (m) *)
py1 = 0;

(* z-coordinate of the puff center (m) *)
pz1 = 2;

(* x-direction puff sigma (m) *)
sx1 = 0.3;

(* y-direction puff sigma (m) *)
sy1 = 0.5;

(* z-direction puff sigma (m) *)
sz1 = 0.3;

(*puff #2*)
(* x-coordinate of the puff center (m) *)
px2 = 0;

(* y-coordinate of the puff center (m) *)
py2 = -1.5;

(* z-coordinate of the puff center (m) *)
pz2 = 2;

(* x-direction puff sigma (m) *)
sx2 = 0.3;

(* y-direction puff sigma (m) *)
sy2 = 0.5;

(* z-direction puff sigma (m) *)
sz2 = 0.3;

(* height at which concentration is determined (m) *)
z = 2;

(* reflection fraction from the boundary layer (dimensionless) *)
ru = 1.0;

(* particle diameter (μm) *)
particlediameter = 5.3*2;

(* reflection fraction from the ground (dimensionless) *)
rl = 0.97 *  $\left(1 - \left(\frac{\text{particlediameter} - 0.1}{10 - 0.1}\right)\right)$ ;

(* boundary layer height (m) *)
hu = 1400;
```

```

(* ground height (m) *)
h1 = 0;

(* multiple of puff sigma that determines if a puff is
included in concentration calculations *)
puffcutoff = 5;

(* probit slope *)
θ = 1.4;

(* median effective dose (ED50) (μg) *)
η = 1.0;

(* factor for converting minutes to seconds (s/min) *)
timeconversion = 60;

(* number of CBStrike time steps within each time step
in the puff tracking file *)
timestepdivision = 1;

maxtimestep = 61;

(* interpolation method flag variable (only used when CBStrike time steps are finer than puff tracking file time steps,
i.e. "timestepdivisions" variable is >1), "interpmethod = 0" indicates upper step interpolation,
"interpmethod = 1" indicates lower step interpolation. For linear interpolation, "timestepdivision" variable
should be equal to 1 *)
interpmethod = 1;

(* time at which masking will occur (s) *)
masktime = 31;

(* delay between warning and masking (s) *)
maskdelay = 0;

(* delay between an a detector alarm and the issuance of warning to personnel (s) *)
warningdelay = 0;

(* factor that represents the efficacy of masking in reducing the dose acquired by exposed personnel *)
maskfactor = 1.0;

(* duration over which collector ingest air to collect sample (s) *)
collectiontime = 10;

(* delay between warning and start of sample collection (s) *)
collectordelay = 0;

(* ventilation rate (m3/min) *)
breathrate = 0.015;

(* rate at which collector ingests air (m3/min) *)
collectorflowrate = 0.015;

(* fraction of collected material that is extracted into the liquid sample (dimensionless) *)
extractefficiency = 1.0;

(* fraction of ingested aerosolized biological material that is retained by collector (dimensionless) *)
collectionefficiency = 1.0;

(* volume of the liquid sample produced by the collector (mL) *)
samplevolume = 1;

(* conversion factor relating the number of CFU/PFU to the mass of aerosolized biological material (CFU/μg) *)
unitpermass = 1;

(* conversion factor indicating the average number of infectious units within each aerosol particle *)
unitperparticle = 1;

```

```

(* minimum x-coordinate of personnel/collector locations *)
xgridminimum = -2.0;

(* maximum x-coordinate of personnel/collector locations *)
xgridmaximum = 2.0;

(* minimum y-coordinate of personnel/collector locations *)
ygridminimum = -4.5;

(* maximum y-coordinate of personnel/collector locations *)
ygridmaximum = 3.0;

(* spacing between personnel/collector locations in the x-direction *)
xgridstep = 0.25;

(* spacing between personnel/collector locations in the y-direction *)
ygridstep = 0.25;

(* spacing between personnel/collector locations in the x-direction *)
xgridnumber = ((xgridmaximum - xgridminimum) / xgridstep) + 1;

(* spacing between personnel/collector locations in the y-direction *)
ygridnumber = ((ygridmaximum - ygridminimum) / ygridstep) + 1;

(* initialize array containing doses acquired by personnel at every location *)
troopdose = Table["Null", {i, ygridnumber}, {j, xgridnumber}];

(* initialize array containing liquid sample concentratons from every collector *)
sampleconcentration = Table["Null", {i, ygridnumber}, {j, xgridnumber}];

(* initialize array containing the casualty rate at every personnel location *)
casualtyrate = Table["Null", {i, ygridnumber}, {j, xgridnumber}];

(* concentration functions for each of the 2 puffs in test cloud*)
concentrationpuff1[x_, y_, q_] := 
$$\left( \frac{1}{(2\pi)^{\frac{3}{2}} \sigma_{x1} \sigma_{y1} \sigma_{z1}} q * e^{-0.5 \left( \frac{x - px1}{\sigma_{x1}} \right)^2} * e^{-0.5 \left( \frac{y - py1}{\sigma_{y1}} \right)^2} * \right. \\ \left. \left( e^{-0.5 \left( \frac{z - pz1}{\sigma_{z1}} \right)^2} + \left( r_u e^{-0.5 \left( \frac{(2*hu) - z - pz1}{\sigma_{z1}} \right)^2} + (r_u * r_l) e^{-0.5 \left( \frac{(2*hu) + (-2*hl) - z - pz1}{\sigma_{z1}} \right)^2} + ((r_u^2) * r_l) e^{-0.5 \left( \frac{(4*hu) + (-2*hl) - z - pz1}{\sigma_{z1}} \right)^2} \right) + \right. \\ \left. \left( r_l e^{-0.5 \left( \frac{(-2*hl) + z + pz1}{\sigma_{z1}} \right)^2} + (r_u * r_l) e^{-0.5 \left( \frac{(2*hu) + (-2*hl) - z + pz1}{\sigma_{z1}} \right)^2} + ((r_l^2) * r_u) e^{-0.5 \left( \frac{(2*hu) + (-4*hl) - z + pz1}{\sigma_{z1}} \right)^2} \right) \right) \\ \left. \right)$$

concentrationpuff2[x_, y_, q_] := 
$$\left( \frac{1}{(2\pi)^{\frac{3}{2}} \sigma_{x2} \sigma_{y2} \sigma_{z2}} q * e^{-0.5 \left( \frac{x - px2}{\sigma_{x2}} \right)^2} * e^{-0.5 \left( \frac{y - py2}{\sigma_{y2}} \right)^2} * \right. \\ \left. \left( e^{-0.5 \left( \frac{z - pz2}{\sigma_{z2}} \right)^2} + \left( r_u e^{-0.5 \left( \frac{(2*hu) - z - pz2}{\sigma_{z2}} \right)^2} + (r_u * r_l) e^{-0.5 \left( \frac{(2*hu) + (-2*hl) - z - pz2}{\sigma_{z2}} \right)^2} + ((r_u^2) * r_l) e^{-0.5 \left( \frac{(4*hu) + (-2*hl) - z - pz2}{\sigma_{z2}} \right)^2} \right) + \right. \\ \left. \left( r_l e^{-0.5 \left( \frac{(-2*hl) + z + pz2}{\sigma_{z2}} \right)^2} + (r_u * r_l) e^{-0.5 \left( \frac{(2*hu) + (-2*hl) - z + pz2}{\sigma_{z2}} \right)^2} + ((r_l^2) * r_u) e^{-0.5 \left( \frac{(2*hu) + (-4*hl) - z + pz2}{\sigma_{z2}} \right)^2} \right) \right) \\ \left. \right)$$


(* cycle through the troop/collector positions *)
xgridindex = 0;
For[x = xgridminimum, x ≤ xgridmaximum, x = x + xgridstep,
  xgridindex = xgridindex + 1;
  ygridindex = 0;
  For[y = ygridminimum, y ≤ ygridmaximum, y = y + ygridstep,
    ygridindex = ygridindex + 1;

    (* include individual puffs in concentration calculation if the puff center is within the puff cutoff distance *)
    puff1flag = If[(Abs[x - px1]) < (puffcutoff * σx1) && ((Abs[y - py1]) < (puffcutoff * σy1) && ((Abs[z - pz1]) < (puffcutoff * σz1)), 1, 0];
    puff2flag = If[(Abs[x - px2]) < (puffcutoff * σx2) && ((Abs[y - py2]) < (puffcutoff * σy2) && ((Abs[z - pz2]) < (puffcutoff * σz2)), 1, 0];
    concentration[x_, y_, q_] := (puff1flag * concentrationpuff1[x, y, q]) + (puff2flag * concentrationpuff2[x, y, q]);

```

```

(* create a table of concentration values *)
conccarray = Table[
  concentration[x, y, q], {q, 1660, 7660, (100)}];

(* if stepwise interpolation is desired and CBStrike time step is less than puff tracking file time step,
insert additional concentration table entries for each CBStrike time step between the puff tracking file time steps *)
For[timestepindex = maxtimestep - interpmethod, timestepindex >= 1 + (Abs[interpmethod - 1]), timestepindex = timestepindex - 1,
  For[timeinsertindex = 1, timeinsertindex < timestepdivision, timeinsertindex = timeinsertindex + 1,
    conccarray = Insert[conccarray, conccarray[[timestepindex]], timestepindex];
  ];
];

(* interpolated concentration for troop dose *)
interpconctrp := Interpolation[conccarray, InterpolationOrder -> 1];

(*interpolated concentration for collector dose *)
interpconccol := Interpolation[conccarray, InterpolationOrder -> 1];

(*troop dose*)
interpolateddose = (((Integrate[interpconctrp[t], {t, 1, ((masktime + maskdelay + warningdelay) * timestepdivision)}]) +
  ((1 - maskfactor) * (Integrate[interpconctrp[t], {t, ((masktime + maskdelay + warningdelay) * timestepdivision),
    (60 * timestepdivision)}])))) / (timeconversion * timestepdivision) * breathrate;

(*ID concentration*)
idsampleconcentration = ((Integrate[interpconccol[t], {t, ((masktime + collectordelay) * timestepdivision),
  ((masktime + collectordelay + collectiontime) * timestepdivision)}]) / (timeconversion * timestepdivision)) *
  collectorflowrate * extractefficiency * collectionefficiency * unitpermass * unitperparticle / samplevolume;

(*probit score calculation*)
score = (0 * 0.4343) * Log[interpolateddose /  $\eta$ ];

(*casualty probability calculation*)
casualtyprobability = 0.5 * (1 - Erf[(-1 * score) / Sqrt[2]]);

(* fill output arrays with calculated data *)
troopdose[[ygridindex, xgridindex]] = interpolateddose;
sampleconcentration[[ygridindex, xgridindex]] = idsampleconcentration;
casualtyrate[[ygridindex, xgridindex]] = casualtyprobability;
];
];
Export["C:\\AoMA\\CBStrike_Testing\\Dose.xls", troopdose, "Table"]
Export["C:\\AoMA\\CBStrike_Testing\\Sample.xls", sampleconcentration, "Table"]
Export["C:\\AoMA\\CBStrike_Testing\\Casualty.xls", casualtyrate, "Table"]

```

B. *Mathematica*[®] Script for Testing UAS Modeling

The following *Mathematica*[®] script was used to test the custom features for UAS modeling:

```
(* initialize array of aerosol concentrations encountered by the UAS *)
conccarray = {0};

(* initialize array of UAS locations *)
xpos = {0};
ypos = {0};

(* UAS detector threshold *)
detthresh = 999999;

(* last time in specified in the puff tracking file *)
maxcloudtime = 300;

(* wind speed safety factor *)
fs = 2;

(* actual cloud speed *)
vr = 5;

(* safety adjusted cloud speed *)
vc = vr * fs;

(* UAS dash speed *)
vu = 50;

(* UAS search speed *)
vs = 30;

(* release y-coordinate *)
ys = 6230;

(* UAS start y-coordinate *)
y0 = 0;

(* UAS start time *)
L = 120;

(* release x-coordinate *)
xs = -10;

(* UAS start x-coordinate *)
x0 = 0;

(* radius of uncertainty *)
rp = 100;

(* UAS turning radius *)
ru = 150;

(* quadratic constants used to determine the time at which the UAS reaches
the intercept point *)
ca = ((vc2) - (vu2));
cb = -((2 * vc) * (ys - rp - (vc * L) - y0));
cc = (((ys - rp - (vc * L) - y0))2 + (xs - x0)2);
```

```

(* roots of quadratic represent possible lengths of time for required for
UAS to travel to the intercept point *)

$$t_{i1} = N \left[ \frac{-C_b + \sqrt{C_b^2 - (4 * C_a * C_c)}}{2 * C_a} \right];$$



$$t_{i2} = N \left[ \frac{-C_b - \sqrt{C_b^2 - (4 * C_a * C_c)}}{2 * C_a} \right];$$


(* possible y-coordinates of intercept point *)
 $y_{i1} = y_s - r_p - (V_c * t_{i1}) - (V_c * L);$ 
 $y_{i2} = y_s - r_p - (V_c * t_{i2}) - (V_c * L);$ 

(* correct intercept time is selected *)
 $y_i = \text{If}[t_{i1} > 0, y_{i1}, y_{i2}]$ 
 $t_i = \text{If}[t_{i1} > 0, t_{i1}, t_{i2}]$ 

(* x-coordinate of intercept point *)
 $x_i = x_s;$ 

(* time at which UAS reaches the intercept point includes the launch delay, L *)
 $t_t = t_i + L;$ 

(* search path parameters *)
 $\theta = 2 * \text{ArcCos} \left[ 1 - \left( \frac{r_p}{r_u} \right) \right];$ 
 $t_c = (\theta * r_u) / V_s;$ 
 $h_c = (2 * r_u) * \sin \left[ \frac{\theta}{2} \right];$ 

(* import puff tracking data from .trk file *)
puffdata = Import["C:\\CBStrike_Testing\\UAV\\T1BPN8U.TRK", "Table"];

(* UAS time step (s) *)
 $t_{inc} = 0.1;$ 

(* maximum upwind distance of search box *)
 $d_l = 11230;$ 

(* initialize the line number variable that represents the first line in the puff
tracking file for each VLSTRACK time step *)
linemin = 1;

(* flag variables for indicating whether a detection was acheived *)
detflag = 0;
detfirstflag = 0;

(* initialize y-coordinate of UAS *)
 $y_u[tstep_] = 0;$ 

(* loop through UAS time steps *)
For[tstep = 0,  $y_u[tstep] < d_l$  && detflag == 0 && tstep < maxcloudtime, tstep = tstep +  $t_{inc}$ ,

(*if  $r_p > r_u$ , then variable used to determine number of times UAS has completed
a right hand semi-circle *)
 $f_{right}[tstep_] := \text{Floor} \left[ \frac{(tstep - L - t_i - \left( \frac{r_p}{2 V_s} \right))}{2 * \left( \frac{(\pi * r_u)}{V_s} + \frac{r_p}{V_s} \right)} \right];$ 

```

(*if $r_p > r_u$, then variable used to determine number of times UAS has completed a left hand semi-circle *)

$$f_{\text{left}}[tstep\_] := \text{Floor} \left[\frac{\left(tstep - L - t_i - \left(\frac{r_p}{2 v_s} \right) - \left(\frac{(\pi * r_u)}{v_s} \right) - \left(\frac{r_p}{v_s} \right) \right)}{2 * \left(\frac{(\pi * r_u)}{v_s} + \frac{r_p}{v_s} \right)} \right];$$

(*if $r_p > r_u$, then variable used to determine number of times UAS has completed a horizontal path from the right to the left while searching *)

$$f_{\text{middleRL}}[tstep\_] := \text{Floor} \left[\frac{\left(tstep - L - t_i - \left(\frac{r_p}{2 v_s} \right) - \left(\frac{(\pi * r_u)}{v_s} \right) \right)}{2 * \left(\frac{(\pi * r_u)}{v_s} + \frac{r_p}{v_s} \right)} \right];$$

(*if $r_p > r_u$, then variable used to determine number of times UAS has completed a horizontal path from the left to the right while searching *)

$$f_{\text{middleLR}}[tstep\_] := \text{Floor} \left[\frac{\left(tstep - L - t_i - \left(\frac{r_p}{2 v_s} \right) - 2 * \left(\frac{(\pi * r_u)}{v_s} \right) - \left(\frac{r_p}{v_s} \right) \right)}{2 * \left(\frac{(\pi * r_u)}{v_s} + \frac{r_p}{v_s} \right)} \right];$$

(* if $r_u > r_p$, then variable used to determine number of times UAS has completed whole cycle of arcs while searching *)

$$f_{\text{arc}}[tstep\_] := \text{Floor} \left[\frac{(tstep - L - t_i)}{t_c} \right];$$

(* if $r_u > r_p$, then variable used to determine number of times UAS has completed right hand arcs while searching *)

$$f_{\text{rightarc}}[tstep\_] := \text{Floor} \left[\frac{(tstep - L - t_i)}{2 * t_c} \right];$$

(* if $r_u > r_p$, then variable used to determine number of times UAS has completed left hand arcs while searching *)

$$f_{\text{leftarc}}[tstep\_] := \text{Floor} \left[\frac{(tstep - L - t_i - t_c)}{2 * t_c} \right];$$

(* x-coordinate with an arc segment *)

$$\text{arcx}[tstep\_] := \left(r_u * \cos \left[\left(\frac{-\theta}{2} \right) + \left(\theta * \left(\left(\frac{tstep - L - t_i}{t_c} \right) - \text{Floor} \left[\left(\frac{tstep - L - t_i}{t_c} \right) \right] \right) \right] \right) - (r_u - r_p); \right.$$

(* y-coordinate with an arc segment *)

$$\text{arcy}[tstep\_] := \left(r_u * \sin \left[\left(\frac{-\theta}{2} \right) + \left(\theta * \left(\left(\frac{tstep - L - t_i}{t_c} \right) - \text{Floor} \left[\left(\frac{tstep - L - t_i}{t_c} \right) \right] \right) \right] \right) + \left(\frac{h_c}{2} \right); \right.$$


```

(* peicewise function giving the x-coordinate of the UAS at any time *)
x_u[tstep_] := If[r_p == 0, Piecewise[{{x_0, tstep ≤ L},
{v_u * (x_i - x_0 / sqrt((x_s - x_0)^2 + (y_i - y_0)^2)) * (tstep - L) + x_0, L < tstep ≤ t_i + L}, {x_s, tstep > t_i + L}}],
If[r_p > r_u, Piecewise[{{x_0, tstep ≤ L}, {v_u * (x_i - x_0 / sqrt((x_s - x_0)^2 + (y_i - y_0)^2)) * (tstep - L) + x_0,
L < tstep ≤ t_i + L}, {x_s + (v_s * (tstep - t_i - L)), t_i + L < tstep ≤ (t_i + (r_p / (2 v_s)) + L)},
{r_u * Cos[(3 * π / 2) + (tstep - (L + t_i + (r_p / (2 v_s)) + (f_right[tstep] * (2 * ((π * r_u) / v_s + (r_p / v_s)))) * v_s) / r_u] + (r_p / 2) + x_s,
(L + t_i + (r_p / (2 v_s)) + (f_right[tstep] * (2 * ((π * r_u) / v_s + (r_p / v_s)))) < tstep ≤
(L + t_i + (r_p / (2 v_s)) + (π * r_u / v_s) + (f_right[tstep] * (2 * ((π * r_u) / v_s + (r_p / v_s))))},
{x_s + (r_p / 2) - (v_s * (tstep - (L + t_i + (r_p / (2 v_s)) + (π * r_u / v_s) + (f_middleRL[tstep] * 2 * ((π * r_u) / v_s + (r_p / v_s))))),
(L + t_i + (r_p / (2 v_s)) + (π * r_u / v_s) + (f_middleRL[tstep] * 2 * ((π * r_u) / v_s + (r_p / v_s)))) < tstep ≤
(L + t_i + (r_p / (2 v_s)) + (π * r_u / v_s) + (r_p / v_s) + (f_middleRL[tstep] * 2 * ((π * r_u) / v_s + (r_p / v_s))))},
{-r_u * Cos[(3 * π / 2) + (1 / r_u) * (tstep - (L + t_i + (r_p / (2 v_s)) + (π * r_u / v_s) + (r_p / v_s) +
(f_left[tstep] * (2 * ((π * r_u) / v_s + (r_p / v_s)))) * v_s)] - (r_p / 2) + x_s,
(L + t_i + (r_p / (2 v_s)) + (π * r_u / v_s) + (r_p / v_s) + (f_left[tstep] * (2 * ((π * r_u) / v_s + (r_p / v_s)))) < tstep ≤
(L + t_i + (r_p / (2 v_s)) + (2 * ((π * r_u) / v_s) + (r_p / v_s) + (f_left[tstep] * (2 * ((π * r_u) / v_s + (r_p / v_s))))},
{x_s - (r_p / 2) + (v_s * (tstep - (L + t_i + (r_p / (2 v_s)) + 2 * ((π * r_u) / v_s) + (r_p / v_s) + (f_middleLR[tstep] * 2 * ((π * r_u) / v_s + (r_p / v_s))))),
(L + t_i + (r_p / (2 v_s)) + 2 * ((π * r_u) / v_s) + (r_p / v_s) + (f_middleLR[tstep] * 2 * ((π * r_u) / v_s + (r_p / v_s)))) < tstep ≤
(L + t_i + (r_p / (2 v_s)) + 2 * ((π * r_u) / v_s) + 2 * (r_p / v_s) + (f_middleLR[tstep] * 2 * ((π * r_u) / v_s + (r_p / v_s))))}],
Piecewise[{{x_0, tstep ≤ L}, {v_u * (x_i - x_0 / sqrt((x_s - x_0)^2 + (y_i - y_0)^2)) * (tstep - L) + x_0, L < tstep ≤ t_i + L},
{arcx[tstep] + x_i, t_i + L + (f_rightarc[tstep] * t_c) < tstep ≤ (t_i + t_c + L + (f_rightarc[tstep] * t_c))},
{-arcx[tstep] + x_i, (t_i + t_c + L + (f_leftarc[tstep] * t_c)) < tstep ≤ (t_i + (2 * t_c) + L + (f_leftarc[tstep] * t_c))}]]];

```

```

(* peicewise function giving the y-coordinate of the UAS at any time *)
yu[tstep] := If[rp == 0, Piecewise[{ {y0, tstep ≤ L},
    {

$$v_u * \left( \frac{y_i - y_0}{\sqrt{(x_s - x_0)^2 + (y_i - y_0)^2}} \right) * (tstep - L) + y_0, L < tstep \leq t_i + L, \right.$$

    {yi + (vs * (tstep - ti - L)), tstep > ti + L} }],
    If[rp > ru, Piecewise[{ {y0, tstep ≤ L}, {

$$v_u * \left( \frac{y_i - y_0}{\sqrt{(x_s - x_0)^2 + (y_i - y_0)^2}} \right) * (tstep - L) + y_0, L < tstep \leq t_i + L, \right.$$

    {yi, ti + L < tstep ≤ (ti + L + (rp / (2 vs)))},
    {

$$r_u * \sin \left[ \left( \frac{3 * \pi}{2} \right) + \left( \frac{tstep - \left( L + t_i + \left( \frac{r_p}{2 v_s} \right) + (f_{right}[tstep] * \left( 2 * \left( \frac{\pi * r_u}{v_s} + \frac{r_p}{v_s} \right) \right) \right) * v_s}{r_u} \right) \right] + y_i + (f_{right}[tstep] * 2 * r_u), \right.$$


$$\left( L + t_i + \left( \frac{r_p}{2 v_s} \right) + (f_{right}[tstep] * \left( 2 * \left( \frac{\pi * r_u}{v_s} + \frac{r_p}{v_s} \right) \right) \right) < tstep \leq$$


$$\left( L + t_i + \left( \frac{r_p}{2 v_s} \right) + \left( \frac{\pi * r_u}{v_s} \right) + (f_{right}[tstep] * \left( 2 * \left( \frac{\pi * r_u}{v_s} + \frac{r_p}{v_s} \right) \right) \right) \},$$

    {yi + (fmiddleRL[tstep] * 2 * ru), (L + ti + (rp / (2 vs)) + (π * ru / vs) + (fmiddleRL[tstep] * 2 * (π * ru / vs + rp / vs))) < tstep ≤

$$\left( L + t_i + \left( \frac{r_p}{2 v_s} \right) + \left( \frac{\pi * r_u}{v_s} \right) + \left( \frac{r_p}{v_s} \right) + (f_{middleRL}[tstep] * 2 * \left( \frac{\pi * r_u}{v_s} + \frac{r_p}{v_s} \right) \right) \},$$

    {

$$r_u * \sin \left[ \left( \frac{3 * \pi}{2} \right) + \left( \frac{1}{r_u} \left( tstep - \left( L + t_i + \left( \frac{r_p}{2 v_s} \right) + \left( \frac{\pi * r_u}{v_s} \right) + \left( \frac{r_p}{v_s} \right) + \right. \right. \right.$$


$$\left. \left. \left( f_{left}[tstep] * \left( 2 * \left( \frac{\pi * r_u}{v_s} + \frac{r_p}{v_s} \right) \right) \right) \right) * v_s \right] \right] + y_i + (f_{left}[tstep] * 2 * r_u), \right.$$


$$\left( L + t_i + \left( \frac{r_p}{2 v_s} \right) + \left( \frac{\pi * r_u}{v_s} \right) + \left( \frac{r_p}{v_s} \right) + (f_{left}[tstep] * \left( 2 * \left( \frac{\pi * r_u}{v_s} + \frac{r_p}{v_s} \right) \right) \right) < tstep \leq$$


$$\left( L + t_i + \left( \frac{r_p}{2 v_s} \right) + \left( 2 * \left( \frac{\pi * r_u}{v_s} \right) \right) + \left( \frac{r_p}{v_s} \right) + (f_{left} * \left( 2 * \left( \frac{\pi * r_u}{v_s} + \frac{r_p}{v_s} \right) \right) \right) \},$$

    {yi + (fmiddleLR[tstep] * 2 * ru), (L + ti + (rp / (2 vs)) + 2 * (π * ru / vs) + rp / vs + (fmiddleLR[tstep] * 2 * (π * ru / vs + rp / vs))) < tstep ≤

$$\left( L + t_i + \left( \frac{r_p}{2 v_s} \right) + 2 * \left( \frac{\pi * r_u}{v_s} \right) + 2 * \left( \frac{r_p}{v_s} \right) + (f_{middleLR}[tstep] * 2 * \left( \frac{\pi * r_u}{v_s} + \frac{r_p}{v_s} \right) \right) \} \},$$

    Piecewise[{ {y0, tstep ≤ L}, {

$$v_u * \left( \frac{y_i - y_0}{\sqrt{(x_s - x_0)^2 + (y_i - y_0)^2}} \right) * (tstep - L) + y_0, L < tstep \leq t_i + L, \right.$$

    {arcy[tstep] + yi + (farc[tstep] * hc), (tstep > ti + L)} }]]];

(* initialize variable representing the total concentration encountered by the UAS
during each UAS time step *)
totalconc = 0;

(* read the time in the puff tracking file (s) *)
pufftime = puffdata[[linemin, 1]];

(* loop through the lines in the puff tracking file that correspond to a particular
VLSTRACK time step *)
For[lineindex = linemin, pufftime ≤ tstep, lineindex = lineindex + 1,
    (* read the time in the puff tracking file (s) *)
    pufftime = puffdata[[lineindex, 1]];

    (* x-coordinate of the puff (m) *)
    px1 = puffdata[[lineindex, 5]] + xs;

```

```

(* y-coordinate of the puff (m) *)
py1 = (-1 * puffdata[[lineindex, 4]]) + ys;

(* z-coordinate of the puff (m) *)
pz1 = puffdata[[lineindex, 6]];

(* x-direction puff sigma (m) *)
sx1 = puffdata[[lineindex, 8]];

(* y-direction puff sigma (m) *)
sy1 = puffdata[[lineindex, 7]];

(* z-direction puff sigma (m) *)
sz1 = puffdata[[lineindex, 9]];

(* puff mass (μg) *)
q = puffdata[[lineindex, 16]];

(* particle diameter (μm) *)
sp = 2 * puffdata[[lineindex, 14]];

(* height at which concentration is determined (m) *)
zu = 2;

(* reflection fraction from the boundary layer *)
rt = 1.0;

(* reflection fraction from the ground *)
If[sp > 10, 0, rb = 0.97 * (1 - (sp - 0.1 / 10 - 0.1))];

(* boundary layer height (m) *)
hu = puffdata[[lineindex, 12]];

(* ground height (m) *)
hl = 0;

(* calculate the contribution of each puff to the total concentration at the UAS location *)
iconcentration = N[
  (
    1 / ((2 * π)^(3/2) * sx1 * sy1 * sz1) * q * e^(-0.5 * ((xu[tstep] - px1) / sx1)^2) * e^(-0.5 * ((yu[tstep] - py1) / sy1)^2) *
    (
      e^(-0.5 * ((zu - pz1) / sz1)^2) +
      (
        rt * e^(-0.5 * ((2 * hu) - zu - pz1) / sz1)^2) +
        (rt * rb) * e^(-0.5 * ((2 * hu) + (-2 * hl) + zu - pz1) / sz1)^2 +
        ((rt^2) * rb) * e^(-0.5 * ((4 * hu) + (-2 * hl) - zu - pz1) / sz1)^2) +
        (
          rb * e^(-0.5 * ((-2 * hl) + zu + pz1) / sz1)^2 +
          (rt * rb) * e^(-0.5 * ((2 * hu) + (-2 * hl) - zu + pz1) / sz1)^2 +
          ((rb^2) * rt) * e^(-0.5 * ((2 * hu) + (-4 * hl) + zu + pz1) / sz1)^2)
        )
      )
    )
];

(* add contribution of each puff to the total concentration at the UAS location *)
totalconc = totalconc + iconcentration;

];

(* append the concentration at each UAS location to the array of concentration
values encountered by the UAS *)
conccarray = Append[conccarray, totalconc];

```

```

(* append the current UAS location to the array of UAS locations *)
xpos = Append[xpos, xu[tstep]];
ypos = Append[ypos, yu[tstep]];

(* change value of flag variable to indicate if a detection has been acheived by
the UAS detector during current time step *)
detflag = If[totalconc > detthresh, 1, 0];

(* if detection is acheived during current UAS time step and it is the first time during
the simulation that a detection is acheived, record the time at which it occurs *)
dettime = If[detflag == 1 && detfirstflag == 0, tstep, 0];

(* if detection is acheived during current UAS time step and it is the first time during
the simulation that a detection is acheived, record the UAS location at which it occurs *)
detx = If[detflag == 1 && detfirstflag == 0, xu[tstep], 0];
dety = If[detflag == 1 && detfirstflag == 0, yu[tstep], 0];

(* change value of flag variable to indicate the first time that detection is acheived *)
detfirstflag = If[detflag == 1, 1];

(* reassign the line number to begin cycling through for new VLSTRACK time step
in puff tracking file *)
linemin = If[(tstep + tinc) > puffdata[[lineindex, 1]], lineindex + 1, linemin];

];

(* interleave x and y coordinates and group corresponding x and y coordinate pairs *)
tempoutput = Riffle[xpos, ypos];
output = Partition[tempoutput, 2];

(* export UAS locations and aerosol concentrations encountered at those locations *)
Export["C:\\AoMA\\CBStrike_Testing\\Final_Testing_CBSTRIKE\\121510\\UAV\\detpos.xls", output, "XLS"];
Export["C:\\AoMA\\CBStrike_Testing\\Final_Testing_CBSTRIKE\\121510\\UAV\\conc.xls", concarray, "XLS"];

```

C. *Mathematica*[®] Script for Testing Standoff Detection Modeling

The following *Mathematica*[®] script was used to test the custom features for standoff detection modeling:

```
(* import puff tracking data from .trk file *)
puffdata = Import["C:\\CBStrike_JBDS_Testing\\CBStrike_two_puff_increase_ND.trk", "Table"];

(* initialize variable that tracks the first line in puff tracking file for each VLSTRACK
time step *)
linemin = 1;

(* detection threshold (applies to all ranges) ( $\mu\text{g}/\text{m}^3$ ) *)
detthresh = 104000;

(* CBStrike time step *)
tinc = 1;

(* last time in the puff tracking file *)
maxcloudtime = 720;

(* determine the number of CBStrike time steps *)
timestepnum = Ceiling[maxcloudtime/tinc];

(* elevation angle of standoff detector (degrees) *)
elevationangledeg = 0;

(* scan start angle of standoff detector (degrees) *)
anglestartdeg = 85;

(* scan end angle of standoff detector (degrees) *)
anglestopdeg = 95;

(* convert elevation angle to radians *)
elevationangle = (elevationangledeg/180)* $\pi$ ;

(* convert scan start angle to radians *)
anglestart = (anglestartdeg/180)* $\pi$ ;

(* convert scan end angle to radians *)
anglestop = (anglestopdeg/180)* $\pi$ ;

(* initialize scanning angle *)
angle = anglestart;

(* scan rate (degrees/second) *)
scanratedeg = 1.0;
```

```

(* convert scan rate to radians when scanning in clockwise and counterclockwise
directions *)
possscanrate = (scanratedeg / 180) *  $\pi$ ;
negscanrate = -1 * (scanratedeg / 180) *  $\pi$ ;

(* initialize scan rate to be in the counterclockwise direction *)
scanrate = posscanrate;

(* minimum range at which standoff detector will check aerosol concentrations (m) *)
radialstart = 250;

(* maximum range at which standoff detector will check aerosol concentrations (m) *)
radialstop = 10000;

(* radial distance between locations at which the standoff detector checks the aerosol
concentrations *)
radialinc = 250;

(* number of ranges at which standoff detector will check aerosol concentration *)
radialnum = Ceiling[(radialstop - radialstart) / radialinc] + 1;

(* reflection fraction from the boundary layer (dimensionless) *)
 $r_t = 1.0$ ;

(* particle diameter ( $\mu\text{m}$ ) *)
particlediameter = 5.3 * 2;

(* reflection fraction from the ground (dimensionless) *)
 $r_b = 0.97 * \left( 1 - \left( \frac{\text{particlediameter} - 0.1}{10 - 0.1} \right) \right)$ ;

(* boundary layer height (m) *)
 $h_u = 1400$ ;

(* ground height (m) *)
 $h_l = 0$ ;

(* x-coordinate of attack location (m) *)
xatk = 0;

(* y-coordinate of attack location (m) *)
yatk = 0;

(* z-coordinate of attack location (m) *)
zatk = 0;

```

```

(* x-coordinate of JBSDS (m) *)
xloc = 0;

(* y-coordinate of JBSDS (m) *)
yloc = -5000;

(* z-coordinate of JBSDS (m) *)
zloc = 2;

(* initialize counter of the number of CBstrike time steps cycled through*)
timestepcnt = 0;

(* initialize variable representing the time at which detection occurs *)
detecttime = maxcloudtime;

(* initilize variable indicating the boundaries of the scan angle *)
anglelimit = anglestopt;

(* initialize array containing the concentration encountered by the standoff detector at each
range for every time step *)
conccarray = Table["Null", {i, timestepnum}, {j, radialnum}];

(* initialize array of the angles in which the standoff detector is directed at each time
step *)
anglearray = Table["Null", {i, timestepnum}];

(* cycle through CBStrike time steps *)
For[tstep = 0, tstep < maxcloudtime, tstep = tstep + tinc,

(* count the number of time steps that have been cycled through *)
timestepcnt = timestepcnt + 1;

(* initialize counter of the number of standoff detector ranges that have been cycled
through *)
radialcnt = 0;

(* cycle through standoff detector ranges *)
For[radialdist = radialstart, radialdist ≤ radialstop, radialdist = radialdist + radialinc,

(* count the number of standoff detector ranges that have been cycled through *)
radialcnt = radialcnt + 1;

```

```

(* calculate x-coordinate of location at which standoff detector checks aerosol
concentration *)
x = radialdist * Cos[elevationangle] * Cos[angle] + xloc;

(* calculate y-coordinate of location at which standoff detector checks aerosol
concentration *)
y = radialdist * Cos[elevationangle] * Sin[angle] + yloc;

(* calculate z-coordinate of location at which standoff detector checks aerosol
concentration *)
z = radialdist * Sin[elevationangle] + zloc;

(* initialize variable representing the aerosol concentration the standoff detector
encounters at each location *)
totalconc = 0;

(* cycle through the lines in the puff tracking file *)
For[lineindex = linemin, puffdata[[lineindex, 1]] ≤ tstep, lineindex = lineindex + 1,

(* VLSTRACK time step (s) *)
pufftime = puffdata[[lineindex, 1]];

(* x-coordinate of the puff (m) *)
px1 = puffdata[[lineindex, 5]] + xatk;

(* y-coordinate of the puff (m) *)
py1 = (-1 * puffdata[[lineindex, 4]]) + yatk;

(* z-coordinate of the puff (m) *)
pz1 = puffdata[[lineindex, 6]] + zatk;

(* x-direction puff sigma (m) *)
σx1 = puffdata[[lineindex, 8]];

(* y-direction puff sigma (m) *)
σy1 = puffdata[[lineindex, 7]];

(* z-direction puff sigma (m) *)
σz1 = puffdata[[lineindex, 9]];

(* puff mass (μg) *)
q = puffdata[[lineindex, 16]];

```



```

(* particle diameter ( $\mu\text{m}$ ) *)
Sp = 2 * puffdata[[lineindex, 14]];

(* reflection fraction from the boundary layer (dimensionless) *)
rt = 1.0;

(* reflection fraction from the ground (dimensionless) *)
rb = If[Sp > 10, 0, 0.97 * (1 - (Sp - 0.1) / (10 - 0.1))];

(* boundary layer height (m) *)
hu = puffdata[[lineindex, 12]];

(* ground height (m) *)
hl = 0;

(* calculate contribution of each puff to total concentration the standoff
detector encounters at individual location for each CBStrike time step *)
iconcentration = N[ $\left( \frac{1}{(2\pi)^{\frac{3}{2}} * \sigma_{x1} * \sigma_{y1} * \sigma_{z1}} q * e^{-0.5 \left( \frac{x - p_{x1}}{\sigma_{x1}} \right)^2} * e^{-0.5 \left( \frac{y - p_{y1}}{\sigma_{y1}} \right)^2} * \left( e^{-0.5 \left( \frac{z - p_{z1}}{\sigma_{z1}} \right)^2} + \right. \right.$ 
 $\left. \left( r_t e^{-0.5 \left( \frac{(2 * h_u) - z - p_{z1}}{\sigma_{z1}} \right)^2} + (r_t * r_b) e^{-0.5 \left( \frac{(2 * h_u) + (-2 * h_l) + z - p_{z1}}{\sigma_{z1}} \right)^2} + ((r_t^2) * r_b) e^{-0.5 \left( \frac{(4 * h_u) + (-2 * h_l) - z - p_{z1}}{\sigma_{z1}} \right)^2} \right) + \right.$ 
 $\left. \left( r_b e^{-0.5 \left( \frac{(-2 * h_l) + z + p_{z1}}{\sigma_{z1}} \right)^2} + (r_t * r_b) e^{-0.5 \left( \frac{(2 * h_u) + (-2 * h_l) - z + p_{z1}}{\sigma_{z1}} \right)^2} + ((r_b^2) * r_t) e^{-0.5 \left( \frac{(2 * h_u) + (-4 * h_l) + z + p_{z1}}{\sigma_{z1}} \right)^2} \right) \right) \right]$ ;

(* add contribution of each puff to find total concentration at location *)
totalconc = totalconc + iconcentration;

];

(* determine the time at which detection is first acheived *)
If[(totalconc > detthresh) && (detecttime == maxcloudtime), detecttime = pufftime];

(* fill array will the total concentration encountered by the standoff detector
at each range during each CBStrike time step *)
conccarray[[timestepcnt, radialcnt]] = totalconc;
];

(* assign new line to start cycling through for the next CBStrike time step *)
linemin = lineindex;

```

```

(* calculate the next angle at which the standoff detector will be directed if scanning
continues in current direction *)
nextangle = angle + (scanrate*tinc);

(* assign the angle limit to a different variable for use in comparisons *)
testanglelimit = anglelimit;

(* assign the scan rate to a different variable for use in comparisons *)
testscanrate = scanrate;

(* fill array with the angle at which the standoff detector is directed at each
CBStrike time step *)
anglearray[[timestepcnt]] = angle;

(* if standoff detector has reached the scanning boundary while scanning counterclockwise,
keep angle the same for the next time step before scanning in clockwise direction *)
If[(nextangle > testanglelimit) && (testscanrate > 0), angle = angle];

(* if standoff detector has not reached the scanning boundary while scanning
counterclockwise, increment the scan angle *)
If[(nextangle <= testanglelimit) && (testscanrate > 0), angle = angle + (scanrate*tinc)];

(* if standoff detector has reached the scanning boundary while scanning counterclockwise,
change angle limit to the start angle *)
If[(nextangle > testanglelimit) && (testscanrate > 0), anglelimit = anglestart];

(* if standoff detector has not reached the scanning boundary while scanning counterclockwise,
keep the angle limit as the end angle *)
If[(nextangle <= testanglelimit) && (testscanrate > 0), anglelimit = angletop];

(* if standoff detector has reached the scanning boundary while scanning counterclockwise,
change scan rate so that scanning is changed to clockwise direction *)
If[(nextangle > testanglelimit) && (testscanrate > 0), scanrate = negscanrate];

(* if standoff detector has not reached the scanning boundary while scanning counterclockwise,
keep scan rate so that scanning is in the counterclockwise direction *)
If[(nextangle <= testanglelimit) && (testscanrate > 0), scanrate = posscanrate];

(* if standoff detector has reached the scanning boundary while scanning clockwise,
keep angle the same for the next time step before scanning in counterclockwise direction *)
If[(nextangle < testanglelimit) && (testscanrate < 0), angle = angle];

```

```

(* if standoff detector has reached the scanning boundary while scanning clockwise,
change angle limit to the end angle *)
If[(nextangle < testanglelimit) && (testscanrate < 0), anglelimit = anglestopt];

(* if standoff detector has not reached the scanning boundary while scanning clockwise,
keep the angle limit as the start angle *)
If[(nextangle >= testanglelimit) && (testscanrate < 0), anglelimit = anglestart];

(* if standoff detector has reached the scanning boundary while scanning clockwise,
change scan rate so that scanning is changed to counterclockwise direction *)
If[(nextangle < testanglelimit) && (testscanrate < 0), scanrate = posscanrate];

(* if standoff detector has not reached the scanning boundary while scanning clockwise,
keep scan rate so that scanning is in the clockwise direction *)
If[(nextangle >= testanglelimit) && (testscanrate < 0), scanrate = negscanrate];

];

(* determine time at which detector alarms (detector alarms one time step after it has
acheived detection) *)
detecttime = detecttime + tinc;

(* probit slope (dimensionless) *)
 $\theta = 1.4;$ 

(* ED50 ( $\mu\text{g}$ ) *)
 $\eta = 1.0;$ 

(* factor for converting minutes to seconds (s/min) *)
timeconversion = 60;

timestepdivisions = 10;

(* delay between warning and masking (s) *)
maskdelay = 0;

(* delay between an a detector alarm and the issuance of warning to personnel (s) *)
warningdelay = 0;

```

```

(* factor that represents the efficacy of masking in reducing the dose acquired by
   exposed personnel *)
maskfactor = 1.0;

(* duration over which collector ingest air to collect sample (s) *)
collectiontime = 5;

(* delay between warning and start of sample collection (s) *)
collectordelay = 0;

(* ventilation rate (m3/min) *)
breathrate = 0.015;

(* rate at which collector ingests air (m3/min) *)
collectorflowrate = 0.015;

(* fraction of collected material that is extracted into the liquid sample
   (dimensionless) *)
extractefficiency = 1.0;

(* fraction of ingested aerosolized biological material that is retained by collector
   (dimensionless) *)
collectionefficiency = 1.0;

(* volume of the liquid sample produced by the collector (mL) *)
samplevolume = 1;

(* conversion factor relating the number of CFU/PFU to the mass of aerosolized
   biological material (CFU/ $\mu$ g) *)
unitpermass = 1;

(* conversion factor indicating the average number of infectious units within each
   aerosol particle *)
unitperparticle = 1;

(* minimum x-coordinate of personnel/collector locations *)
xgridminimum = -2.0;

(* maximum x-coordinate of personnel/collector locations *)
xgridmaximum = 2.0;

(* minimum y-coordinate of personnel/collector locations *)
ygridminimum = -4.5;

```

```

(* maximum y-coordinate of personnel/collector locations *)
ygridmaximum = 3.0;

(* spacing between personnel/collector locations in the x-direction *)
xgridstep = 0.25;

(* spacing between personnel/collector locations in the y-direction *)
ygridstep = 0.25;

(* spacing between personnel/collector locations in the x-direction *)
xgridnumber = ((xgridmaximum - xgridminimum) / xgridstep) + 1;

(* spacing between personnel/collector locations in the y-direction *)
ygridnumber = ((ygridmaximum - ygridminimum) / ygridstep) + 1;

(* initialize array containing doses acquired by personnel at every location *)
troopdose = Table["Null", {i, ygridnumber}, {j, xgridnumber}];

(* initialize array containing liquid sample concentratitons from every collector *)
sampleconcentration = Table["Null", {i, ygridnumber}, {j, xgridnumber}];

(* initialize array containing the casualty rate at every personnel location *)
casualtyrate = Table["Null", {i, ygridnumber}, {j, xgridnumber}];

(* initialize array of aerosol concentration profiles at each
personnel/collector location *)
tcconccarray = Table["Null", {i, ygridnumber}, {j, xgridnumber}, {k, timestepnum}];

(* initialize counter of personnel/collector grid points in the x-direction *)
xgridindex = 0;

(* cycle through x-coordinates of grid of personnel/collector locations *)
For[x = xgridminimum, x ≤ xgridmaximum, x = x + xgridstep,

(* count number of personnel/collector grid x-coordinates that have been
cycled through *)
xgridindex = xgridindex + 1;

(* initialize counter of personnel/collector grid points in the y-direction *)
ygridindex = 0;

```

```

(* cycle through y-coordinates of grid of personnel/collector locations *)
For[y = ygridminimum, y ≤ ygridmaximum, y = y + ygridstep,

(* count number of personnel/collector grid y-coordinates that have been
  cycled through *)
ygridindex = ygridindex + 1;

(* initialize variable that indicates the first line in puff tracking file
  for each VLSTRACK time step *)
linemin = 1;

(* initialize counter of the number of CBStrike time steps that have been
  cycled through *)
timestepcnt = 0;

(* cycle through CBStrike time steps *)
For[tstep = 0, tstep < maxcloudtime, tstep = tstep + tinc,

(* count the number of CBStrike time steps that have been cycled through *)
timestepcnt = timestepcnt + 1;

(* initialize variable representing the total aerosol concentration at a
  particular location *)
totalconc = 0;

(* cycle through lines in puff tracking file *)
For[lineindex = linemin, puffdata[[lineindex, 1]] ≤ tstep, lineindex = lineindex + 1,

(* VLSTRACK time step (s) *)
pufftime = puffdata[[lineindex, 1]];

(* x-coordinate of the puff (m) *)
px1 = puffdata[[lineindex, 5]] + xatk;

(* y-coordinate of the puff (m) *)
py1 = (-1 * puffdata[[lineindex, 4]]) + yatk;

(* z-coordinate of the puff (m) *)
pz1 = puffdata[[lineindex, 6]] + zatk;

(* x-direction puff sigma (m) *)
sx1 = puffdata[[lineindex, 8]];

```

```

(* y-direction puff sigma (m) *)
σy1 = puffdata[[lineindex, 7]];

(* z-direction puff sigma (m) *)
σz1 = puffdata[[lineindex, 9]];

(* puff mass (μg) *)
q = puffdata[[lineindex, 16]];

(* particle diameter (μm) *)
sp = 2 * puffdata[[lineindex, 14]];

(* reflection fraction from the boundary layer (dimensionless) *)
rt = 1.0;

(* reflection fraction from the ground (dimensionless) *)
rb = If[sp > 10, 0, 0.97 * (1 - (sp - 0.1) / (10 - 0.1))];

(* boundary layer height (m) *)
hu = puffdata[[lineindex, 12]];

(* ground height (m) *)
hl = 0;

(* height of collectors and personnel (m) *)
z = 2;

(* calculate contribution of each puff to the total concentration at
each personnel/collector location *)
tcconcentration = N[
  (
    1 / ((2 π)3/2 * σx1 * σy1 * σz1) * q * e-0.5 * (x - px1)2 / σx12 * e-0.5 * (y - py1)2 / σy12 * (
      e-0.5 * (z - pz1)2 / σz12 +
      (
        rt e-0.5 * ((2 * hu) - z - pz1)2 / σz12 + (rt * rb) e-0.5 * ((2 * hu) + (-2 * hl) + z - pz1)2 / σz12 + ((rt2) * rb) e-0.5 * ((4 * hu) + (-2 * hl) - z - pz1)2 / σz12
      ) +
      (
        rb e-0.5 * ((-2 * hl) + z + pz1)2 / σz12 + (rt * rb) e-0.5 * ((2 * hu) + (-2 * hl) - z + pz1)2 / σz12 + ((rb2) * rt) e-0.5 * ((2 * hu) + (-4 * hl) + z + pz1)2 / σz12
      )
    )
  ];

(* add contribution of each puff to the total concentration at each
personnel/collector location *)
totalconc = totalconc + tcconcentration;
];

```

```

(* determine first line in puff tracking file that corresponds to current
   VLSTRACK time step *)
linemin = lineindex;

(* fill array with the concentrations encountered at each personnel location
   at each CBStrike time step *)
tcconccarray[[ygridindex, xgridindex, timestepcnt]] = totalconc;
];
];
];

(* initialize counter of personnel/collector grid points in the x-direction *)
xgridindex = 0;

(* cycle through x-coordinates of grid of personnel/collector locations *)
For[x = xgridminimum, x ≤ xgridmaximum, x = x + xgridstep,

(* count number of personnel/collector grid x-coordinates that have been
   cycled through *)
xgridindex = xgridindex + 1;

(* initialize counter of personnel/collector grid points in the y-direction *)
ygridindex = 0;

(* cycle through y-coordinates of grid of personnel/collector locations *)
For[y = ygridminimum, y ≤ ygridmaximum, y = y + ygridstep,

(* count number of personnel/collector grid y-coordinates that have been
   cycled through *)
ygridindex = ygridindex + 1;

(* extract the temporal concentration profile for each
   personnel/collector location *)
tcpartconccarray = tcconccarray[[ygridindex, xgridindex, All]];

(* create interpolated concentration function for personnel dose *)
interponctrp := Interpolation[tcpartconccarray, InterpolationOrder → 1];

(* create interpolated concentration function for collector dose *)
interponcccol := Interpolation[tcpartconccarray, InterpolationOrder → 1];

```



```

(* calculate dose received by personnel at each personnel location *)
interpolateddose = (((Integrate[interpconctrp[time], {time, 1,
    (detecttime + maskdelay + warningdelay)}]) + ((1 - maskfactor) * (Integrate[interpconctrp[time],
    {time, (detecttime + maskdelay + warningdelay), maxcloudtime}])))) / timeconversion) * breathrate;

(* calculate liquid sample concentration produced by each collector locaton *)
idsampleconcentration = ((Integrate[interpconccol[time], {time, (detecttime + collectordelay),
    ((detecttime + collectordelay + collectiontime))}] / timeconversion) * collectorflowrate *
    extractefficiency * collectionefficiency * unitpermass * unitperparticle) / samplevolume;

(* calculate probit score *)
score = (0.4343) * Log[interpolateddose /  $\eta$ ];

(* calculate probability of becoming a casualty *)
casualtyprobability = 0.5 * (1 - Erf[(-1 * score) / Sqrt[2]]);

(* fill output arrays with calculated data *)
troopdose[[ygridindex, xgridindex]] = interpolateddose;
sampleconcentration[[ygridindex, xgridindex]] = idsampleconcentration;
casualtyrate[[ygridindex, xgridindex]] = casualtyprobability;
];
];
(* export data to files *)
Export["C:\\CBStrike_JB SDS_Testing\\Dose.xls", troopdose, "Table"]
Export["C:\\CBStrike_JB SDS_Testing\\Sample.xls", sampleconcentration, "Table"]
Export["C:\\CBStrike_JB SDS_Testing\\Casualty.xls", casualtyrate, "Table"]
Export["C:\\CBStrike_JB SDS_Testing\\Concentration.xls", concarray, "Table"]
Export["C:\\CBStrike_JB SDS_Testing\\Angle.xls", anglearray, "Table"]

```

D. *Mathematica*[®] Script for Testing Casualty Limit Function

The following *Mathematica*[®] script was used to test the casualty limit custom feature:

```
(* casualty limit *)
caslimit = 1;

(* end time of simulation *)
maxcloudtime = 10;

(* puff sigma cutoff *)
sigmacutoff = 10;

(* ventilation rate (m3/min) *)
ventrate = 0.015;

(* probit slope *)
 $\theta$  = 10;

(*ID50 ( $\mu$ g) *)
 $\eta$  = 10;

(* import puff tracking data from .trk file *)
puffdata = Import["C:\\CBStrike_Testing\\CBStrike_two_puff_increase_DD.txt", "Table"];

(* fill array with VLSTRACK time steps *)
rawtrktimesteps = puffdata[[All, 1]];

(* fill array with all unique VLSTRACK time steps *)
trktimesteps = Union[rawtrktimesteps];

(* determine number of unique VLSTRACK time steps *)
trktimestepnum = Length[trktimesteps];

(* determine number of lines in .trk file *)
filesize = Length[rawtrktimesteps];

(* initialize counter of the number of CBStrike time steps cycled through *)
cbtctref = 0;

(* cycle through CBStrike time steps *)
For[cbtstep = 0, cbtstep <= maxcloudtime, cbtstep = cbtstep + cbtinc,

  (* change CBStrike time step interval when necessary *)
  cbtinc = If[cbtstep < 3600, 1, If[cbtstep < 43200, 300, If[cbtstep < 172800, 600, 60]]];

  (* count number of CBStrike time steps cycled through *)
  cbtctref = cbtctref + 1;
];

(* import troop locations from test file *)
troopdata = Import["C:\\AoMA\\CBStrike_Testing\\troop_locations.txt", "Table"];
```

```

(* determine number of troop locations *)
troopnum = Length[troopdata];

(* initialize array for aerosol concentrations at each troop location for each
CBStrike time step *)
totalconc = ConstantArray[0, {cbtcntref, troopnum}];

(* initialize variable indicating the first line in puff trackingile for each
VLSTRACK time step *)
linemin = 1;

(* initialize counter of number of CStrike time steps *)
tcnt = 1;

(* cycle through CStrike time steps *)
For[tstep = 0, tstep <= maxcloudtime, tstep = tstep + tinc,

(* change CStrike time step interval when necessary *)
tinc = If[tstep < 3600, 1, If[tstep < 43200, 300, If[tstep < 172800, 600, 60]]];

(* VLSTRACK time step (s) *)
pufftime = puffdata[[linemin, 1]];

(* cycle through lines in puff tracking file *)
For[lineindex = linemin, (pufftime == tstep) && (lineindex <= filesize), lineindex = lineindex + 1,

(* VLSTRACK time step (s) *)
pufftime = puffdata[[lineindex, 1]];

(* x-coordinate of the puff (m) *)
px1 = puffdata[[lineindex, 5]];

(* y-coordinate of the puff (m) *)
py1 = (-1 * puffdata[[lineindex, 4]]);

(* z-coordinate of the puff (m) *)
pz1 = puffdata[[lineindex, 6]];

(* x-direction puff sigma (m) *)
sx1 = puffdata[[lineindex, 8]];

(* y-direction puff sigma (m) *)
sy1 = puffdata[[lineindex, 7]];

(* z-direction puff sigma (m) *)
sz1 = puffdata[[lineindex, 9]];

(* puff mass ( $\mu$ g) *)
q = puffdata[[lineindex, 16]];

```

```

(* particle diameter (μm) *)
Sp = 2 * puffdata[[lineindex, 14]];

(* reflection fraction from the boundary layer (dimensionless) *)
rt = 1.0;

(* reflection fraction from the ground (dimensionless) *)
rb = If[Sp > 10, 0, 0.97 * (1 - (Sp - 0.1) / (10 - 0.1))];

(* boundary layer height (m) *)
hu = puffdata[[lineindex, 12]];

(* ground height (m) *)
hl = 0;

(* cycle through personnel locations *)
For[troopindex = 1, troopindex <= troopnum, troopindex = troopindex + 1,

(* x-coordinate of personnel location *)
xu = troopdata[[troopindex, 2]];

(* y-coordinate of personnel location *)
yu = troopdata[[troopindex, 3]];

(* z-coordinate of personnel location *)
zu = troopdata[[troopindex, 4]];

(* calculate contribution of individual puff to the total concentration at
each personnel location *)
iconcentration = N[
  (
    1 / ((2 * π)^(3/2) * σx1 * σy1 * σz1) *
    q * e^(-0.5 * ((xu - px1) / σx1)^2) * e^(-0.5 * ((yu - py1) / σy1)^2) *
    (
      e^(-0.5 * ((zu - pz1) / σz1)^2) +
      (
        rt * e^(-0.5 * ((2 * hu) - zu - pz1) / σz1)^2) +
        (rt * rb) * e^(-0.5 * ((2 * hu) + (-2 * hl) + zu - pz1) / σz1)^2 +
        ((rt^2) * rb) * e^(-0.5 * ((4 * hu) + (-2 * hl) - zu - pz1) / σz1)^2
      ) +
      (
        rb * e^(-0.5 * ((-2 * hl) + zu + pz1) / σz1)^2 +
        (rt * rb) * e^(-0.5 * ((2 * hu) + (-2 * hl) - zu + pz1) / σz1)^2 +
        ((rb^2) * rt) * e^(-0.5 * ((2 * hu) + (-4 * hl) + zu + pz1) / σz1)^2
      )
    )
  )
];

(* Add contribution of individual puff to total concentration if puff is within
the puff sigma cutoff boundary *)
totalconc[[tcnt, troopindex]] = If[Abs[xu - px1] < (sigmacutoff * σx1) &&
  Abs[yu - py1] < (sigmacutoff * σy1) && Abs[zu - pz1] < (sigmacutoff * σz1),
  totalconc[[tcnt, troopindex]] + iconcentration, totalconc[[tcnt, troopindex]]];
];

(* reassign variable representing first line in puff tracking file for each VLSTACK time step *)
linemin = lineindex + 1;
];

```

```

(* count number of CBStrike time steps cycled through *)
tcnt = tcnt + 1;
];

(* export concentration data to a file *)
Export["C:\\Agent_Priority\\trkconc.xls", totalconc, "XLS"];

(* initialize array for casualties at each location *)
casarray = ConstantArray[0, {cbtcntref, troopnum}];

(* initialize array for dose received at each location *)
dosearray = ConstantArray[0, {cbtcntref, troopnum}];

(* initialize array for aerosol concentration experienced at each location for each
time step *)
conccarray = ConstantArray[0, {cbtcntref, troopnum}];

(* cycle through personnel locations *)
For[troopindex = 1, troopindex <= troopnum, troopindex = troopindex + 1,

(* interleave VLSTRACK time steps and concentration at individual personnel location
and group into time-concentration pairs *)
conctable = Partition[Riffle[trktimesteps, totalconc[[All, troopindex]]], 2];

(* create interpolated concentration function for individual personnel location *)
interpconc := Interpolation[conctable, InterpolationOrder -> 1];

(* initialize CBStrike time step counter *)
cbtcnt = 1;

(* cycle through CBStrike time steps *)
For[cbtstep = 0, cbtstep <= maxcloudtime, cbtstep = cbtstep + cbtinc,

(* change CBStrike time step interval when necessary *)
cbtinc = If[cbtstep < 3600, 1, If[cbtstep < 43200, 300, If[cbtstep < 172800, 600, 60]]];

(* fill array with concentrations at CBStrike time steps for each personnel location*)
conccarray[[cbtcnt, troopindex]] = interpconc[cbtstep];

(* calculate the dose acquired by personnel up until the end of each CBStrike
time step *)
dose = (Integrate[interpconc[t], {t, 0, cbtstep}] / 60) * ventrate;

(* fill array with the dose acquired by personnel up until the end of each CBStrike
time step *)
dosearray[[cbtcnt, troopindex]] = dose;

(* calculate the probit score *)
score = (0 * 0.4343) * Log[dose /  $\eta$ ];

```

```

(* calculate the casualty rate for each personnel location up until the end of each
CBStrike time step *)
problty = If[dose > 0, 0.5*(1 - Erf[(-1*score) / Sqrt[2]]), 0];

(* fill array with the dose acquired by personnel up until the end of each CStrike
time step *)
casarray[[cbtcnt, troopindex]] = problty;

(* count the number of CStrike time steps cycled through *)
cbtcnt = cbtcnt + 1;

];
];

(* export the concentration, dose, and casualty rate data to files *)
Export["C:\\CBStrike_Testing\\conc.xls", conccarray, "XLS"];
Export["C:\\CBStrike_Testing\\dose.xls", dosearray, "XLS"];
Export["C:\\CBStrike_Testing\\cas.xls", casarray, "XLS"];

(* initialize CStrike time step counter *)
cbtcnt = 1;

(* initialize variable representing the time at which the casualty limit is reached *)
caslimittime = 0;

(* initialize a flag variable indicating whether the casualty limit has been reached *)
caslimitflag = 0;

(* cycle through CStrike time steps *)
For[cbtstep = 0, cbtstep <= maxcloudtime, cbtstep = cbtstep + cbtinc,

(* change CStrike time step interval when necessary *)
cbtinc = If[cbtstep < 3600, 1, If[cbtstep < 43200, 300, If[cbtstep < 172800, 600, 60]]];

(* initialize variable resulting from the dose acquired by the end of each CStrike
time step *)
cascnt = 0;

(* cycle through troop positions *)
For [troopindex = 1, troopindex <= troopnum, troopindex = troopindex + 1,

(* number of personnel at each location *)
troopmult = troopdata[[troopindex, 1]];

(* ad up the total number of casualties results from the dose acquired by the end
of each CStrike time step *)
cascnt = cascnt + (troopmult*casarray[[cbtcnt, troopindex]]);
];
];

```

```

(* determine when casualty limit is exceeded *)
If[cascnt > caslimit && caslimitflag == 0, caslimittime = cbtstep];

(* change flag variable if casualty limit is exceeded *)
If[cascnt > caslimit, caslimitflag = 1];

(* count number of CBStrike time steps that have been cycled through *)
cbtcnt = cbtcnt + 1;
];

(* show time at which casualty limit is exceeded *)
caslimittime

```


Appendix B

Independent Calculations Used for Testing

This appendix includes the independently calculated data obtained during the testing of each input parameter that was used to confirm that *CBStrike* was properly calculating results. All of the independently calculated values given in this appendix matched the corresponding *CBStrike* output to the same level of precision that is provided in this appendix, i.e., generally 4 decimal places. Only calculations that would be affected by variations in the tested input parameter are provided.

A. Testing of General Program Operation

1. Simulation Start Time

Table B-1. Doses (μg) Acquired by Personnel When Starting Simulation at -1 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0045	0.0064	0.0045	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0104	0.0295	0.0417	0.0295	0.0104	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0093	0.0528	0.1496	0.2117	0.1496	0.0528	0.0093	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0368	0.2088	0.5917	0.8374	0.5917	0.2088	0.0368	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0100	0.1133	0.6432	1.8227	2.5794	1.8227	0.6432	0.1133	0.0100	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0011	0.0239	0.2719	1.5430	4.3729	6.1882	4.3729	1.5430	0.2719	0.0239	0.0011	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0020	0.0447	0.5082	2.8840	8.1731	11.5661	8.1731	2.8840	0.5082	0.0447	0.0020	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0029	0.0652	0.7408	4.2043	11.9147	16.8609	11.9147	4.2043	0.7408	0.0652	0.0029	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0033	0.0745	0.8467	4.8051	13.6174	19.2704	13.6174	4.8051	0.8467	0.0745	0.0033	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0683	0.7758	4.4027	12.4770	17.6566	12.4770	4.4027	0.7758	0.0683	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0547	0.6212	3.5256	9.9913	14.1390	9.9913	3.5256	0.6212	0.0547	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0478	0.5437	3.0857	8.7447	12.3749	8.7447	3.0857	0.5437	0.0478	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0547	0.6212	3.5256	9.9913	14.1390	9.9913	3.5256	0.6212	0.0547	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0683	0.7758	4.4027	12.4770	17.6566	12.4770	4.4027	0.7758	0.0683	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0033	0.0745	0.8467	4.8051	13.6174	19.2704	13.6174	4.8051	0.8467	0.0745	0.0033	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0029	0.0652	0.7408	4.2043	11.9147	16.8609	11.9147	4.2043	0.7408	0.0652	0.0029	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0020	0.0447	0.5082	2.8840	8.1731	11.5661	8.1731	2.8840	0.5082	0.0447	0.0020	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0011	0.0239	0.2719	1.5430	4.3729	6.1882	4.3729	1.5430	0.2719	0.0239	0.0011	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0100	0.1133	0.6432	1.8227	2.5794	1.8227	0.6432	0.1133	0.0100	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0368	0.2088	0.5917	0.8374	0.5917	0.2088	0.0368	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0093	0.0528	0.1496	0.2117	0.1496	0.0528	0.0093	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0104	0.0295	0.0417	0.0295	0.0104	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0045	0.0064	0.0045	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-2. Doses (μg) Acquired by Personnel When Starting Simulation at 0 s

Y-coordinate (m)	X-coordinate (m)																
	-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table B-3. Doses (μg) Acquired by Personnel When Starting Simulation at 10 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0004	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0009	0.0026	0.0037	0.0026	0.0009	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0011	0.0061	0.0172	0.0244	0.0172	0.0061	0.0011	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0005	0.0054	0.0309	0.0875	0.1238	0.0875	0.0309	0.0054	0.0005	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0019	0.0215	0.1221	0.3461	0.4898	0.3461	0.1221	0.0215	0.0019	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0003	0.0058	0.0663	0.3762	1.0660	1.5086	1.0660	0.3762	0.0663	0.0058	0.0003	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0006	0.0140	0.1590	0.9025	2.5575	3.6192	2.5575	0.9025	0.1590	0.0140	0.0006	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0011	0.0262	0.2972	1.6868	4.7801	6.7645	4.7801	1.6868	0.2972	0.0262	0.0011	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0017	0.0381	0.4333	2.4589	6.9685	9.8613	6.9685	2.4589	0.4333	0.0381	0.0017	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0019	0.0436	0.4952	2.8103	7.9643	11.2705	7.9643	2.8103	0.4952	0.0436	0.0019	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0018	0.0399	0.4537	2.5750	7.2973	10.3266	7.2973	2.5750	0.4537	0.0399	0.0018	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0014	0.0320	0.3633	2.0620	5.8435	8.2693	5.8435	2.0620	0.3633	0.0320	0.0014	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0012	0.0280	0.3180	1.8047	5.1144	7.2376	5.1144	1.8047	0.3180	0.0280	0.0012	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0014	0.0320	0.3633	2.0620	5.8435	8.2693	5.8435	2.0620	0.3633	0.0320	0.0014	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0018	0.0399	0.4537	2.5750	7.2973	10.3266	7.2973	2.5750	0.4537	0.0399	0.0018	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0019	0.0436	0.4952	2.8103	7.9643	11.2705	7.9643	2.8103	0.4952	0.0436	0.0019	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0017	0.0381	0.4333	2.4589	6.9685	9.8613	6.9685	2.4589	0.4333	0.0381	0.0017	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0011	0.0262	0.2972	1.6868	4.7801	6.7645	4.7801	1.6868	0.2972	0.0262	0.0011	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0006	0.0140	0.1590	0.9025	2.5575	3.6192	2.5575	0.9025	0.1590	0.0140	0.0006	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0003	0.0058	0.0663	0.3762	1.0660	1.5086	1.0660	0.3762	0.0663	0.0058	0.0003	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0019	0.0215	0.1221	0.3461	0.4898	0.3461	0.1221	0.0215	0.0019	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0005	0.0054	0.0309	0.0875	0.1238	0.0875	0.0309	0.0054	0.0005	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0011	0.0061	0.0172	0.0244	0.0172	0.0061	0.0011	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0009	0.0026	0.0037	0.0026	0.0009	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0004	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-4. Doses (μg) Acquired by Personnel When Starting Simulation at 25 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0005	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0023	0.0032	0.0023	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0041	0.0117	0.0165	0.0117	0.0041	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0003	0.0029	0.0163	0.0461	0.0652	0.0461	0.0163	0.0029	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0088	0.0501	0.1420	0.2010	0.1420	0.0501	0.0088	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0001	0.0019	0.0212	0.1202	0.3407	0.4822	0.3407	0.1202	0.0212	0.0019	0.0001	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0002	0.0035	0.0396	0.2247	0.6368	0.9012	0.6368	0.2247	0.0396	0.0035	0.0002	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0002	0.0051	0.0577	0.3276	0.9284	1.3138	0.9284	0.3276	0.0577	0.0051	0.0002	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0003	0.0058	0.0660	0.3744	1.0611	1.5015	1.0611	0.3744	0.0660	0.0058	0.0003	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0002	0.0053	0.0604	0.3431	0.9722	1.3758	0.9722	0.3431	0.0604	0.0053	0.0002	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0002	0.0043	0.0484	0.2747	0.7785	1.1017	0.7785	0.2747	0.0484	0.0043	0.0002	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0002	0.0037	0.0424	0.2404	0.6814	0.9642	0.6814	0.2404	0.0424	0.0037	0.0002	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0002	0.0043	0.0484	0.2747	0.7785	1.1017	0.7785	0.2747	0.0484	0.0043	0.0002	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0002	0.0053	0.0604	0.3431	0.9722	1.3758	0.9722	0.3431	0.0604	0.0053	0.0002	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0003	0.0058	0.0660	0.3744	1.0611	1.5015	1.0611	0.3744	0.0660	0.0058	0.0003	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0002	0.0051	0.0577	0.3276	0.9284	1.3138	0.9284	0.3276	0.0577	0.0051	0.0002	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0002	0.0035	0.0396	0.2247	0.6368	0.9012	0.6368	0.2247	0.0396	0.0035	0.0002	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0001	0.0019	0.0212	0.1202	0.3407	0.4822	0.3407	0.1202	0.0212	0.0019	0.0001	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0088	0.0501	0.1420	0.2010	0.1420	0.0501	0.0088	0.0008	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0003	0.0029	0.0163	0.0461	0.0652	0.0461	0.0163	0.0029	0.0003	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0041	0.0117	0.0165	0.0117	0.0041	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0023	0.0032	0.0023	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0005	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

2. Simulation End Time

Table B-5. Doses (μg) Acquired by Personnel When Simulation Ends at 15 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0005	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0011	0.0030	0.0043	0.0030	0.0011	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0070	0.0197	0.0279	0.0197	0.0070	0.0012	0.0001	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0062	0.0353	0.1001	0.1417	0.1001	0.0353	0.0062	0.0005	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0022	0.0246	0.1397	0.3959	0.5603	0.3959	0.1397	0.0246	0.0022	0.0001	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0067	0.0758	0.4303	1.2195	1.7258	1.2195	0.4303	0.0758	0.0067	0.0003	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0007	0.0160	0.1819	1.0324	2.9258	4.1404	2.9258	1.0324	0.1819	0.0160	0.0007	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0013	0.0299	0.3400	1.9296	5.4684	7.7385	5.4684	1.9296	0.3400	0.0299	0.0013	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0019	0.0436	0.4957	2.8130	7.9718	11.2812	7.9718	2.8130	0.4957	0.0436	0.0019	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0022	0.0498	0.5665	3.2150	9.1110	12.8933	9.1110	3.2150	0.5665	0.0498	0.0022	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0020	0.0457	0.5191	2.9457	8.3480	11.8135	8.3480	2.9457	0.5191	0.0457	0.0020	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0016	0.0366	0.4156	2.3589	6.6849	9.4600	6.6849	2.3589	0.4156	0.0366	0.0016	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0014	0.0320	0.3638	2.0646	5.8508	8.2797	5.8508	2.0646	0.3638	0.0320	0.0014	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0016	0.0366	0.4156	2.3589	6.6849	9.4600	6.6849	2.3589	0.4156	0.0366	0.0016	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0020	0.0457	0.5191	2.9457	8.3480	11.8135	8.3480	2.9457	0.5191	0.0457	0.0020	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0000	0.0022	0.0498	0.5665	3.2150	9.1110	12.8933	9.1110	3.2150	0.5665	0.0498	0.0022	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0000	0.0019	0.0436	0.4957	2.8130	7.9718	11.2812	7.9718	2.8130	0.4957	0.0436	0.0019	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0000	0.0013	0.0299	0.3400	1.9296	5.4684	7.7385	5.4684	1.9296	0.3400	0.0299	0.0013	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0000	0.0007	0.0160	0.1819	1.0324	2.9258	4.1404	2.9258	1.0324	0.1819	0.0160	0.0007	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0003	0.0067	0.0758	0.4303	1.2195	1.7258	1.2195	0.4303	0.0758	0.0067	0.0003	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0001	0.0022	0.0246	0.1397	0.3959	0.5603	0.3959	0.1397	0.0246	0.0022	0.0001	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0005	0.0062	0.0353	0.1001	0.1417	0.1001	0.0353	0.0062	0.0005	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0070	0.0197	0.0279	0.0197	0.0070	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0011	0.0030	0.0043	0.0030	0.0011	0.0002	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0005	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-6. Doses (µg) Acquired by Personnel When Simulation Ends at 24 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	17.7317	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-7. Doses (μg) Acquired at Each Personnel Location When Simulation Ends at 60 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-8. Doses (μg) Acquired at Each Personnel Location When Simulation Ends at 70 s

Y-coordinate (m)	X-coordinate (m)																
	-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0002	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0017	0.0024	0.0017	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
-3.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0009	0.0050	0.0141	0.0199	0.0141	0.0050	0.0009	0.0001	0.0000	0.0000	0.0000	0.0000
-3.25	0.0000	0.0000	0.0000	0.0000	0.0005	0.0057	0.0324	0.0918	0.1299	0.0918	0.0324	0.0057	0.0005	0.0000	0.0000	0.0000	0.0000
-3.00	0.0000	0.0000	0.0000	0.0001	0.0025	0.0290	0.1645	0.4661	0.6596	0.4661	0.1645	0.0290	0.0025	0.0001	0.0000	0.0000	0.0000
-2.75	0.0000	0.0000	0.0000	0.0004	0.0101	0.1146	0.6505	1.8434	2.6086	1.8434	0.6505	0.1146	0.0101	0.0004	0.0000	0.0000	0.0000
-2.50	0.0000	0.0000	0.0000	0.0014	0.0311	0.3530	2.0036	5.6781	8.0353	5.6781	2.0036	0.3530	0.0311	0.0014	0.0000	0.0000	0.0000
-2.25	0.0000	0.0000	0.0001	0.0033	0.0745	0.8470	4.8069	13.6225	19.2776	13.6225	4.8069	0.8470	0.0745	0.0033	0.0001	0.0000	0.0000
-2.00	0.0000	0.0000	0.0001	0.0061	0.1393	1.5831	8.9843	25.4611	36.0308	25.4611	8.9843	1.5831	0.1393	0.0061	0.0001	0.0000	0.0000
-1.75	0.0000	0.0000	0.0002	0.0089	0.2031	2.3078	13.0973	37.1169	52.5253	37.1169	13.0973	2.3078	0.2031	0.0089	0.0002	0.0000	0.0000
-1.50	0.0000	0.0000	0.0002	0.0102	0.2321	2.6376	14.9690	42.4211	60.0314	42.4211	14.9690	2.6376	0.2321	0.0102	0.0002	0.0000	0.0000
-1.25	0.0000	0.0000	0.0002	0.0093	0.2126	2.4167	13.7154	38.8685	55.0041	38.8685	13.7154	2.4167	0.2126	0.0093	0.0002	0.0000	0.0000
-1.00	0.0000	0.0000	0.0002	0.0075	0.1703	1.9352	10.9830	31.1250	44.0459	31.1250	10.9830	1.9352	0.1703	0.0075	0.0002	0.0000	0.0000
-0.75	0.0000	0.0000	0.0001	0.0065	0.1490	1.6938	9.6126	27.2416	38.5504	27.2416	9.6126	1.6938	0.1490	0.0065	0.0001	0.0000	0.0000
-0.50	0.0000	0.0000	0.0002	0.0075	0.1703	1.9352	10.9830	31.1250	44.0459	31.1250	10.9830	1.9352	0.1703	0.0075	0.0002	0.0000	0.0000
-0.25	0.0000	0.0000	0.0002	0.0093	0.2126	2.4167	13.7154	38.8685	55.0041	38.8685	13.7154	2.4167	0.2126	0.0093	0.0002	0.0000	0.0000
0.00	0.0000	0.0000	0.0002	0.0102	0.2321	2.6376	14.9690	42.4211	60.0314	42.4211	14.9690	2.6376	0.2321	0.0102	0.0002	0.0000	0.0000
0.25	0.0000	0.0000	0.0002	0.0089	0.2031	2.3078	13.0973	37.1169	52.5253	37.1169	13.0973	2.3078	0.2031	0.0089	0.0002	0.0000	0.0000
0.50	0.0000	0.0000	0.0001	0.0061	0.1393	1.5831	8.9843	25.4611	36.0308	25.4611	8.9843	1.5831	0.1393	0.0061	0.0001	0.0000	0.0000
0.75	0.0000	0.0000	0.0001	0.0033	0.0745	0.8470	4.8069	13.6225	19.2776	13.6225	4.8069	0.8470	0.0745	0.0033	0.0001	0.0000	0.0000
1.00	0.0000	0.0000	0.0000	0.0014	0.0311	0.3530	2.0036	5.6781	8.0353	5.6781	2.0036	0.3530	0.0311	0.0014	0.0000	0.0000	0.0000
1.25	0.0000	0.0000	0.0000	0.0004	0.0101	0.1146	0.6505	1.8434	2.6086	1.8434	0.6505	0.1146	0.0101	0.0004	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0001	0.0025	0.0290	0.1645	0.4661	0.6596	0.4661	0.1645	0.0290	0.0025	0.0001	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0005	0.0057	0.0324	0.0918	0.1299	0.0918	0.0324	0.0057	0.0005	0.0000	0.0000	0.0000	0.0000
2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0009	0.0050	0.0141	0.0199	0.0141	0.0050	0.0009	0.0001	0.0000	0.0000	0.0000	0.0000
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0017	0.0024	0.0017	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0002	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3. *CBStrike* Time Step

Table B-9. Doses (μg) Acquired at Each Personnel Location When *CBStrike* Time Steps Are 1.0 s and Detector Alarm Occurs at 20 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-10. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Location When *CBStrike* Time Steps Are 1.0 s and Detector Alarm Occurs at 20 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0173	0.1967	1.1165	3.1641	4.4777	3.1641	1.1165	0.1967	0.0173	0.0008	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-11. Doses (µg) Acquired at Each Personnel Location When *CBStrike* Time Steps Are 1.0 s and Detector Alarm Occurs at 25 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0007	0.0010	0.0007	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0021	0.0061	0.0086	0.0061	0.0021	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0025	0.0140	0.0397	0.0561	0.0397	0.0140	0.0025	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0011	0.0125	0.0711	0.2015	0.2851	0.2015	0.0711	0.0125	0.0011	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0002	0.0044	0.0495	0.2811	0.7968	1.1275	0.7968	0.2811	0.0495	0.0044	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0006	0.0134	0.1526	0.8660	2.4542	3.4731	2.4542	0.8660	0.1526	0.0134	0.0006	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0014	0.0322	0.3661	2.0777	5.8880	8.3323	5.8880	2.0777	0.3661	0.0322	0.0014	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0026	0.0602	0.6842	3.8833	11.0049	15.5734	11.0049	3.8833	0.6842	0.0602	0.0026	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0039	0.0878	0.9975	5.6610	16.0429	22.7028	16.0429	5.6610	0.9975	0.0878	0.0039	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0044	0.1003	1.1400	6.4700	18.3355	25.9471	18.3355	6.4700	1.1400	0.1003	0.0044	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0040	0.0919	1.0446	5.9281	16.8000	23.7742	16.8000	5.9281	1.0446	0.0919	0.0040	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0032	0.0736	0.8365	4.7471	13.4530	19.0378	13.4530	4.7471	0.8365	0.0736	0.0032	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0028	0.0644	0.7321	4.1548	11.7745	16.6625	11.7745	4.1548	0.7321	0.0644	0.0028	0.0001	0.0000	0.0000
-0.50	0.0000	0.0000	0.0001	0.0032	0.0736	0.8365	4.7471	13.4530	19.0378	13.4530	4.7471	0.8365	0.0736	0.0032	0.0001	0.0000	0.0000	
-0.25	0.0000	0.0000	0.0001	0.0040	0.0919	1.0446	5.9281	16.8000	23.7742	16.8000	5.9281	1.0446	0.0919	0.0040	0.0001	0.0000	0.0000	
0.00	0.0000	0.0000	0.0001	0.0044	0.1003	1.1400	6.4700	18.3355	25.9471	18.3355	6.4700	1.1400	0.1003	0.0044	0.0001	0.0000	0.0000	
0.25	0.0000	0.0000	0.0001	0.0039	0.0878	0.9975	5.6610	16.0429	22.7028	16.0429	5.6610	0.9975	0.0878	0.0039	0.0001	0.0000	0.0000	
0.50	0.0000	0.0000	0.0001	0.0026	0.0602	0.6842	3.8833	11.0049	15.5734	11.0049	3.8833	0.6842	0.0602	0.0026	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0014	0.0322	0.3661	2.0777	5.8880	8.3323	5.8880	2.0777	0.3661	0.0322	0.0014	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0006	0.0134	0.1526	0.8660	2.4542	3.4731	2.4542	0.8660	0.1526	0.0134	0.0006	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0002	0.0044	0.0495	0.2811	0.7968	1.1275	0.7968	0.2811	0.0495	0.0044	0.0002	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0011	0.0125	0.0711	0.2015	0.2851	0.2015	0.0711	0.0125	0.0011	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0025	0.0140	0.0397	0.0561	0.0397	0.0140	0.0025	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0021	0.0061	0.0086	0.0061	0.0021	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0007	0.0010	0.0007	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-12. Concentrations of Liquid Samples ($\mu\text{g}/\text{mL}$) Produced by Collectors at Each Location When *CBStrike* Time Steps Are 5.0 s and Detector Alarm Occurs at 25 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0018	0.0026	0.0018	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0042	0.0120	0.0170	0.0120	0.0042	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0038	0.0215	0.0611	0.0864	0.0611	0.0215	0.0038	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0013	0.0150	0.0852	0.2415	0.3417	0.2415	0.0852	0.0150	0.0013	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0041	0.0463	0.2625	0.7439	1.0527	0.7439	0.2625	0.0463	0.0041	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0098	0.1110	0.6297	1.7846	2.5254	1.7846	0.6297	0.1110	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0008	0.0182	0.2074	1.1770	3.3355	4.7202	3.3355	1.1770	0.2074	0.0182	0.0008	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0012	0.0266	0.3023	1.7158	4.8625	6.8810	4.8625	1.7158	0.3023	0.0266	0.0012	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0013	0.0304	0.3455	1.9610	5.5573	7.8644	5.5573	1.9610	0.3455	0.0304	0.0013	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0012	0.0279	0.3166	1.7968	5.0919	7.2058	5.0919	1.7968	0.3166	0.0279	0.0012	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0010	0.0223	0.2535	1.4388	4.0775	5.7702	4.0775	1.4388	0.2535	0.0223	0.0010	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0009	0.0195	0.2219	1.2593	3.5688	5.0503	3.5688	1.2593	0.2219	0.0195	0.0009	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0010	0.0223	0.2535	1.4388	4.0775	5.7702	4.0775	1.4388	0.2535	0.0223	0.0010	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0012	0.0279	0.3166	1.7968	5.0919	7.2058	5.0919	1.7968	0.3166	0.0279	0.0012	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0013	0.0304	0.3455	1.9610	5.5573	7.8644	5.5573	1.9610	0.3455	0.0304	0.0013	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0012	0.0266	0.3023	1.7158	4.8625	6.8810	4.8625	1.7158	0.3023	0.0266	0.0012	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0008	0.0182	0.2074	1.1770	3.3355	4.7202	3.3355	1.1770	0.2074	0.0182	0.0008	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0004	0.0098	0.1110	0.6297	1.7846	2.5254	1.7846	0.6297	0.1110	0.0098	0.0004	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0041	0.0463	0.2625	0.7439	1.0527	0.7439	0.2625	0.0463	0.0041	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0013	0.0150	0.0852	0.2415	0.3417	0.2415	0.0852	0.0150	0.0013	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0038	0.0215	0.0611	0.0864	0.0611	0.0215	0.0038	0.0003	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0042	0.0120	0.0170	0.0120	0.0042	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0018	0.0026	0.0018	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-13. Doses (μg) Acquired at Each Personnel Location When *CBStrike* Time Steps Are 1.0 s and Detector Alarm Occurs at 30 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0009	0.0013	0.0009	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0028	0.0079	0.0112	0.0079	0.0028	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0003	0.0032	0.0182	0.0517	0.0731	0.0517	0.0182	0.0032	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0014	0.0163	0.0926	0.2625	0.3715	0.2625	0.0926	0.0163	0.0014	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0002	0.0057	0.0646	0.3664	1.0382	1.4693	1.0382	0.3664	0.0646	0.0057	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0008	0.0175	0.1988	1.1285	3.1981	4.5257	3.1981	1.1285	0.1988	0.0175	0.0008	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0018	0.0420	0.4771	2.7074	7.6726	10.8577	7.6726	2.7074	0.4771	0.0420	0.0018	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0034	0.0785	0.8916	5.0603	14.3404	20.2936	14.3404	5.0603	0.8916	0.0785	0.0034	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0050	0.1144	1.2998	7.3768	20.9054	29.5838	20.9054	7.3768	1.2998	0.1144	0.0050	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0057	0.1307	1.4856	8.4310	23.8928	33.8115	23.8928	8.4310	1.4856	0.1307	0.0057	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0053	0.1198	1.3612	7.7249	21.8919	30.9799	21.8919	7.7249	1.3612	0.1198	0.0053	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0042	0.0959	1.0900	6.1859	17.5305	24.8080	17.5305	6.1859	1.0900	0.0959	0.0042	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0037	0.0839	0.9540	5.4141	15.3433	21.7127	15.3433	5.4141	0.9540	0.0839	0.0037	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0042	0.0959	1.0900	6.1859	17.5305	24.8080	17.5305	6.1859	1.0900	0.0959	0.0042	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0053	0.1198	1.3612	7.7249	21.8919	30.9799	21.8919	7.7249	1.3612	0.1198	0.0053	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0057	0.1307	1.4856	8.4310	23.8928	33.8115	23.8928	8.4310	1.4856	0.1307	0.0057	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0050	0.1144	1.2998	7.3768	20.9054	29.5838	20.9054	7.3768	1.2998	0.1144	0.0050	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0001	0.0034	0.0785	0.8916	5.0603	14.3404	20.2936	14.3404	5.0603	0.8916	0.0785	0.0034	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0018	0.0420	0.4771	2.7074	7.6726	10.8577	7.6726	2.7074	0.4771	0.0420	0.0018	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0008	0.0175	0.1988	1.1285	3.1981	4.5257	3.1981	1.1285	0.1988	0.0175	0.0008	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0002	0.0057	0.0646	0.3664	1.0382	1.4693	1.0382	0.3664	0.0646	0.0057	0.0002	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0001	0.0014	0.0163	0.0926	0.2625	0.3715	0.2625	0.0926	0.0163	0.0014	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0003	0.0032	0.0182	0.0517	0.0731	0.0517	0.0182	0.0032	0.0003	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0028	0.0079	0.0112	0.0079	0.0028	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0009	0.0013	0.0009	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-14. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Location When CBStrike Time Steps Are 10.0 s and Detector Alarm Occurs at 30 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0015	0.0043	0.0061	0.0043	0.0015	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0017	0.0099	0.0281	0.0398	0.0281	0.0099	0.0017	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0089	0.0504	0.1429	0.2022	0.1429	0.0504	0.0089	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0031	0.0351	0.1994	0.5651	0.7997	0.5651	0.1994	0.0351	0.0031	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0095	0.1082	0.6142	1.7407	2.4634	1.7407	0.6142	0.1082	0.0095	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0228	0.2597	1.4736	4.1762	5.9099	4.1762	1.4736	0.2597	0.0228	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0427	0.4853	2.7543	7.8056	11.0459	7.8056	2.7543	0.4853	0.0427	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0027	0.0623	0.7075	4.0152	11.3789	16.1026	11.3789	4.0152	0.7075	0.0623	0.0027	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0031	0.0711	0.8086	4.5890	13.0049	18.4037	13.0049	4.5890	0.8086	0.0711	0.0031	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0029	0.0652	0.7409	4.2047	11.9159	16.8625	11.9159	4.2047	0.7409	0.0652	0.0029	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0023	0.0522	0.5933	3.3670	9.5419	13.5031	9.5419	3.3670	0.5933	0.0522	0.0023	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0020	0.0457	0.5193	2.9469	8.3514	11.8183	8.3514	2.9469	0.5193	0.0457	0.0020	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0023	0.0522	0.5933	3.3670	9.5419	13.5031	9.5419	3.3670	0.5933	0.0522	0.0023	0.0001	0.0000	0.0000
-0.25	0.0000	0.0000	0.0001	0.0029	0.0652	0.7409	4.2047	11.9159	16.8625	11.9159	4.2047	0.7409	0.0652	0.0029	0.0001	0.0000	0.0000	
0.00	0.0000	0.0000	0.0001	0.0031	0.0711	0.8086	4.5890	13.0049	18.4037	13.0049	4.5890	0.8086	0.0711	0.0031	0.0001	0.0000	0.0000	
0.25	0.0000	0.0000	0.0001	0.0027	0.0623	0.7075	4.0152	11.3789	16.1026	11.3789	4.0152	0.7075	0.0623	0.0027	0.0001	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0019	0.0427	0.4853	2.7543	7.8056	11.0459	7.8056	2.7543	0.4853	0.0427	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0228	0.2597	1.4736	4.1762	5.9099	4.1762	1.4736	0.2597	0.0228	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0095	0.1082	0.6142	1.7407	2.4634	1.7407	0.6142	0.1082	0.0095	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0031	0.0351	0.1994	0.5651	0.7997	0.5651	0.1994	0.0351	0.0031	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0089	0.0504	0.1429	0.2022	0.1429	0.0504	0.0089	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0017	0.0099	0.0281	0.0398	0.0281	0.0099	0.0017	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0015	0.0043	0.0061	0.0043	0.0015	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

4. Puff Cutoff

Table B-15. Total Casualties at Each Personnel Location for a 5×σ Puff Cutoff

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0025	1.5727	25.0329	64.8820	84.5064	89.0015	84.5064	64.8820	25.0329	1.5727	0.0025	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.2896	19.5105	73.1906	95.2952	98.9487	99.4110	98.9487	95.2952	73.1906	19.5105	0.2896	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	5.2695	61.0568	96.0679	99.7555	99.9717	99.9873	99.9717	99.7555	96.0679	61.0568	5.2695	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	26.3945	89.7749	99.6990	99.9928	99.9995	99.9998	99.9995	99.9928	99.6990	89.7749	26.3945	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	58.1135	98.2348	99.9830	99.9998	100.0000	100.0000	100.0000	99.9998	99.9830	98.2348	58.1135	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	81.2950	99.7355	99.9990	100.0000	100.0000	100.0000	100.0000	100.0000	99.9990	99.7355	81.2950	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	92.2329	99.9551	99.9999	100.0000	100.0000	100.0000	100.0000	100.0000	99.9999	99.9551	92.2329	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	96.4163	99.9893	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9893	96.4163	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	97.8840	99.9958	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9958	97.8840	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	98.2639	99.9970	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9970	98.2639	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	98.0224	99.9962	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9962	98.0224	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	97.2780	99.9934	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9934	97.2780	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	96.7283	99.9909	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9909	96.7283	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	97.2780	99.9934	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9934	97.2780	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	98.0224	99.9962	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9962	98.0224	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	98.2639	99.9970	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9970	98.2639	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	97.8840	99.9958	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9958	97.8840	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	96.4163	99.9893	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9893	96.4163	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	92.2329	99.9551	99.9999	100.0000	100.0000	100.0000	100.0000	100.0000	99.9999	99.9551	92.2329	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	81.2950	99.7355	99.9990	100.0000	100.0000	100.0000	100.0000	100.0000	99.9990	99.7355	81.2950	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	58.1135	98.2348	99.9830	99.9998	100.0000	100.0000	100.0000	99.9998	99.9830	98.2348	58.1135	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	26.3945	89.7749	99.6990	99.9928	99.9995	99.9998	99.9995	99.9928	99.6990	89.7749	26.3945	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	5.2695	61.0568	96.0679	99.7555	99.9717	99.9873	99.9717	99.7555	96.0679	61.0568	5.2695	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.2896	19.5105	73.1906	95.2952	98.9487	99.4110	98.9487	95.2952	73.1906	19.5105	0.2896	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0025	1.5727	25.0329	64.8820	84.5064	89.0015	84.5064	64.8820	25.0329	1.5727	0.0025	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-16. Total Casualties at Each Personnel Location for a 5.9×σ Puff Cutoff

Y-coordinate (m)	X-coordinate (m)																
	-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0102	0.3931	2.1454	3.4878	2.1454	0.3931	0.0102	0.0000	0.0000	0.0000	0.0000	0.0000
-4.00	0.0000	0.0000	0.0000	0.0000	0.0162	1.7109	14.4138	33.4123	41.3933	33.4123	14.4138	1.7109	0.0162	0.0000	0.0000	0.0000	0.0000
-3.75	0.0000	0.0000	0.0000	0.0025	1.5727	25.0329	64.8820	84.5064	89.0015	84.5064	64.8820	25.0329	1.5727	0.0025	0.0000	0.0000	0.0000
-3.50	0.0000	0.0000	0.0000	0.2896	19.5105	73.1906	95.2952	98.9487	99.4110	98.9487	95.2952	73.1906	19.5105	0.2896	0.0000	0.0000	0.0000
-3.25	0.0000	0.0000	0.0040	5.2695	61.0568	96.0679	99.7555	99.9717	99.9873	99.9717	99.7555	96.0679	61.0568	5.2695	0.0040	0.0000	0.0000
-3.00	0.0000	0.0000	0.1571	26.3945	89.7749	99.6990	99.9928	99.9995	99.9998	99.9995	99.9928	99.6990	89.7749	26.3945	0.1571	0.0000	0.0000
-2.75	0.0000	0.0001	1.7109	58.1136	98.2348	99.9830	99.9998	100.0000	100.0000	100.0000	99.9998	99.9830	98.2348	58.1136	1.7109	0.0001	0.0000
-2.50	0.0000	0.0015	7.5863	81.2954	99.7356	99.9990	100.0000	100.0000	100.0000	100.0000	100.0000	99.9990	99.7356	81.2954	7.5863	0.0015	0.0000
-2.25	0.0000	0.0133	18.3691	92.2329	99.9551	99.9999	100.0000	100.0000	100.0000	100.0000	100.0000	99.9999	99.9551	92.2329	18.3691	0.0133	0.0000
-2.00	0.0000	0.0546	30.1144	96.4163	99.9893	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9893	96.4163	30.1144	0.0546	0.0000
-1.75	0.0000	0.1197	38.5168	97.8840	99.9958	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9958	97.8840	38.5168	0.1197	0.0000
-1.50	0.0000	0.1562	41.6552	98.2639	99.9970	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9970	98.2639	41.6552	0.1562	0.0000
-1.25	0.0000	0.1313	39.5929	98.0224	99.9962	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9962	98.0224	39.5929	0.1313	0.0000
-1.00	0.0000	0.0835	34.4952	97.2780	99.9934	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9934	97.2780	34.4952	0.0835	0.0000
-0.75	0.0000	0.0631	31.5609	96.7283	99.9909	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9909	96.7283	31.5609	0.0631	0.0000
-0.50	0.0000	0.0835	34.4952	97.2780	99.9934	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9934	97.2780	34.4952	0.0835	0.0000
-0.25	0.0000	0.1313	39.5929	98.0224	99.9962	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9962	98.0224	39.5929	0.1313	0.0000
0.00	0.0000	0.1562	41.6552	98.2639	99.9970	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9970	98.2639	41.6552	0.1562	0.0000
0.25	0.0000	0.1197	38.5168	97.8840	99.9958	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9958	97.8840	38.5168	0.1197	0.0000
0.50	0.0000	0.0546	30.1144	96.4163	99.9893	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	99.9893	96.4163	30.1144	0.0546	0.0000
0.75	0.0000	0.0133	18.3691	92.2329	99.9551	99.9999	100.0000	100.0000	100.0000	100.0000	100.0000	99.9999	99.9551	92.2329	18.3691	0.0133	0.0000
1.00	0.0000	0.0015	7.5863	81.2954	99.7356	99.9990	100.0000	100.0000	100.0000	100.0000	100.0000	99.9990	99.7356	81.2954	7.5863	0.0015	0.0000
1.25	0.0000	0.0001	1.7109	58.1136	98.2348	99.9830	99.9998	100.0000	100.0000	100.0000	100.0000	99.9830	98.2348	58.1136	1.7109	0.0001	0.0000
1.50	0.0000	0.0000	0.1571	26.3945	89.7749	99.6990	99.9928	99.9995	99.9998	99.9995	99.9928	99.6990	89.7749	26.3945	0.1571	0.0000	0.0000
1.75	0.0000	0.0000	0.0040	5.2695	61.0568	96.0679	99.7555	99.9717	99.9873	99.9717	99.7555	96.0679	61.0568	5.2695	0.0040	0.0000	0.0000
2.00	0.0000	0.0000	0.0000	0.2896	19.5105	73.1906	95.2952	98.9487	99.4110	98.9487	95.2952	73.1906	19.5105	0.2896	0.0000	0.0000	0.0000
2.25	0.0000	0.0000	0.0000	0.0025	1.5727	25.0329	64.8820	84.5064	89.0015	84.5064	64.8820	25.0329	1.5727	0.0025	0.0000	0.0000	0.0000
2.50	0.0000	0.0000	0.0000	0.0000	0.0162	1.7109	14.4138	33.4123	41.3933	33.4123	14.4138	1.7109	0.0162	0.0000	0.0000	0.0000	0.0000
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0102	0.3931	2.1454	3.4878	2.1454	0.3931	0.0102	0.0000	0.0000	0.0000	0.0000	0.0000
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5. Concentration Conversion Factor

a. Conversion Factor for Aerosol and Liquid Sample Concentration Calculations

Table B-17. Doses (μg) Acquired at Each Personnel Location for 0.1 Conversion Factor Causing No Detection/Warning

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0004	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0010	0.0028	0.0040	0.0028	0.0010	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0015	0.0082	0.0234	0.0331	0.0234	0.0082	0.0015	0.0001	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	0.0095	0.0538	0.1525	0.2157	0.1525	0.0538	0.0095	0.0008	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0002	0.0042	0.0481	0.2732	0.7742	1.0956	0.7742	0.2732	0.0481	0.0042	0.0002	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0007	0.0168	0.1904	1.0805	3.0622	4.3334	3.0622	1.0805	0.1904	0.0168	0.0007	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0023	0.0516	0.5865	3.3284	9.4324	13.3481	9.4324	3.3284	0.5865	0.0516	0.0023	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0001	0.0054	0.1238	1.4070	7.9851	22.6293	32.0234	22.6293	7.9851	1.4070	0.1238	0.0054	0.0001	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0002	0.0102	0.2314	2.6298	14.9245	42.2952	59.8533	42.2952	14.9245	2.6298	0.2314	0.0102	0.0002	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0003	0.0148	0.3373	3.8337	21.7569	61.6576	87.2536	61.6576	21.7569	3.8337	0.3373	0.0148	0.0003	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0004	0.0169	0.3855	4.3815	24.8660	70.4687	99.7224	70.4687	24.8660	4.3815	0.3855	0.0169	0.0004	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0003	0.0155	0.3532	4.0146	22.7836	64.5673	91.3712	64.5673	22.7836	4.0146	0.3532	0.0155	0.0003	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0003	0.0124	0.2829	3.2148	18.2446	51.7039	73.1678	51.7039	18.2446	3.2148	0.2829	0.0124	0.0003	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0002	0.0109	0.2476	2.8137	15.9682	45.2529	64.0389	45.2529	15.9682	2.8137	0.2476	0.0109	0.0002	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0003	0.0124	0.2829	3.2148	18.2446	51.7039	73.1678	51.7039	18.2446	3.2148	0.2829	0.0124	0.0003	0.0000	0.0000
-0.25	0.0000	0.0000	0.0003	0.0155	0.3532	4.0146	22.7836	64.5673	91.3712	64.5673	22.7836	4.0146	0.3532	0.0155	0.0003	0.0000	0.0000	
0.00	0.0000	0.0000	0.0004	0.0169	0.3855	4.3815	24.8660	70.4687	99.7224	70.4687	24.8660	4.3815	0.3855	0.0169	0.0004	0.0000	0.0000	
0.25	0.0000	0.0000	0.0003	0.0148	0.3373	3.8337	21.7569	61.6576	87.2536	61.6576	21.7569	3.8337	0.3373	0.0148	0.0003	0.0000	0.0000	
0.50	0.0000	0.0000	0.0002	0.0102	0.2314	2.6298	14.9245	42.2952	59.8533	42.2952	14.9245	2.6298	0.2314	0.0102	0.0002	0.0000	0.0000	
0.75	0.0000	0.0000	0.0001	0.0054	0.1238	1.4070	7.9851	22.6293	32.0234	22.6293	7.9851	1.4070	0.1238	0.0054	0.0001	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0023	0.0516	0.5865	3.3284	9.4324	13.3481	9.4324	3.3284	0.5865	0.0516	0.0023	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0007	0.0168	0.1904	1.0805	3.0622	4.3334	3.0622	1.0805	0.1904	0.0168	0.0007	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0002	0.0042	0.0481	0.2732	0.7742	1.0956	0.7742	0.2732	0.0481	0.0042	0.0002	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0008	0.0095	0.0538	0.1525	0.2157	0.1525	0.0538	0.0095	0.0008	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0015	0.0082	0.0234	0.0331	0.0234	0.0082	0.0015	0.0001	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0010	0.0028	0.0040	0.0028	0.0010	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0004	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

**Table B-18. Doses (μg) Acquired at Each Personnel Location for 0.9 Conversion Factor
Causing Detection/Warning At 24 s**

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0007	0.0010	0.0007	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0020	0.0057	0.0081	0.0057	0.0020	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0023	0.0132	0.0374	0.0530	0.0374	0.0132	0.0023	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0010	0.0118	0.0671	0.1901	0.2690	0.1901	0.0671	0.0118	0.0010	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0002	0.0041	0.0467	0.2653	0.7517	1.0638	0.7517	0.2653	0.0467	0.0041	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0006	0.0127	0.1440	0.8171	2.3156	3.2769	2.3156	0.8171	0.1440	0.0127	0.0006	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0013	0.0304	0.3454	1.9603	5.5553	7.8615	5.5553	1.9603	0.3454	0.0304	0.0013	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0025	0.0568	0.6456	3.6639	10.3832	14.6936	10.3832	3.6639	0.6456	0.0568	0.0025	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0036	0.0828	0.9411	5.3412	15.1365	21.4202	15.1365	5.3412	0.9411	0.0828	0.0036	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0042	0.0946	1.0756	6.1044	17.2996	24.4812	17.2996	6.1044	1.0756	0.0946	0.0042	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0038	0.0867	0.9856	5.5932	15.8509	22.4310	15.8509	5.5932	0.9856	0.0867	0.0038	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0031	0.0694	0.7892	4.4789	12.6930	17.9622	12.6930	4.4789	0.7892	0.0694	0.0031	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0027	0.0608	0.6907	3.9201	11.1093	15.7211	11.1093	3.9201	0.6907	0.0608	0.0027	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0031	0.0694	0.7892	4.4789	12.6930	17.9622	12.6930	4.4789	0.7892	0.0694	0.0031	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0038	0.0867	0.9856	5.5932	15.8509	22.4310	15.8509	5.5932	0.9856	0.0867	0.0038	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0042	0.0946	1.0756	6.1044	17.2996	24.4812	17.2996	6.1044	1.0756	0.0946	0.0042	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0036	0.0828	0.9411	5.3412	15.1365	21.4202	15.1365	5.3412	0.9411	0.0828	0.0036	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0001	0.0025	0.0568	0.6456	3.6639	10.3832	14.6936	10.3832	3.6639	0.6456	0.0568	0.0025	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0013	0.0304	0.3454	1.9603	5.5553	7.8615	5.5553	1.9603	0.3454	0.0304	0.0013	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0006	0.0127	0.1440	0.8171	2.3156	3.2769	2.3156	0.8171	0.1440	0.0127	0.0006	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0002	0.0041	0.0467	0.2653	0.7517	1.0638	0.7517	0.2653	0.0467	0.0041	0.0002	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0010	0.0118	0.0671	0.1901	0.2690	0.1901	0.0671	0.0118	0.0010	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0023	0.0132	0.0374	0.0530	0.0374	0.0132	0.0023	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0020	0.0057	0.0081	0.0057	0.0020	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0007	0.0010	0.0007	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

**Table B-19. Concentrations of Liquid Samples (units/mL) Produced by Collectors at Each
Location for 0.9 Conversion Factor Causing Detection/Warning At 24 s**

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0192	0.0543	0.0769	0.0543	0.0192	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0134	0.0758	0.2149	0.3041	0.2149	0.0758	0.0134	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0036	0.0412	0.2336	0.6619	0.9367	0.6619	0.2336	0.0412	0.0036	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0087	0.0987	0.5603	1.5879	2.2471	1.5879	0.5603	0.0987	0.0087	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1845	1.0473	2.9679	4.2000	2.9679	1.0473	0.1845	0.0162	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0237	0.2690	1.5267	4.3266	6.1227	4.3266	1.5267	0.2690	0.0237	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0271	0.3075	1.7449	4.9449	6.9977	4.9449	1.7449	0.3075	0.0271	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0248	0.2817	1.5988	4.5308	6.4117	4.5308	1.5988	0.2817	0.0248	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0198	0.2256	1.2803	3.6282	5.1343	3.6282	1.2803	0.2256	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0174	0.1974	1.1205	3.1755	4.4937	3.1755	1.1205	0.1974	0.0174	0.0008	0.0000	0.0000	0.0000
-0.50	0.0000	0.0000	0.0000	0.0009	0.0198	0.2256	1.2803	3.6282	5.1343	3.6282	1.2803	0.2256	0.0198	0.0009	0.0000	0.0000	0.0000	
-0.25	0.0000	0.0000	0.0000	0.0011	0.0248	0.2817	1.5988	4.5308	6.4117	4.5308	1.5988	0.2817	0.0248	0.0011	0.0000	0.0000	0.0000	
0.00	0.0000	0.0000	0.0000	0.0012	0.0271	0.3075	1.7449	4.9449	6.9977	4.9449	1.7449	0.3075	0.0271	0.0012	0.0000	0.0000	0.0000	
0.25	0.0000	0.0000	0.0000	0.0010	0.0237	0.2690	1.5267	4.3266	6.1227	4.3266	1.5267	0.2690	0.0237	0.0010	0.0000	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1845	1.0473	2.9679	4.2000	2.9679	1.0473	0.1845	0.0162	0.0007	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0987	0.5603	1.5879	2.2471	1.5879	0.5603	0.0987	0.0087	0.0004	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0036	0.0412	0.2336	0.6619	0.9367	0.6619	0.2336	0.0412	0.0036	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0134	0.0758	0.2149	0.3041	0.2149	0.0758	0.0134	0.0012	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0192	0.0543	0.0769	0.0543	0.0192	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

**Table B-20. Doses (μg) Acquired at Each Personnel Location for 1.0 Conversion Factor
Causing Detection/Warning At 20 s**

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000	
0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000	
0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

**Table B-21. Doses (μg) Acquired at Each Personnel Location for 10.0 Conversion Factor
Causing Detection/Warning At 1 s**

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0002	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0009	0.0013	0.0009	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0017	0.0047	0.0067	0.0047	0.0017	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0066	0.0187	0.0265	0.0187	0.0066	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0036	0.0204	0.0577	0.0816	0.0577	0.0204	0.0036	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0008	0.0086	0.0488	0.1384	0.1959	0.1384	0.0488	0.0086	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0014	0.0161	0.0913	0.2587	0.3661	0.2587	0.0913	0.0161	0.0014	0.0001	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0001	0.0021	0.0234	0.1331	0.3771	0.5336	0.3771	0.1331	0.0234	0.0021	0.0001	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0001	0.0024	0.0268	0.1521	0.4310	0.6099	0.4310	0.1521	0.0268	0.0024	0.0001	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0001	0.0022	0.0246	0.1393	0.3949	0.5588	0.3949	0.1393	0.0246	0.0022	0.0001	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0001	0.0017	0.0197	0.1116	0.3162	0.4475	0.3162	0.1116	0.0197	0.0017	0.0001	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0001	0.0015	0.0172	0.0977	0.2768	0.3917	0.2768	0.0977	0.0172	0.0015	0.0001	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0017	0.0197	0.1116	0.3162	0.4475	0.3162	0.1116	0.0197	0.0017	0.0001	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0001	0.0022	0.0246	0.1393	0.3949	0.5588	0.3949	0.1393	0.0246	0.0022	0.0001	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0001	0.0024	0.0268	0.1521	0.4310	0.6099	0.4310	0.1521	0.0268	0.0024	0.0001	0.0000	0.0000	0.0000
0.25	0.0000	0.0000	0.0000	0.0001	0.0021	0.0234	0.1331	0.3771	0.5336	0.3771	0.1331	0.0234	0.0021	0.0001	0.0000	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0001	0.0014	0.0161	0.0913	0.2587	0.3661	0.2587	0.0913	0.0161	0.0014	0.0001	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0008	0.0086	0.0488	0.1384	0.1959	0.1384	0.0488	0.0086	0.0008	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0036	0.0204	0.0577	0.0816	0.0577	0.0204	0.0036	0.0003	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0066	0.0187	0.0265	0.0187	0.0066	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0017	0.0047	0.0067	0.0047	0.0017	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0009	0.0013	0.0009	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0002	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-22. Concentrations of Liquid Samples (units/mL) Produced by Collectors at Each Location Using a 0.0001 Conversion Factor

[illegible]

Table B-23. Concentrations of Liquid Samples (units/mL) Produced by Collectors at Each Location Using a 0.01 Conversion Factor

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0021	0.0030	0.0021	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0023	0.0066	0.0093	0.0066	0.0023	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0010	0.0056	0.0158	0.0224	0.0158	0.0056	0.0010	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0104	0.0296	0.0419	0.0296	0.0104	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0027	0.0152	0.0431	0.0610	0.0431	0.0152	0.0027	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0031	0.0174	0.0493	0.0697	0.0493	0.0174	0.0031	0.0003	0.0000	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0028	0.0159	0.0451	0.0639	0.0451	0.0159	0.0028	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0022	0.0128	0.0362	0.0512	0.0362	0.0128	0.0022	0.0002	0.0000	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0020	0.0112	0.0316	0.0448	0.0316	0.0112	0.0020	0.0002	0.0000	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0022	0.0128	0.0362	0.0512	0.0362	0.0128	0.0022	0.0002	0.0000	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0028	0.0159	0.0451	0.0639	0.0451	0.0159	0.0028	0.0002	0.0000	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0031	0.0174	0.0493	0.0697	0.0493	0.0174	0.0031	0.0003	0.0000	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0027	0.0152	0.0431	0.0610	0.0431	0.0152	0.0027	0.0002	0.0000	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0104	0.0296	0.0419	0.0296	0.0104	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0010	0.0056	0.0158	0.0224	0.0158	0.0056	0.0010	0.0001	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0023	0.0066	0.0093	0.0066	0.0023	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0021	0.0030	0.0021	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-24. Concentrations of Liquid Samples (units/mL) Produced by Collectors at Each Location Using a 1.0 Conversion Factor

		X-coordinate (m)																
Y-coordinate (m)		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0173	0.1967	1.1165	3.1641	4.4777	3.1641	1.1165	0.1967	0.0173	0.0008	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table B-25. Concentrations of Liquid Samples (units/mL) Produced by Collectors at Each Location Using a 100 Conversion Factor

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0018	0.0026	0.0018	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0069	0.0195	0.0276	0.0195	0.0069	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0009	0.0102	0.0577	0.1635	0.2313	0.1635	0.0577	0.0102	0.0009	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0003	0.0058	0.0663	0.3762	1.0660	1.5085	1.0660	0.3762	0.0663	0.0058	0.0003	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0013	0.0296	0.3366	1.9103	5.4136	7.6609	5.4136	1.9103	0.3366	0.0296	0.0013	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0001	0.0051	0.1171	1.3313	7.5553	21.4112	30.2996	21.4112	7.5553	1.3313	0.1171	0.0051	0.0001	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0003	0.0159	0.3608	4.1007	23.2724	65.9524	93.3313	65.9524	23.2724	4.1007	0.3608	0.0159	0.0003	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0008	0.0380	0.8656	9.8380	55.8329	158.2268	223.9117	158.2268	55.8329	9.8380	0.8656	0.0380	0.0008	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0016	0.0711	1.6179	18.3877	104.3544	295.7336	418.5018	295.7336	104.3544	18.3877	1.6179	0.0711	0.0016	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0023	0.1036	2.3586	26.8054	152.1269	431.1180	610.0885	431.1180	152.1269	26.8054	2.3586	0.1036	0.0023	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0026	0.1184	2.6956	30.6360	173.8664	492.7263	697.2723	492.7263	173.8664	30.6360	2.6956	0.1184	0.0026	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0024	0.1085	2.4699	28.0704	159.3060	451.4630	638.8794	451.4630	159.3060	28.0704	2.4699	0.1085	0.0024	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0019	0.0869	1.9778	22.4781	127.5684	361.5207	511.5992	361.5207	127.5684	22.4781	1.9778	0.0869	0.0019	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0017	0.0761	1.7310	19.6736	111.6520	316.4146	447.7681	316.4146	111.6520	19.6736	1.7310	0.0761	0.0017	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0019	0.0869	1.9778	22.4781	127.5684	361.5207	511.5992	361.5207	127.5684	22.4781	1.9778	0.0869	0.0019	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0024	0.1085	2.4699	28.0704	159.3060	451.4630	638.8794	451.4630	159.3060	28.0704	2.4699	0.1085	0.0024	0.0000	0.0000
	0.00	0.0000	0.0000	0.0026	0.1184	2.6956	30.6360	173.8664	492.7263	697.2723	492.7263	173.8664	30.6360	2.6956	0.1184	0.0026	0.0000	0.0000
	0.25	0.0000	0.0000	0.0023	0.1036	2.3586	26.8054	152.1269	431.1180	610.0885	431.1180	152.1269	26.8054	2.3586	0.1036	0.0023	0.0000	0.0000
	0.50	0.0000	0.0000	0.0016	0.0711	1.6179	18.3877	104.3544	295.7336	418.5018	295.7336	104.3544	18.3877	1.6179	0.0711	0.0016	0.0000	0.0000
	0.75	0.0000	0.0000	0.0008	0.0380	0.8656	9.8380	55.8329	158.2268	223.9117	158.2268	55.8329	9.8380	0.8656	0.0380	0.0008	0.0000	0.0000
	1.00	0.0000	0.0000	0.0003	0.0159	0.3608	4.1007	23.2724	65.9524	93.3313	65.9524	23.2724	4.1007	0.3608	0.0159	0.0003	0.0000	0.0000
	1.25	0.0000	0.0000	0.0001	0.0051	0.1171	1.3313	7.5553	21.4112	30.2996	21.4112	7.5553	1.3313	0.1171	0.0051	0.0001	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0013	0.0296	0.3366	1.9103	5.4136	7.6609	5.4136	1.9103	0.3366	0.0296	0.0013	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0003	0.0058	0.0663	0.3762	1.0660	1.5085	1.0660	0.3762	0.0663	0.0058	0.0003	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0009	0.0102	0.0577	0.1635	0.2313	0.1635	0.0577	0.0102	0.0009	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0069	0.0195	0.0276	0.0195	0.0069	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0018	0.0026	0.0018	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

6. Concentration Interpolation Method

Table B-26. Doses (μg) Acquired at Each Personnel Location When Lower Step Interpolation is Used with 0.1 s *CBstrike* Time Steps (Detection and Warning Occur at 19.1 s)

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0014	0.0041	0.0058	0.0041	0.0014	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0094	0.0268	0.0379	0.0268	0.0094	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0007	0.0085	0.0480	0.1359	0.1924	0.1359	0.0480	0.0085	0.0007	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0029	0.0334	0.1897	0.5376	0.7608	0.5376	0.1897	0.0334	0.0029	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0091	0.1030	0.5844	1.6561	2.3436	1.6561	0.5844	0.1030	0.0091	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0217	0.2470	1.4020	3.9732	5.6225	3.9732	1.4020	0.2470	0.0217	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0018	0.0406	0.4617	2.6204	7.4260	10.5088	7.4260	2.6204	0.4617	0.0406	0.0018	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0026	0.0592	0.6731	3.8200	10.8256	15.3196	10.8256	3.8200	0.6731	0.0592	0.0026	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0030	0.0677	0.7693	4.3659	12.3726	17.5088	12.3726	4.3659	0.7693	0.0677	0.0030	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0027	0.0620	0.7049	4.0003	11.3365	16.0426	11.3365	4.0003	0.7049	0.0620	0.0027	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0022	0.0497	0.5644	3.2033	9.0780	12.8465	9.0780	3.2033	0.5644	0.0497	0.0022	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0019	0.0435	0.4940	2.8036	7.9453	11.2437	7.9453	2.8036	0.4940	0.0435	0.0019	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0022	0.0497	0.5644	3.2033	9.0780	12.8465	9.0780	3.2033	0.5644	0.0497	0.0022	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0027	0.0620	0.7049	4.0003	11.3365	16.0426	11.3365	4.0003	0.7049	0.0620	0.0027	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0030	0.0677	0.7693	4.3659	12.3726	17.5088	12.3726	4.3659	0.7693	0.0677	0.0030	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0026	0.0592	0.6731	3.8200	10.8256	15.3196	10.8256	3.8200	0.6731	0.0592	0.0026	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0018	0.0406	0.4617	2.6204	7.4260	10.5088	7.4260	2.6204	0.4617	0.0406	0.0018	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0217	0.2470	1.4020	3.9732	5.6225	3.9732	1.4020	0.2470	0.0217	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0091	0.1030	0.5844	1.6561	2.3436	1.6561	0.5844	0.1030	0.0091	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0029	0.0334	0.1897	0.5376	0.7608	0.5376	0.1897	0.0334	0.0029	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0007	0.0085	0.0480	0.1359	0.1924	0.1359	0.0480	0.0085	0.0007	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0094	0.0268	0.0379	0.0268	0.0094	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0014	0.0041	0.0058	0.0041	0.0014	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-27. Doses (μg) Acquired at Each Personnel Location When Linear Interpolation is Used with 0.1 s *CBstrike* Time Steps (Detection and Warning Occur at 18.6 s)

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0014	0.0040	0.0057	0.0040	0.0014	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0016	0.0093	0.0263	0.0372	0.0263	0.0093	0.0016	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0007	0.0083	0.0471	0.1334	0.1888	0.1334	0.0471	0.0083	0.0007	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0029	0.0328	0.1862	0.5276	0.7466	0.5276	0.1862	0.0328	0.0029	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0089	0.1010	0.5735	1.6252	2.2998	1.6252	0.5735	0.1010	0.0089	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0009	0.0213	0.2424	1.3758	3.8989	5.5175	3.8989	1.3758	0.2424	0.0213	0.0009	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0018	0.0399	0.4531	2.5714	7.2873	10.3125	7.2873	2.5714	0.4531	0.0399	0.0018	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0026	0.0581	0.6605	3.7486	10.6234	15.0335	10.6234	3.7486	0.6605	0.0581	0.0026	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0029	0.0664	0.7549	4.2843	12.1415	17.1818	12.1415	4.2843	0.7549	0.0664	0.0029	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0027	0.0609	0.6917	3.9255	11.1247	15.7429	11.1247	3.9255	0.6917	0.0609	0.0027	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0021	0.0487	0.5539	3.1435	8.9084	12.6065	8.9084	3.1435	0.5539	0.0487	0.0021	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0019	0.0427	0.4848	2.7513	7.7969	11.0336	7.7969	2.7513	0.4848	0.0427	0.0019	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0021	0.0487	0.5539	3.1435	8.9084	12.6065	8.9084	3.1435	0.5539	0.0487	0.0021	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0027	0.0609	0.6917	3.9255	11.1247	15.7429	11.1247	3.9255	0.6917	0.0609	0.0027	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0029	0.0664	0.7549	4.2843	12.1415	17.1818	12.1415	4.2843	0.7549	0.0664	0.0029	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0026	0.0581	0.6605	3.7486	10.6234	15.0335	10.6234	3.7486	0.6605	0.0581	0.0026	0.0001	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0018	0.0399	0.4531	2.5714	7.2873	10.3125	7.2873	2.5714	0.4531	0.0399	0.0018	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0009	0.0213	0.2424	1.3758	3.8989	5.5175	3.8989	1.3758	0.2424	0.0213	0.0009	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0004	0.0089	0.1010	0.5735	1.6252	2.2998	1.6252	0.5735	0.1010	0.0089	0.0004	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0001	0.0029	0.0328	0.1862	0.5276	0.7466	0.5276	0.1862	0.0328	0.0029	0.0001	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0007	0.0083	0.0471	0.1334	0.1888	0.1334	0.0471	0.0083	0.0007	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0016	0.0093	0.0263	0.0372	0.0263	0.0093	0.0016	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0014	0.0040	0.0057	0.0040	0.0014	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-28. Doses (μg) Acquired at Each Personnel Location When Upper Step Interpolation is Used with 0.1 s *CBstrike* Time Steps (Detection and Warning Occur at 18.2 s)

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0014	0.0040	0.0056	0.0040	0.0014	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0016	0.0092	0.0260	0.0367	0.0260	0.0092	0.0016	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0007	0.0082	0.0465	0.1318	0.1865	0.1318	0.0465	0.0082	0.0007	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0029	0.0324	0.1839	0.5213	0.7377	0.5213	0.1839	0.0324	0.0029	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0088	0.0998	0.5666	1.6057	2.2723	1.6057	0.5666	0.0998	0.0088	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0009	0.0211	0.2395	1.3593	3.8522	5.4514	3.8522	1.3593	0.2395	0.0211	0.0009	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0017	0.0394	0.4477	2.5406	7.2000	10.1890	7.2000	2.5406	0.4477	0.0394	0.0017	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0025	0.0574	0.6526	3.7037	10.4961	14.8534	10.4961	3.7037	0.6526	0.0574	0.0025	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0029	0.0656	0.7459	4.2330	11.9961	16.9760	11.9961	4.2330	0.7459	0.0656	0.0029	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0026	0.0601	0.6834	3.8785	10.9914	15.5543	10.9914	3.8785	0.6834	0.0601	0.0026	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0021	0.0482	0.5473	3.1058	8.8017	12.4555	8.8017	3.1058	0.5473	0.0482	0.0021	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0019	0.0421	0.4790	2.7183	7.7035	10.9015	7.7035	2.7183	0.4790	0.0421	0.0019	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0021	0.0482	0.5473	3.1058	8.8017	12.4555	8.8017	3.1058	0.5473	0.0482	0.0021	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0026	0.0601	0.6834	3.8785	10.9914	15.5543	10.9914	3.8785	0.6834	0.0601	0.0026	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0029	0.0656	0.7459	4.2330	11.9961	16.9760	11.9961	4.2330	0.7459	0.0656	0.0029	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0025	0.0574	0.6526	3.7037	10.4961	14.8534	10.4961	3.7037	0.6526	0.0574	0.0025	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0017	0.0394	0.4477	2.5406	7.2000	10.1890	7.2000	2.5406	0.4477	0.0394	0.0017	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0009	0.0211	0.2395	1.3593	3.8522	5.4514	3.8522	1.3593	0.2395	0.0211	0.0009	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0088	0.0998	0.5666	1.6057	2.2723	1.6057	0.5666	0.0998	0.0088	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0029	0.0324	0.1839	0.5213	0.7377	0.5213	0.1839	0.0324	0.0029	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0007	0.0082	0.0465	0.1318	0.1865	0.1318	0.0465	0.0082	0.0007	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0016	0.0092	0.0260	0.0367	0.0260	0.0092	0.0016	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0014	0.0040	0.0056	0.0040	0.0014	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-31. Doses (μg) Acquired at Each Personnel Location for a 2 m Breathing Height

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	
	-1.75	0.0000	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	
	-1.50	0.0000	0.0000	0.0001	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	
	-1.25	0.0000	0.0000	0.0001	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	
	-1.00	0.0000	0.0000	0.0001	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	
	-0.50	0.0000	0.0000	0.0001	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	
	-0.25	0.0000	0.0000	0.0001	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	
	0.00	0.0000	0.0000	0.0001	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	
	0.25	0.0000	0.0000	0.0001	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	
0.50	0.0000	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000		
0.75	0.0000	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000		
1.00	0.0000	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000		
1.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000		
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000		
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000		
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000		
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000		
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

Table B-32. Casualty Rate at Each Personnel Location for a 2 m Breathing Height

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9047	0.9358	0.9047	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

2. Breathing Rate

Table B-35. Doses (μg) Acquired at Each Personnel Location for a $0.015 \text{ m}^3/\text{min}$ Breathing Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-36. Casualty Rate at Each Personnel Location for a $0.015 \text{ m}^3/\text{min}$ Breathing Rate

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9047	0.9358	0.9047	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-37. Doses (μg) Acquired at Each Personnel Location for a $0.030 \text{ m}^3/\text{min}$ Breathing Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0011	0.0015	0.0011	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0031	0.0089	0.0126	0.0089	0.0031	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0003	0.0036	0.0205	0.0580	0.0821	0.0580	0.0205	0.0036	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0016	0.0183	0.1040	0.2946	0.4169	0.2946	0.1040	0.0183	0.0016	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0003	0.0064	0.0725	0.4112	1.1653	1.6490	1.1653	0.4112	0.0725	0.0064	0.0003	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0009	0.0196	0.2232	1.2666	3.5894	5.0795	3.5894	1.2666	0.2232	0.0196	0.0009	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0387	8.6114	12.1863	8.6114	3.0387	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0039	0.0881	1.0007	5.6794	16.0952	22.7768	16.0952	5.6794	1.0007	0.0881	0.0039	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0056	0.1284	1.4589	8.2794	23.4634	33.2038	23.4634	8.2794	1.4589	0.1284	0.0056	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0064	0.1467	1.6674	9.4626	26.8164	37.9487	26.8164	9.4626	1.6674	0.1467	0.0064	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0059	0.1344	1.5277	8.6702	24.5707	34.7707	24.5707	8.6702	1.5277	0.1344	0.0059	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0047	0.1076	1.2234	6.9429	19.6756	27.8436	19.6756	6.9429	1.2234	0.1076	0.0047	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0041	0.0942	1.0707	6.0766	17.2207	24.3696	17.2207	6.0766	1.0707	0.0942	0.0041	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0047	0.1076	1.2234	6.9429	19.6756	27.8436	19.6756	6.9429	1.2234	0.1076	0.0047	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0059	0.1344	1.5277	8.6702	24.5707	34.7707	24.5707	8.6702	1.5277	0.1344	0.0059	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0064	0.1467	1.6674	9.4626	26.8164	37.9487	26.8164	9.4626	1.6674	0.1467	0.0064	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0056	0.1284	1.4589	8.2794	23.4634	33.2038	23.4634	8.2794	1.4589	0.1284	0.0056	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0001	0.0039	0.0881	1.0007	5.6794	16.0952	22.7768	16.0952	5.6794	1.0007	0.0881	0.0039	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0387	8.6114	12.1863	8.6114	3.0387	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0009	0.0196	0.2232	1.2666	3.5894	5.0795	3.5894	1.2666	0.2232	0.0196	0.0009	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0003	0.0064	0.0725	0.4112	1.1653	1.6490	1.1653	0.4112	0.0725	0.0064	0.0003	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0001	0.0016	0.0183	0.1040	0.2946	0.4169	0.2946	0.1040	0.0183	0.0016	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0003	0.0036	0.0205	0.0580	0.0821	0.0580	0.0205	0.0036	0.0003	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0031	0.0089	0.0126	0.0089	0.0031	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0011	0.0015	0.0011	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-38. Casualty Rate at Each Personnel Location for a $0.030 \text{ m}^3/\text{min}$ Breathing Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0020	0.0039	0.0020	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0090	0.0417	0.0643	0.0417	0.0090	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0075	0.0844	0.2287	0.2974	0.2287	0.0844	0.0075	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0011	0.0553	0.2945	0.5371	0.6195	0.5371	0.2945	0.0553	0.0011	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0084	0.1809	0.5571	0.7814	0.8385	0.7814	0.5571	0.1809	0.0084	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9048	0.9358	0.9048	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0004	0.0698	0.5002	0.8545	0.9544	0.9713	0.9544	0.8545	0.5002	0.0698	0.0004	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0008	0.1060	0.5908	0.9006	0.9725	0.9834	0.9725	0.9006	0.5908	0.1060	0.0008	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0011	0.1216	0.6220	0.9141	0.9772	0.9865	0.9772	0.9141	0.6220	0.1216	0.0011	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0009	0.1112	0.6017	0.9055	0.9742	0.9845	0.9742	0.9055	0.6017	0.1112	0.0009	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0006	0.0877	0.5488	0.8806	0.9650	0.9784	0.9650	0.8806	0.5488	0.0877	0.0006	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0004	0.0755	0.5166	0.8637	0.9582	0.9739	0.9582	0.8637	0.5166	0.0755	0.0004	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0006	0.0877	0.5488	0.8806	0.9650	0.9784	0.9650	0.8806	0.5488	0.0877	0.0006	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0009	0.1112	0.6017	0.9055	0.9742	0.9845	0.9742	0.9055	0.6017	0.1112	0.0009	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0011	0.1216	0.6220	0.9141	0.9772	0.9865	0.9772	0.9141	0.6220	0.1216	0.0011	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0008	0.1060	0.5908	0.9006	0.9725	0.9834	0.9725	0.9006	0.5908	0.1060	0.0008	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0004	0.0698	0.5002	0.8545	0.9544	0.9713	0.9544	0.8545	0.5002	0.0698	0.0004	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9048	0.9358	0.9048	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0084	0.1809	0.5571	0.7814	0.8385	0.7814	0.5571	0.1809	0.0084	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0011	0.0553	0.2945	0.5371	0.6195	0.5371	0.2945	0.0553	0.0011	0.0000	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0075	0.0844	0.2287	0.2974	0.2287	0.0844	0.0075	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0090	0.0417	0.0643	0.0417	0.0090	0.0003	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0020	0.0039	0.0020	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-39. Doses (μg) Acquired at Each Personnel Location for a $0.045 \text{ m}^3/\text{min}$ Breathing Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0002	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0047	0.0133	0.0189	0.0133	0.0047	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0005	0.0054	0.0307	0.0870	0.1232	0.0870	0.0307	0.0054	0.0005	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0024	0.0275	0.1559	0.4419	0.6254	0.4419	0.1559	0.0275	0.0024	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0004	0.0096	0.1087	0.6168	1.7479	2.4736	1.7479	0.6168	0.1087	0.0096	0.0004	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0013	0.0295	0.3348	1.8999	5.3841	7.6193	5.3841	1.8999	0.3348	0.0295	0.0013	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0001	0.0031	0.0707	0.8031	4.5580	12.9171	18.2794	12.9171	4.5580	0.8031	0.0707	0.0031	0.0001	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0058	0.1321	1.5011	8.5192	24.1428	34.1652	24.1428	8.5192	1.5011	0.1321	0.0058	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0002	0.0085	0.1925	2.1883	12.4192	35.1951	49.8057	35.1951	12.4192	2.1883	0.1925	0.0085	0.0002	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0002	0.0097	0.2201	2.5010	14.1939	40.2246	56.9231	40.2246	14.1939	2.5010	0.2201	0.0097	0.0002	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0002	0.0089	0.2016	2.2916	13.0052	36.8560	52.1561	36.8560	13.0052	2.2916	0.2016	0.0089	0.0002	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0002	0.0071	0.1615	1.8350	10.4143	29.5134	41.7653	29.5134	10.4143	1.8350	0.1615	0.0071	0.0002	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0062	0.1413	1.6061	9.1149	25.8311	36.5544	25.8311	9.1149	1.6061	0.1413	0.0062	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0002	0.0071	0.1615	1.8350	10.4143	29.5134	41.7653	29.5134	10.4143	1.8350	0.1615	0.0071	0.0002	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0002	0.0089	0.2016	2.2916	13.0052	36.8560	52.1561	36.8560	13.0052	2.2916	0.2016	0.0089	0.0002	0.0000	0.0000
	0.00	0.0000	0.0000	0.0002	0.0097	0.2201	2.5010	14.1939	40.2246	56.9231	40.2246	14.1939	2.5010	0.2201	0.0097	0.0002	0.0000	0.0000
	0.25	0.0000	0.0000	0.0002	0.0085	0.1925	2.1883	12.4192	35.1951	49.8057	35.1951	12.4192	2.1883	0.1925	0.0085	0.0002	0.0000	0.0000
	0.50	0.0000	0.0000	0.0001	0.0058	0.1321	1.5011	8.5192	24.1428	34.1652	24.1428	8.5192	1.5011	0.1321	0.0058	0.0001	0.0000	0.0000
0.75	0.0000	0.0000	0.0001	0.0031	0.0707	0.8031	4.5580	12.9171	18.2794	12.9171	4.5580	0.8031	0.0707	0.0031	0.0001	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0013	0.0295	0.3348	1.8999	5.3841	7.6193	5.3841	1.8999	0.3348	0.0295	0.0013	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0004	0.0096	0.1087	0.6168	1.7479	2.4736	1.7479	0.6168	0.1087	0.0096	0.0004	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0001	0.0024	0.0275	0.1559	0.4419	0.6254	0.4419	0.1559	0.0275	0.0024	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0005	0.0054	0.0307	0.0870	0.1232	0.0870	0.0307	0.0054	0.0005	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0047	0.0133	0.0189	0.0133	0.0047	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0002	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-40. Casualty Rate at Each Personnel Location for a $0.045 \text{ m}^3/\text{min}$ Breathing Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0043	0.0079	0.0043	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	0.0171	0.0688	0.1014	0.0688	0.0171	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0144	0.1293	0.3098	0.3877	0.3098	0.1293	0.0144	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0023	0.0886	0.3845	0.6329	0.7091	0.6329	0.3845	0.0886	0.0023	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0160	0.2529	0.6518	0.8470	0.8915	0.8470	0.6518	0.2529	0.0160	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0002	0.0536	0.4470	0.8218	0.9401	0.9614	0.9401	0.8218	0.4470	0.0536	0.0002	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0009	0.1092	0.5975	0.9036	0.9736	0.9841	0.9736	0.9036	0.5975	0.1092	0.0009	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0019	0.1583	0.6830	0.9372	0.9848	0.9913	0.9848	0.9372	0.6830	0.1583	0.0019	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0024	0.1787	0.7114	0.9466	0.9877	0.9930	0.9877	0.9466	0.7114	0.1787	0.0024	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0020	0.1651	0.6929	0.9406	0.9859	0.9919	0.9859	0.9406	0.6929	0.1651	0.0020	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0013	0.1338	0.6440	0.9229	0.9802	0.9884	0.9802	0.9229	0.6440	0.1338	0.0013	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0010	0.1171	0.6134	0.9105	0.9760	0.9857	0.9760	0.9105	0.6134	0.1171	0.0010	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0013	0.1338	0.6440	0.9229	0.9802	0.9884	0.9802	0.9229	0.6440	0.1338	0.0013	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0020	0.1651	0.6929	0.9406	0.9859	0.9919	0.9859	0.9406	0.6929	0.1651	0.0020	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0024	0.1787	0.7114	0.9466	0.9877	0.9930	0.9877	0.9466	0.7114	0.1787	0.0024	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0019	0.1583	0.6830	0.9372	0.9848	0.9913	0.9848	0.9372	0.6830	0.1583	0.0019	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0009	0.1092	0.5975	0.9036	0.9736	0.9841	0.9736	0.9036	0.5975	0.1092	0.0009	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0002	0.0536	0.4470	0.8218	0.9401	0.9614	0.9401	0.8218	0.4470	0.0536	0.0002	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0160	0.2529	0.6518	0.8470	0.8915	0.8470	0.6518	0.2529	0.0160	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0023	0.0886	0.3845	0.6329	0.7091	0.6329	0.3845	0.0886	0.0023	0.0000	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0144	0.1293	0.3098	0.3877	0.3098	0.1293	0.0144	0.0001	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	0.0171	0.0688	0.1014	0.0688	0.0171	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0043	0.0079	0.0043	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

3. Inhaled Particle Size Range

Table B-41. Doses (μg) Acquired at Each Personnel Location When Inhaled Particles Are Limited to a Radius Range of 0-5 μm

[illegible]

Table B-42. Casualty Rate at Each Personnel Location When Inhaled Particles Are Limited to a Radius Range of 0-5 μm

[illegible]

Table B-43. Doses (μg) Acquired at Each Personnel Location When Inhaled Particles Are Limited to a Radius Range of 5-5.5 μm

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-44. Casualty Rate at Each Personnel Location When Inhaled Particles Are Limited to a Radius Range of 5-5.5 μm

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9047	0.9358	0.9047	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

[illegible][illegible]

Table B-47. Doses (μg) Acquired at Each Personnel Location When Inhaled Particles Are Limited to a Radius Range of 0-100,000 μm

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-48. Casualty Rate at Each Personnel Location When Inhaled Particles Are Limited to a Radius Range of 0-100,000 μm

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9047	0.9358	0.9047	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

4. Median Effective Dose

Table B-49. Casualty Rate at Each Personnel Location for a Median Effective Dose of 0.001 μg

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0007	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0069	0.0337	0.0529	0.0337	0.0069	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0191	0.1544	0.3503	0.4312	0.3503	0.1544	0.0191	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0119	0.2173	0.6080	0.8179	0.8684	0.8179	0.6080	0.2173	0.0119	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0013	0.1315	0.6401	0.9213	0.9797	0.9880	0.9797	0.9213	0.6401	0.1315	0.0013	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0211	0.4478	0.9110	0.9919	0.9988	0.9994	0.9988	0.9919	0.9110	0.4478	0.0211	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0002	0.1160	0.7595	0.9855	0.9994	0.9999	1.0000	0.9999	0.9994	0.9855	0.7595	0.1160	0.0002	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0023	0.3046	0.9176	0.9979	1.0000	1.0000	1.0000	1.0000	1.0000	0.9979	0.9176	0.3046	0.0023	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0107	0.5083	0.9726	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000	0.9997	0.9726	0.5083	0.0107	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0274	0.6559	0.9893	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9893	0.6559	0.0274	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0453	0.7358	0.9943	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9943	0.7358	0.0453	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0536	0.7616	0.9955	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9955	0.7616	0.0536	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0481	0.7449	0.9947	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9947	0.7449	0.0481	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0360	0.6996	0.9923	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9923	0.6996	0.0360	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0301	0.6709	0.9904	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9904	0.6709	0.0301	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0360	0.6996	0.9923	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9923	0.6996	0.0360	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0481	0.7449	0.9947	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9947	0.7449	0.0481	0.0000	0.0000
	0.00	0.0000	0.0000	0.0536	0.7616	0.9955	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9955	0.7616	0.0536	0.0000	0.0000
	0.25	0.0000	0.0000	0.0453	0.7358	0.9943	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9943	0.7358	0.0453	0.0000	0.0000
0.50	0.0000	0.0000	0.0274	0.6559	0.9893	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9893	0.6559	0.0274	0.0000	0.0000	
0.75	0.0000	0.0000	0.0107	0.5083	0.9726	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000	0.9997	0.9726	0.5083	0.0107	0.0000	0.0000	
1.00	0.0000	0.0000	0.0023	0.3046	0.9176	0.9979	1.0000	1.0000	1.0000	1.0000	1.0000	0.9979	0.9176	0.3046	0.0023	0.0000	0.0000	
1.25	0.0000	0.0000	0.0002	0.1160	0.7595	0.9855	0.9994	0.9999	1.0000	0.9999	0.9994	0.9855	0.7595	0.1160	0.0002	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0211	0.4478	0.9110	0.9919	0.9988	0.9994	0.9988	0.9919	0.9110	0.4478	0.0211	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0013	0.1315	0.6401	0.9213	0.9797	0.9880	0.9797	0.9213	0.6401	0.1315	0.0013	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0119	0.2173	0.6080	0.8179	0.8684	0.8179	0.6080	0.2173	0.0119	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0191	0.1544	0.3503	0.4312	0.3503	0.1544	0.0191	0.0002	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0069	0.0337	0.0529	0.0337	0.0069	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0007	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-50. Casualty Rate at Each Personnel Location for a Median Effective Dose of 1.0 μg

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9047	0.9358	0.9047	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0017	0.0033	0.0017	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0034	0.0064	0.0034	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0044	0.0080	0.0044	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0037	0.0069	0.0037	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0025	0.0047	0.0025	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0019	0.0037	0.0019	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0025	0.0047	0.0025	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0037	0.0069	0.0037	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0044	0.0080	0.0044	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0034									

5. Probit Slope

Table B-52. Casualty Rate at Each Personnel Location for a Probit Slope of 0.5

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0004	0.0005	0.0004	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0016	0.0032	0.0041	0.0032	0.0016	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0005	0.0029	0.0087	0.0157	0.0189	0.0157	0.0087	0.0029	0.0005	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0003	0.0028	0.0125	0.0312	0.0508	0.0591	0.0508	0.0312	0.0125	0.0028	0.0003	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0001	0.0014	0.0105	0.0376	0.0804	0.1198	0.1356	0.1198	0.0804	0.0376	0.0105	0.0014	0.0001	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0003	0.0050	0.0287	0.0850	0.1599	0.2210	0.2440	0.2210	0.1599	0.0850	0.0287	0.0050	0.0003	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0011	0.0130	0.0609	0.1541	0.2604	0.3387	0.3667	0.3387	0.2604	0.1541	0.0609	0.0130	0.0011	0.0000	0.0000
	-2.75	0.0000	0.0001	0.0029	0.0270	0.1060	0.2356	0.3656	0.4533	0.4833	0.4533	0.3656	0.2356	0.1060	0.0270	0.0029	0.0001	0.0000
	-2.50	0.0000	0.0002	0.0060	0.0462	0.1577	0.3170	0.4605	0.5505	0.5802	0.5505	0.4605	0.3170	0.1577	0.0462	0.0060	0.0002	0.0000
	-2.25	0.0000	0.0005	0.0101	0.0678	0.2078	0.3874	0.5362	0.6244	0.6526	0.6244	0.5362	0.3874	0.2078	0.0678	0.0101	0.0005	0.0000
	-2.00	0.0000	0.0008	0.0144	0.0874	0.2488	0.4402	0.5896	0.6747	0.7013	0.6747	0.5896	0.4402	0.2488	0.0874	0.0144	0.0008	0.0000
	-1.75	0.0000	0.0010	0.0177	0.1012	0.2755	0.4727	0.6211	0.7036	0.7291	0.7036	0.6211	0.4727	0.2755	0.1012	0.0177	0.0010	0.0000
	-1.50	0.0000	0.0011	0.0190	0.1064	0.2853	0.4842	0.6321	0.7135	0.7386	0.7135	0.6321	0.4842	0.2853	0.1064	0.0190	0.0011	0.0000
	-1.25	0.0000	0.0011	0.0181	0.1030	0.2788	0.4767	0.6249	0.7070	0.7324	0.7070	0.6249	0.4767	0.2788	0.1030	0.0181	0.0011	0.0000
	-1.00	0.0000	0.0009	0.0161	0.0946	0.2629	0.4575	0.6065	0.6902	0.7163	0.6902	0.6065	0.4575	0.2629	0.0946	0.0161	0.0009	0.0000
	-0.75	0.0000	0.0008	0.0149	0.0898	0.2535	0.4460	0.5953	0.6799	0.7064	0.6799	0.5953	0.4460	0.2535	0.0898	0.0149	0.0008	0.0000
	-0.50	0.0000	0.0009	0.0161	0.0946	0.2629	0.4575	0.6065	0.6902	0.7163	0.6902	0.6065	0.4575	0.2629	0.0946	0.0161	0.0009	0.0000
	-0.25	0.0000	0.0011	0.0181	0.1030	0.2788	0.4767	0.6249	0.7070	0.7324	0.7070	0.6249	0.4767	0.2788	0.1030	0.0181	0.0011	0.0000
	0.00	0.0000	0.0011	0.0190	0.1064	0.2853	0.4842	0.6321	0.7135	0.7386	0.7135	0.6321	0.4842	0.2853	0.1064	0.0190	0.0011	0.0000
	0.25	0.0000	0.0010	0.0177	0.1012	0.2755	0.4727	0.6211	0.7036	0.7291	0.7036	0.6211	0.4727	0.2755	0.1012	0.0177	0.0010	0.0000
0.50	0.0000	0.0008	0.0144	0.0874	0.2488	0.4402	0.5896	0.6747	0.7013	0.6747	0.5896	0.4402	0.2488	0.0874	0.0144	0.0008	0.0000	
0.75	0.0000	0.0005	0.0101	0.0678	0.2078	0.3874	0.5362	0.6244	0.6526	0.6244	0.5362	0.3874	0.2078	0.0678	0.0101	0.0005	0.0000	
1.00	0.0000	0.0002	0.0060	0.0462	0.1577	0.3170	0.4605	0.5505	0.5802	0.5505	0.4605	0.3170	0.1577	0.0462	0.0060	0.0002	0.0000	
1.25	0.0000	0.0001	0.0029	0.0270	0.1060	0.2356	0.3656	0.4533	0.4833	0.4533	0.3656	0.2356	0.1060	0.0270	0.0029	0.0001	0.0000	
1.50	0.0000	0.0000	0.0011	0.0130	0.0609	0.1541	0.2604	0.3387	0.3667	0.3387	0.2604	0.1541	0.0609	0.0130	0.0011	0.0000	0.0000	
1.75	0.0000	0.0000	0.0003	0.0050	0.0287	0.0850	0.1599	0.2210	0.2440	0.2210	0.1599	0.0850	0.0287	0.0050	0.0003	0.0000	0.0000	
2.00	0.0000	0.0000	0.0001	0.0014	0.0105	0.0376	0.0804	0.1198	0.1356	0.1198	0.0804	0.0376	0.0105	0.0014	0.0001	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0003	0.0028	0.0125	0.0312	0.0508	0.0591	0.0508	0.0312	0.0125	0.0028	0.0003	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0005	0.0029	0.0087	0.0157	0.0189	0.0157	0.0087	0.0029	0.0005	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0016	0.0032	0.0041	0.0032	0.0016	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0004	0.0005	0.0004	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-53. Casualty Rate at Each Personnel Location for a Probit Slope of 1.4

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9047	0.9358	0.9047	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-54. Casualty Rate at Each Personnel Location for a Probit Slope of 2.0

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0011	0.0028	0.0011	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0051	0.0481	0.0866	0.0481	0.0051	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0020	0.0847	0.3195	0.4334	0.3195	0.0847	0.0020	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0284	0.3458	0.6943	0.7909	0.6943	0.3458	0.0284	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0006	0.1262	0.6418	0.8976	0.9418	0.8976	0.6418	0.1262	0.0006	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0033	0.2738	0.8177	0.9650	0.9827	0.9650	0.8177	0.2738	0.0033	0.0000	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0085	0.3920	0.8914	0.9838	0.9927	0.9838	0.8914	0.3920	0.0085	0.0000	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0116	0.4372	0.9115	0.9879	0.9879	0.9115	0.4372	0.0116	0.0000	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0095	0.4075	0.8987	0.9853	0.9934	0.9853	0.8987	0.4075	0.0095	0.0000	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0056	0.3347	0.8602	0.9765	0.9889	0.9765	0.8602	0.3347	0.0056	0.0000	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0040	0.2937	0.8328	0.9693	0.9851	0.9693	0.8328	0.2937	0.0040	0.0000	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0056	0.3347	0.8602	0.9765	0.9889	0.9765	0.8602	0.3347	0.0056	0.0000	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0095	0.4075	0.8987	0.9853	0.9934	0.9853	0.8987	0.4075	0.0095	0.0000	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0000	0.0116	0.4372	0.9115	0.9879	0.9947	0.9879	0.9115	0.4372	0.0116	0.0000	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0000	0.0085	0.3920	0.8914	0.9838	0.9927	0.9838	0.8914	0.3920	0.0085	0.0000	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0000	0.0033	0.2738	0.8177	0.9650	0.9827	0.9650	0.8177	0.2738	0.0033	0.0000	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0006	0.1262	0.6418	0.8976	0.9418	0.8976	0.6418	0.1262	0.0006	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0284	0.3458	0.6943	0.7909	0.6943	0.3458	0.0284	0.0000	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0020	0.0847	0.3195	0.4334	0.3195	0.0847	0.0020	0.0000	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0051	0.0481	0.0866	0.0481	0.0051	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0011	0.0028	0.0011	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

6. Warning Delay

Table B-55. Doses (μg) Acquired at Each Personnel Location When There Is No Delay in Warning

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000	
-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000	
0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000	
0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-56. Casualty Rate at Each Personnel Location When There Is No Delay in Warning

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9047	0.9358	0.9047	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000	
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	
	0.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	
	0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000		
0.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000		
1.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000		
1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.7145	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000		
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000		
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000		
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

Table B-57. Doses (μg) Acquired at Each Personnel Location When There Is a 1 s Warning Delay

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0006	0.0008	0.0006	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0017	0.0048	0.0067	0.0048	0.0017	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0019	0.0109	0.0310	0.0439	0.0310	0.0109	0.0019	0.0002	0.0000	0.0000	0.0000	0.0000	
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0009	0.0098	0.0556	0.1576	0.2230	0.1576	0.0556	0.0098	0.0009	0.0000	0.0000	0.0000	0.0000	
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0034	0.0388	0.2199	0.6233	0.8820	0.6233	0.2199	0.0388	0.0034	0.0001	0.0000	0.0000	0.0000	
	-2.50	0.0000	0.0000	0.0000	0.0005	0.0105	0.1194	0.6775	1.9199	2.7169	1.9199	0.6775	0.1194	0.0105	0.0005	0.0000	0.0000	0.0000	
	-2.25	0.0000	0.0000	0.0000	0.0011	0.0252	0.2864	1.6253	4.6060	6.5181	4.6060	1.6253	0.2864	0.0252	0.0011	0.0000	0.0000	0.0000	
	-2.00	0.0000	0.0000	0.0000	0.0021	0.0471	0.5353	3.0378	8.6088	12.1826	8.6088	3.0378	0.5353	0.0471	0.0021	0.0000	0.0000	0.0000	
	-1.75	0.0000	0.0000	0.0001	0.0030	0.0687	0.7803	4.4284	12.5498	17.7597	12.5498	4.4284	0.7803	0.0687	0.0030	0.0001	0.0000	0.0000	
	-1.50	0.0000	0.0000	0.0001	0.0034	0.0785	0.8918	5.0612	14.3432	20.2976	14.3432	5.0612	0.8918	0.0785	0.0034	0.0001	0.0000	0.0000	
	-1.25	0.0000	0.0000	0.0001	0.0032	0.0719	0.8171	4.6374	13.1421	18.5978	13.1421	4.6374	0.8171	0.0719	0.0032	0.0001	0.0000	0.0000	
	-1.00	0.0000	0.0000	0.0001	0.0025	0.0576	0.6543	3.7135	10.5239	14.8926	10.5239	3.7135	0.6543	0.0576	0.0025	0.0001	0.0000	0.0000	
	-0.75	0.0000	0.0000	0.0000	0.0022	0.0504	0.5727	3.2502	9.2108	13.0345	9.2108	3.2502	0.5727	0.0504	0.0022	0.0000	0.0000	0.0000	
	-0.50	0.0000	0.0000	0.0001	0.0025	0.0576	0.6543	3.7135	10.5239	14.8926	10.5239	3.7135	0.6543	0.0576	0.0025	0.0001	0.0000	0.0000	
	-0.25	0.0000	0.0000	0.0001	0.0032	0.0719	0.8171	4.6374	13.1421	18.5978	13.1421	4.6374	0.8171	0.0719	0.0032	0.0001	0.0000	0.0000	
	0.00	0.0000	0.0000	0.0001	0.0034	0.0785	0.8918	5.0612	14.3432	20.2976	14.3432	5.0612	0.8918	0.0785	0.0034	0.0001	0.0000	0.0000	
	0.25	0.0000	0.0000	0.0001	0.0030	0.0687	0.7803	4.4284	12.5498	17.7597	12.5498	4.4284	0.7803	0.0687	0.0030	0.0001	0.0000	0.0000	
	0.50	0.0000	0.0000	0.0000	0.0021	0.0471	0.5353	3.0378	8.6088	12.1826	8.6088	3.0378	0.5353	0.0471	0.0021	0.0000	0.0000	0.0000	
	0.75	0.0000	0.0000	0.0000	0.0011	0.0252	0.2864	1.6253	4.6060	6.5181	4.6060	1.6253	0.2864	0.0252	0.0011	0.0000	0.0000	0.0000	
	1.00	0.0000	0.0000	0.0000	0.0005	0.0105	0.1194	0.6775	1.9199	2.7169	1.9199	0.6775	0.1194	0.0105	0.0005	0.0000	0.0000	0.0000	
	1.25	0.0000	0.0000	0.0000	0.0001	0.0034	0.0388	0.2199	0.6233	0.8820	0.6233	0.2199	0.0388	0.0034	0.0001	0.0000	0.0000	0.0000	
	1.50	0.0000	0.0000	0.0000	0.0000	0.0009	0.0098	0.0556	0.1576	0.2230	0.1576	0.0556	0.0098	0.0009	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0019	0.0109	0.0310	0.0439	0.0310	0.0109	0.0019	0.0002	0.0000	0.0000	0.0000	0.0000		
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0017	0.0048	0.0067	0.0048	0.0017	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000		
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0006	0.0008	0.0006	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000		
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

Table B-58. Casualty Rate at Each Personnel Location When There Is a 1 s Warning Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0012	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0030	0.0174	0.0287	0.0174	0.0030	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0395	0.1306	0.1808	0.1306	0.0395	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0003	0.0241	0.1786	0.3869	0.4696	0.3869	0.1786	0.0241	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0028	0.0981	0.4064	0.6542	0.7283	0.6542	0.4064	0.0981	0.0028	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0126	0.2235	0.6161	0.8235	0.8728	0.8235	0.6161	0.2235	0.0126	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7503	0.9047	0.9358	0.9047	0.7503	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0002	0.0517	0.4401	0.8172	0.9380	0.9599	0.9380	0.8172	0.4401	0.0517	0.0002	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0003	0.0609	0.4722	0.8379	0.9473	0.9664	0.9473	0.8379	0.4722	0.0609	0.0003	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0002	0.0547	0.4511	0.8245	0.9413	0.9622	0.9413	0.8245	0.4511	0.0547	0.0002	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0001	0.0413	0.3982	0.7875	0.9238	0.9497	0.9238	0.7875	0.3982	0.0413	0.0001	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0001	0.0346	0.3673	0.7632	0.9115	0.9408	0.9115	0.7632	0.3673	0.0346	0.0001	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0413	0.3982	0.7875	0.9238	0.9497	0.9238	0.7875	0.3982	0.0413	0.0001	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0002	0.0547	0.4511	0.8245	0.9413	0.9622	0.9413	0.8245	0.4511	0.0547	0.0002	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0003	0.0609	0.4722	0.8379	0.9473	0.9664	0.9473	0.8379	0.4722	0.0609	0.0003	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0002	0.0517	0.4401	0.8172	0.9380	0.9599	0.9380	0.8172	0.4401	0.0517	0.0002	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7503	0.9047	0.9358	0.9047	0.7503	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0126	0.2235	0.6161	0.8235	0.8728	0.8235	0.6161	0.2235	0.0126	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0028	0.0981	0.4064	0.6542	0.7283	0.6542	0.4064	0.0981	0.0028	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0003	0.0241	0.1786	0.3869	0.4696	0.3869	0.1786	0.0241	0.0003	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0395	0.1306	0.1808	0.1306	0.0395	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0030	0.0174	0.0287	0.0174	0.0030	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0012	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-59. Doses (μg) Acquired at Each Personnel Location When There Is a 10 s Warning Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0009	0.0013	0.0009	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0028	0.0079	0.0112	0.0079	0.0028	0.0005	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0032	0.0182	0.0517	0.0731	0.0517	0.0182	0.0032	0.0003	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0014	0.0163	0.0926	0.2625	0.3715	0.2625	0.0926	0.0163	0.0014	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0002	0.0057	0.0646	0.3664	1.0382	1.4693	1.0382	0.3664	0.0646	0.0057	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0008	0.0175	0.1988	1.1285	3.1981	4.5257	3.1981	1.1285	0.1988	0.0175	0.0008	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0018	0.0420	0.4771	2.7074	7.6726	10.8577	7.6726	2.7074	0.4771	0.0420	0.0018	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0034	0.0785	0.8916	5.0603	14.3404	20.2936	14.3404	5.0603	0.8916	0.0785	0.0034	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0050	0.1144	1.2998	7.3768	20.9054	29.5838	20.9054	7.3768	1.2998	0.1144	0.0050	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0057	0.1307	1.4856	8.4310	23.8928	33.8115	23.8928	8.4310	1.4856	0.1307	0.0057	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0053	0.1198	1.3612	7.7249	21.8919	30.9799	21.8919	7.7249	1.3612	0.1198	0.0053	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0042	0.0959	1.0900	6.1859	17.5305	24.8080	17.5305	6.1859	1.0900	0.0959	0.0042	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0037	0.0839	0.9540	5.4141	15.3433	21.7127	15.3433	5.4141	0.9540	0.0839	0.0037	0.0001	0.0000	0.0000
-0.50	0.0000	0.0000	0.0001	0.0042	0.0959	1.0900	6.1859	17.5305	24.8080	17.5305	6.1859	1.0900	0.0959	0.0042	0.0001	0.0000	0.0000	
-0.25	0.0000	0.0000	0.0001	0.0053	0.1198	1.3612	7.7249	21.8919	30.9799	21.8919	7.7249	1.3612	0.1198	0.0053	0.0001	0.0000	0.0000	
0.00	0.0000	0.0000	0.0001	0.0057	0.1307	1.4856	8.4310	23.8928	33.8115	23.8928	8.4310	1.4856	0.1307	0.0057	0.0001	0.0000	0.0000	
0.25	0.0000	0.0000	0.0001	0.0050	0.1144	1.2998	7.3768	20.9054	29.5838	20.9054	7.3768	1.2998	0.1144	0.0050	0.0001	0.0000	0.0000	
0.50	0.0000	0.0000	0.0001	0.0034	0.0785	0.8916	5.0603	14.3404	20.2936	14.3404	5.0603	0.8916	0.0785	0.0034	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0018	0.0420	0.4771	2.7074	7.6726	10.8577	7.6726	2.7074	0.4771	0.0420	0.0018	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0008	0.0175	0.1988	1.1285	3.1981	4.5257	3.1981	1.1285	0.1988	0.0175	0.0008	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0002	0.0057	0.0646	0.3664	1.0382	1.4693	1.0382	0.3664	0.0646	0.0057	0.0002	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0001	0.0014	0.0163	0.0926	0.2625	0.3715	0.2625	0.0926	0.0163	0.0014	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0003	0.0032	0.0182	0.0517	0.0731	0.0517	0.0182	0.0032	0.0003	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0028	0.0079	0.0112	0.0079	0.0028	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0009	0.0013	0.0009	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-60. Casualty Rate at Each Personnel Location When There Is a 10 s Warning Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0016	0.0032	0.0016	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0075	0.0358	0.0559	0.0358	0.0075	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0062	0.0740	0.2080	0.2736	0.2080	0.0740	0.0062	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0008	0.0478	0.2708	0.5091	0.5925	0.5091	0.2708	0.0478	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0069	0.1630	0.5293	0.7602	0.8207	0.7602	0.5293	0.1630	0.0069	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0001	0.0269	0.3264	0.7276	0.8923	0.9265	0.8923	0.7276	0.3264	0.0269	0.0001	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0003	0.0609	0.4722	0.8379	0.9473	0.9664	0.9473	0.8379	0.4722	0.0609	0.0003	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0006	0.0937	0.5633	0.8878	0.9677	0.9803	0.9677	0.8878	0.5633	0.0937	0.0006	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0009	0.1080	0.5951	0.9026	0.9732	0.9839	0.9732	0.9026	0.5951	0.1080	0.0009	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0007	0.0985	0.5744	0.8931	0.9697	0.9816	0.9697	0.8931	0.5744	0.0985	0.0007	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0004	0.0770	0.5209	0.8661	0.9592	0.9746	0.9592	0.8661	0.5209	0.0770	0.0004	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0003	0.0660	0.4886	0.8478	0.9516	0.9694	0.9516	0.8478	0.4886	0.0660	0.0003	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0004	0.0770	0.5209	0.8661	0.9592	0.9746	0.9592	0.8661	0.5209	0.0770	0.0004	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0007	0.0985	0.5744	0.8931	0.9697	0.9816	0.9697	0.8931	0.5744	0.0985	0.0007	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0009	0.1080	0.5951	0.9026	0.9732	0.9839	0.9732	0.9026	0.5951	0.1080	0.0009	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0006	0.0937	0.5633	0.8878	0.9677	0.9803	0.9677	0.8878	0.5633	0.0937	0.0006	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0003	0.0609	0.4722	0.8379	0.9473	0.9664	0.9473	0.8379	0.4722	0.0609	0.0003	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0001	0.0269	0.3264	0.7276	0.8923	0.9265	0.8923	0.7276	0.3264	0.0269	0.0001	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0069	0.1630	0.5293	0.7602	0.8207	0.7602	0.5293	0.1630	0.0069	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0008	0.0478	0.2708	0.5091	0.5925	0.5091	0.2708	0.0478	0.0008	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0062	0.0740	0.2080	0.2736	0.2080	0.0740	0.0062	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0075	0.0358	0.0559	0.0358	0.0075	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0016	0.0032	0.0016	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

7. Masking Delay

Table B-61. Doses (μg) Acquired at Each Personnel Location When There Is No Delay between Warning and Masking

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-62. Casualty Rate at Each Personnel Location When There Is No Delay between Warning and Masking

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9047	0.9358	0.9047	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000
-0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000	
0.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000	
0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-63. Doses (μg) Acquired at Each Personnel Location When There Is a 5 s Delay between Warning and Masking

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0007	0.0010	0.0007	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0021	0.0061	0.0086	0.0061	0.0021	0.0004	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0025	0.0140	0.0397	0.0561	0.0397	0.0140	0.0025	0.0002	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0011	0.0125	0.0711	0.2015	0.2851	0.2015	0.0711	0.0125	0.0011	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0044	0.0495	0.2811	0.7968	1.1275	0.7968	0.2811	0.0495	0.0044	0.0002	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0006	0.0134	0.1526	0.8660	2.4542	3.4731	2.4542	0.8660	0.1526	0.0134	0.0006	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0014	0.0322	0.3661	2.0777	5.8880	8.3323	5.8880	2.0777	0.3661	0.0322	0.0014	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0026	0.0602	0.6842	3.8833	11.0049	15.5734	11.0049	3.8833	0.6842	0.0602	0.0026	0.0001	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0001	0.0039	0.0878	0.9975	5.6610	16.0429	22.7028	16.0429	5.6610	0.9975	0.0878	0.0039	0.0001	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0001	0.0044	0.1003	1.1400	6.4700	18.3355	25.9471	18.3355	6.4700	1.1400	0.1003	0.0044	0.0001	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0001	0.0040	0.0919	1.0446	5.9281	16.8000	23.7742	16.8000	5.9281	1.0446	0.0919	0.0040	0.0001	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0001	0.0032	0.0736	0.8365	4.7471	13.4530	19.0378	13.4530	4.7471	0.8365	0.0736	0.0032	0.0001	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0001	0.0028	0.0644	0.7321	4.1548	11.7745	16.6625	11.7745	4.1548	0.7321	0.0644	0.0028	0.0001	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0032	0.0736	0.8365	4.7471	13.4530	19.0378	13.4530	4.7471	0.8365	0.0736	0.0032	0.0001	0.0000
-0.25	0.0000	0.0000	0.0000	0.0001	0.0040	0.0919	1.0446	5.9281	16.8000	23.7742	16.8000	5.9281	1.0446	0.0919	0.0040	0.0001	0.0000	
0.00	0.0000	0.0000	0.0000	0.0001	0.0044	0.1003	1.1400	6.4700	18.3355	25.9471	18.3355	6.4700	1.1400	0.1003	0.0044	0.0001	0.0000	
0.25	0.0000	0.0000	0.0000	0.0001	0.0039	0.0878	0.9975	5.6610	16.0429	22.7028	16.0429	5.6610	0.9975	0.0878	0.0039	0.0001	0.0000	
0.50	0.0000	0.0000	0.0000	0.0001	0.0026	0.0602	0.6842	3.8833	11.0049	15.5734	11.0049	3.8833	0.6842	0.0602	0.0026	0.0001	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0014	0.0322	0.3661	2.0777	5.8880	8.3323	5.8880	2.0777	0.3661	0.0322	0.0014	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0006	0.0134	0.1526	0.8660	2.4542	3.4731	2.4542	0.8660	0.1526	0.0134	0.0006	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0044	0.0495	0.2811	0.7968	1.1275	0.7968	0.2811	0.0495	0.0044	0.0002	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0011	0.0125	0.0711	0.2015	0.2851	0.2015	0.0711	0.0125	0.0011	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0025	0.0140	0.0397	0.0561	0.0397	0.0140	0.0025	0.0002	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0021	0.0061	0.0086	0.0061	0.0021	0.0004	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0007	0.0010	0.0007	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-64. Casualty Rate at Each Personnel Location When There Is a 5 s Delay between Warning and Masking

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0010	0.0019	0.0010	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0047	0.0249	0.0400	0.0249	0.0047	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0039	0.0540	0.1650	0.2227	0.1650	0.0540	0.0039	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0338	0.2202	0.4451	0.5291	0.4451	0.2202	0.0338	0.0005	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0044	0.1265	0.4652	0.7074	0.7755	0.7074	0.4652	0.1265	0.0044	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0184	0.2706	0.6717	0.8595	0.9013	0.8595	0.6717	0.2706	0.0184	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0002	0.0438	0.4088	0.7953	0.9276	0.9525	0.9276	0.7953	0.4088	0.0438	0.0002	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0004	0.0695	0.4994	0.8541	0.9542	0.9712	0.9542	0.8541	0.4994	0.0695	0.0004	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0005	0.0810	0.5318	0.8719	0.9615	0.9761	0.9615	0.8719	0.5318	0.0810	0.0005	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0004	0.0733	0.5106	0.8604	0.9569	0.9730	0.9569	0.8604	0.5106	0.0733	0.0004	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0002	0.0563	0.4568	0.8282	0.9430	0.9634	0.9430	0.8282	0.4568	0.0563	0.0002	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0002	0.0477	0.4248	0.8068	0.9331	0.9564	0.9331	0.8068	0.4248	0.0477	0.0002	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0002	0.0563	0.4568	0.8282	0.9430	0.9634	0.9430	0.8282	0.4568	0.0563	0.0002	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0004	0.0733	0.5106	0.8604	0.9569	0.9730	0.9569	0.8604	0.5106	0.0733	0.0004	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0005	0.0810	0.5318	0.8719	0.9615	0.9761	0.9615	0.8719	0.5318	0.0810	0.0005	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0004	0.0695	0.4994	0.8541	0.9542	0.9712	0.9542	0.8541	0.4994	0.0695	0.0004	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0002	0.0438	0.4088	0.7953	0.9276	0.9525	0.9276	0.7953	0.4088	0.0438	0.0002	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0184	0.2706	0.6717	0.8595	0.9013	0.8595	0.6717	0.2706	0.0184	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0044	0.1265	0.4652	0.7074	0.7755	0.7074	0.4652	0.1265	0.0044	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0005	0.0338	0.2202	0.4451	0.5291	0.4451	0.2202	0.0338	0.0005	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0039	0.0540	0.1650	0.2227	0.1650	0.0540	0.0039	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0047	0.0249	0.0400	0.0249	0.0047	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0010	0.0019	0.0010	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-65. Doses (μg) Acquired at Each Personnel Location When There Is a 10 s Delay between Warning and Masking

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0007	0.0010	0.0007	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0021	0.0061	0.0086	0.0061	0.0021	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0025	0.0140	0.0397	0.0561	0.0397	0.0140	0.0025	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0011	0.0125	0.0711	0.2015	0.2851	0.2015	0.0711	0.0125	0.0011	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0002	0.0044	0.0495	0.2811	0.7968	1.1275	0.7968	0.2811	0.0495	0.0044	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0006	0.0134	0.1526	0.8660	2.4542	3.4731	2.4542	0.8660	0.1526	0.0134	0.0006	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0014	0.0322	0.3661	2.0777	5.8880	8.3323	5.8880	2.0777	0.3661	0.0322	0.0014	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0026	0.0602	0.6842	3.8833	11.0049	15.5734	11.0049	3.8833	0.6842	0.0602	0.0026	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0039	0.0878	0.9975	5.6610	16.0429	22.7028	16.0429	5.6610	0.9975	0.0878	0.0039	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0044	0.1003	1.1400	6.4700	18.3355	25.9471	18.3355	6.4700	1.1400	0.1003	0.0044	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0040	0.0919	1.0446	5.9281	16.8000	23.7742	16.8000	5.9281	1.0446	0.0919	0.0040	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0032	0.0736	0.8365	4.7471	13.4530	19.0378	13.4530	4.7471	0.8365	0.0736	0.0032	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0028	0.0644	0.7321	4.1548	11.7745	16.6625	11.7745	4.1548	0.7321	0.0644	0.0028	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0032	0.0736	0.8365	4.7471	13.4530	19.0378	13.4530	4.7471	0.8365	0.0736	0.0032	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0040	0.0919	1.0446	5.9281	16.8000	23.7742	16.8000	5.9281	1.0446	0.0919	0.0040	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0044	0.1003	1.1400	6.4700	18.3355	25.9471	18.3355	6.4700	1.1400	0.1003	0.0044	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0039	0.0878	0.9975	5.6610	16.0429	22.7028	16.0429	5.6610	0.9975	0.0878	0.0039	0.0001	0.0000	0.0000
	0.50	0.0000	0.0000	0.0001	0.0026	0.0602	0.6842	3.8833	11.0049	15.5734	11.0049	3.8833	0.6842	0.0602	0.0026	0.0001	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0014	0.0322	0.3661	2.0777	5.8880	8.3323	5.8880	2.0777	0.3661	0.0322	0.0014	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0006	0.0134	0.1526	0.8660	2.4542	3.4731	2.4542	0.8660	0.1526	0.0134	0.0006	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0002	0.0044	0.0495	0.2811	0.7968	1.1275	0.7968	0.2811	0.0495	0.0044	0.0002	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0011	0.0125	0.0711	0.2015	0.2851	0.2015	0.0711	0.0125	0.0011	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0025	0.0140	0.0397	0.0561	0.0397	0.0140	0.0025	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0021	0.0061	0.0086	0.0061	0.0021	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0007	0.0010	0.0007	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-66. Casualty Rate at Each Personnel Location When There Is a 10 s Delay between Warning and Masking

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0016	0.0032	0.0016	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0075	0.0358	0.0559	0.0358	0.0075	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0062	0.0740	0.2080	0.2736	0.2080	0.0740	0.0062	0.0000	0.0000	0.0000	0.0000	0.0000	
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0008	0.0478	0.2708	0.5091	0.5925	0.5091	0.2708	0.0478	0.0008	0.0000	0.0000	0.0000	0.0000	
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0069	0.1630	0.5293	0.7602	0.8207	0.7602	0.5293	0.1630	0.0069	0.0000	0.0000	0.0000	0.0000	
	-2.25	0.0000	0.0000	0.0000	0.0001	0.0269	0.3264	0.7276	0.8923	0.9265	0.8923	0.7276	0.3264	0.0269	0.0001	0.0000	0.0000	0.0000	
	-2.00	0.0000	0.0000	0.0000	0.0003	0.0609	0.4722	0.8379	0.9473	0.9664	0.9473	0.8379	0.4722	0.0609	0.0003	0.0000	0.0000	0.0000	
	-1.75	0.0000	0.0000	0.0000	0.0006	0.0937	0.5633	0.8878	0.9677	0.9803	0.9677	0.8878	0.5633	0.0937	0.0006	0.0000	0.0000	0.0000	
	-1.50	0.0000	0.0000	0.0000	0.0009	0.1080	0.5951	0.9026	0.9732	0.9839	0.9732	0.9026	0.5951	0.1080	0.0009	0.0000	0.0000	0.0000	
	-1.25	0.0000	0.0000	0.0000	0.0007	0.0985	0.5744	0.8931	0.9697	0.9816	0.9697	0.8931	0.5744	0.0985	0.0007	0.0000	0.0000	0.0000	
	-1.00	0.0000	0.0000	0.0000	0.0004	0.0770	0.5209	0.8661	0.9592	0.9746	0.9592	0.8661	0.5209	0.0770	0.0004	0.0000	0.0000	0.0000	
	-0.75	0.0000	0.0000	0.0000	0.0003	0.0660	0.4886	0.8478	0.9516	0.9694	0.9516	0.8478	0.4886	0.0660	0.0003	0.0000	0.0000	0.0000	
	-0.50	0.0000	0.0000	0.0000	0.0004	0.0770	0.5209	0.8661	0.9592	0.9746	0.9592	0.8661	0.5209	0.0770	0.0004	0.0000	0.0000	0.0000	
	-0.25	0.0000	0.0000	0.0000	0.0007	0.0985	0.5744	0.8931	0.9697	0.9816	0.9697	0.8931	0.5744	0.0985	0.0007	0.0000	0.0000	0.0000	
	0.00	0.0000	0.0000	0.0000	0.0009	0.1080	0.5951	0.9026	0.9732	0.9839	0.9732	0.9026	0.5951	0.1080	0.0009	0.0000	0.0000	0.0000	
	0.25	0.0000	0.0000	0.0000	0.0006	0.0937	0.5633	0.8878	0.9677	0.9803	0.9677	0.8878	0.5633	0.0937	0.0006	0.0000	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0003	0.0609	0.4722	0.8379	0.9473	0.9664	0.9473	0.8379	0.4722	0.0609	0.0003	0.0000	0.0000	0.0000		
0.75	0.0000	0.0000	0.0000	0.0001	0.0269	0.3264	0.7276	0.8923	0.9265	0.8923	0.7276	0.3264	0.0269	0.0001	0.0000	0.0000	0.0000		
1.00	0.0000	0.0000	0.0000	0.0000	0.0069	0.1630	0.5293	0.7602	0.8207	0.7602	0.5293	0.1630	0.0069	0.0000	0.0000	0.0000	0.0000		
1.25	0.0000	0.0000	0.0000	0.0000	0.0008	0.0478	0.2708	0.5091	0.5925	0.5091	0.2708	0.0478	0.0008	0.0000	0.0000	0.0000	0.0000		
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0062	0.0740	0.2080	0.2736	0.2080	0.0740	0.0062	0.0000	0.0000	0.0000	0.0000	0.0000		
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0075	0.0358	0.0559	0.0358	0.0075	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000		
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0016	0.0032	0.0016	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

8. Masking Factor

Table B-67. Doses (μg) Acquired at Each Personnel Location When Masking Factor Is 0.5

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0048	0.0136	0.0192	0.0136	0.0048	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0005	0.0055	0.0313	0.0887	0.1255	0.0887	0.0313	0.0055	0.0005	0.0000	0.0000	0.0000	0.0000	
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0025	0.0280	0.1589	0.4502	0.6371	0.4502	0.1589	0.0280	0.0025	0.0001	0.0000	0.0000	0.0000	
	-2.75	0.0000	0.0000	0.0000	0.0004	0.0097	0.1107	0.6284	1.7807	2.5200	1.7807	0.6284	0.1107	0.0097	0.0004	0.0000	0.0000	0.0000	
	-2.50	0.0000	0.0000	0.0000	0.0013	0.0300	0.3410	1.9355	5.4852	7.7623	5.4852	1.9355	0.3410	0.0300	0.0013	0.0000	0.0000	0.0000	
	-2.25	0.0000	0.0000	0.0001	0.0032	0.0720	0.8182	4.6436	13.1595	18.6225	13.1595	4.6436	0.8182	0.0720	0.0032	0.0001	0.0000	0.0000	
	-2.00	0.0000	0.0000	0.0001	0.0059	0.1346	1.5293	8.6790	24.5958	34.8063	24.5958	8.6790	1.5293	0.1346	0.0059	0.0001	0.0000	0.0000	
	-1.75	0.0000	0.0000	0.0002	0.0086	0.1962	2.2294	12.6522	35.8556	50.7403	35.8556	12.6522	2.2294	0.1962	0.0086	0.0002	0.0000	0.0000	
	-1.50	0.0000	0.0000	0.0002	0.0099	0.2242	2.5480	14.4603	40.9795	57.9913	40.9795	14.4603	2.5480	0.2242	0.0099	0.0002	0.0000	0.0000	
	-1.25	0.0000	0.0000	0.0002	0.0090	0.2054	2.3346	13.2493	37.5476	53.1348	37.5476	13.2493	2.3346	0.2054	0.0090	0.0002	0.0000	0.0000	
	-1.00	0.0000	0.0000	0.0002	0.0072	0.1645	1.8695	10.6097	30.0672	42.5491	30.0672	10.6097	1.8695	0.1645	0.0072	0.0002	0.0000	0.0000	
	-0.75	0.0000	0.0000	0.0001	0.0063	0.1440	1.6362	9.2860	26.3158	37.2403	26.3158	9.2860	1.6362	0.1440	0.0063	0.0001	0.0000	0.0000	
	-0.50	0.0000	0.0000	0.0002	0.0072	0.1645	1.8695	10.6097	30.0672	42.5491	30.0672	10.6097	1.8695	0.1645	0.0072	0.0002	0.0000	0.0000	
	-0.25	0.0000	0.0000	0.0002	0.0090	0.2054	2.3346	13.2493	37.5476	53.1348	37.5476	13.2493	2.3346	0.2054	0.0090	0.0002	0.0000	0.0000	
	0.00	0.0000	0.0000	0.0002	0.0099	0.2242	2.5480	14.4603	40.9795	57.9913	40.9795	14.4603	2.5480	0.2242	0.0099	0.0002	0.0000	0.0000	
	0.25	0.0000	0.0000	0.0002	0.0086	0.1962	2.2294	12.6522	35.8556	50.7403	35.8556	12.6522	2.2294	0.1962	0.0086	0.0002	0.0000	0.0000	
	0.50	0.0000	0.0000	0.0001	0.0059	0.1346	1.5293	8.6790	24.5958	34.8063	24.5958	8.6790	1.5293	0.1346	0.0059	0.0001	0.0000	0.0000	
	0.75	0.0000	0.0000	0.0001	0.0032	0.0720	0.8182	4.6436	13.1595	18.6225	13.1595	4.6436	0.8182	0.0720	0.0032	0.0001	0.0000	0.0000	
	1.00	0.0000	0.0000	0.0000	0.0013	0.0300	0.3410	1.9355	5.4852	7.7623	5.4852	1.9355	0.3410	0.0300	0.0013	0.0000	0.0000	0.0000	
	1.25	0.0000	0.0000	0.0000	0.0004	0.0097	0.1107	0.6284	1.7807	2.5200	1.7807	0.6284	0.1107	0.0097	0.0004	0.0000	0.0000	0.0000	
	1.50	0.0000	0.0000	0.0000	0.0001	0.0025	0.0280	0.1589	0.4502	0.6371	0.4502	0.1589	0.0280	0.0025	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0005	0.0055	0.0313	0.0887	0.1255	0.0887	0.0313	0.0055	0.0005	0.0000	0.0000	0.0000	0.0000		
2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0048	0.0136	0.0192	0.0136	0.0048	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000		
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000		
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0002	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

Table B-68. Casualty Rate at Each Personnel Location When Masking Factor Is 0.5

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0045	0.0081	0.0045	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	0.0176	0.0703	0.1035	0.0703	0.0176	0.0008	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0148	0.1317	0.3138	0.3920	0.3138	0.1317	0.0148	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0024	0.0904	0.3888	0.6371	0.7129	0.6371	0.3888	0.0904	0.0024	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0165	0.2565	0.6560	0.8496	0.8936	0.8496	0.6560	0.2565	0.0165	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0002	0.0548	0.4515	0.8247	0.9414	0.9623	0.9414	0.8247	0.4515	0.0548	0.0002	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0009	0.1113	0.6019	0.9056	0.9742	0.9845	0.9742	0.9056	0.6019	0.1113	0.0009	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0019	0.1610	0.6870	0.9386	0.9852	0.9915	0.9852	0.9386	0.6870	0.1610	0.0019	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0025	0.1816	0.7152	0.9478	0.9880	0.9932	0.9880	0.9478	0.7152	0.1816	0.0025	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0021	0.1679	0.6969	0.9419	0.9863	0.9921	0.9863	0.9419	0.6969	0.1679	0.0021	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0014	0.1362	0.6482	0.9245	0.9807	0.9887	0.9807	0.9245	0.6482	0.1362	0.0014	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0010	0.1193	0.6177	0.9123	0.9766	0.9861	0.9766	0.9123	0.6177	0.1193	0.0010	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0014	0.1362	0.6482	0.9245	0.9807	0.9887	0.9807	0.9245	0.6482	0.1362	0.0014	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0021	0.1679	0.6969	0.9419	0.9863	0.9921	0.9863	0.9419	0.6969	0.1679	0.0021	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0025	0.1816	0.7152	0.9478	0.9880	0.9932	0.9880	0.9478	0.7152	0.1816	0.0025	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0019	0.1610	0.6870	0.9386	0.9852	0.9915	0.9852	0.9386	0.6870	0.1610	0.0019	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0009	0.1113	0.6019	0.9056	0.9742	0.9845	0.9742	0.9056	0.6019	0.1113	0.0009	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0002	0.0548	0.4515	0.8247	0.9414	0.9623	0.9414	0.8247	0.4515	0.0548	0.0002	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0165	0.2565	0.6560	0.8496	0.8936	0.8496	0.6560	0.2565	0.0165	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0024	0.0904	0.3888	0.6371	0.7129	0.6371	0.3888	0.0904	0.0024	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0148	0.1317	0.3138	0.3920	0.3138	0.1317	0.0148	0.0001	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	0.0176	0.0703	0.1035	0.0703	0.0176	0.0008	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0045	0.0081	0.0045	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-69. Doses (μg) Acquired at Each Personnel Location When Masking Factor Is 0.8

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0010	0.0014	0.0010	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0029	0.0081	0.0115	0.0081	0.0029	0.0005	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0033	0.0187	0.0529	0.0748	0.0529	0.0187	0.0033	0.0003	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0015	0.0167	0.0947	0.2685	0.3799	0.2685	0.0947	0.0167	0.0015	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0003	0.0058	0.0660	0.3747	1.0619	1.5027	1.0619	0.3747	0.0660	0.0058	0.0003	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0008	0.0179	0.2034	1.1542	3.2709	4.6288	3.2709	1.1542	0.2034	0.0179	0.0008	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0019	0.0429	0.4879	2.7690	7.8472	11.1049	7.8472	2.7690	0.4879	0.0429	0.0019	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0035	0.0802	0.9119	5.1754	14.6669	20.7555	14.6669	5.1754	0.9119	0.0802	0.0035	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0051	0.1170	1.3294	7.5447	21.3812	30.2573	21.3812	7.5447	1.3294	0.1170	0.0051	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0059	0.1337	1.5194	8.6229	24.4367	34.5811	24.4367	8.6229	1.5194	0.1337	0.0059	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0054	0.1225	1.3921	7.9008	22.3903	31.6851	22.3903	7.9008	1.3921	0.1225	0.0054	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0043	0.0981	1.1148	6.3267	17.9296	25.3727	17.9296	6.3267	1.1148	0.0981	0.0043	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0038	0.0859	0.9757	5.5374	15.6925	22.2070	15.6925	5.5374	0.9757	0.0859	0.0038	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0043	0.0981	1.1148	6.3267	17.9296	25.3727	17.9296	6.3267	1.1148	0.0981	0.0043	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0054	0.1225	1.3921	7.9008	22.3903	31.6851	22.3903	7.9008	1.3921	0.1225	0.0054	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0059	0.1337	1.5194	8.6229	24.4367	34.5811	24.4367	8.6229	1.5194	0.1337	0.0059	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0051	0.1170	1.3294	7.5447	21.3812	30.2573	21.3812	7.5447	1.3294	0.1170	0.0051	0.0001	0.0000	0.0000
	0.50	0.0000	0.0000	0.0001	0.0035	0.0802	0.9119	5.1754	14.6669	20.7555	14.6669	5.1754	0.9119	0.0802	0.0035	0.0001	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0019	0.0429	0.4879	2.7690	7.8472	11.1049	7.8472	2.7690	0.4879	0.0429	0.0019	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0008	0.0179	0.2034	1.1542	3.2709	4.6288	3.2709	1.1542	0.2034	0.0179	0.0008	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0003	0.0058	0.0660	0.3747	1.0619	1.5027	1.0619	0.3747	0.0660	0.0058	0.0003	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0001	0.0015	0.0167	0.0947	0.2685	0.3799	0.2685	0.0947	0.0167	0.0015	0.0001	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0003	0.0033	0.0187	0.0529	0.0748	0.0529	0.0187	0.0033	0.0003	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0029	0.0081	0.0115	0.0081	0.0029	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0010	0.0014	0.0010	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-70. Casualty Rate at Each Personnel Location When Masking Factor Is 0.8

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0017	0.0033	0.0017	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0077	0.0369	0.0575	0.0369	0.0077	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0064	0.0759	0.2120	0.2781	0.2120	0.0759	0.0064	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009	0.0492	0.2753	0.5146	0.5978	0.5146	0.2753	0.0492	0.0009	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0072	0.1664	0.5347	0.7644	0.8242	0.7644	0.5347	0.1664	0.0072	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0001	0.0278	0.3313	0.7321	0.8948	0.9284	0.8948	0.7321	0.3313	0.0278	0.0001	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0003	0.0625	0.4777	0.8412	0.9488	0.9674	0.9488	0.8412	0.4777	0.0625	0.0003	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0007	0.0960	0.5687	0.8904	0.9687	0.9809	0.9687	0.8904	0.5687	0.0960	0.0007	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0009	0.1106	0.6004	0.9049	0.9740	0.9844	0.9740	0.9049	0.6004	0.1106	0.0009	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0007	0.1009	0.5797	0.8956	0.9706	0.9822	0.9706	0.8956	0.5797	0.1009	0.0007	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0005	0.0790	0.5263	0.8690	0.9604	0.9754	0.9604	0.8690	0.5263	0.0790	0.0005	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0003	0.0677	0.4940	0.8510	0.9529	0.9703	0.9529	0.8510	0.4940	0.0677	0.0003	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0005	0.0790	0.5263	0.8690	0.9604	0.9754	0.9604	0.8690	0.5263	0.0790	0.0005	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0007	0.1009	0.5797	0.8956	0.9706	0.9822	0.9706	0.8956	0.5797	0.1009	0.0007	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0009	0.1106	0.6004	0.9049	0.9740	0.9844	0.9740	0.9049	0.6004	0.1106	0.0009	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0007	0.0960	0.5687	0.8904	0.9687	0.9809	0.9687	0.8904	0.5687	0.0960	0.0007	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0003	0.0625	0.4777	0.8412	0.9488	0.9674	0.9488	0.8412	0.4777	0.0625	0.0003	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0001	0.0278	0.3313	0.7321	0.8948	0.9284	0.8948	0.7321	0.3313	0.0278	0.0001	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0072	0.1664	0.5347	0.7644	0.8242	0.7644	0.5347	0.1664	0.0072	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0009	0.0492	0.2753	0.5146	0.5978	0.5146	0.2753	0.0492	0.0009	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0064	0.0759	0.2120	0.2781	0.2120	0.0759	0.0064	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0077	0.0369	0.0575	0.0369	0.0077	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0017	0.0033	0.0017	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-71. Doses (μg) Acquired at Each Personnel Location When Masking Factor Is 1.0

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-72. Casualty Rate at Each Personnel Location When Masking Factor Is 1.0

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9047	0.9358	0.9047	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

C. Testing of Agent Detection

1. Detection Threshold

Table B-73. Dose (μg) Acquired at Each Personnel Location When a 1000 $\mu\text{g}/\text{m}^3$ Detection Threshold Is Used Causing Warning To Be Issued at 1 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0002	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0009	0.0013	0.0009	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0017	0.0047	0.0067	0.0047	0.0017	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0066	0.0187	0.0265	0.0187	0.0066	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0036	0.0204	0.0577	0.0816	0.0577	0.0204	0.0036	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0008	0.0086	0.0488	0.1384	0.1959	0.1384	0.0488	0.0086	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0014	0.0161	0.0913	0.2587	0.3661	0.2587	0.0913	0.0161	0.0014	0.0001	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0001	0.0021	0.0234	0.1331	0.3771	0.5336	0.3771	0.1331	0.0234	0.0021	0.0001	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0001	0.0024	0.0268	0.1521	0.4310	0.6099	0.4310	0.1521	0.0268	0.0024	0.0001	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0001	0.0022	0.0246	0.1393	0.3949	0.5588	0.3949	0.1393	0.0246	0.0022	0.0001	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0001	0.0017	0.0197	0.1116	0.3162	0.4475	0.3162	0.1116	0.0197	0.0017	0.0001	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0001	0.0015	0.0172	0.0977	0.2768	0.3917	0.2768	0.0977	0.0172	0.0015	0.0001	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0017	0.0197	0.1116	0.3162	0.4475	0.3162	0.1116	0.0197	0.0017	0.0001	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0001	0.0022	0.0246	0.1393	0.3949	0.5588	0.3949	0.1393	0.0246	0.0022	0.0001	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0001	0.0024	0.0268	0.1521	0.4310	0.6099	0.4310	0.1521	0.0268	0.0024	0.0001	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0001	0.0021	0.0234	0.1331	0.3771	0.5336	0.3771	0.1331	0.0234	0.0021	0.0001	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0001	0.0014	0.0161	0.0913	0.2587	0.3661	0.2587	0.0913	0.0161	0.0014	0.0001	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0000	0.0008	0.0086	0.0488	0.1384	0.1959	0.1384	0.0488	0.0086	0.0008	0.0000	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0036	0.0204	0.0577	0.0816	0.0577	0.0204	0.0036	0.0003	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0066	0.0187	0.0265	0.0187	0.0066	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0017	0.0047	0.0067	0.0047	0.0017	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0009	0.0013	0.0009	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0002	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table B-74. Dose (μg) Acquired at Each Personnel Location When a 3000 $\mu\text{g}/\text{m}^3$ Detection Threshold Is Used Causing Warning To Be Issued at 6 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0010	0.0014	0.0010	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0023	0.0064	0.0091	0.0064	0.0023	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0020	0.0115	0.0326	0.0461	0.0326	0.0115	0.0020	0.0002	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0007	0.0080	0.0454	0.1288	0.1823	0.1288	0.0454	0.0080	0.0007	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0001	0.0022	0.0247	0.1400	0.3967	0.5614	0.3967	0.1400	0.0247	0.0022	0.0001	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0002	0.0052	0.0592	0.3359	0.9518	1.3469	0.9518	0.3359	0.0592	0.0052	0.0002	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0004	0.0097	0.1106	0.6277	1.7789	2.5174	1.7789	0.6277	0.1106	0.0097	0.0004	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0006	0.0142	0.1612	0.9151	2.5933	3.6699	2.5933	0.9151	0.1612	0.0142	0.0006	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1843	1.0459	2.9639	4.1943	2.9639	1.0459	0.1843	0.0162	0.0007	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0007	0.0149	0.1689	0.9583	2.7157	3.8431	2.7157	0.9583	0.1689	0.0149	0.0007	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0005	0.0119	0.1352	0.7674	2.1747	3.0774	2.1747	0.7674	0.1352	0.0119	0.0005	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0005	0.0104	0.1183	0.6716	1.9033	2.6935	1.9033	0.6716	0.1183	0.0104	0.0005	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0005	0.0119	0.1352	0.7674	2.1747	3.0774	2.1747	0.7674	0.1352	0.0119	0.0005	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0007	0.0149	0.1689	0.9583	2.7157	3.8431	2.7157	0.9583	0.1689	0.0149	0.0007	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1843	1.0459	2.9639	4.1943	2.9639	1.0459	0.1843	0.0162	0.0007	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0006	0.0142	0.1612	0.9151	2.5933	3.6699	2.5933	0.9151	0.1612	0.0142	0.0006	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0004	0.0097	0.1106	0.6277	1.7789	2.5174	1.7789	0.6277	0.1106	0.0097	0.0004	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0002	0.0052	0.0592	0.3359	0.9518	1.3469	0.9518	0.3359	0.0592	0.0052	0.0002	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0001	0.0022	0.0247	0.1400	0.3967	0.5614	0.3967	0.1400	0.0247	0.0022	0.0001	0.0000	0.0000	

Table B-75. Dose (μg) Acquired at Each Personnel Location When a $5000 \mu\text{g}/\text{m}^3$ Detection Threshold Is Used Causing Warning To Be Issued at 20 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-76. Dose (μg) Acquired at Each Personnel Location When a $7500 \mu\text{g}/\text{m}^3$ Detection Threshold Is Used Causing Warning To Be Issued at 37 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0005	0.0013	0.0018	0.0013	0.0005	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0109	0.0154	0.0109	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0044	0.0250	0.0708	0.1002	0.0708	0.0250	0.0044	0.0004	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0020	0.0224	0.1269	0.3596	0.5089	0.3596	0.1269	0.0224	0.0020	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0003	0.0078	0.0884	0.5019	1.4223	2.0128	1.4223	0.5019	0.0884	0.0078	0.0003	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0011	0.0240	0.2724	1.5460	4.3812	6.2000	4.3812	1.5460	0.2724	0.0240	0.0011	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0001	0.0025	0.0575	0.6535	3.7090	10.5110	14.8744	10.5110	3.7090	0.6535	0.0575	0.0025	0.0001	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0047	0.1075	1.2215	6.9322	19.6455	27.8009	19.6455	6.9322	1.2215	0.1075	0.0047	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0002	0.0069	0.1567	1.7807	10.1057	28.6390	40.5280	28.6390	10.1057	1.7807	0.1567	0.0069	0.0002	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0002	0.0079	0.1791	2.0351	11.5499	32.7316	46.3196	32.7316	11.5499	2.0351	0.1791	0.0079	0.0002	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0002	0.0072	0.1641	1.8647	10.5826	29.9905	42.4405	29.9905	10.5826	1.8647	0.1641	0.0072	0.0002	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0058	0.1314	1.4932	8.4743	24.0157	33.9854	24.0157	8.4743	1.4932	0.1314	0.0058	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0051	0.1150	1.3069	7.4170	21.0193	29.7451	21.0193	7.4170	1.3069	0.1150	0.0051	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0058	0.1314	1.4932	8.4743	24.0157	33.9854	24.0157	8.4743	1.4932	0.1314	0.0058	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0002	0.0072	0.1641	1.8647	10.5826	29.9905	42.4405	29.9905	10.5826	1.8647	0.1641	0.0072	0.0002	0.0000	0.0000
	0.00	0.0000	0.0000	0.0002	0.0079	0.1791	2.0351	11.5499	32.7316	46.3196	32.7316	11.5499	2.0351	0.1791	0.0079	0.0002	0.0000	0.0000
	0.25	0.0000	0.0000	0.0002	0.0069	0.1567	1.7807	10.1057	28.6390	40.5280	28.6390	10.1057	1.7807	0.1567	0.0069	0.0002	0.0000	0.0000
0.50	0.0000	0.0000	0.0001	0.0047	0.1075	1.2215	6.9322	19.6455	27.8009	19.6455	6.9322	1.2215	0.1075	0.0047	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0001	0.0025	0.0575	0.6535	3.7090	10.5110	14.8744	10.5110	3.7090	0.6535	0.0575	0.0025	0.0001	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0011	0.0240	0.2724	1.5460	4.3812	6.2000	4.3812	1.5460	0.2724	0.0240	0.0011	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0003	0.0078	0.0884	0.5019	1.4223	2.0128	1.4223	0.5019	0.0884	0.0078	0.0003	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0001	0.0020	0.0224	0.1269	0.3596	0.5089	0.3596	0.1269	0.0224	0.0020	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0004	0.0044	0.0250	0.0708	0.1002	0.0708	0.0250	0.0044	0.0004	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0109	0.0154	0.0109	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0005	0.0013	0.0018	0.0013	0.0005	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-77. Dose (μg) Acquired at Each Personnel Location When a $12,000 \mu\text{g}/\text{m}^3$ Detection Threshold Is Used And No Detection Is Achieved

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0004	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0010	0.0028	0.0040	0.0028	0.0010	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0015	0.0082	0.0234	0.0331	0.0234	0.0082	0.0015	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0008	0.0095	0.0538	0.1525	0.2157	0.1525	0.0538	0.0095	0.0008	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0002	0.0042	0.0481	0.2732	0.7742	1.0956	0.7742	0.2732	0.0481	0.0042	0.0002	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0007	0.0168	0.1904	1.0805	3.0622	4.3334	3.0622	1.0805	0.1904	0.0168	0.0007	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0023	0.0516	0.5865	3.3284	9.4324	13.3481	9.4324	3.3284	0.5865	0.0516	0.0023	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0001	0.0054	0.1238	1.4070	7.9851	22.6293	32.0234	22.6293	7.9851	1.4070	0.1238	0.0054	0.0001	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0002	0.0102	0.2314	2.6298	14.9245	42.2952	59.8533	42.2952	14.9245	2.6298	0.2314	0.0102	0.0002	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0003	0.0148	0.3373	3.8337	21.7569	61.6576	87.2536	61.6576	21.7569	3.8337	0.3373	0.0148	0.0003	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0004	0.0169	0.3855	4.3815	24.8660	70.4687	99.7224	70.4687	24.8660	4.3815	0.3855	0.0169	0.0004	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0003	0.0155	0.3532	4.0146	22.7836	64.5673	91.3712	64.5673	22.7836	4.0146	0.3532	0.0155	0.0003	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0003	0.0124	0.2829	3.2148	18.2446	51.7039	73.1678	51.7039	18.2446	3.2148	0.2829	0.0124	0.0003	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0002	0.0109	0.2476	2.8137	15.9682	45.2529	64.0389	45.2529	15.9682	2.8137	0.2476	0.0109	0.0002	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0003	0.0124	0.2829	3.2148	18.2446	51.7039	73.1678	51.7039	18.2446	3.2148	0.2829	0.0124	0.0003	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0003	0.0155	0.3532	4.0146	22.7836	64.5673	91.3712	64.5673	22.7836	4.0146	0.3532	0.0155	0.0003	0.0000	0.0000
	0.00	0.0000	0.0000	0.0004	0.0169	0.3855	4.3815	24.8660	70.4687	99.7224	70.4687	24.8660	4.3815	0.3855	0.0169	0.0004	0.0000	0.0000
	0.25	0.0000	0.0000	0.0003	0.0148	0.3373	3.8337	21.7569	61.6576	87.2536	61.6576	21.7569	3.8337	0.3373	0.0148	0.0003	0.0000	0.0000
0.50	0.0000	0.0000	0.0002	0.0102	0.2314	2.6298	14.9245	42.2952	59.8533	42.2952	14.9245	2.6298	0.2314	0.0102	0.0002	0.0000	0.0000	
0.75	0.0000	0.0000	0.0001	0.0054	0.1238	1.4070	7.9851	22.6293	32.0234	22.6293	7.9851	1.4070	0.1238	0.0054	0.0001	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0023	0.0516	0.5865	3.3284	9.4324	13.3481	9.4324	3.3284	0.5865	0.0516	0.0023	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0007	0.0168	0.1904	1.0805	3.0622	4.3334	3.0622	1.0805	0.1904	0.0168	0.0007	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0002	0.0042	0.0481	0.2732	0.7742	1.0956	0.7742	0.2732	0.0481	0.0042	0.0002	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0008	0.0095	0.0538	0.1525	0.2157	0.1525	0.0538	0.0095	0.0008	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0015	0.0082	0.0234	0.0331	0.0234	0.0082	0.0015	0.0001	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0010	0.0028	0.0040	0.0028	0.0010	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0004	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

2. Detector Duration

Table B-78. Dose (μg) Acquired at Each Personnel Location When a 0 s Detector Duration Is Used Causing Warning to Be Issued at 20 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-79. Dose (μg) Acquired at Each Personnel Location When a 1 s Detector Duration Is Used Causing Warning to Be Issued at 20 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-80. Dose (μg) Acquired at Each Personnel Location When a 2 s Detector Duration Is Used Causing Warning to Be Issued at 21 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0006	0.0008	0.0006	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0017	0.0048	0.0067	0.0048	0.0017	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0019	0.0109	0.0310	0.0439	0.0310	0.0109	0.0019	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0009	0.0098	0.0556	0.1576	0.2230	0.1576	0.0556	0.0098	0.0009	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0034	0.0388	0.2199	0.6233	0.8820	0.6233	0.2199	0.0388	0.0034	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0005	0.0105	0.1194	0.6775	1.9199	2.7169	1.9199	0.6775	0.1194	0.0105	0.0005	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0011	0.0252	0.2864	1.6253	4.6060	6.5181	4.6060	1.6253	0.2864	0.0252	0.0011	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0021	0.0471	0.5353	3.0378	8.6088	12.1826	8.6088	3.0378	0.5353	0.0471	0.0021	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0030	0.0687	0.7803	4.4284	12.5498	17.7597	12.5498	4.4284	0.7803	0.0687	0.0030	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0034	0.0785	0.8918	5.0612	14.3432	20.2976	14.3432	5.0612	0.8918	0.0785	0.0034	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0032	0.0719	0.8171	4.6374	13.1421	18.5978	13.1421	4.6374	0.8171	0.0719	0.0032	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0025	0.0576	0.6543	3.7135	10.5239	14.8926	10.5239	3.7135	0.6543	0.0576	0.0025	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0022	0.0504	0.5727	3.2502	9.2108	13.0345	9.2108	3.2502	0.5727	0.0504	0.0022	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0025	0.0576	0.6543	3.7135	10.5239	14.8926	10.5239	3.7135	0.6543	0.0576	0.0025	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0032	0.0719	0.8171	4.6374	13.1421	18.5978	13.1421	4.6374	0.8171	0.0719	0.0032	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0034	0.0785	0.8918	5.0612	14.3432	20.2976	14.3432	5.0612	0.8918	0.0785	0.0034	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0030	0.0687	0.7803	4.4284	12.5498	17.7597	12.5498	4.4284	0.7803	0.0687	0.0030	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0021	0.0471	0.5353	3.0378	8.6088	12.1826	8.6088	3.0378	0.5353	0.0471	0.0021	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0011	0.0252	0.2864	1.6253	4.6060	6.5181	4.6060	1.6253	0.2864	0.0252	0.0011	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0005	0.0105	0.1194	0.6775	1.9199	2.7169	1.9199	0.6775	0.1194	0.0105	0.0005	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0034	0.0388	0.2199	0.6233	0.8820	0.6233	0.2199	0.0388	0.0034	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0009	0.0098	0.0556	0.1576	0.2230	0.1576	0.0556	0.0098	0.0009	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0019	0.0109	0.0310	0.0439	0.0310	0.0109	0.0019	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0017	0.0048	0.0067	0.0048	0.0017	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0006	0.0008	0.0006	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-81. Dose (μg) Acquired at Each Personnel Location When a 3 s Detector Duration Is Used Causing Warning to Be Issued at 22 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0006	0.0009	0.0006	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0018	0.0051	0.0072	0.0051	0.0018	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0021	0.0117	0.0331	0.0469	0.0331	0.0117	0.0021	0.0002	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009	0.0105	0.0593	0.1681	0.2379	0.1681	0.0593	0.0105	0.0009	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0036	0.0413	0.2347	0.6650	0.9411	0.6650	0.2347	0.0413	0.0036	0.0002	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0005	0.0112	0.1274	0.7228	2.0484	2.8988	2.0484	0.7228	0.1274	0.0112	0.0005	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0012	0.0269	0.3056	1.7341	4.9143	6.9544	4.9143	1.7341	0.3056	0.0269	0.0012	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0022	0.0502	0.5711	3.2411	9.1851	12.9982	9.1851	3.2411	0.5711	0.0502	0.0022	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0032	0.0733	0.8325	4.7249	13.3900	18.9486	13.3900	4.7249	0.8325	0.0733	0.0032	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0037	0.0837	0.9515	5.4001	15.3035	21.6565	15.3035	5.4001	0.9515	0.0837	0.0037	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0034	0.0767	0.8718	4.9479	14.0219	19.8428	14.0219	4.9479	0.8718	0.0767	0.0034	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0027	0.0614	0.6981	3.9621	11.2284	15.8897	11.2284	3.9621	0.6981	0.0614	0.0027	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0024	0.0538	0.6110	3.4678	9.8275	13.9072	9.8275	3.4678	0.6110	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0027	0.0614	0.6981	3.9621	11.2284	15.8897	11.2284	3.9621	0.6981	0.0614	0.0027	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0034	0.0767	0.8718	4.9479	14.0219	19.8428	14.0219	4.9479	0.8718	0.0767	0.0034	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0037	0.0837	0.9515	5.4001	15.3035	21.6565	15.3035	5.4001	0.9515	0.0837	0.0037	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0032	0.0733	0.8325	4.7249	13.3900	18.9486	13.3900	4.7249	0.8325	0.0733	0.0032	0.0001	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0022	0.0502	0.5711	3.2411	9.1851	12.9982	9.1851	3.2411	0.5711	0.0502	0.0022	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0012	0.0269	0.3056	1.7341	4.9143	6.9544	4.9143	1.7341	0.3056	0.0269	0.0012	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0005	0.0112	0.1274	0.7228	2.0484	2.8988	2.0484	0.7228	0.1274	0.0112	0.0005	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0002	0.0036	0.0413	0.2347	0.6650	0.9411	0.6650	0.2347	0.0413	0.0036	0.0002	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0009	0.0105	0.0593	0.1681	0.2379	0.1681	0.0593	0.0105	0.0009	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0021	0.0117	0.0331	0.0469	0.0331	0.0117	0.0021	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0018	0.0051	0.0072	0.0051	0.0018	0.0003	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0006	0.0009	0.0006	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

3. Network Delay

Table B-82. Doses (μg) Acquired at Each Personnel Location When There Is No Network Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5354	3.0383	8.6104	12.1848	8.6104	3.0383	0.5354	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0538	0.6117	3.4714	9.8378	13.9218	9.8378	3.4714	0.6117	0.0538	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0030	0.0672	0.7639	4.3351	12.2853	17.3854	12.2853	4.3351	0.7639	0.0672	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8337	4.7313	13.4082	18.9744	13.4082	4.7313	0.8337	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0028	0.0642	0.7294	4.1397	11.7317	16.6019	11.7317	4.1397	0.7294	0.0642	0.0028	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0019	0.0440	0.5004	2.8397	8.0476	11.3884	8.0476	2.8397	0.5004	0.0440	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2677	1.5193	4.3057	6.0931	4.3057	1.5193	0.2677	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1116	0.6333	1.7947	2.5398	1.7947	0.6333	0.1116	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0362	0.2056	0.5826	0.8245	0.5826	0.2056	0.0362	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1473	0.2085	0.1473	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0044	0.0063	0.0044	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-83. Casualty Rate at Each Personnel Location When There Is No Network Delay

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000	
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	
	-1.75	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000	
	-1.50	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000	
	-1.25	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000	
	-1.00	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000	
	-0.75	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7504	0.9047	0.9358	0.9047	0.7504	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000	
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0378	0.3825	0.7754	0.9177	0.9453	0.9177	0.7754	0.3825	0.0378	0.0001	0.0000	0.0000	0.0000	
	-0.25	0.0000	0.0000	0.0000	0.0002	0.0503	0.4350	0.8138	0.9364	0.9587	0.9364	0.8138	0.4350	0.0503	0.0002	0.0000	0.0000	0.0000	
	0.00	0.0000	0.0000	0.0000	0.0002	0.0561	0.4560	0.8277	0.9428	0.9632	0.9428	0.8277	0.4560	0.0561	0.0002	0.0000	0.0000	0.0000	
	0.25	0.0000	0.0000	0.0000	0.0002	0.0475	0.4239	0.8061	0.9328	0.9562	0.9328	0.8061	0.4239	0.0475	0.0002	0.0000	0.0000	0.0000	
	0.50	0.0000	0.0000	0.0000	0.0001	0.0288	0.3369	0.7372	0.8976	0.9304	0.8976	0.7372	0.3369	0.0288	0.0001	0.0000	0.0000	0.0000	
	0.75	0.0000	0.0000	0.0000	0.0000	0.0113	0.2115	0.6004	0.8126	0.8641	0.8126	0.6004	0.2115	0.0113	0.0000	0.0000	0.0000	0.0000	
	1.00	0.0000	0.0000	0.0000	0.0000	0.0025	0.0912	0.3906	0.6389	0.7145	0.6389	0.3906	0.0912	0.0025	0.0000	0.0000	0.0000	0.0000	
	1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0218	0.1681	0.3713	0.4533	0.3713	0.1681	0.0218	0.0002	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0361	0.1221	0.1702	0.1221	0.0361	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000		
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0027	0.0157	0.0261	0.0157	0.0027	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000		
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0010	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0006	0.0008	0.0006	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0017	0.0048	0.0067	0.0048	0.0017	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0019	0.0109	0.0310	0.0439	0.0310	0.0109	0.0019	0.0002	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0009	0.0098	0.0556	0.1576	0.2230	0.1576	0.0556	0.0098	0.0009	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0034	0.0388	0.2199	0.6233	0.8820	0.6233	0.2199	0.0388	0.0034	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0005	0.0105	0.1194	0.6775	1.9199	2.7169	1.9199	0.6775	0.1194	0.0105	0.0005	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0011	0.0252	0.2864	1.6253	4.6060	6.5181	4.6060	1.6253	0.2864	0.0252	0.0011	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0021	0.0471	0.5353	3.0378	8.6088	12.1826	8.6088	3.0378	0.5353	0.0471	0.0021	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0030	0.0687	0.7803	4.4284	12.5498	17.7597	12.5498	4.4284	0.7803	0.0687	0.0030	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0034	0.0785	0.8918	5.0612	14.3432	20.2976	14.3432	5.0612	0.8918	0.0785	0.0034	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0032	0.0719	0.8171	4.6374	13.1421	18.5978	13.1421	4.6374	0.8171	0.0719	0.0032	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0025	0.0576	0.6543	3.7135	10.5239	14.8926	10.5239	3.7135	0.6543	0.0576	0.0025	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0022	0.0504	0.5727	3.2502	9.2108	13.0345	9.2108	3.2502	0.5727	0.0504	0.0022	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0025	0.0576	0.6543	3.7135	10.5239	14.8926	10.5239	3.7135	0.6543	0.0576	0.0025	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0032	0.0719	0.8171	4.6374	13.1421	18.5978	13.1421	4.6374	0.8171	0.0719	0.0032	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0034	0.0785	0.8918	5.0612	14.3432	20.2976	14.3432	5.0612	0.8918	0.0785	0.0034	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0030	0.0687	0.780											

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0012	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0030	0.0174	0.0287	0.0174	0.0030	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0395	0.1306	0.1808	0.1306	0.0395	0.0025	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0003	0.0241	0.1786	0.3869	0.4696	0.3869	0.1786	0.0241	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0028	0.0981	0.4064	0.6542	0.7283	0.6542	0.4064	0.0981	0.0028	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0126	0.2235	0.6161	0.8235	0.8728	0.8235	0.6161	0.2235	0.0126	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0316	0.3520	0.7503	0.9047	0.9358	0.9047	0.7503	0.3520	0.0316	0.0001	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0002	0.0517	0.4401	0.8172	0.9380	0.9599	0.9380	0.8172	0.4401	0.0517	0.0002	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0003	0.0609	0.4722	0.8379	0.9473	0.9664	0.9473	0.8379	0.4722	0.0609	0.0003	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0002	0.0547	0.4511	0.8245	0.9413	0.9622	0.9413	0.8245	0.4511	0.0547	0.0002	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0001	0.0413	0.3982	0.7875	0.9238	0.9497	0.9238	0.7875	0.3982	0.0413	0.0001	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0001	0.0346	0.3673	0.7632	0.9115	0.9408	0.9115	0.7632	0.3673	0.0346	0.0001	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0413	0.3982	0.7875	0.9238	0.9497	0.9238	0.7875	0.3982	0.0413	0.0001	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0002	0.0547	0.4511	0.8245	0.9413	0.9622	0.9413	0.8245	0.4511	0.0547	0.0002	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0003	0.0609	0.4722	0.8379	0.9473	0.9664	0.9473	0.8379	0.4722	0.0609	0.0003	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0002	0.0517	0.4401	0.8172	0.9380									

Table B-86. Doses (μg) Acquired at Each Personnel Location When There Is a 10 s Network Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0009	0.0013	0.0009	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0028	0.0079	0.0112	0.0079	0.0028	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0003	0.0032	0.0182	0.0517	0.0731	0.0517	0.0182	0.0032	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0014	0.0163	0.0926	0.2625	0.3715	0.2625	0.0926	0.0163	0.0014	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0002	0.0057	0.0646	0.3664	1.0382	1.4693	1.0382	0.3664	0.0646	0.0057	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0008	0.0175	0.1988	1.1285	3.1981	4.5257	3.1981	1.1285	0.1988	0.0175	0.0008	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0018	0.0420	0.4771	2.7074	7.6726	10.8577	7.6726	2.7074	0.4771	0.0420	0.0018	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0034	0.0785	0.8916	5.0603	14.3404	20.2936	14.3404	5.0603	0.8916	0.0785	0.0034	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0050	0.1144	1.2998	7.3768	20.9054	29.5838	20.9054	7.3768	1.2998	0.1144	0.0050	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0057	0.1307	1.4856	8.4310	23.8928	33.8115	23.8928	8.4310	1.4856	0.1307	0.0057	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0053	0.1198	1.3612	7.7249	21.8919	30.9799	21.8919	7.7249	1.3612	0.1198	0.0053	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0042	0.0959	1.0900	6.1859	17.5305	24.8080	17.5305	6.1859	1.0900	0.0959	0.0042	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0037	0.0839	0.9540	5.4141	15.3433	21.7127	15.3433	5.4141	0.9540	0.0839	0.0037	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0042	0.0959	1.0900	6.1859	17.5305	24.8080	17.5305	6.1859	1.0900	0.0959	0.0042	0.0001	0.0000	0.0000
-0.25	0.0000	0.0000	0.0001	0.0053	0.1198	1.3612	7.7249	21.8919	30.9799	21.8919	7.7249	1.3612	0.1198	0.0053	0.0001	0.0000	0.0000	
0.00	0.0000	0.0000	0.0001	0.0057	0.1307	1.4856	8.4310	23.8928	33.8115	23.8928	8.4310	1.4856	0.1307	0.0057	0.0001	0.0000	0.0000	
0.25	0.0000	0.0000	0.0001	0.0050	0.1144	1.2998	7.3768	20.9054	29.5838	20.9054	7.3768	1.2998	0.1144	0.0050	0.0001	0.0000	0.0000	
0.50	0.0000	0.0000	0.0001	0.0034	0.0785	0.8916	5.0603	14.3404	20.2936	14.3404	5.0603	0.8916	0.0785	0.0034	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0018	0.0420	0.4771	2.7074	7.6726	10.8577	7.6726	2.7074	0.4771	0.0420	0.0018	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0008	0.0175	0.1988	1.1285	3.1981	4.5257	3.1981	1.1285	0.1988	0.0175	0.0008	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0002	0.0057	0.0646	0.3664	1.0382	1.4693	1.0382	0.3664	0.0646	0.0057	0.0002	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0001	0.0014	0.0163	0.0926	0.2625	0.3715	0.2625	0.0926	0.0163	0.0014	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0003	0.0032	0.0182	0.0517	0.0731	0.0517	0.0182	0.0032	0.0003	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0028	0.0079	0.0112	0.0079	0.0028	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0009	0.0013	0.0009	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-87. Casualty Rate at Each Personnel Location When There Is a 10 s Network Detector Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0016	0.0032	0.0016	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0075	0.0358	0.0559	0.0358	0.0075	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0062	0.0740	0.2080	0.2736	0.2080	0.0740	0.0062	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0008	0.0478	0.2708	0.5091	0.5925	0.5091	0.2708	0.0478	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0069	0.1630	0.5293	0.7602	0.8207	0.7602	0.5293	0.1630	0.0069	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0001	0.0269	0.3264	0.7276	0.8923	0.9265	0.8923	0.7276	0.3264	0.0269	0.0001	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0003	0.0609	0.4722	0.8379	0.9473	0.9664	0.9473	0.8379	0.4722	0.0609	0.0003	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0006	0.0937	0.5633	0.8878	0.9677	0.9803	0.9677	0.8878	0.5633	0.0937	0.0006	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0009	0.1080	0.5951	0.9026	0.9732	0.9839	0.9732	0.9026	0.5951	0.1080	0.0009	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0007	0.0985	0.5744	0.8931	0.9697	0.9816	0.9697	0.8931	0.5744	0.0985	0.0007	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0004	0.0770	0.5209	0.8661	0.9592	0.9746	0.9592	0.8661	0.5209	0.0770	0.0004	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0003	0.0660	0.4886	0.8478	0.9516	0.9694	0.9516	0.8478	0.4886	0.0660	0.0003	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0004	0.0770	0.5209	0.8661	0.9592	0.9746	0.9592	0.8661	0.5209	0.0770	0.0004	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0007	0.0985	0.5744	0.8931	0.9697	0.9816	0.9697	0.8931	0.5744	0.0985	0.0007	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0009	0.1080	0.5951	0.9026	0.9732	0.9839	0.9732	0.9026	0.5951	0.1080	0.0009	0.0000	0.0000	0.0000
0.25	0.0000	0.0000	0.0000	0.0006	0.0937	0.5633	0.8878	0.9677	0.9803	0.9677	0.8878	0.5633	0.0937	0.0006	0.0000	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0003	0.0609	0.4722	0.8379	0.9473	0.9664	0.9473	0.8379	0.4722	0.0609	0.0003	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0001	0.0269	0.3264	0.7276	0.8923	0.9265	0.8923	0.7276	0.3264	0.0269	0.0001	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0069	0.1630	0.5293	0.7602	0.8207	0.7602	0.5293	0.1630	0.0069	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0008	0.0478	0.2708	0.5091	0.5925	0.5091	0.2708	0.0478	0.0008	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0062	0.0740	0.2080	0.2736	0.2080	0.0740	0.0062	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0075	0.0358	0.0559	0.0358	0.0075	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0016	0.0032	0.0016	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

D. Testing of Agent Collection and Identification

1. Collector Delay

Table B-88. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 0 s Collection Delay After Warning

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0173	0.1967	1.1165	3.1641	4.4777	3.1641	1.1165	0.1967	0.0173	0.0008	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table B-89. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 10 s Collection Delay After Warning

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0021	0.0029	0.0021	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0047	0.0134	0.0189	0.0134	0.0047	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0004	0.0042	0.0240	0.0680	0.0962	0.0680	0.0240	0.0042	0.0004	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0015	0.0167	0.0949	0.2689	0.3805	0.2689	0.0949	0.0167	0.0015	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0045	0.0515	0.2922	0.8282	1.1720	0.8282	0.2922	0.0515	0.0045	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0005	0.0109	0.1235	0.7011	1.9869	2.8118	1.9869	0.7011	0.1235	0.0109	0.0005	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0009	0.0203	0.2309	1.3104	3.7137	5.2554	3.7137	1.3104	0.2309	0.0203	0.0009	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0013	0.0296	0.3366	1.9103	5.4138	7.6612	5.4138	1.9103	0.3366	0.0296	0.0013	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0015	0.0339	0.3847	2.1833	6.1874	8.7560	6.1874	2.1833	0.3847	0.0339	0.0015	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0014	0.0310	0.3525	2.0005	5.6693	8.0228	5.6693	2.0005	0.3525	0.0310	0.0014	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0011	0.0248	0.2823	1.6019	4.5398	6.4244	4.5398	1.6019	0.2823	0.0248	0.0011	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0010	0.0217	0.2471	1.4021	3.9734	5.6229	3.9734	1.4021	0.2471	0.0217	0.0010	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0011	0.0248	0.2823	1.6019	4.5398	6.4244	4.5398	1.6019	0.2823	0.0248	0.0011	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0014	0.0310	0.3525	2.0005	5.6693	8.0228	5.6693	2.0005	0.3525	0.0310	0.0014	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0015	0.0339	0.3847	2.1833	6.1874	8.7560	6.1874	2.1833	0.3847	0.0339	0.0015	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0013	0.0296	0.3366	1.9103	5.4138	7.6612	5.4138	1.9103	0.3366	0.0296	0.0013	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0009	0.0203	0.2309	1.3104	3.7137	5.2554	3.7137	1.3104	0.2309	0.0203	0.0009	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0005	0.0109	0.1235	0.7011	1.9869	2.8118	1.9869	0.7011	0.1235	0.0109	0.0005	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0002	0.0045	0.0515	0.2922	0.8282	1.1720	0.8282	0.2922	0.0515	0.0045	0.0002	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0001	0.0015	0.0167	0.0949	0.2689	0.3805	0.2689	0.0949	0.0167	0.0015	0.0001	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0004	0.0042	0.0240	0.0680	0.0962	0.0680	0.0240	0.0042	0.0004	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0047	0.0134	0.0189	0.0134	0.0047	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0021	0.0029	0.0021	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-90. Concentrations of Liquid Sample ($\mu\text{g/mL}$) Produced by Collectors at Each Location Using a 30 s Collection Delay After Warning

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0005	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0010	0.0029	0.0041	0.0029	0.0010	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0066	0.0188	0.0267	0.0188	0.0066	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000	
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0005	0.0059	0.0338	0.0957	0.1354	0.0957	0.0338	0.0059	0.0005	0.0000	0.0000	0.0000	0.0000	
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0021	0.0235	0.1335	0.3784	0.5355	0.3784	0.1335	0.0235	0.0021	0.0001	0.0000	0.0000	0.0000	
	-2.50	0.0000	0.0000	0.0000	0.0003	0.0064	0.0725	0.4113	1.1656	1.6494	1.1656	0.4113	0.0725	0.0064	0.0003	0.0000	0.0000	0.0000	
	-2.25	0.0000	0.0000	0.0000	0.0007	0.0153	0.1739	0.9867	2.7963	3.9571	2.7963	0.9867	0.1739	0.0153	0.0007	0.0000	0.0000	0.0000	
	-2.00	0.0000	0.0000	0.0000	0.0013	0.0286	0.3250	1.8442	5.2264	7.3960	5.2264	1.8442	0.3250	0.0286	0.0013	0.0000	0.0000	0.0000	
	-1.75	0.0000	0.0000	0.0000	0.0018	0.0417	0.4737	2.6885	7.6190	10.7819	7.6190	2.6885	0.4737	0.0417	0.0018	0.0000	0.0000	0.0000	
	-1.50	0.0000	0.0000	0.0000	0.0021	0.0476	0.5414	3.0727	8.7078	12.3226	8.7078	3.0727	0.5414	0.0476	0.0021	0.0000	0.0000	0.0000	
	-1.25	0.0000	0.0000	0.0000	0.0019	0.0436	0.4961	2.8154	7.9785	11.2907	7.9785	2.8154	0.4961	0.0436	0.0019	0.0000	0.0000	0.0000	
	-1.00	0.0000	0.0000	0.0000	0.0015	0.0350	0.3972	2.2545	6.3890	9.0413	6.3890	2.2545	0.3972	0.0350	0.0015	0.0000	0.0000	0.0000	
	-0.75	0.0000	0.0000	0.0000	0.0013	0.0306	0.3477	1.9732	5.5919	7.9132	5.5919	1.9732	0.3477	0.0306	0.0013	0.0000	0.0000	0.0000	
	-0.50	0.0000	0.0000	0.0000	0.0015	0.0350	0.3972	2.2545	6.3890	9.0413	6.3890	2.2545	0.3972	0.0350	0.0015	0.0000	0.0000	0.0000	
	-0.25	0.0000	0.0000	0.0000	0.0019	0.0436	0.4961	2.8154	7.9785	11.2907	7.9785	2.8154	0.4961	0.0436	0.0019	0.0000	0.0000	0.0000	
	0.00	0.0000	0.0000	0.0000	0.0021	0.0476	0.5414	3.0727	8.7078	12.3226	8.7078	3.0727	0.5414	0.0476	0.0021	0.0000	0.0000	0.0000	
	0.25	0.0000	0.0000	0.0000	0.0018	0.0417	0.4737	2.6885	7.6190	10.7819	7.6190	2.6885	0.4737	0.0417	0.0018	0.0000	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0013	0.0286	0.3250	1.8442	5.2264	7.3960	5.2264	1.8442	0.3250	0.0286	0.0013	0.0000	0.0000	0.0000		
0.75	0.0000	0.0000	0.0000	0.0007	0.0153	0.1739	0.9867	2.7963	3.9571	2.7963	0.9867	0.1739	0.0153	0.0007	0.0000	0.0000	0.0000		
1.00	0.0000	0.0000	0.0000	0.0003	0.0064	0.0725	0.4113	1.1656	1.6494	1.1656	0.4113	0.0725	0.0064	0.0003	0.0000	0.0000	0.0000		
1.25	0.0000	0.0000	0.0000	0.0001	0.0021	0.0235	0.1335	0.3784	0.5355	0.3784	0.1335	0.0235	0.0021	0.0001	0.0000	0.0000	0.0000		
1.50	0.0000	0.0000	0.0000	0.0000	0.0005	0.0059	0.0338	0.0957	0.1354	0.0957	0.0338	0.0059	0.0005	0.0000	0.0000	0.0000	0.0000		
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0066	0.0188	0.0267	0.0188	0.0066	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000		
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0010	0.0029	0.0041	0.0029	0.0010	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000		
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0005	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

2. Collector Flow Rate

Table B-91. Concentrations of Liquid Sample ($\mu\text{g/mL}$) Produced by Collectors at Each Location Using a $0.015 \text{ m}^3/\text{min}$ Collector Flow Rate

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000	
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000	
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000	
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000	
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000	
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000	
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000	
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000	
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000	
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0173	0.1967	1.1165	3.1641	4.4777	3.1641	1.1165	0.1967	0.0173	0.0008	0.0000	0.0000	0.0000	
	-0.50	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000	
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000	
	0.00	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000	
	0.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000	
	0.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000	
	0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000	
	1.00	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000	
	1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000		
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000		
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000		
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		

Table B-92. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 0.3 m³/min Collector Flow Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0005	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0014	0.0039	0.0055	0.0039	0.0014	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0020	0.0115	0.0327	0.0463	0.0327	0.0115	0.0020	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0752	0.2132	0.3017	0.2132	0.0752	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0003	0.0059	0.0673	0.3821	1.0827	1.5322	1.0827	0.3821	0.0673	0.0059	0.0003	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0010	0.0234	0.2663	1.5111	4.2822	6.0599	4.2822	1.5111	0.2663	0.0234	0.0010	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0001	0.0032	0.0722	0.8201	4.6545	13.1905	18.6663	13.1905	4.6545	0.8201	0.0722	0.0032	0.0001	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0002	0.0076	0.1731	1.9676	11.1666	31.6454	44.7823	31.6454	11.1666	1.9676	0.1731	0.0076	0.0002	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0003	0.0142	0.3236	3.6775	20.8709	59.1467	83.7004	59.1467	20.8709	3.6775	0.3236	0.0142	0.0003	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0005	0.0207	0.4717	5.3611	30.4254	86.2236	122.0177	86.2236	30.4254	5.3611	0.4717	0.0207	0.0005	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0005	0.0237	0.5391	6.1272	34.7733	98.5453	139.4545	98.5453	34.7733	6.1272	0.5391	0.0237	0.0005	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0005	0.0217	0.4940	5.6141	31.8612	90.2926	127.7759	90.2926	31.8612	5.6141	0.4940	0.0217	0.0005	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0004	0.0174	0.3956	4.4956	25.5137	72.3041	102.3198	72.3041	25.5137	4.4956	0.3956	0.0174	0.0004	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0003	0.0152	0.3462	3.9347	22.3304	63.2829	89.5536	63.2829	22.3304	3.9347	0.3462	0.0152	0.0003	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0004	0.0174	0.3956	4.4956	25.5137	72.3041	102.3198	72.3041	25.5137	4.4956	0.3956	0.0174	0.0004	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0005	0.0217	0.4940	5.6141	31.8612	90.2926	127.7759	90.2926	31.8612	5.6141	0.4940	0.0217	0.0005	0.0000	0.0000
	0.00	0.0000	0.0000	0.0005	0.0237	0.5391	6.1272	34.7733	98.5453	139.4545	98.5453	34.7733	6.1272	0.5391	0.0237	0.0005	0.0000	0.0000
	0.25	0.0000	0.0000	0.0005	0.0207	0.4717	5.3611	30.4254	86.2236	122.0177	86.2236	30.4254	5.3611	0.4717	0.0207	0.0005	0.0000	0.0000
0.50	0.0000	0.0000	0.0003	0.0142	0.3236	3.6775	20.8709	59.1467	83.7004	59.1467	20.8709	3.6775	0.3236	0.0142	0.0003	0.0000	0.0000	
0.75	0.0000	0.0000	0.0002	0.0076	0.1731	1.9676	11.1666	31.6454	44.7823	31.6454	11.1666	1.9676	0.1731	0.0076	0.0002	0.0000	0.0000	
1.00	0.0000	0.0000	0.0001	0.0032	0.0722	0.8201	4.6545	13.1905	18.6663	13.1905	4.6545	0.8201	0.0722	0.0032	0.0001	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0010	0.0234	0.2663	1.5111	4.2822	6.0599	4.2822	1.5111	0.2663	0.0234	0.0010	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0003	0.0059	0.0673	0.3821	1.0827	1.5322	1.0827	0.3821	0.0673	0.0059	0.0003	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0752	0.2132	0.3017	0.2132	0.0752	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0020	0.0115	0.0327	0.0463	0.0327	0.0115	0.0020	0.0002	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0014	0.0039	0.0055	0.0039	0.0014	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0005	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-93. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 1.0 m³/min Collector Flow Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0012	0.0017	0.0012	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0046	0.0130	0.0184	0.0130	0.0046	0.0008	0.0001	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0068	0.0385	0.1090	0.1542	0.1090	0.0385	0.0068	0.0006	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0039	0.0442	0.2508	0.7107	1.0057	0.7107	0.2508	0.0442	0.0039	0.0002	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0009	0.0197	0.2244	1.2735	3.6090	5.1073	3.6090	1.2735	0.2244	0.0197	0.0009	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0034	0.0781	0.8875	5.0368	14.2741	20.1997	14.2741	5.0368	0.8875	0.0781	0.0034	0.0001	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0106	0.2405	2.7338	15.5149	43.9683	62.2209	43.9683	15.5149	2.7338	0.2405	0.0106	0.0002	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0006	0.0254	0.5771	6.5587	37.2219	105.4845	149.2745	105.4845	37.2219	6.5587	0.5771	0.0254	0.0006	0.0000
	-2.00	0.0000	0.0000	0.0010	0.0474	1.0786	12.2585	69.5696	197.1557	279.0012	197.1557	69.5696	12.2585	1.0786	0.0474	0.0010	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0015	0.0691	1.5724	17.8703	101.4179	287.4120	464.7256	287.4120	101.4179	17.8703	1.5724	0.0691	0.0015	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0017	0.0790	1.7971	20.4240	115.9109	328.4842	464.8482	328.4842	115.9109	20.4240	1.7971	0.0790	0.0017	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0016	0.0723	1.6466	18.7136	106.2040	300.9753	425.9196	300.9753	106.2040	18.7136	1.6466	0.0723	0.0016	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0013	0.0579	1.3185	14.9854	85.0456	241.0138	341.0662	241.0138	85.0456	14.9854	1.3185	0.0579	0.0013	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0011	0.0507	1.1540	13.1157	74.4346	210.9430	298.5121	210.9430	74.4346	13.1157	1.1540	0.0507	0.0011	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0013	0.0579	1.3185	14.9854	85.0456	241.0138	341.0662	241.0138	85.0456	14.9854	1.3185	0.0579	0.0013	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0016	0.0723	1.6466	18.7136	106.2040	300.9753	425.9196	300.9753	106.2040	18.7136	1.6466	0.0723	0.0016	0.0000	0.0000
	0.00	0.0000	0.0000	0.0017	0.0790	1.7971	20.4240	115.9109	328.4842	464.8482	328.4842	115.9109	20.4240	1.7971	0.0790	0.0017	0.0000	0.0000
	0.25	0.0000	0.0000	0.0015	0.0691	1.5724	17.8703	101.4179	287.4120	406.7256	287.4120	101.4179	17.8703	1.5724	0.0691	0.0015	0.0000	0.0000
0.50	0.0000	0.0000	0.0010	0.0474	1.0786	12.2585	69.5696	197.1557	279.0012	197.1557	69.5696	12.2585	1.0786	0.0474	0.0010	0.0000	0.0000	
0.75	0.0000	0.0000	0.0006	0.0254	0.5771	6.5587	37.2219	105.4845	149.2745	105.4845	37.2219	6.5587	0.5771	0.0254	0.0006	0.0000	0.0000	
1.00	0.0000	0.0000	0.0002	0.0106	0.2405	2.7338	15.5149	43.9683	62.2209	43.9683	15.5149	2.7338	0.2405	0.0106	0.0002	0.0000	0.0000	
1.25	0.0000	0.0000	0.0001	0.0034	0.0781	0.8875	5.0368	14.2741	20.1997	14.2741	5.0368	0.8875	0.0781	0.0034	0.0001	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0009	0.0197	0.2244	1.2735	3.6090	5.1073	3.6090	1.2735	0.2244	0.0197	0.0009	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0002	0.0039	0.0442	0.2508	0.7107	1.0057	0.7107	0.2508	0.0442	0.0039	0.0002	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0006	0.0068	0.0385	0.1090	0.1542	0.1090	0.0385	0.0068	0.0006	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0046	0.0130	0.0184	0.0130	0.0046	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0012	0.0017	0.0012	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

3. Collection Duration

Table B-94. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 5 s Collection Duration

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000	
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000	
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000	
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000	
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000	
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000	
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000	
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000	
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000	
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0173	0.1967	1.1165	3.1641	4.4777	3.1641	1.1165	0.1967	0.0173	0.0008	0.0000	0.0000	0.0000	
	-0.50	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000	
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000	
	0.00	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000	
	0.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000	
	0.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000	
	0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000	
	1.00	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000	
	1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000	
	1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000	
	1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
	2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
	2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-95. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 10 s Collection Duration

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0006	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0012	0.0035	0.0049	0.0035	0.0012	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0014	0.0080	0.0227	0.0321	0.0227	0.0080	0.0014	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0006	0.0072	0.0406	0.1152	0.1630	0.1152	0.0406	0.0072	0.0006	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0025	0.0283	0.1608	0.4556	0.6447	0.4556	0.1608	0.0283	0.0025	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0003	0.0077	0.0873	0.4952	1.4034	1.9860	1.4034	0.4952	0.0873	0.0077	0.0003	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0008	0.0184	0.2093	1.1881	3.3669	4.7646	3.3669	1.1881	0.2093	0.0184	0.0008	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0015	0.0344	0.3913	2.2205	6.2928	8.9052	6.2928	2.2205	0.3913	0.0344	0.0015	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0022	0.0502	0.5704	3.2371	9.1737	12.9819	9.1737	3.2371	0.5704	0.0502	0.0022	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0025	0.0574	0.6519	3.6997	10.4846	14.8371	10.4846	3.6997	0.6519	0.0574	0.0025	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0023	0.0526	0.5973	3.3898	9.6066	13.5946	9.6066	3.3898	0.5973	0.0526	0.0023	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0018	0.0421	0.4783	2.7145	7.6927	10.8862	7.6927	2.7145	0.4783	0.0421	0.0018	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0016	0.0368	0.4186	2.3758	6.7329	9.5280	6.7329	2.3758	0.4186	0.0368	0.0016	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0018	0.0421	0.4783	2.7145	7.6927	10.8862	7.6927	2.7145	0.4783	0.0421	0.0018	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0023	0.0526	0.5973	3.3898	9.6066	13.5946	9.6066	3.3898	0.5973	0.0526	0.0023	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0025	0.0574	0.6519	3.6997	10.4846	14.8371	10.4846	3.6997	0.6519	0.0574	0.0025	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0022	0.0502	0.5704	3.2371	9.1737	12.9819	9.1737	3.2371	0.5704	0.0502	0.0022	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0015	0.0344	0.3913	2.2205	6.2928	8.9052	6.2928	2.2205	0.3913	0.0344	0.0015	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0008	0.0184	0.2093	1.1881	3.3669	4.7646	3.3669	1.1881	0.2093	0.0184	0.0008	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0003	0.0077	0.0873	0.4952	1.4034	1.9860	1.4034	0.4952	0.0873	0.0077	0.0003	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0001	0.0025	0.0283	0.1608	0.4556	0.6447	0.4556	0.1608	0.0283	0.0025	0.0001	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0006	0.0072	0.0406	0.1152	0.1630	0.1152	0.0406	0.0072	0.0006	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0014	0.0080	0.0227	0.0321	0.0227	0.0080	0.0014	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0012	0.0035	0.0049	0.0035	0.0012	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0006	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-96. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 30 s Collection Duration

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0002	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0005	0.0015	0.0022	0.0015	0.0005	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0046	0.0129	0.0183	0.0129	0.0046	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0005	0.0052	0.0298	0.0844	0.1194	0.0844	0.0298	0.0052	0.0005	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0023	0.0267	0.1513	0.4287	0.6066	0.4287	0.1513	0.0267	0.0023	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0004	0.0093	0.1054	0.5982	1.6954	2.3992	1.6954	0.5982	0.1054	0.0093	0.0004	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0013	0.0286	0.3247	1.8427	5.2222	7.3901	5.2222	1.8427	0.3247	0.0286	0.0013	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0001	0.0030	0.0685	0.7790	4.4209	12.5286	17.7297	12.5286	4.4209	0.7790	0.0685	0.0030	0.0001	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0056	0.1281	1.4560	8.2629	23.4167	33.1376	23.4167	8.2629	1.4560	0.1281	0.0056	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0002	0.0082	0.1868	2.1225	12.0456	34.1366	48.3078	34.1366	12.0456	2.1225	0.1868	0.0082	0.0002	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0002	0.0094	0.2134	2.4258	13.7670	39.0148	55.2111	39.0148	13.7670	2.4258	0.2134	0.0094	0.0002	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0002	0.0086	0.1956	2.2227	12.6141	35.7476	50.5875	35.7476	12.6141	2.2227	0.1956	0.0086	0.0002	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0002	0.0069	0.1566	1.7799	10.1011	28.6258	40.5092	28.6258	10.1011	1.7799	0.1566	0.0069	0.0002	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0060	0.1371	1.5578	8.8408	25.0542	35.4550	25.0542	8.8408	1.5578	0.1371	0.0060	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0002	0.0069	0.1566	1.7799	10.1011	28.6258	40.5092	28.6258	10.1011	1.7799	0.1566	0.0069	0.0002	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0002	0.0086	0.1956	2.2227	12.6141	35.7476	50.5875	35.7476	12.6141	2.2227	0.1956	0.0086	0.0002	0.0000	0.0000
	0.00	0.0000	0.0000	0.0002	0.0094	0.2134	2.4258	13.7670	39.0148	55.2111	39.0148	13.7670	2.4258	0.2134	0.0094	0.0002	0.0000	0.0000
	0.25	0.0000	0.0000	0.0002	0.0082	0.1868	2.1225	12.0456	34.1366	48.3078	34.1366	12.0456	2.1225	0.1868	0.0082	0.0002	0.0000	0.0000
	0.50	0.0000	0.0000	0.0001	0.0056	0.1281	1.4560	8.2629	23.4167	33.1376	23.4167	8.2629	1.4560	0.1281	0.0056	0.0001	0.0000	0.0000
	0.75	0.0000	0.0000	0.0001	0.0030	0.0685	0.7790	4.4209	12.5286	17.7297	12.5286	4.4209	0.7790	0.0685	0.0030	0.0001	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0013	0.0286	0.3247	1.8427	5.2222	7.3901	5.2222	1.8427	0.3247	0.0286	0.0013	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0004	0.0093	0.1054	0.5982	1.6954	2.3992	1.6954	0.5982	0.1054	0.0093	0.0004	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0001	0.0023	0.0267	0.1513	0.4287	0.6066	0.4287	0.1513	0.0267	0.0023	0.0001	0.0000	0.0000	0.0000
	1.75	0.0000	0.0000	0.0000	0.0000	0.0005	0.0052	0.0298	0.0844	0.1194	0.0844	0.0298	0.0052	0.0005	0.0000	0.0000	0.0000	0.0000
	2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0046	0.0129	0.0183	0.0129	0.0046	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000
	2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0005	0.0015	0.0022	0.0015	0.0005	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0002	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4. Collection Efficiency

Table B-97. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location whose Collection Efficiencies Differ by Aerosol Particle Radius: 50% for Particles with a Radius > 5 µm, 100% for Particles with a Radius < 5 µm

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0012	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0019	0.0053	0.0075	0.0053	0.0019	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0096	0.0271	0.0383	0.0271	0.0096	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0006	0.0067	0.0378	0.1071	0.1515	0.1071	0.0378	0.0067	0.0006	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0001	0.0018	0.0205	0.1164	0.3298	0.4667	0.3298	0.1164	0.0205	0.0018	0.0001	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0002	0.0043	0.0492	0.2792	0.7911	1.1196	0.7911	0.2792	0.0492	0.0043	0.0002	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0004	0.0081	0.0919	0.5218	1.4787	2.0925	1.4787	0.5218	0.0919	0.0081	0.0004	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0005	0.0118	0.1340	0.7606	2.1556	3.0504	2.1556	0.7606	0.1340	0.0118	0.0005	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0006	0.0135	0.1532	0.8693	2.4636	3.4864	2.4636	0.8693	0.1532	0.0135	0.0006	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0005	0.0123	0.1404	0.7965	2.2573	3.1944	2.2573	0.7965	0.1404	0.0123	0.0005	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0004	0.0099	0.1124	0.6378	1.8076	2.5580	1.8076	0.6378	0.1124	0.0099	0.0004	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5821	2.2388	1.5821	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0004	0.0099	0.1124	0.6378	1.8076	2.5580	1.8076	0.6378	0.1124	0.0099	0.0004	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0005	0.0123	0.1404	0.7965	2.2573	3.1944	2.2573	0.7965	0.1404	0.0123	0.0005	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0006	0.0135	0.1532	0.8693	2.4636	3.4864	2.4636	0.8693	0.1532	0.0135	0.0006	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0005	0.0118	0.1340	0.7606	2.1556	3.0504	2.1556	0.7606	0.1340	0.0118	0.0005	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0004	0.0081	0.0919	0.5218	1.4787	2.0925	1.4787	0.5218	0.0919	0.0081	0.0004	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0002	0.0043	0.0492	0.2792	0.7911	1.1196	0.7911	0.2792	0.0492	0.0043	0.0002	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0001	0.0018	0.0205	0.1164	0.3298	0.4667	0.3298	0.1164	0.0205	0.0018	0.0001	0.0000	0.0000	0.0000
1.25	0.0000	0.0000	0.0000	0.0000	0.0006	0.0067	0.0378	0.1071	0.1515	0.1071	0.0378	0.0067	0.0006	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0096	0.0271	0.0383	0.0271	0.0096	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0019	0.0053	0.0075	0.0053	0.0019	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0012	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-98. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location whose Collection Efficiencies Differ by Aerosol Particle Radius: 50% for Particles with a Radius > 6 µm, 100% for Particles with a Radius < 6 µm

		X-coordinate (m)																
Y-coordinate (m)		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0173	0.1967	1.1165	3.1641	4.4777	3.1641	1.1165	0.1967	0.0173	0.0008	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table B-99. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location: Collection Efficiency of 50% for All Particles Sizes

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0012	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0019	0.0053	0.0075	0.0053	0.0019	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0096	0.0271	0.0383	0.0271	0.0096	0.0017	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0067	0.0378	0.1071	0.1515	0.1071	0.0378	0.0067	0.0006	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0001	0.0018	0.0205	0.1164	0.3298	0.4667	0.3298	0.1164	0.0205	0.0018	0.0001	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0002	0.0043	0.0492	0.2792	0.7911	1.1196	0.7911	0.2792	0.0492	0.0043	0.0002	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0004	0.0081	0.0919	0.5218	1.4787	2.0925	1.4787	0.5218	0.0919	0.0081	0.0004	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0005	0.0118	0.1340	0.7606	2.1556	3.0504	2.1556	0.7606	0.1340	0.0118	0.0005	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0006	0.0135	0.1532	0.8693	2.4636	3.4864	2.4636	0.8693	0.1532	0.0135	0.0006	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0005	0.0123	0.1404	0.7965	2.2573	3.1944	2.2573	0.7965	0.1404	0.0123	0.0005	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0004	0.0099	0.1124	0.6378	1.8076	2.5580	1.8076	0.6378	0.1124	0.0099	0.0004	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5821	2.2388	1.5821	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0004	0.0099	0.1124	0.6378	1.8076	2.5580	1.8076	0.6378	0.1124	0.0099	0.0004	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0005	0.0123	0.1404	0.7965	2.2573	3.1944	2.2573	0.7965	0.1404	0.0123	0.0005	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0006	0.0135	0.1532	0.8693	2.4636	3.4864	2.4636	0.8693	0.1532	0.0135	0.0006	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0005	0.0118	0.1340	0.7606	2.1556	3.0504	2.1556	0.7606	0.1340	0.0118	0.0005	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0004	0.0081	0.0919	0.5218	1.4787	2.0925	1.4787	0.5218	0.0919	0.0081	0.0004	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0002	0.0043	0.0492	0.2792	0.7911	1.1196	0.7911	0.2792	0.0492	0.0043	0.0002	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0001	0.0018	0.0205	0.1164	0.3298	0.4667	0.3298	0.1164	0.0205	0.0018	0.0001	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0006	0.0067	0.0378	0.1071	0.1515	0.1071	0.0378	0.0067	0.0006	0.0000	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0096	0.0271	0.0383	0.0271	0.0096	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0019	0.0053	0.0075	0.0053	0.0019	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0012	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-100. Concentrations of Liquid Sample ($\mu\text{g/mL}$) Produced by Collectors at Each Location: Collection Efficiency of 100% for All Particles Sizes

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0173	0.1967	1.1165	3.1641	4.4777	3.1641	1.1165	0.1967	0.0173	0.0008	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

5. Extraction Efficiency

Table B-101. Concentrations of Liquid Sample ($\mu\text{g/mL}$) Produced by Collectors at Each Location Using a 0.2 Extraction Efficiency

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0005	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0021	0.0030	0.0021	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0108	0.0153	0.0108	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0027	0.0151	0.0428	0.0606	0.0428	0.0151	0.0027	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0007	0.0082	0.0465	0.1319	0.1867	0.1319	0.0465	0.0082	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0001	0.0017	0.0197	0.1117	0.3165	0.4478	0.3165	0.1117	0.0197	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0032	0.0368	0.2087	0.5915	0.8370	0.5915	0.2087	0.0368	0.0032	0.0001	0.0000	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0002	0.0047	0.0536	0.3043	0.8622	1.2202	0.8622	0.3043	0.0536	0.0047	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0002	0.0054	0.0613	0.3477	0.9855	1.3945	0.9855	0.3477	0.0613	0.0054	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0002	0.0049	0.0561	0.3186	0.9029	1.2778	0.9029	0.3186	0.0561	0.0049	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0002	0.0040	0.0450	0.2551	0.7230	1.0232	0.7230	0.2551	0.0450	0.0040	0.0002	0.0000	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0002	0.0035	0.0393	0.2233	0.6328	0.8955	0.6328	0.2233	0.0393	0.0035	0.0002	0.0000	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0002	0.0040	0.0450	0.2551	0.7230	1.0232	0.7230	0.2551	0.0450	0.0040	0.0002	0.0000	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0002	0.0049	0.0561	0.3186	0.9029	1.2778	0.9029	0.3186	0.0561	0.0049	0.0002	0.0000	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0002	0.0054	0.0613	0.3477	0.9855	1.3945	0.9855	0.3477	0.0613	0.0054	0.0002	0.0000	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0002	0.0047	0.0536	0.3043	0.8622	1.2202	0.8622	0.3043	0.0536	0.0047	0.0002	0.0000	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0001	0.0032	0.0368	0.2087	0.5915	0.8370	0.5915	0.2087	0.0368	0.0032	0.0001	0.0000	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0001	0.0017	0.0197	0.1117	0.3165	0.4478	0.3165	0.1117	0.0197	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0007	0.0082	0.0465	0.1319	0.1867	0.1319	0.0465	0.0082	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0027	0.0151	0.0428	0.0606	0.0428	0.0151	0.0027	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0108	0.0153	0.0108	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0021	0.0030	0.0021	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0005	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-102. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 0.5 Extraction Efficiency

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0012	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0019	0.0053	0.0075	0.0053	0.0019	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0096	0.0271	0.0383	0.0271	0.0096	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0006	0.0067	0.0378	0.1071	0.1515	0.1071	0.0378	0.0067	0.0006	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0001	0.0018	0.0205	0.1164	0.3298	0.4667	0.3298	0.1164	0.0205	0.0018	0.0001	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0002	0.0043	0.0492	0.2792	0.7911	1.1196	0.7911	0.2792	0.0492	0.0043	0.0002	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0004	0.0081	0.0919	0.5218	1.4787	2.0925	1.4787	0.5218	0.0919	0.0081	0.0004	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0005	0.0118	0.1340	0.7606	2.1556	3.0504	2.1556	0.7606	0.1340	0.0118	0.0005	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0006	0.0135	0.1532	0.8693	2.4636	3.4864	2.4636	0.8693	0.1532	0.0135	0.0006	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0005	0.0123	0.1404	0.7965	2.2573	3.1944	2.2573	0.7965	0.1404	0.0123	0.0005	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0004	0.0099	0.1124	0.6378	1.8076	2.5580	1.8076	0.6378	0.1124	0.0099	0.0004	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5821	2.2388	1.5821	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0004	0.0099	0.1124	0.6378	1.8076	2.5580	1.8076	0.6378	0.1124	0.0099	0.0004	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0005	0.0123	0.1404	0.7965	2.2573	3.1944	2.2573	0.7965	0.1404	0.0123	0.0005	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0006	0.0135	0.1532	0.8693	2.4636	3.4864	2.4636	0.8693	0.1532	0.0135	0.0006	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0005	0.0118	0.1340	0.7606	2.1556	3.0504	2.1556	0.7606	0.1340	0.0118	0.0005	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0004	0.0081	0.0919	0.5218	1.4787	2.0925	1.4787	0.5218	0.0919	0.0081	0.0004	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0002	0.0043	0.0492	0.2792	0.7911	1.1196	0.7911	0.2792	0.0492	0.0043	0.0002	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0001	0.0018	0.0205	0.1164	0.3298	0.4667	0.3298	0.1164	0.0205	0.0018	0.0001	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0006	0.0067	0.0378	0.1071	0.1515	0.1071	0.0378	0.0067	0.0006	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0096	0.0271	0.0383	0.0271	0.0096	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0019	0.0053	0.0075	0.0053	0.0019	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0012	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-103. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 1.0 Extraction Efficiency

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0173	0.1967	1.1165	3.1641	4.4777	3.1641	1.1165	0.1967	0.0173	0.0008	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
-0.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000	
0.00	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000	
0.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

6. Sample Volume

Table B-104. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 1 mL Sample Volume

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0173	0.1967	1.1165	3.1641	4.4777	3.1641	1.1165	0.1967	0.0173	0.0008	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-105. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 5 mL Sample Volume

		X-coordinate (m)																	
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0005	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0021	0.0030	0.0021	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0108	0.0153	0.0108	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0027	0.0151	0.0428	0.0606	0.0428	0.0151	0.0027	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0007	0.0082	0.0465	0.1319	0.1867	0.1319	0.0465	0.0082	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0001	0.0017	0.0197	0.1117	0.3165	0.4478	0.3165	0.1117	0.0197	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0032	0.0368	0.2087	0.5915	0.8370	0.5915	0.2087	0.0368	0.0032	0.0001	0.0000	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0002	0.0047	0.0536	0.3043	0.8622	1.2202	0.8622	0.3043	0.0536	0.0047	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0002	0.0054	0.0613	0.3477	0.9855	1.3945	0.9855	0.3477	0.0613	0.0054	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0002	0.0049	0.0561	0.3186	0.9029	1.2778	0.9029	0.3186	0.0561	0.0049	0.0002	0.0000	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0002	0.0040	0.0450	0.2551	0.7230	1.0232	0.7230	0.2551	0.0450	0.0040	0.0002	0.0000	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0002	0.0035	0.0393	0.2233	0.6328	0.8955	0.6328	0.2233	0.0393	0.0035	0.0002	0.0000	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0002	0.0040	0.0450	0.2551	0.7230	1.0232	0.7230	0.2551	0.0450	0.0040	0.0002	0.0000	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0002	0.0049	0.0561	0.3186	0.9029	1.2778	0.9029	0.3186	0.0561	0.0049	0.0002	0.0000	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0002	0.0054	0.0613	0.3477	0.9855	1.3945	0.9855	0.3477	0.0613	0.0054	0.0002	0.0000	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0002	0.0047	0.0536	0.3043	0.8622	1.2202	0.8622	0.3043	0.0536	0.0047	0.0002	0.0000	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0001	0.0032	0.0368	0.2087	0.5915	0.8370	0.5915	0.2087	0.0368	0.0032	0.0001	0.0000	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0001	0.0017	0.0197	0.1117	0.3165	0.4478	0.3165	0.1117	0.0197	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0007	0.0082	0.0465	0.1319	0.1867	0.1319	0.0465	0.0082	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0027	0.0151	0.0428	0.0606	0.0428	0.0151	0.0027	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0108	0.0153	0.0108	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0021	0.0030	0.0021	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0005	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-106. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 10 mL Sample Volume

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0002	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0011	0.0015	0.0011	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0019	0.0054	0.0077	0.0054	0.0019	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0013	0.0076	0.0214	0.0303	0.0214	0.0076	0.0013	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0004	0.0041	0.0233	0.0660	0.0933	0.0660	0.0233	0.0041	0.0004	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0009	0.0098	0.0558	0.1582	0.2239	0.1582	0.0558	0.0098	0.0009	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0001	0.0016	0.0184	0.1044	0.2957	0.4185	0.2957	0.1044	0.0184	0.0016	0.0001	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0001	0.0024	0.0268	0.1521	0.4311	0.6101	0.4311	0.1521	0.0268	0.0024	0.0001	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0001	0.0027	0.0306	0.1739	0.4927	0.6973	0.4927	0.1739	0.0306	0.0027	0.0001	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0001	0.0025	0.0281	0.1593	0.4515	0.6389	0.4515	0.1593	0.0281	0.0025	0.0001	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0001	0.0020	0.0225	0.1276	0.3615	0.5116	0.3615	0.1276	0.0225	0.0020	0.0001	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0001	0.0017	0.0197	0.1117	0.3164	0.4478	0.3164	0.1117	0.0197	0.0017	0.0001	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0020	0.0225	0.1276	0.3615	0.5116	0.3615	0.1276	0.0225	0.0020	0.0001	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0001	0.0025	0.0281	0.1593	0.4515	0.6389	0.4515	0.1593	0.0281	0.0025	0.0001	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0001	0.0027	0.0306	0.1739	0.4927	0.6973	0.4927	0.1739	0.0306	0.0027	0.0001	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0001	0.0024	0.0268	0.1521	0.4311	0.6101	0.4311	0.1521	0.0268	0.0024	0.0001	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0001	0.0016	0.0184	0.1044	0.2957	0.4185	0.2957	0.1044	0.0184	0.0016	0.0001	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0009	0.0098	0.0558	0.1582	0.2239	0.1582	0.0558	0.0098	0.0009	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0004	0.0041	0.0233	0.0660	0.0933	0.0660	0.0233	0.0041	0.0004	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0013	0.0076	0.0214	0.0303	0.0214	0.0076	0.0013	0.0001	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0019	0.0054	0.0077	0.0054	0.0019	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0011	0.0015	0.0011	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0002	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-107. Concentrations of Liquid Sample (µg/mL) Produced by Collectors at Each Location Using a 20 mL Sample Volume

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0010	0.0027	0.0038	0.0027	0.0010	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0021	0.0116	0.0330	0.0467	0.0330	0.0116	0.0021	0.0002	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0004	0.0049	0.0279	0.0791	0.1120	0.0791	0.0279	0.0049	0.0004	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0522	0.1479	0.2093	0.1479	0.0522	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0134	0.0761	0.2156	0.3050	0.2156	0.0761	0.0134	0.0012	0.0001	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0001	0.0013	0.0153	0.0869	0.2464	0.3486	0.2464	0.0869	0.0153	0.0013	0.0001	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0140	0.0797	0.2257	0.3194	0.2257	0.0797	0.0140	0.0012	0.0001	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0010	0.0112	0.0638	0.1808	0.2558	0.1808	0.0638	0.0112	0.0010	0.0000	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0009	0.0098	0.0558	0.1582	0.2239	0.1582	0.0558	0.0098	0.0009	0.0000	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0010	0.0112	0.0638	0.1808	0.2558	0.1808	0.0638	0.0112	0.0010	0.0000	0.0000	0.0000	0.0000
-0.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0140	0.0797	0.2257	0.3194	0.2257	0.0797	0.0140	0.0012	0.0001	0.0000	0.0000	0.0000	
0.00	0.0000	0.0000	0.0000	0.0001	0.0013	0.0153	0.0869	0.2464	0.3486	0.2464	0.0869	0.0153	0.0013	0.0001	0.0000	0.0000	0.0000	
0.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0134	0.0761	0.2156	0.3050	0.2156	0.0761	0.0134	0.0012	0.0001	0.0000	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0522	0.1479	0.2093	0.1479	0.0522	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0004	0.0049	0.0279	0.0791	0.1120	0.0791	0.0279	0.0049	0.0004	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0021	0.0116	0.0330	0.0467	0.0330	0.0116	0.0021	0.0002	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0010	0.0027	0.0038	0.0027	0.0010	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

7. Continuous Collector Operation

Table B-108. Liquid Sample Concentrations and the Times at which Liquid Samples are Produced by a Single Collector Operating Continuously

Times at which Samples Are Produced by Collector (s)	Concentration (µg/mL)
5	3.4061
10	4.2978
15	5.1894
20	6.0811
25	6.9727
30	7.8644
35	8.7560
40	9.6477
45	10.5393
50	11.4310
55	12.3226

8. Identification Threshold

Table B-109. Liquid Sample Concentrations (µg/mL) Obtained during Testing of Identification Thresholds

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0017	0.0023	0.0017	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0108	0.0153	0.0108	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0193	0.0548	0.0776	0.0548	0.0193	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0135	0.0765	0.2168	0.3069	0.2168	0.0765	0.0135	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0037	0.0415	0.2357	0.6680	0.9452	0.6680	0.2357	0.0415	0.0037	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0088	0.0996	0.5655	1.6025	2.2678	1.6025	0.5655	0.0996	0.0088	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0164	0.1862	1.0569	2.9952	4.2385	2.9952	1.0569	0.1862	0.0164	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0239	0.2715	1.5407	4.3663	6.1789	4.3663	1.5407	0.2715	0.0239	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0273	0.3103	1.7609	4.9903	7.0619	4.9903	1.7609	0.3103	0.0273	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0250	0.2843	1.6134	4.5724	6.4705	4.5724	1.6134	0.2843	0.0250	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0200	0.2277	1.2920	3.6614	5.1814	3.6614	1.2920	0.2277	0.0200	0.0009	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0175	0.1993	1.1308	3.2046	4.5349	3.2046	1.1308	0.1993	0.0175	0.0008	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0009	0.0200	0.2277	1.2920	3.6614	5.1814	3.6614	1.2920	0.2277	0.0200	0.0009	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0250	0.2843	1.6134	4.5724	6.4705	4.5724	1.6134	0.2843	0.0250	0.0011	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0012	0.0273	0.3103	1.7609	4.9903	7.0619	4.9903	1.7609	0.3103	0.0273	0.0012	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0010	0.0239	0.2715	1.5407	4.3663	6.1789	4.3663	1.5407	0.2715	0.0239	0.0010	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0007	0.0164	0.1862	1.0569	2.9952	4.2385	2.9952	1.0569	0.1862	0.0164	0.0007	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0004	0.0088	0.0996	0.5655	1.6025	2.2678	1.6025	0.5655	0.0996	0.0088	0.0004	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0037	0.0415	0.2357	0.6680	0.9452	0.6680	0.2357	0.0415	0.0037	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0135	0.0765	0.2168	0.3069	0.2168	0.0765	0.0135	0.0012	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0193	0.0548	0.0776	0.0548	0.0193	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0108	0.0153	0.0108	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0017	0.0023	0.0017	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

E. Multiple Detector/Collector Associations

1. Individual Collector Assigned to Multiple Detectors

Table B-110. Liquid Sample Concentration and Time at which Sample is Produced by a Single Collector Associated with Multiple Detectors

Earliest Detection Time (s)	20
Collection Duration (s)	5
Time at which Sample is Produced (s)	25
Sample Concentration From Collector at Coordinates: (0 m, 0 m) (µg/mL)	6.9727

2. Multiple Collectors Assigned to Individual Detector

Table B-111. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Location When All Are Triggered by a Single Detector Alarming at 20 s

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0008	0.0173	0.1967	1.1165	3.1641	4.4777	3.1641	1.1165	0.1967	0.0173	0.0008	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0009	0.0198	0.2248	1.2757	3.6152	5.1160	3.6152	1.2757	0.2248	0.0198	0.0009	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0247	0.2807	1.5931	4.5146	6.3888	4.5146	1.5931	0.2807	0.0247	0.0011	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0012	0.0270	0.3064	1.7387	4.9273	6.9727	4.9273	1.7387	0.3064	0.0270	0.0012	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2681	1.5213	4.3112	6.1009	4.3112	1.5213	0.2681	0.0236	0.0010	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0007	0.0162	0.1839	1.0435	2.9573	4.1850	2.9573	1.0435	0.1839	0.0162	0.0007	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0004	0.0087	0.0984	0.5583	1.5823	2.2391	1.5823	0.5583	0.0984	0.0087	0.0004	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0036	0.0410	0.2327	0.6595	0.9333	0.6595	0.2327	0.0410	0.0036	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0012	0.0133	0.0756	0.2141	0.3030	0.2141	0.0756	0.0133	0.0012	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0541	0.0766	0.0541	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0107	0.0151	0.0107	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

3. Multiple Collectors Assigned to Multiple Detectors

Table B-112. Liquid Sample Concentrations and Time at which Samples are Produced by Two Collectors that Are Associated with Multiple Detectors

Earliest Detection Time (s)	20
Collection Duration (s)	5
Time at which Both Samples are Produced (s)	25
Sample Concentration from Collector at Coordinates: (0 m, 0 m) (µg/mL)	6.9727
Sample Concentration from Collector at Coordinates: (0 m, -1.5 m) (µg/mL)	6.9727

F. Standoff Detection Modeling

1. Scan Angle

Table B-113. Dose (μg) Received at Each Personnel Location for 0-360 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0020	0.0055	0.0078	0.0055	0.0020	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0029	0.0164	0.0464	0.0656	0.0464	0.0164	0.0029	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0001	0.0017	0.0188	0.1067	0.3024	0.4280	0.3024	0.1067	0.0188	0.0017	0.0001	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0004	0.0084	0.0955	0.5420	1.5359	2.1735	1.5359	0.5420	0.0955	0.0084	0.0004	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0015	0.0332	0.3777	2.1435	6.0746	8.5964	6.0746	2.1435	0.3777	0.0332	0.0015	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0001	0.0045	0.1024	1.1634	6.6027	18.7116	26.4794	18.7116	6.6027	1.1634	0.1024	0.0045	0.0001	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0002	0.0108	0.2456	2.7912	15.8405	44.8911	63.5268	44.8911	15.8405	2.7912	0.2456	0.0108	0.0002	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0004	0.0202	0.4590	5.2168	29.6067	83.9036	118.7346	83.9036	29.6067	5.2168	0.4590	0.0202	0.0004	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0006	0.0294	0.6692	7.6051	43.1605	122.3140	173.0904	122.3140	43.1605	7.6051	0.6692	0.0294	0.0006	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0007	0.0336	0.7648	8.6919	49.3283	139.7931	197.8256	139.7931	49.3283	8.6919	0.7648	0.0336	0.0007	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0007	0.0308	0.7007	7.9640	45.1973	128.0862	181.2587	128.0862	45.1973	7.9640	0.7007	0.0308	0.0007	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0005	0.0247	0.5611	6.3773	36.1929	102.5683	145.1476	102.5683	36.1929	6.3773	0.5611	0.0247	0.0005	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0005	0.0216	0.4911	5.5817	31.6772	89.7711	127.0379	89.7711	31.6772	5.5817	0.4911	0.0216	0.0005	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0005	0.0247	0.5611	6.3773	36.1929	102.5683	145.1476	102.5683	36.1929	6.3773	0.5611	0.0247	0.0005	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0007	0.0308	0.7007	7.9640	45.1973	128.0862	181.2587	128.0862	45.1973	7.9640	0.7007	0.0308	0.0007	0.0000	0.0000
	0.00	0.0000	0.0000	0.0007	0.0336	0.7648	8.6919	49.3283	139.7931	197.8256	139.7931	49.3283	8.6919	0.7648	0.0336	0.0007	0.0000	0.0000
	0.25	0.0000	0.0000	0.0006	0.0294	0.6692	7.6051	43.1605	122.3140	173.0904	122.3140	43.1605	7.6051	0.6692	0.0294	0.0006	0.0000	0.0000
0.50	0.0000	0.0000	0.0004	0.0202	0.4590	5.2168	29.6067	83.9036	118.7346	83.9036	29.6067	5.2168	0.4590	0.0202	0.0004	0.0000	0.0000	
0.75	0.0000	0.0000	0.0002	0.0108	0.2456	2.7912	15.8405	44.8911	63.5268	44.8911	15.8405	2.7912	0.2456	0.0108	0.0002	0.0000	0.0000	
1.00	0.0000	0.0000	0.0001	0.0045	0.1024	1.1634	6.6027	18.7116	26.4794	18.7116	6.6027	1.1634	0.1024	0.0045	0.0001	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0015	0.0332	0.3777	2.1435	6.0746	8.5964	6.0746	2.1435	0.3777	0.0332	0.0015	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0004	0.0084	0.0955	0.5420	1.5359	2.1735	1.5359	0.5420	0.0955	0.0084	0.0004	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0001	0.0017	0.0188	0.1067	0.3024	0.4280	0.3024	0.1067	0.0188	0.0017	0.0001	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0029	0.0164	0.0464	0.0656	0.0464	0.0164	0.0029	0.0003	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0020	0.0055	0.0078	0.0055	0.0020	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-114. Casualty Rate at Each Personnel Location for 0-360 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0016	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0062	0.0309	0.0489	0.0309	0.0062	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0078	0.0868	0.2336	0.3029	0.2336	0.0868	0.0078	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0018	0.0766	0.3548	0.6029	0.6815	0.6029	0.3548	0.0766	0.0018	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0192	0.2769	0.6785	0.8637	0.9046	0.8637	0.6785	0.2769	0.0192	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0005	0.0829	0.5367	0.8744	0.9625	0.9768	0.9625	0.8744	0.5367	0.0829	0.0005	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0029	0.1966	0.7337	0.9535	0.9896	0.9942	0.9896	0.9535	0.7337	0.1966	0.0029	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0088	0.3179	0.8424	0.9803	0.9965	0.9982	0.9965	0.9803	0.8424	0.3179	0.0088	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0160	0.4035	0.8913	0.9890	0.9983	0.9991	0.9983	0.9890	0.8913	0.4035	0.0160	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0196	0.4352	0.9057	0.9911	0.9987	0.9993	0.9987	0.9911	0.9057	0.4352	0.0196	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0172	0.4144	0.8965	0.9898	0.9984	0.9992	0.9984	0.9898	0.8965	0.4144	0.0172	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0122	0.3627	0.8700	0.9854	0.9976	0.9988	0.9976	0.9854	0.8700	0.3627	0.0122	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0098	0.3327	0.8521	0.9822	0.9969	0.9984	0.9969	0.9822	0.8521	0.3327	0.0098	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0122	0.3627	0.8700	0.9854	0.9976	0.9988	0.9976	0.9854	0.8700	0.3627	0.0122	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0172	0.4144	0.8965	0.9898	0.9984	0.9992	0.9984	0.9898	0.8965	0.4144	0.0172	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0196	0.4352	0.9057	0.9911	0.9987	0.9993	0.9987	0.9911	0.9057	0.4352	0.0196	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0160	0.4035	0.8913	0.9890	0.9983	0.9991	0.9983	0.9890	0.8913	0.4035	0.0160	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0088	0.3179	0.8424	0.9803	0.9965	0.9982	0.9965	0.9803	0.8424	0.3179	0.0088	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0029	0.1966	0.7337	0.9535	0.9896	0.9942	0.9896	0.9535	0.7337	0.1966	0.0029	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0005	0.0829	0.5367	0.8744	0.9625	0.9768	0.9625	0.8744	0.5367	0.0829	0.0005	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0192	0.2769	0.6785	0.8637	0.9046	0.8637	0.6785	0.2769	0.0192	0.0000	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0018	0.0766	0.3548	0.6029	0.6815	0.6029	0.3548	0.0766	0.0018	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0078	0.0868	0.2336	0.3029	0.2336	0.0868	0.0078	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0062	0.0309	0.0489	0.0309	0.0062	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0016	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-115. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Collector Location Using a 0-360 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0046	0.0065	0.0046	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0019	0.0105	0.0299	0.0422	0.0299	0.0105	0.0019	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0094	0.0535	0.1516	0.2145	0.1516	0.0535	0.0094	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0033	0.0373	0.2116	0.5996	0.8485	0.5996	0.2116	0.0373	0.0033	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0101	0.1148	0.6517	1.8470	2.6138	1.8470	0.6517	0.1148	0.0101	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0011	0.0242	0.2755	1.5636	4.4312	6.2707	4.4312	1.5636	0.2755	0.0242	0.0011	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0020	0.0453	0.5149	2.9225	8.2821	11.7202	8.2821	2.9225	0.5149	0.0453	0.0020	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0029	0.0661	0.7507	4.2603	12.0735	17.0856	12.0735	4.2603	0.7507	0.0661	0.0029	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0033	0.0755	0.8580	4.8691	13.7989	19.5272	13.7989	4.8691	0.8580	0.0755	0.0033	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0030	0.0692	0.7861	4.4614	12.6433	17.8919	12.6433	4.4614	0.7861	0.0692	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0024	0.0554	0.6295	3.5726	10.1244	14.3274	10.1244	3.5726	0.6295	0.0554	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0485	0.5510	3.1268	8.8612	12.5398	8.8612	3.1268	0.5510	0.0485	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0554	0.6295	3.5726	10.1244	14.3274	10.1244	3.5726	0.6295	0.0554	0.0024	0.0001	0.0000	0.0000
-0.25	0.0000	0.0000	0.0001	0.0030	0.0692	0.7861	4.4614	12.6433	17.8919	12.6433	4.4614	0.7861	0.0692	0.0030	0.0001	0.0000	0.0000	
0.00	0.0000	0.0000	0.0001	0.0033	0.0755	0.8580	4.8691	13.7989	19.5272	13.7989	4.8691	0.8580	0.0755	0.0033	0.0001	0.0000	0.0000	
0.25	0.0000	0.0000	0.0001	0.0029	0.0661	0.7507	4.2603	12.0735	17.0856	12.0735	4.2603	0.7507	0.0661	0.0029	0.0001	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0020	0.0453	0.5149	2.9225	8.2821	11.7202	8.2821	2.9225	0.5149	0.0453	0.0020	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0011	0.0242	0.2755	1.5636	4.4312	6.2707	4.4312	1.5636	0.2755	0.0242	0.0011	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0101	0.1148	0.6517	1.8470	2.6138	1.8470	0.6517	0.1148	0.0101	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0033	0.0373	0.2116	0.5996	0.8485	0.5996	0.2116	0.0373	0.0033	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0094	0.0535	0.1516	0.2145	0.1516	0.0535	0.0094	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0019	0.0105	0.0299	0.0422	0.0299	0.0105	0.0019	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0046	0.0065	0.0046	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-116. Dose (µg) Received at Each Personnel Location for 0-370 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0020	0.0055	0.0078	0.0055	0.0020	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0029	0.0164	0.0464	0.0656	0.0464	0.0164	0.0029	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0001	0.0017	0.0188	0.1067	0.3024	0.4280	0.3024	0.1067	0.0188	0.0017	0.0001	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0004	0.0084	0.0955	0.5420	1.5359	2.1735	1.5359	0.5420	0.0955	0.0084	0.0004	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0015	0.0332	0.3777	2.1435	6.0746	8.5964	6.0746	2.1435	0.3777	0.0332	0.0015	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0001	0.0045	0.1024	1.1634	6.6027	18.7116	26.4794	18.7116	6.6027	1.1634	0.1024	0.0045	0.0001	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0002	0.0108	0.2456	2.7912	15.8405	44.8911	63.5268	44.8911	15.8405	2.7912	0.2456	0.0108	0.0002	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0004	0.0202	0.4590	5.2168	29.6067	83.9036	118.7346	83.9036	29.6067	5.2168	0.4590	0.0202	0.0004	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0006	0.0294	0.6692	7.6051	43.1605	122.3140	173.0904	122.3140	43.1605	7.6051	0.6692	0.0294	0.0006	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0007	0.0336	0.7648	8.6919	49.3283	139.7931	197.8256	139.7931	49.3283	8.6919	0.7648	0.0336	0.0007	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0007	0.0308	0.7007	7.9640	45.1973	128.0862	181.2587	128.0862	45.1973	7.9640	0.7007	0.0308	0.0007	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0005	0.0247	0.5611	6.3773	36.1929	102.5683	145.1476	102.5683	36.1929	6.3773	0.5611	0.0247	0.0005	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0005	0.0216	0.4911	5.5817	31.6772	89.7711	127.0379	89.7711	31.6772	5.5817	0.4911	0.0216	0.0005	0.0000	0.0000
-0.50	0.0000	0.0000	0.0005	0.0247	0.5611	6.3773	36.1929	102.5683	145.1476	102.5683	36.1929	6.3773	0.5611	0.0247	0.0005	0.0000	0.0000	
-0.25	0.0000	0.0000	0.0007	0.0308	0.7007	7.9640	45.1973	128.0862	181.2587	128.0862	45.1973	7.9640	0.7007	0.0308	0.0007	0.0000	0.0000	
0.00	0.0000	0.0000	0.0007	0.0336	0.7648	8.6919	49.3283	139.7931	197.8256	139.7931	49.3283	8.6919	0.7648	0.0336	0.0007	0.0000	0.0000	
0.25	0.0000	0.0000	0.0006	0.0294	0.6692	7.6051	43.1605	122.3140	173.0904	122.3140	43.1605	7.6051	0.6692	0.0294	0.0006	0.0000	0.0000	
0.50	0.0000	0.0000	0.0004	0.0202	0.4590	5.2168	29.6067	83.9036	118.7346	83.9036	29.6067	5.2168	0.4590	0.0202	0.0004	0.0000	0.0000	
0.75	0.0000	0.0000	0.0002	0.0108	0.2456	2.7912	15.8405	44.8911	63.5268	44.8911	15.8405	2.7912	0.2456	0.0108	0.0002	0.0000	0.0000	
1.00	0.0000	0.0000	0.0001	0.0045	0.1024	1.1634	6.6027	18.7116	26.4794	18.7116	6.6027	1.1634	0.1024	0.0045	0.0001	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0015	0.0332	0.3777	2.1435	6.0746	8.5964	6.0746	2.1435	0.3777	0.0332	0.0015	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0004	0.0084	0.0955	0.5420	1.5359	2.1735	1.5359	0.5420	0.0955	0.0084	0.0004	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0001	0.0017	0.0188	0.1067	0.3024	0.4280	0.3024	0.1067	0.0188	0.0017	0.0001	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0029	0.0164	0.0464	0.0656	0.0464	0.0164	0.0029	0.0003	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0020	0.0055	0.0078	0.0055	0.0020	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-117. Casualty Rate at Each Personnel Location for 0-370 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0016	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0062	0.0309	0.0489	0.0309	0.0062	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0078	0.0868	0.2336	0.3029	0.2336	0.0868	0.0078	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0018	0.0766	0.3548	0.6029	0.6815	0.6029	0.3548	0.0766	0.0018	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0192	0.2769	0.6785	0.8637	0.9046	0.8637	0.6785	0.2769	0.0192	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0005	0.0829	0.5367	0.8744	0.9625	0.9768	0.9625	0.8744	0.5367	0.0829	0.0005	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0029	0.1966	0.7337	0.9535	0.9896	0.9942	0.9896	0.9535	0.7337	0.1966	0.0029	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0088	0.3179	0.8424	0.9803	0.9965	0.9982	0.9965	0.9803	0.8424	0.3179	0.0088	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0160	0.4035	0.8913	0.9890	0.9983	0.9991	0.9983	0.9890	0.8913	0.4035	0.0160	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0196	0.4352	0.9057	0.9911	0.9987	0.9993	0.9987	0.9911	0.9057	0.4352	0.0196	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0172	0.4144	0.8965	0.9898	0.9984	0.9992	0.9984	0.9898	0.8965	0.4144	0.0172	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0122	0.3627	0.8700	0.9854	0.9976	0.9988	0.9976	0.9854	0.8700	0.3627	0.0122	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0098	0.3327	0.8521	0.9822	0.9969	0.9984	0.9969	0.9822	0.8521	0.3327	0.0098	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0122	0.3627	0.8700	0.9854	0.9976	0.9988	0.9976	0.9854	0.8700	0.3627	0.0122	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0172	0.4144	0.8965	0.9898	0.9984	0.9992	0.9984	0.9898	0.8965	0.4144	0.0172	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0000	0.0196	0.4352	0.9057	0.9911	0.9987	0.9993	0.9987	0.9911	0.9057	0.4352	0.0196	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0000	0.0160	0.4035	0.8913	0.9890	0.9983	0.9991	0.9983	0.9890	0.8913	0.4035	0.0160	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0000	0.0088	0.3179	0.8424	0.9803	0.9965	0.9982	0.9965	0.9803	0.8424	0.3179	0.0088	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0029	0.1966	0.7337	0.9535	0.9896	0.9942	0.9896	0.9535	0.7337	0.1966	0.0029	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0005	0.0829	0.5367	0.8744	0.9625	0.9768	0.9625	0.8744	0.5367	0.0829	0.0005	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0192	0.2769	0.6785	0.8637	0.9046	0.8637	0.6785	0.2769	0.0192	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0018	0.0766	0.3548	0.6029	0.6815	0.6029	0.3548	0.0766	0.0018	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0078	0.0868	0.2336	0.3029	0.2336	0.0868	0.0078	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0062	0.0309	0.0489	0.0309	0.0062	0.0002	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0016	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-118. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Collector Location Using a 0-370 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0046	0.0065	0.0046	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0019	0.0105	0.0299	0.0422	0.0299	0.0105	0.0019	0.0002	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	0.0094	0.0535	0.1516	0.2145	0.1516	0.0535	0.0094	0.0008	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0033	0.0373	0.2116	0.5996	0.8485	0.5996	0.2116	0.0373	0.0033	0.0001	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0004	0.0101	0.1148	0.6517	1.8470	2.6138	1.8470	0.6517	0.1148	0.0101	0.0004	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0011	0.0242	0.2755	1.5636	4.4312	6.2707	4.4312	1.5636	0.2755	0.0242	0.0011	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0020	0.0453	0.5149	2.9225	8.2821	11.7202	8.2821	2.9225	0.5149	0.0453	0.0020	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0001	0.0029	0.0661	0.7507	4.2603	12.0735	17.0856	12.0735	4.2603	0.7507	0.0661	0.0029	0.0001	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0001	0.0033	0.0755	0.8580	4.8691	13.7989	19.5272	13.7989	4.8691	0.8580	0.0755	0.0033	0.0001	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0001	0.0030	0.0692	0.7861	4.4614	12.6433	17.8919	12.6433	4.4614	0.7861	0.0692	0.0030	0.0001	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0001	0.0024	0.0554	0.6295	3.5726	10.1244	14.3274	10.1244	3.5726	0.6295	0.0554	0.0024	0.0001	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0021	0.0485	0.5510	3.1268	8.8612	12.5398	8.8612	3.1268	0.5510	0.0485	0.0021	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0001	0.0024	0.0554	0.6295	3.5726	10.1244	14.3274	10.1244	3.5726	0.6295	0.0554	0.0024	0.0001	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0001	0.0030	0.0692	0.7861	4.4614	12.6433	17.8919	12.6433	4.4614	0.7861	0.0692	0.0030	0.0001	0.0000
	0.00	0.0000	0.0000	0.0000	0.0001	0.0033	0.0755	0.8580	4.8691	13.7989	19.5272	13.7989	4.8691	0.8580	0.0755	0.0033	0.0001	0.0000
	0.25	0.0000	0.0000	0.0000	0.0001	0.0029	0.0661	0.7507	4.2603	12.0735	17.0856	12.0735	4.2603	0.7507	0.0661	0.0029	0.0001	0.0000
0.50	0.0000	0.0000	0.0000	0.0000	0.0020	0.0453	0.5149	2.9225	8.2821	11.7202	8.2821	2.9225	0.5149	0.0453	0.0020	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0011	0.0242	0.2755	1.5636	4.4312	6.2707	4.4312	1.5636	0.2755	0.0242	0.0011	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0004	0.0101	0.1148	0.6517	1.8470	2.6138	1.8470	0.6517	0.1148	0.0101	0.0004	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0033	0.0373	0.2116	0.5996	0.8485	0.5996	0.2116	0.0373	0.0033	0.0001	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0008	0.0094	0.0535	0.1516	0.2145	0.1516	0.0535	0.0094	0.0008	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0019	0.0105	0.0299	0.0422	0.0299	0.0105	0.0019	0.0002	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0046	0.0065	0.0046	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-119. Dose (μg) Received at Each Personnel Location for 10-370 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0006	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0045	0.0064	0.0045	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0024	0.0134	0.0379	0.0536	0.0379	0.0134	0.0024	0.0002	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0014	0.0154	0.0871	0.2469	0.3494	0.2469	0.0871	0.0154	0.0014	0.0001	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0003	0.0069	0.0780	0.4424	1.2538	1.7744	1.2538	0.4424	0.0780	0.0069	0.0003	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0012	0.0271	0.3083	1.7499	4.9591	7.0177	4.9591	1.7499	0.3083	0.0271	0.0012	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0001	0.0037	0.0836	0.9498	5.3901	15.2753	21.6166	15.2753	5.3901	0.9498	0.0836	0.0037	0.0001	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0002	0.0088	0.2005	2.2786	12.9315	36.6471	51.8605	36.6471	12.9315	2.2786	0.2005	0.0088	0.0002	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0004	0.0165	0.3747	4.2588	24.1696	68.4952	96.9297	68.4952	24.1696	4.2588	0.3747	0.0165	0.0004	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0005	0.0240	0.5463	6.2084	35.2343	99.8518	141.3034	99.8518	35.2343	6.2084	0.5463	0.0240	0.0005	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0006	0.0274	0.6243	7.0956	40.2694	114.1210	161.4961	114.1210	40.2694	7.0956	0.6243	0.0274	0.0006	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0006	0.0251	0.5720	6.5014	36.8971	104.5639	147.9717	104.5639	36.8971	6.5014	0.5720	0.0251	0.0006	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0004	0.0201	0.4581	5.2062	29.5463	83.7323	118.4921	83.7323	29.5463	5.2062	0.4581	0.0201	0.0004	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0004	0.0176	0.4009	4.5566	25.8599	73.2852	103.7081	73.2852	25.8599	4.5566	0.4009	0.0176	0.0004	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0004	0.0201	0.4581	5.2062	29.5463	83.7323	118.4921	83.7323	29.5463	5.2062	0.4581	0.0201	0.0004	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0006	0.0251	0.5720	6.5014	36.8971	104.5639	147.9717	104.5639	36.8971	6.5014	0.5720	0.0251	0.0006	0.0000	0.0000
	0.00	0.0000	0.0000	0.0006	0.0274	0.6243	7.0956	40.2694	114.1210	161.4961	114.1210	40.2694	7.0956	0.6243	0.0274	0.0006	0.0000	0.0000
	0.25	0.0000	0.0000	0.0005	0.0240	0.5463	6.2084	35.2343	99.8518	141.3034	99.8518	35.2343	6.2084	0.5463	0.0240	0.0005	0.0000	0.0000
0.50	0.0000	0.0000	0.0004	0.0165	0.3747	4.2588	24.1696	68.4952	96.9297	68.4952	24.1696	4.2588	0.3747	0.0165	0.0004	0.0000	0.0000	
0.75	0.0000	0.0000	0.0002	0.0088	0.2005	2.2786	12.9315	36.6471	51.8605	36.6471	12.9315	2.2786	0.2005	0.0088	0.0002	0.0000	0.0000	
1.00	0.0000	0.0000	0.0001	0.0037	0.0836	0.9498	5.3901	15.2753	21.6166	15.2753	5.3901	0.9498	0.0836	0.0037	0.0001	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0012	0.0271	0.3083	1.7499	4.9591	7.0177	4.9591	1.7499	0.3083	0.0271	0.0012	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0003	0.0069	0.0780	0.4424	1.2538	1.7744	1.2538	0.4424	0.0780	0.0069	0.0003	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0001	0.0014	0.0154	0.0871	0.2469	0.3494	0.2469	0.0871	0.0154	0.0014	0.0001	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0024	0.0134	0.0379	0.0536	0.0379	0.0134	0.0024	0.0002	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0045	0.0064	0.0045	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0006	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-120. Casualty Rate at Each Personnel Location for 10-370 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0011	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0043	0.0233	0.0376	0.0233	0.0043	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0689	0.1975	0.2613	0.1975	0.0689	0.0056	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0012	0.0604	0.3100	0.5547	0.6363	0.5547	0.3100	0.0604	0.0012	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0141	0.2372	0.6332	0.8349	0.8819	0.8349	0.6332	0.2372	0.0141	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0003	0.0656	0.4875	0.8471	0.9513	0.9692	0.9513	0.8471	0.4875	0.0656	0.0003	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0020	0.1643	0.6917	0.9402	0.9857	0.9918	0.9857	0.9402	0.6917	0.1643	0.0020	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0063	0.2753	0.8108	0.9736	0.9949	0.9973	0.9949	0.9736	0.8108	0.2753	0.0063	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0117	0.3566	0.8665	0.9848	0.9974	0.9987	0.9974	0.9848	0.8665	0.3566	0.0117	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0144	0.3873	0.8833	0.9877	0.9980	0.9990	0.9980	0.9877	0.8833	0.3873	0.0144	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0126	0.3671	0.8725	0.9859	0.9977	0.9988	0.9977	0.9859	0.8725	0.3671	0.0126	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0088	0.3175	0.8421	0.9802	0.9964	0.9982	0.9964	0.9802	0.8421	0.3175	0.0088	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0070	0.2892	0.8218	0.9760	0.9955	0.9976	0.9955	0.9760	0.8218	0.2892	0.0070	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0088	0.3175	0.8421	0.9802	0.9964	0.9982	0.9964	0.9802	0.8421	0.3175	0.0088	0.0000	0.0000	0.0000
-0.25	0.0000	0.0000	0.0000	0.0126	0.3671	0.8725	0.9859	0.9977	0.9988	0.9977	0.9859	0.8725	0.3671	0.0126	0.0000	0.0000	0.0000	
0.00	0.0000	0.0000	0.0000	0.0144	0.3873	0.8833	0.9877	0.9980	0.9990	0.9980	0.9877	0.8833	0.3873	0.0144	0.0000	0.0000	0.0000	
0.25	0.0000	0.0000	0.0000	0.0117	0.3566	0.8665	0.9848	0.9974	0.9987	0.9974	0.9848	0.8665	0.3566	0.0117	0.0000	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0063	0.2753	0.8108	0.9736	0.9949	0.9973	0.9949	0.9736	0.8108	0.2753	0.0063	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0020	0.1643	0.6917	0.9402	0.9857	0.9918	0.9857	0.9402	0.6917	0.1643	0.0020	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0003	0.0656	0.4875	0.8471	0.9513	0.9692	0.9513	0.8471	0.4875	0.0656	0.0003	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0141	0.2372	0.6332	0.8349	0.8819	0.8349	0.6332	0.2372	0.0141	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0012	0.0604	0.3100	0.5547	0.6363	0.5547	0.3100	0.0604	0.0012	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0056	0.0689	0.1975	0.2613	0.1975	0.0689	0.0056	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0043	0.0233	0.0376	0.0233	0.0043	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0011	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-121. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Collector Location Using a 10-370 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0015	0.0041	0.0059	0.0041	0.0015	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0095	0.0271	0.0383	0.0271	0.0095	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0085	0.0485	0.1374	0.1944	0.1374	0.0485	0.0085	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0030	0.0338	0.1917	0.5433	0.7689	0.5433	0.1917	0.0338	0.0030	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0092	0.1041	0.5906	1.6736	2.3684	1.6736	0.5906	0.1041	0.0092	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0220	0.2496	1.4168	4.0152	5.6820	4.0152	1.4168	0.2496	0.0220	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0018	0.0411	0.4666	2.6481	7.5045	10.6199	7.5045	2.6481	0.4666	0.0411	0.0018	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0026	0.0599	0.6802	3.8604	10.9400	15.4816	10.9400	3.8604	0.6802	0.0599	0.0026	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0030	0.0684	0.7774	4.4120	12.5034	17.6940	12.5034	4.4120	0.7774	0.0684	0.0030	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0028	0.0627	0.7123	4.0425	11.4563	16.2122	11.4563	4.0425	0.7123	0.0627	0.0028	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0022	0.0502	0.5704	3.2372	9.1739	12.9823	9.1739	3.2372	0.5704	0.0502	0.0022	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0019	0.0439	0.4992	2.8333	8.0293	11.3625	8.0293	2.8333	0.4992	0.0439	0.0019	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0022	0.0502	0.5704	3.2372	9.1739	12.9823	9.1739	3.2372	0.5704	0.0502	0.0022	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0028	0.0627	0.7123	4.0425	11.4563	16.2122	11.4563	4.0425	0.7123	0.0627	0.0028	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0030	0.0684	0.7774	4.4120	12.5034	17.6940	12.5034	4.4120	0.7774	0.0684	0.0030	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0026	0.0599	0.6802	3.8604	10.9400	15.4816	10.9400	3.8604	0.6802	0.0599	0.0026	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0018	0.0411	0.4666	2.6481	7.5045	10.6199	7.5045	2.6481	0.4666	0.0411	0.0018	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0220	0.2496	1.4168	4.0152	5.6820	4.0152	1.4168	0.2496	0.0220	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0092	0.1041	0.5906	1.6736	2.3684	1.6736	0.5906	0.1041	0.0092	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0030	0.0338	0.1917	0.5433	0.7689	0.5433	0.1917	0.0338	0.0030	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0085	0.0485	0.1374	0.1944	0.1374	0.0485	0.0085	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0095	0.0271	0.0383	0.0271	0.0095	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0015	0.0041	0.0059	0.0041	0.0015	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-122. Dose (µg) Received at Each Personnel Location for 85-95 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0011	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0024	0.0068	0.0096	0.0068	0.0024	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0028	0.0156	0.0443	0.0627	0.0443	0.0156	0.0028	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0012	0.0140	0.0794	0.2250	0.3185	0.2250	0.0794	0.0140	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0002	0.0049	0.0553	0.3141	0.8901	1.2596	0.8901	0.3141	0.0553	0.0049	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0007	0.0150	0.1705	0.9674	2.7417	3.8798	2.7417	0.9674	0.1705	0.0150	0.0007	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0016	0.0360	0.4090	2.3210	6.5775	9.3081	6.5775	2.3210	0.4090	0.0360	0.0016	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0030	0.0673	0.7644	4.3380	12.2937	17.3973	12.2937	4.3380	0.7644	0.0673	0.0030	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0043	0.0980	1.1143	6.3240	17.9217	25.3616	17.9217	6.3240	1.1143	0.0980	0.0043	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0049	0.1121	1.2735	7.2277	20.4828	28.9858	20.4828	7.2277	1.2735	0.1121	0.0049	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0045	0.1027	1.1669	6.6224	18.7675	26.5584	18.7675	6.6224	1.1669	0.1027	0.0045	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0036	0.0822	0.9344	5.3031	15.0285	21.2674	15.0285	5.3031	0.9344	0.0822	0.0036	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0032	0.0720	0.8178	4.6414	13.1535	18.6139	13.1535	4.6414	0.8178	0.0720	0.0032	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0036	0.0822	0.9344	5.3031	15.0285	21.2674	15.0285	5.3031	0.9344	0.0822	0.0036	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0045	0.1027	1.1669	6.6224	18.7675	26.5584	18.7675	6.6224	1.1669	0.1027	0.0045	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0049	0.1121	1.2735	7.2277	20.4828	28.9858	20.4828	7.2277	1.2735	0.1121	0.0049	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0043	0.0980	1.1143	6.3240	17.9217	25.3616	17.9217	6.3240	1.1143	0.0980	0.0043	0.0001	0.0000	0.0000
	0.50	0.0000	0.0000	0.0001	0.0030	0.0673	0.7644	4.3380	12.2937	17.3973	12.2937	4.3380	0.7644	0.0673	0.0030	0.0001	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0016	0.0360	0.4090	2.3210	6.5775	9.3081	6.5775	2.3210	0.4090	0.0360	0.0016	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0007	0.0150	0.1705	0.9674	2.7417	3.8798	2.7417	0.9674	0.1705	0.0150	0.0007	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0002	0.0049	0.0553	0.3141	0.8901	1.2596	0.8901	0.3141	0.0553	0.0049	0.0002	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0001	0.0012	0.0140	0.0794	0.2250	0.3185	0.2250	0.0794	0.0140	0.0012	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0028	0.0156	0.0443	0.0627	0.0443	0.0156	0.0028	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0024	0.0068	0.0096	0.0068	0.0024	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0011	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-123. Casualty Rate at Each Personnel Location for 85-95 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0024	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0057	0.0291	0.0461	0.0291	0.0057	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0047	0.0618	0.1822	0.2433	0.1822	0.0618	0.0047	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0392	0.2407	0.4718	0.5558	0.4718	0.2407	0.0392	0.0006	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0053	0.1410	0.4920	0.7301	0.7951	0.7301	0.4920	0.1410	0.0053	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0216	0.2933	0.6957	0.8740	0.9125	0.8740	0.6957	0.2933	0.0216	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0002	0.0504	0.4351	0.8139	0.9364	0.9588	0.9364	0.8139	0.4351	0.0504	0.0002	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0005	0.0790	0.5262	0.8689	0.9603	0.9753	0.9603	0.8689	0.5262	0.0790	0.0005	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0006	0.0916	0.5584	0.8854	0.9668	0.9797	0.9668	0.8854	0.5584	0.0916	0.0006	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0005	0.0832	0.5374	0.8748	0.9627	0.9769	0.9627	0.8748	0.5374	0.0832	0.0005	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0003	0.0644	0.4836	0.8448	0.9503	0.9685	0.9503	0.8448	0.4836	0.0644	0.0003	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0002	0.0548	0.4513	0.8247	0.9414	0.9623	0.9414	0.8247	0.4513	0.0548	0.0002	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0003	0.0644	0.4836	0.8448	0.9503	0.9685	0.9503	0.8448	0.4836	0.0644	0.0003	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0005	0.0832	0.5374	0.8748	0.9627	0.9769	0.9627	0.8748	0.5374	0.0832	0.0005	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0006	0.0916	0.5584	0.8854	0.9668	0.9797	0.9668	0.8854	0.5584	0.0916	0.0006	0.0000	0.0000	0.0000
0.25	0.0000	0.0000	0.0000	0.0005	0.0790	0.5262	0.8689	0.9603	0.9753	0.9603	0.8689	0.5262	0.0790	0.0005	0.0000	0.0000	0.0000	
0.50	0.0000	0.0000	0.0000	0.0002	0.0504	0.4351	0.8139	0.9364	0.9588	0.9364	0.8139	0.4351	0.0504	0.0002	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0216	0.2933	0.6957	0.8740	0.9125	0.8740	0.6957	0.2933	0.0216	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0053	0.1410	0.4920	0.7301	0.7951	0.7301	0.4920	0.1410	0.0053	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0006	0.0392	0.2407	0.4718	0.5558	0.4718	0.2407	0.0392	0.0006	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0047	0.0618	0.1822	0.2433	0.1822	0.0618	0.0047	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0057	0.0291	0.0461	0.0291	0.0057	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0024	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-124. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Collector Location Using a 85-95 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0019	0.0027	0.0019	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0044	0.0126	0.0178	0.0126	0.0044	0.0008	0.0001	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0040	0.0225	0.0638	0.0903	0.0638	0.0225	0.0040	0.0003	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0014	0.0157	0.0891	0.2524	0.3572	0.2524	0.0891	0.0157	0.0014	0.0001	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0043	0.0483	0.2744	0.7776	1.1004	0.7776	0.2744	0.0483	0.0043	0.0002	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0004	0.0102	0.1160	0.6583	1.8655	2.6400	1.8655	0.6583	0.1160	0.0102	0.0004	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0191	0.2168	1.2304	3.4868	4.9343	3.4868	1.2304	0.2168	0.0191	0.0008	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0012	0.0278	0.3160	1.7936	5.0830	7.1931	5.0830	1.7936	0.3160	0.0278	0.0012	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0014	0.0318	0.3612	2.0499	5.8094	8.2210	5.8094	2.0499	0.3612	0.0318	0.0014	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0013	0.0291	0.3310	1.8783	5.3229	7.5326	5.3229	1.8783	0.3310	0.0291	0.0013	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0010	0.0233	0.2650	1.5041	4.2624	6.0319	4.2624	1.5041	0.2650	0.0233	0.0010	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0009	0.0204	0.2320	1.3164	3.7306	5.2793	3.7306	1.3164	0.2320	0.0204	0.0009	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0010	0.0233	0.2650	1.5041	4.2624	6.0319	4.2624	1.5041	0.2650	0.0233	0.0010	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0013	0.0291	0.3310	1.8783	5.3229	7.5326	5.3229	1.8783	0.3310	0.0291	0.0013	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0000	0.0014	0.0318	0.3612	2.0499	5.8094	8.2210	5.8094	2.0499	0.3612	0.0318	0.0014	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0000	0.0012	0.0278	0.3160	1.7936	5.0830	7.1931	5.0830	1.7936	0.3160	0.0278	0.0012	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0191	0.2168	1.2304	3.4868	4.9343	3.4868	1.2304	0.2168	0.0191	0.0008	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0004	0.0102	0.1160	0.6583	1.8655	2.6400	1.8655	0.6583	0.1160	0.0102	0.0004	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0043	0.0483	0.2744	0.7776	1.1004	0.7776	0.2744	0.0483	0.0043	0.0002	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0014	0.0157	0.0891	0.2524	0.3572	0.2524	0.0891	0.0157	0.0014	0.0001	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0040	0.0225	0.0638	0.0903	0.0638	0.0225	0.0040	0.0003	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0044	0.0126	0.0178	0.0126	0.0044	0.0008	0.0001	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0019	0.0027	0.0019	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-125. Dose (μg) Received at Each Personnel Location for 90-90 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0015	0.0041	0.0059	0.0041	0.0015	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0095	0.0270	0.0383	0.0270	0.0095	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0085	0.0485	0.1373	0.1943	0.1373	0.0485	0.0085	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0030	0.0338	0.1916	0.5431	0.7686	0.5431	0.1916	0.0338	0.0030	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0092	0.1040	0.5903	1.6729	2.3674	1.6729	0.5903	0.1040	0.0092	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0220	0.2495	1.4162	4.0135	5.6797	4.0135	1.4162	0.2495	0.0220	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0018	0.0410	0.4664	2.6470	7.5015	10.6156	7.5015	2.6470	0.4664	0.0410	0.0018	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0026	0.0598	0.6799	3.8588	10.9356	15.4753	10.9356	3.8588	0.6799	0.0598	0.0026	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0030	0.0684	0.7771	4.4102	12.4984	17.6868	12.4984	4.4102	0.7771	0.0684	0.0030	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0028	0.0626	0.7120	4.0409	11.4517	16.2056	11.4517	4.0409	0.7120	0.0626	0.0028	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0022	0.0502	0.5702	3.2359	9.1702	12.9771	9.1702	3.2359	0.5702	0.0502	0.0022	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0019	0.0439	0.4990	2.8321	8.0261	11.3580	8.0261	2.8321	0.4990	0.0439	0.0019	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0022	0.0502	0.5702	3.2359	9.1702	12.9771	9.1702	3.2359	0.5702	0.0502	0.0022	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0028	0.0626	0.7120	4.0409	11.4517	16.2056	11.4517	4.0409	0.7120	0.0626	0.0028	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0030	0.0684	0.7771	4.4102	12.4984	17.6868	12.4984	4.4102	0.7771	0.0684	0.0030	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0026	0.0598	0.6799	3.8588	10.9356	15.4753	10.9356	3.8588	0.6799	0.0598	0.0026	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0018	0.0410	0.4664	2.6470	7.5015	10.6156	7.5015	2.6470	0.4664	0.0410	0.0018	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0220	0.2495	1.4162	4.0135	5.6797	4.0135	1.4162	0.2495	0.0220	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0092	0.1040	0.5903	1.6729	2.3674	1.6729	0.5903	0.1040	0.0092	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0030	0.0338	0.1916	0.5431	0.7686	0.5431	0.1916	0.0338	0.0030	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0085	0.0485	0.1373	0.1943	0.1373	0.0485	0.0085	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0095	0.0270	0.0383	0.0270	0.0095	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0015	0.0041	0.0059	0.0041	0.0015	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-126. Casualty Rate at Each Personnel Location for 90-90 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0009	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0023	0.0141	0.0236	0.0141	0.0023	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0019	0.0328	0.1137	0.1596	0.1137	0.0328	0.0019	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0197	0.1576	0.3553	0.4364	0.3553	0.1576	0.0197	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0844	0.3743	0.6228	0.6999	0.6228	0.3743	0.0844	0.0022	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0101	0.1993	0.5838	0.8009	0.8545	0.8009	0.5838	0.1993	0.0101	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0261	0.3214	0.7230	0.8898	0.9245	0.8898	0.7230	0.3214	0.0261	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0434	0.4073	0.7942	0.9271	0.9521	0.9271	0.7942	0.4073	0.0434	0.0002	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0514	0.4391	0.8165	0.9377	0.9597	0.9377	0.8165	0.4391	0.0514	0.0002	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0461	0.4182	0.8021	0.9309	0.9548	0.9309	0.8021	0.4182	0.0461	0.0002	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0344	0.3663	0.7624	0.9111	0.9404	0.9111	0.7624	0.3663	0.0344	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0287	0.3363	0.7366	0.8973	0.9302	0.8973	0.7366	0.3363	0.0287	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0344	0.3663	0.7624	0.9111	0.9404	0.9111	0.7624	0.3663	0.0344	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0461	0.4182	0.8021	0.9309	0.9548	0.9309	0.8021	0.4182	0.0461	0.0002	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0514	0.4391	0.8165	0.9377	0.9597	0.9377	0.8165	0.4391	0.0514	0.0002	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0434	0.4073	0.7942	0.9271	0.9521	0.9271	0.7942	0.4073	0.0434	0.0002	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0261	0.3214	0.7230	0.8898	0.9245	0.8898	0.7230	0.3214	0.0261	0.0001	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0101	0.1993	0.5838	0.8009	0.8545	0.8009	0.5838	0.1993	0.0101	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0844	0.3743	0.6228	0.6999	0.6228	0.3743	0.0844	0.0022	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0197	0.1576	0.3553	0.4364	0.3553	0.1576	0.0197	0.0002	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0019	0.0328	0.1137	0.1596	0.1137	0.0328	0.0019	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0023	0.0141	0.0236	0.0141	0.0023	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0009	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-127. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Collector Location Using a 90-90 degree Scan Angle

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0037	0.0104	0.0147	0.0104	0.0037	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0033	0.0186	0.0528	0.0746	0.0528	0.0186	0.0033	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0011	0.0130	0.0736	0.2086	0.2952	0.2086	0.0736	0.0130	0.0011	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0035	0.0400	0.2268	0.6427	0.9094	0.6427	0.2268	0.0400	0.0035	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0084	0.0959	0.5440	1.5418	2.1819	1.5418	0.5440	0.0959	0.0084	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0158	0.1792	1.0169	2.8817	4.0780	2.8817	1.0169	0.1792	0.0158	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0230	0.2612	1.4824	4.2009	5.9449	4.2009	1.4824	0.2612	0.0230	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0263	0.2985	1.6942	4.8012	6.7944	4.8012	1.6942	0.2985	0.0263	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0241	0.2735	1.5523	4.3992	6.2254	4.3992	1.5523	0.2735	0.0241	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0008	0.0193	0.2190	1.2431	3.5227	4.9851	3.5227	1.2431	0.2190	0.0193	0.0008	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0007	0.0169	0.1917	1.0880	3.0832	4.3632	3.0832	1.0880	0.1917	0.0169	0.0007	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0008	0.0193	0.2190	1.2431	3.5227	4.9851	3.5227	1.2431	0.2190	0.0193	0.0008	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0241	0.2735	1.5523	4.3992	6.2254	4.3992	1.5523	0.2735	0.0241	0.0011	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0012	0.0263	0.2985	1.6942	4.8012	6.7944	4.8012	1.6942	0.2985	0.0263	0.0012	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0010	0.0230	0.2612	1.4824	4.2009	5.9449	4.2009	1.4824	0.2612	0.0230	0.0010	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0007	0.0158	0.1792	1.0169	2.8817	4.0780	2.8817	1.0169	0.1792	0.0158	0.0007	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0004	0.0084	0.0959	0.5440	1.5418	2.1819	1.5418	0.5440	0.0959	0.0084	0.0004	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0035	0.0400	0.2268	0.6427	0.9094	0.6427	0.2268	0.0400	0.0035	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0011	0.0130	0.0736	0.2086	0.2952	0.2086	0.0736	0.0130	0.0011	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0033	0.0186	0.0528	0.0746	0.0528	0.0186	0.0033	0.0003	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0037	0.0104	0.0147	0.0104	0.0037	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

**Table B-128. Angle (in degrees) at which the Standoff Detector Is Directed at Each
CBStrike Time Step for Each Scan Angle**

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
0	0	0	10	85	90
1	1	1	11	86	90
2	2	2	12	87	90
3	3	3	13	88	90
4	4	4	14	89	90
5	5	5	15	90	90
6	6	6	16	91	90
7	7	7	17	92	90
8	8	8	18	93	90
9	9	9	19	94	90
10	10	10	20	95	90
11	11	11	21	95	90
12	12	12	22	94	90
13	13	13	23	93	90
14	14	14	24	92	90
15	15	15	25	91	90
16	16	16	26	90	90
17	17	17	27	89	90
18	18	18	28	88	90
19	19	19	29	87	90
20	20	20	30	86	90
21	21	21	31	85	90
22	22	22	32	85	90
23	23	23	33	86	90
24	24	24	34	87	90
25	25	25	35	88	90
26	26	26	36	89	90
27	27	27	37	90	90
28	28	28	38	91	90
29	29	29	39	92	90
30	30	30	40	93	90
31	31	31	41	94	90
32	32	32	42	95	90
33	33	33	43	95	90
34	34	34	44	94	90
35	35	35	45	93	90
36	36	36	46	92	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
37	37	37	47	91	90
38	38	38	48	90	90
39	39	39	49	89	90
40	40	40	50	88	90
41	41	41	51	87	90
42	42	42	52	86	90
43	43	43	53	85	90
44	44	44	54	85	90
45	45	45	55	86	90
46	46	46	56	87	90
47	47	47	57	88	90
48	48	48	58	89	90
49	49	49	59	90	90
50	50	50	60	91	90
51	51	51	61	92	90
52	52	52	62	93	90
53	53	53	63	94	90
54	54	54	64	95	90
55	55	55	65	95	90
56	56	56	66	94	90
57	57	57	67	93	90
58	58	58	68	92	90
59	59	59	69	91	90
60	60	60	70	90	90
61	61	61	71	89	90
62	62	62	72	88	90
63	63	63	73	87	90
64	64	64	74	86	90
65	65	65	75	85	90
66	66	66	76	85	90
67	67	67	77	86	90
68	68	68	78	87	90
69	69	69	79	88	90
70	70	70	80	89	90
71	71	71	81	90	90
72	72	72	82	91	90
73	73	73	83	92	90
74	74	74	84	93	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
75	75	75	85	94	90
76	76	76	86	95	90
77	77	77	87	95	90
78	78	78	88	94	90
79	79	79	89	93	90
80	80	80	90	92	90
81	81	81	91	91	90
82	82	82	92	90	90
83	83	83	93	89	90
84	84	84	94	88	90
85	85	85	95	87	90
86	86	86	96	86	90
87	87	87	97	85	90
88	88	88	98	85	90
89	89	89	99	86	90
90	90	90	100	87	90
91	91	91	101	88	90
92	92	92	102	89	90
93	93	93	103	90	90
94	94	94	104	91	90
95	95	95	105	92	90
96	96	96	106	93	90
97	97	97	107	94	90
98	98	98	108	95	90
99	99	99	109	95	90
100	100	100	110	94	90
101	101	101	111	93	90
102	102	102	112	92	90
103	103	103	113	91	90
104	104	104	114	90	90
105	105	105	115	89	90
106	106	106	116	88	90
107	107	107	117	87	90
108	108	108	118	86	90
109	109	109	119	85	90
110	110	110	120	85	90
111	111	111	121	86	90
112	112	112	122	87	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
113	113	113	123	88	90
114	114	114	124	89	90
115	115	115	125	90	90
116	116	116	126	91	90
117	117	117	127	92	90
118	118	118	128	93	90
119	119	119	129	94	90
120	120	120	130	95	90
121	121	121	131	95	90
122	122	122	132	94	90
123	123	123	133	93	90
124	124	124	134	92	90
125	125	125	135	91	90
126	126	126	136	90	90
127	127	127	137	89	90
128	128	128	138	88	90
129	129	129	139	87	90
130	130	130	140	86	90
131	131	131	141	85	90
132	132	132	142	85	90
133	133	133	143	86	90
134	134	134	144	87	90
135	135	135	145	88	90
136	136	136	146	89	90
137	137	137	147	90	90
138	138	138	148	91	90
139	139	139	149	92	90
140	140	140	150	93	90
141	141	141	151	94	90
142	142	142	152	95	90
143	143	143	153	95	90
144	144	144	154	94	90
145	145	145	155	93	90
146	146	146	156	92	90
147	147	147	157	91	90
148	148	148	158	90	90
149	149	149	159	89	90
150	150	150	160	88	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
151	151	151	161	87	90
152	152	152	162	86	90
153	153	153	163	85	90
154	154	154	164	85	90
155	155	155	165	86	90
156	156	156	166	87	90
157	157	157	167	88	90
158	158	158	168	89	90
159	159	159	169	90	90
160	160	160	170	91	90
161	161	161	171	92	90
162	162	162	172	93	90
163	163	163	173	94	90
164	164	164	174	95	90
165	165	165	175	95	90
166	166	166	176	94	90
167	167	167	177	93	90
168	168	168	178	92	90
169	169	169	179	91	90
170	170	170	180	90	90
171	171	171	181	89	90
172	172	172	182	88	90
173	173	173	183	87	90
174	174	174	184	86	90
175	175	175	185	85	90
176	176	176	186	85	90
177	177	177	187	86	90
178	178	178	188	87	90
179	179	179	189	88	90
180	180	180	190	89	90
181	181	181	191	90	90
182	182	182	192	91	90
183	183	183	193	92	90
184	184	184	194	93	90
185	185	185	195	94	90
186	186	186	196	95	90
187	187	187	197	95	90
188	188	188	198	94	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
189	189	189	199	93	90
190	190	190	200	92	90
191	191	191	201	91	90
192	192	192	202	90	90
193	193	193	203	89	90
194	194	194	204	88	90
195	195	195	205	87	90
196	196	196	206	86	90
197	197	197	207	85	90
198	198	198	208	85	90
199	199	199	209	86	90
200	200	200	210	87	90
201	201	201	211	88	90
202	202	202	212	89	90
203	203	203	213	90	90
204	204	204	214	91	90
205	205	205	215	92	90
206	206	206	216	93	90
207	207	207	217	94	90
208	208	208	218	95	90
209	209	209	219	95	90
210	210	210	220	94	90
211	211	211	221	93	90
212	212	212	222	92	90
213	213	213	223	91	90
214	214	214	224	90	90
215	215	215	225	89	90
216	216	216	226	88	90
217	217	217	227	87	90
218	218	218	228	86	90
219	219	219	229	85	90
220	220	220	230	85	90
221	221	221	231	86	90
222	222	222	232	87	90
223	223	223	233	88	90
224	224	224	234	89	90
225	225	225	235	90	90
226	226	226	236	91	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
227	227	227	237	92	90
228	228	228	238	93	90
229	229	229	239	94	90
230	230	230	240	95	90
231	231	231	241	95	90
232	232	232	242	94	90
233	233	233	243	93	90
234	234	234	244	92	90
235	235	235	245	91	90
236	236	236	246	90	90
237	237	237	247	89	90
238	238	238	248	88	90
239	239	239	249	87	90
240	240	240	250	86	90
241	241	241	251	85	90
242	242	242	252	85	90
243	243	243	253	86	90
244	244	244	254	87	90
245	245	245	255	88	90
246	246	246	256	89	90
247	247	247	257	90	90
248	248	248	258	91	90
249	249	249	259	92	90
250	250	250	260	93	90
251	251	251	261	94	90
252	252	252	262	95	90
253	253	253	263	95	90
254	254	254	264	94	90
255	255	255	265	93	90
256	256	256	266	92	90
257	257	257	267	91	90
258	258	258	268	90	90
259	259	259	269	89	90
260	260	260	270	88	90
261	261	261	271	87	90
262	262	262	272	86	90
263	263	263	273	85	90
264	264	264	274	85	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
265	265	265	275	86	90
266	266	266	276	87	90
267	267	267	277	88	90
268	268	268	278	89	90
269	269	269	279	90	90
270	270	270	280	91	90
271	271	271	281	92	90
272	272	272	282	93	90
273	273	273	283	94	90
274	274	274	284	95	90
275	275	275	285	95	90
276	276	276	286	94	90
277	277	277	287	93	90
278	278	278	288	92	90
279	279	279	289	91	90
280	280	280	290	90	90
281	281	281	291	89	90
282	282	282	292	88	90
283	283	283	293	87	90
284	284	284	294	86	90
285	285	285	295	85	90
286	286	286	296	85	90
287	287	287	297	86	90
288	288	288	298	87	90
289	289	289	299	88	90
290	290	290	300	89	90
291	291	291	301	90	90
292	292	292	302	91	90
293	293	293	303	92	90
294	294	294	304	93	90
295	295	295	305	94	90
296	296	296	306	95	90
297	297	297	307	95	90
298	298	298	308	94	90
299	299	299	309	93	90
300	300	300	310	92	90
301	301	301	311	91	90
302	302	302	312	90	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
303	303	303	313	89	90
304	304	304	314	88	90
305	305	305	315	87	90
306	306	306	316	86	90
307	307	307	317	85	90
308	308	308	318	85	90
309	309	309	319	86	90
310	310	310	320	87	90
311	311	311	321	88	90
312	312	312	322	89	90
313	313	313	323	90	90
314	314	314	324	91	90
315	315	315	325	92	90
316	316	316	326	93	90
317	317	317	327	94	90
318	318	318	328	95	90
319	319	319	329	95	90
320	320	320	330	94	90
321	321	321	331	93	90
322	322	322	332	92	90
323	323	323	333	91	90
324	324	324	334	90	90
325	325	325	335	89	90
326	326	326	336	88	90
327	327	327	337	87	90
328	328	328	338	86	90
329	329	329	339	85	90
330	330	330	340	85	90
331	331	331	341	86	90
332	332	332	342	87	90
333	333	333	343	88	90
334	334	334	344	89	90
335	335	335	345	90	90
336	336	336	346	91	90
337	337	337	347	92	90
338	338	338	348	93	90
339	339	339	349	94	90
340	340	340	350	95	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
341	341	341	351	95	90
342	342	342	352	94	90
343	343	343	353	93	90
344	344	344	354	92	90
345	345	345	355	91	90
346	346	346	356	90	90
347	347	347	357	89	90
348	348	348	358	88	90
349	349	349	359	87	90
350	350	350	360	86	90
351	351	351	361	85	90
352	352	352	362	85	90
353	353	353	363	86	90
354	354	354	364	87	90
355	355	355	365	88	90
356	356	356	366	89	90
357	357	357	367	90	90
358	358	358	368	91	90
359	359	359	369	92	90
360	360	360	370	93	90
361	361	361	371	94	90
362	362	362	372	95	90
363	363	363	373	95	90
364	364	364	374	94	90
365	365	365	375	93	90
366	366	366	376	92	90
367	367	367	377	91	90
368	368	368	378	90	90
369	369	369	379	89	90
370	370	370	380	88	90
371	371	371	381	87	90
372	372	372	382	86	90
373	373	373	383	85	90
374	374	374	384	85	90
375	375	375	385	86	90
376	376	376	386	87	90
377	377	377	387	88	90
378	378	378	388	89	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
379	379	379	389	90	90
380	380	380	390	91	90
381	381	381	391	92	90
382	382	382	392	93	90
383	383	383	393	94	90
384	384	384	394	95	90
385	385	385	395	95	90
386	386	386	396	94	90
387	387	387	397	93	90
388	388	388	398	92	90
389	389	389	399	91	90
390	390	390	400	90	90
391	391	391	401	89	90
392	392	392	402	88	90
393	393	393	403	87	90
394	394	394	404	86	90
395	395	395	405	85	90
396	396	396	406	85	90
397	397	397	407	86	90
398	398	398	408	87	90
399	399	399	409	88	90
400	400	400	410	89	90
401	401	401	411	90	90
402	402	402	412	91	90
403	403	403	413	92	90
404	404	404	414	93	90
405	405	405	415	94	90
406	406	406	416	95	90
407	407	407	417	95	90
408	408	408	418	94	90
409	409	409	419	93	90
410	410	410	420	92	90
411	411	411	421	91	90
412	412	412	422	90	90
413	413	413	423	89	90
414	414	414	424	88	90
415	415	415	425	87	90
416	416	416	426	86	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
417	417	417	427	85	90
418	418	418	428	85	90
419	419	419	429	86	90
420	420	420	430	87	90
421	421	421	431	88	90
422	422	422	432	89	90
423	423	423	433	90	90
424	424	424	434	91	90
425	425	425	435	92	90
426	426	426	436	93	90
427	427	427	437	94	90
428	428	428	438	95	90
429	429	429	439	95	90
430	430	430	440	94	90
431	431	431	441	93	90
432	432	432	442	92	90
433	433	433	443	91	90
434	434	434	444	90	90
435	435	435	445	89	90
436	436	436	446	88	90
437	437	437	447	87	90
438	438	438	448	86	90
439	439	439	449	85	90
440	440	440	450	85	90
441	441	441	451	86	90
442	442	442	452	87	90
443	443	443	453	88	90
444	444	444	454	89	90
445	445	445	455	90	90
446	446	446	456	91	90
447	447	447	457	92	90
448	448	448	458	93	90
449	449	449	459	94	90
450	450	450	460	95	90
451	451	451	461	95	90
452	452	452	462	94	90
453	453	453	463	93	90
454	454	454	464	92	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
455	455	455	465	91	90
456	456	456	466	90	90
457	457	457	467	89	90
458	458	458	468	88	90
459	459	459	469	87	90
460	460	460	470	86	90
461	461	461	471	85	90
462	462	462	472	85	90
463	463	463	473	86	90
464	464	464	474	87	90
465	465	465	475	88	90
466	466	466	476	89	90
467	467	467	477	90	90
468	468	468	478	91	90
469	469	469	479	92	90
470	470	470	480	93	90
471	471	471	481	94	90
472	472	472	482	95	90
473	473	473	483	95	90
474	474	474	484	94	90
475	475	475	485	93	90
476	476	476	486	92	90
477	477	477	487	91	90
478	478	478	488	90	90
479	479	479	489	89	90
480	480	480	490	88	90
481	481	481	491	87	90
482	482	482	492	86	90
483	483	483	493	85	90
484	484	484	494	85	90
485	485	485	495	86	90
486	486	486	496	87	90
487	487	487	497	88	90
488	488	488	498	89	90
489	489	489	499	90	90
490	490	490	500	91	90
491	491	491	501	92	90
492	492	492	502	93	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
493	493	493	503	94	90
494	494	494	504	95	90
495	495	495	505	95	90
496	496	496	506	94	90
497	497	497	507	93	90
498	498	498	508	92	90
499	499	499	509	91	90
500	500	500	510	90	90
501	501	501	511	89	90
502	502	502	512	88	90
503	503	503	513	87	90
504	504	504	514	86	90
505	505	505	515	85	90
506	506	506	516	85	90
507	507	507	517	86	90
508	508	508	518	87	90
509	509	509	519	88	90
510	510	510	520	89	90
511	511	511	521	90	90
512	512	512	522	91	90
513	513	513	523	92	90
514	514	514	524	93	90
515	515	515	525	94	90
516	516	516	526	95	90
517	517	517	527	95	90
518	518	518	528	94	90
519	519	519	529	93	90
520	520	520	530	92	90
521	521	521	531	91	90
522	522	522	532	90	90
523	523	523	533	89	90
524	524	524	534	88	90
525	525	525	535	87	90
526	526	526	536	86	90
527	527	527	537	85	90
528	528	528	538	85	90
529	529	529	539	86	90
530	530	530	540	87	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
531	531	531	541	88	90
532	532	532	542	89	90
533	533	533	543	90	90
534	534	534	544	91	90
535	535	535	545	92	90
536	536	536	546	93	90
537	537	537	547	94	90
538	538	538	548	95	90
539	539	539	549	95	90
540	540	540	550	94	90
541	541	541	551	93	90
542	542	542	552	92	90
543	543	543	553	91	90
544	544	544	554	90	90
545	545	545	555	89	90
546	546	546	556	88	90
547	547	547	557	87	90
548	548	548	558	86	90
549	549	549	559	85	90
550	550	550	560	85	90
551	551	551	561	86	90
552	552	552	562	87	90
553	553	553	563	88	90
554	554	554	564	89	90
555	555	555	565	90	90
556	556	556	566	91	90
557	557	557	567	92	90
558	558	558	568	93	90
559	559	559	569	94	90
560	560	560	570	95	90
561	561	561	571	95	90
562	562	562	572	94	90
563	563	563	573	93	90
564	564	564	574	92	90
565	565	565	575	91	90
566	566	566	576	90	90
567	567	567	577	89	90
568	568	568	578	88	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
569	569	569	579	87	90
570	570	570	580	86	90
571	571	571	581	85	90
572	572	572	582	85	90
573	573	573	583	86	90
574	574	574	584	87	90
575	575	575	585	88	90
576	576	576	586	89	90
577	577	577	587	90	90
578	578	578	588	91	90
579	579	579	589	92	90
580	580	580	590	93	90
581	581	581	591	94	90
582	582	582	592	95	90
583	583	583	593	95	90
584	584	584	594	94	90
585	585	585	595	93	90
586	586	586	596	92	90
587	587	587	597	91	90
588	588	588	598	90	90
589	589	589	599	89	90
590	590	590	600	88	90
591	591	591	601	87	90
592	592	592	602	86	90
593	593	593	603	85	90
594	594	594	604	85	90
595	595	595	605	86	90
596	596	596	606	87	90
597	597	597	607	88	90
598	598	598	608	89	90
599	599	599	609	90	90
600	600	600	610	91	90
601	601	601	611	92	90
602	602	602	612	93	90
603	603	603	613	94	90
604	604	604	614	95	90
605	605	605	615	95	90
606	606	606	616	94	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
607	607	607	617	93	90
608	608	608	618	92	90
609	609	609	619	91	90
610	610	610	620	90	90
611	611	611	621	89	90
612	612	612	622	88	90
613	613	613	623	87	90
614	614	614	624	86	90
615	615	615	625	85	90
616	616	616	626	85	90
617	617	617	627	86	90
618	618	618	628	87	90
619	619	619	629	88	90
620	620	620	630	89	90
621	621	621	631	90	90
622	622	622	632	91	90
623	623	623	633	92	90
624	624	624	634	93	90
625	625	625	635	94	90
626	626	626	636	95	90
627	627	627	637	95	90
628	628	628	638	94	90
629	629	629	639	93	90
630	630	630	640	92	90
631	631	631	641	91	90
632	632	632	642	90	90
633	633	633	643	89	90
634	634	634	644	88	90
635	635	635	645	87	90
636	636	636	646	86	90
637	637	637	647	85	90
638	638	638	648	85	90
639	639	639	649	86	90
640	640	640	650	87	90
641	641	641	651	88	90
642	642	642	652	89	90
643	643	643	653	90	90
644	644	644	654	91	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
645	645	645	655	92	90
646	646	646	656	93	90
647	647	647	657	94	90
648	648	648	658	95	90
649	649	649	659	95	90
650	650	650	660	94	90
651	651	651	661	93	90
652	652	652	662	92	90
653	653	653	663	91	90
654	654	654	664	90	90
655	655	655	665	89	90
656	656	656	666	88	90
657	657	657	667	87	90
658	658	658	668	86	90
659	659	659	669	85	90
660	660	660	670	85	90
661	661	661	671	86	90
662	662	662	672	87	90
663	663	663	673	88	90
664	664	664	674	89	90
665	665	665	675	90	90
666	666	666	676	91	90
667	667	667	677	92	90
668	668	668	678	93	90
669	669	669	679	94	90
670	670	670	680	95	90
671	671	671	681	95	90
672	672	672	682	94	90
673	673	673	683	93	90
674	674	674	684	92	90
675	675	675	685	91	90
676	676	676	686	90	90
677	677	677	687	89	90
678	678	678	688	88	90
679	679	679	689	87	90
680	680	680	690	86	90
681	681	681	691	85	90
682	682	682	692	85	90

Time (s)	Scan Angle Range				
	0-360 degrees	0-370 degrees	10-370 degrees	85-95 degrees	90-90 degrees
683	683	683	693	86	90
684	684	684	694	87	90
685	685	685	695	88	90
686	686	686	696	89	90
687	687	687	697	90	90
688	688	688	698	91	90
689	689	689	699	92	90
690	690	690	700	93	90
691	691	691	701	94	90
692	692	692	702	95	90
693	693	693	703	95	90
694	694	694	704	94	90
695	695	695	705	93	90
696	696	696	706	92	90
697	697	697	707	91	90
698	698	698	708	90	90
699	699	699	709	89	90
700	700	700	710	88	90
701	701	701	711	87	90
702	702	702	712	86	90
703	703	703	713	85	90
704	704	704	714	85	90
705	705	705	715	86	90
706	706	706	716	87	90
707	707	707	717	88	90
708	708	708	718	89	90
709	709	709	719	90	90
710	710	710	720	91	90
711	711	711	720	92	90
712	712	712	719	93	90
713	713	713	718	94	90
714	714	714	717	95	90
715	715	715	716	95	90
716	716	716	715	94	90
717	717	717	714	93	90
718	718	718	713	92	90
719	719	719	712	91	90
720	720	720	711	90	90

2. Scan Rate

Table B-129. Dose (μg) Received at Each Personnel Location for 0.5 degrees/s Scan Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0010	0.0014	0.0010	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0029	0.0083	0.0118	0.0083	0.0029	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0543	0.0768	0.0543	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0015	0.0171	0.0972	0.2756	0.3899	0.2756	0.0972	0.0171	0.0015	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0003	0.0060	0.0678	0.3846	1.0898	1.5423	1.0898	0.3846	0.0678	0.0060	0.0003	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0008	0.0184	0.2087	1.1846	3.3570	4.7506	3.3570	1.1846	0.2087	0.0184	0.0008	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0019	0.0441	0.5008	2.8419	8.0538	11.3972	8.0538	2.8419	0.5008	0.0441	0.0019	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0036	0.0824	0.9359	5.3117	15.0529	21.3018	15.0529	5.3117	0.9359	0.0824	0.0036	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0053	0.1201	1.3644	7.7433	21.9440	31.0537	21.9440	7.7433	1.3644	0.1201	0.0053	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0060	0.1372	1.5594	8.8498	25.0799	35.4913	25.0799	8.8498	1.5594	0.1372	0.0060	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0055	0.1257	1.4288	8.1087	22.9796	32.5191	22.9796	8.1087	1.4288	0.1257	0.0055	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0044	0.1007	1.1441	6.4933	18.4015	26.0405	18.4015	6.4933	1.1441	0.1007	0.0044	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0039	0.0881	1.0014	5.6831	16.1056	22.7915	16.1056	5.6831	1.0014	0.0881	0.0039	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0044	0.1007	1.1441	6.4933	18.4015	26.0405	18.4015	6.4933	1.1441	0.1007	0.0044	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0055	0.1257	1.4288	8.1087	22.9796	32.5191	22.9796	8.1087	1.4288	0.1257	0.0055	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0060	0.1372	1.5594	8.8498	25.0799	35.4913	25.0799	8.8498	1.5594	0.1372	0.0060	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0053	0.1201	1.3644	7.7433	21.9440	31.0537	21.9440	7.7433	1.3644	0.1201	0.0053	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0001	0.0036	0.0824	0.9359	5.3117	15.0529	21.3018	15.0529	5.3117	0.9359	0.0824	0.0036	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0019	0.0441	0.5008	2.8419	8.0538	11.3972	8.0538	2.8419	0.5008	0.0441	0.0019	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0008	0.0184	0.2087	1.1846	3.3570	4.7506	3.3570	1.1846	0.2087	0.0184	0.0008	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0003	0.0060	0.0678	0.3846	1.0898	1.5423	1.0898	0.3846	0.0678	0.0060	0.0003	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0001	0.0015	0.0171	0.0972	0.2756	0.3899	0.2756	0.0972	0.0171	0.0015	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0003	0.0034	0.0191	0.0543	0.0768	0.0543	0.0191	0.0034	0.0003	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0029	0.0083	0.0118	0.0083	0.0029	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0004	0.0010	0.0014	0.0010	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-130. Casualty Rate at Each Personnel Location for 0.5 degrees/s Scan Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0035	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0081	0.0382	0.0593	0.0382	0.0081	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0067	0.0782	0.2166	0.2835	0.2166	0.0782	0.0067	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0009	0.0509	0.2806	0.5209	0.6039	0.5209	0.2806	0.0509	0.0009	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0075	0.1704	0.5410	0.7692	0.8283	0.7692	0.5410	0.1704	0.0075	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0001	0.0288	0.3370	0.7373	0.8977	0.9305	0.8977	0.7373	0.3370	0.0288	0.0001	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0003	0.0645	0.4839	0.8450	0.9597	0.9685	0.9504	0.8450	0.4839	0.0645	0.0003	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0007	0.0987	0.5749	0.8933	0.9698	0.9816	0.9698	0.8933	0.5749	0.0987	0.0007	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0009	0.1136	0.6065	0.9075	0.9749	0.9850	0.9749	0.9075	0.6065	0.1136	0.0009	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0008	0.1037	0.5859	0.8984	0.9717	0.9829	0.9717	0.8984	0.5859	0.1037	0.0008	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0005	0.0814	0.5326	0.8723	0.9617	0.9763	0.9617	0.8723	0.5326	0.0814	0.0005	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0004	0.0698	0.5003	0.8546	0.9545	0.9713	0.9545	0.8546	0.5003	0.0698	0.0004	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0005	0.0814	0.5326	0.8723	0.9617	0.9763	0.9617	0.8723	0.5326	0.0814	0.0005	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0008	0.1037	0.5859	0.8984	0.9717	0.9829	0.9717	0.8984	0.5859	0.1037	0.0008	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0009	0.1136	0.6065	0.9075	0.9749	0.9850	0.9749	0.9075	0.6065	0.1136	0.0009	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0007	0.0987	0.5749	0.8933	0.9698	0.9816	0.9698	0.8933	0.5749	0.0987	0.0007	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0003	0.0645	0.4839	0.8450	0.9504	0.9685	0.9504	0.8450	0.4839	0.0645	0.0003	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0001	0.0288	0.3370	0.7373	0.8977	0.9305	0.8977	0.7373	0.3370	0.0288	0.0001	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0075	0.1704	0.5410	0.7692	0.8283	0.7692	0.5410	0.1704	0.0075	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0009	0.0509	0.2806	0.5209	0.6039	0.5209	0.2806	0.0509	0.0009	0.0000	0.0000	0.0000	0.0000
	1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0067	0.0782	0.2166	0.2835	0.2166	0.0782	0.0067	0.0000	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0081	0.0382	0.0593	0.0382	0.0081	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0035	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-131. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Collector Location Using a 0.5 degrees/s Scan Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0004	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0021	0.0030	0.0021	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0048	0.0137	0.0193	0.0137	0.0048	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0004	0.0043	0.0245	0.0694	0.0982	0.0694	0.0245	0.0043	0.0004	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0015	0.0171	0.0968	0.2743	0.3882	0.2743	0.0968	0.0171	0.0015	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0046	0.0525	0.2982	0.8451	1.1959	0.8451	0.2982	0.0525	0.0046	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0005	0.0111	0.1261	0.7154	2.0274	2.8690	2.0274	0.7154	0.1261	0.0111	0.0005	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0009	0.0207	0.2356	1.3371	3.7893	5.3624	3.7893	1.3371	0.2356	0.0207	0.0009	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0013	0.0302	0.3435	1.9492	5.5240	7.8172	5.5240	1.9492	0.3435	0.0302	0.0013	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0015	0.0345	0.3925	2.2278	6.3134	8.9344	6.3134	2.2278	0.3925	0.0345	0.0015	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0014	0.0316	0.3597	2.0412	5.7847	8.1862	5.7847	2.0412	0.3597	0.0316	0.0014	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0011	0.0253	0.2880	1.6346	4.6323	6.5553	4.6323	1.6346	0.2880	0.0253	0.0011	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0010	0.0222	0.2521	1.4306	4.0543	5.7374	4.0543	1.4306	0.2521	0.0222	0.0010	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0011	0.0253	0.2880	1.6346	4.6323	6.5553	4.6323	1.6346	0.2880	0.0253	0.0011	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0014	0.0316	0.3597	2.0412	5.7847	8.1862	5.7847	2.0412	0.3597	0.0316	0.0014	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0015	0.0345	0.3925	2.2278	6.3134	8.9344	6.3134	2.2278	0.3925	0.0345	0.0015	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0013	0.0302	0.3435	1.9492	5.5240	7.8172	5.5240	1.9492	0.3435	0.0302	0.0013	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0009	0.0207	0.2356	1.3371	3.7893	5.3624	3.7893	1.3371	0.2356	0.0207	0.0009	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0005	0.0111	0.1261	0.7154	2.0274	2.8690	2.0274	0.7154	0.1261	0.0111	0.0005	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0046	0.0525	0.2982	0.8451	1.1959	0.8451	0.2982	0.0525	0.0046	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0015	0.0171	0.0968	0.2743	0.3882	0.2743	0.0968	0.0171	0.0015	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0004	0.0043	0.0245	0.0694	0.0982	0.0694	0.0245	0.0043	0.0004	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0048	0.0137	0.0193	0.0137	0.0048	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0021	0.0030	0.0021	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0004	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-132. Dose (µg) Received at Each Personnel Location for 1.0 degrees/s Scan Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0011	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0024	0.0068	0.0096	0.0068	0.0024	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0028	0.0156	0.0443	0.0627	0.0443	0.0156	0.0028	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0012	0.0140	0.0794	0.2250	0.3185	0.2250	0.0794	0.0140	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0002	0.0049	0.0553	0.3141	0.8901	1.2596	0.8901	0.3141	0.0553	0.0049	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0007	0.0150	0.1705	0.9674	2.7417	3.8798	2.7417	0.9674	0.1705	0.0150	0.0007	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0016	0.0360	0.4090	2.3210	6.5775	9.3081	6.5775	2.3210	0.4090	0.0360	0.0016	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0030	0.0673	0.7644	4.3380	12.2937	17.3973	12.2937	4.3380	0.7644	0.0673	0.0030	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0043	0.0980	1.1143	6.3240	17.9217	25.3616	17.9217	6.3240	1.1143	0.0980	0.0043	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0049	0.1121	1.2735	7.2277	20.4828	28.9858	20.4828	7.2277	1.2735	0.1121	0.0049	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0045	0.1027	1.1669	6.6224	18.7675	26.5584	18.7675	6.6224	1.1669	0.1027	0.0045	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0036	0.0822	0.9344	5.3031	15.0285	21.2674	15.0285	5.3031	0.9344	0.0822	0.0036	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0032	0.0720	0.8178	4.6414	13.1535	18.6139	13.1535	4.6414	0.8178	0.0720	0.0032	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0036	0.0822	0.9344	5.3031	15.0285	21.2674	15.0285	5.3031	0.9344	0.0822	0.0036	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0045	0.1027	1.1669	6.6224	18.7675	26.5584	18.7675	6.6224	1.1669	0.1027	0.0045	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0049	0.1121	1.2735	7.2277	20.4828	28.9858	20.4828	7.2277	1.2735	0.1121	0.0049	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0043	0.0980	1.1143	6.3240	17.9217	25.3616	17.9217	6.3240	1.1143	0.0980	0.0043	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0001	0.0030	0.0673	0.7644	4.3380	12.2937	17.3973	12.2937	4.3380	0.7644	0.0673	0.0030	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0016	0.0360	0.4090	2.3210	6.5775	9.3081	6.5775	2.3210	0.4090	0.0360	0.0016	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0007	0.0150	0.1705	0.9674	2.7417	3.8798	2.7417	0.9674	0.1705	0.0150	0.0007	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0002	0.0049	0.0553	0.3141	0.8901	1.2596	0.8901	0.3141	0.0553	0.0049	0.0002	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0001	0.0012	0.0140	0.0794	0.2250	0.3185	0.2250	0.0794	0.0140	0.0012	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0028	0.0156	0.0443	0.0627	0.0443	0.0156	0.0028	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0024	0.0068	0.0096	0.0068	0.0024	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0011	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-133. Casualty Rate at Each Personnel Location for 1.0 degree/s Scan Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0024	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0057	0.0291	0.0461	0.0291	0.0057	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0047	0.0618	0.1822	0.2433	0.1822	0.0618	0.0047	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006	0.0392	0.2407	0.4718	0.5558	0.4718	0.2407	0.0392	0.0006	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0053	0.1410	0.4920	0.7301	0.7951	0.7301	0.4920	0.1410	0.0053	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0216	0.2933	0.6957	0.8740	0.9125	0.8740	0.6957	0.2933	0.0216	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0504	0.4351	0.8139	0.9364	0.9588	0.9364	0.8139	0.4351	0.0504	0.0002	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0005	0.0790	0.5262	0.8689	0.9603	0.9753	0.9603	0.8689	0.5262	0.0790	0.0005	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0006	0.0916	0.5584	0.8854	0.9668	0.9797	0.9668	0.8854	0.5584	0.0916	0.0006	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0005	0.0832	0.5374	0.8748	0.9627	0.9769	0.9627	0.8748	0.5374	0.0832	0.0005	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0003	0.0644	0.4836	0.8448	0.9503	0.9685	0.9503	0.8448	0.4836	0.0644	0.0003	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0002	0.0548	0.4513	0.8247	0.9414	0.9623	0.9414	0.8247	0.4513	0.0548	0.0002	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0003	0.0644	0.4836	0.8448	0.9503	0.9685	0.9503	0.8448	0.4836	0.0644	0.0003	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0005	0.0832	0.5374	0.8748	0.9627	0.9769	0.9627	0.8748	0.5374	0.0832	0.0005	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0006	0.0916	0.5584	0.8854	0.9668	0.9797	0.9668	0.8854	0.5584	0.0916	0.0006	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0005	0.0790	0.5262	0.8689	0.9603	0.9753	0.9603	0.8689	0.5262	0.0790	0.0005	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0002	0.0504	0.4351	0.8139	0.9364	0.9588	0.9364	0.8139	0.4351	0.0504	0.0002	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.00216	0.2933	0.6957	0.8740	0.9125	0.8740	0.6957	0.2933	0.0216	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0053	0.1410	0.4920	0.7301	0.7951	0.7301	0.4920	0.1410	0.0053	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0006	0.0392	0.2407	0.4718	0.5558	0.4718	0.2407	0.0392	0.0006	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0047	0.0618	0.1822	0.2433	0.1822	0.0618	0.0047	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0057	0.0291	0.0461	0.0291	0.0057	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0024	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-134. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Collector Location Using a 1.0 degree/s Scan Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0019	0.0027	0.0019	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0044	0.0126	0.0178	0.0126	0.0044	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0040	0.0225	0.0638	0.0903	0.0638	0.0225	0.0040	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0014	0.0157	0.0891	0.2524	0.3572	0.2524	0.0891	0.0157	0.0014	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0043	0.0483	0.2744	0.7776	1.1004	0.7776	0.2744	0.0483	0.0043	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0102	0.1160	0.6583	1.8655	2.6400	1.8655	0.6583	0.1160	0.0102	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0008	0.0191	0.2168	1.2304	3.4868	4.9343	3.4868	1.2304	0.2168	0.0191	0.0008	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0012	0.0278	0.3160	1.7936	5.0830	7.1931	5.0830	1.7936	0.3160	0.0278	0.0012	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0014	0.0318	0.3612	2.0499	5.8094	8.2210	5.8094	2.0499	0.3612	0.0318	0.0014	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0013	0.0291	0.3310	1.8783	5.3229	7.5326	5.3229	1.8783	0.3310	0.0291	0.0013	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0010	0.0233	0.2650	1.5041	4.2624	6.0319	4.2624	1.5041	0.2650	0.0233	0.0010	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0009	0.0204	0.2320	1.3164	3.7306	5.2793	3.7306	1.3164	0.2320	0.0204	0.0009	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0010	0.0233	0.2650	1.5041	4.2624	6.0319	4.2624	1.5041	0.2650	0.0233	0.0010	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0013	0.0291	0.3310	1.8783	5.3229	7.5326	5.3229	1.8783	0.3310	0.0291	0.0013	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0014	0.0318	0.3612	2.0499	5.8094	8.2210	5.8094	2.0499	0.3612	0.0318	0.0014	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0012	0.0278	0.3160	1.7936	5.0830	7.1931	5.0830	1.7936	0.3160	0.0278	0.0012	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0008	0.0191	0.2168	1.2304	3.4868	4.9343	3.4868	1.2304	0.2168	0.0191	0.0008	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0004	0.0102	0.1160	0.6583	1.8655	2.6400	1.8655	0.6583	0.1160	0.0102	0.0004	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0043	0.0483	0.2744	0.7776	1.1004	0.7776	0.2744	0.0483	0.0043	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0014	0.0157	0.0891	0.2524	0.3572	0.2524	0.0891	0.0157	0.0014	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0040	0.0225	0.0638	0.0903	0.0638	0.0225	0.0040	0.0003	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0044	0.0126	0.0178	0.0126	0.0044	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0019	0.0027	0.0019	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-135. Dose (μg) Received at Each Personnel Location for 5.0 degrees/s Scan Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0015	0.0041	0.0059	0.0041	0.0015	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0095	0.0270	0.0383	0.0270	0.0095	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0085	0.0485	0.1373	0.1943	0.1373	0.0485	0.0085	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0030	0.0338	0.1916	0.5431	0.7686	0.5431	0.1916	0.0338	0.0030	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0092	0.1040	0.5903	1.6729	2.3674	1.6729	0.5903	0.1040	0.0092	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0220	0.2495	1.4162	4.0135	5.6797	4.0135	1.4162	0.2495	0.0220	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0018	0.0410	0.4664	2.6470	7.5015	10.6156	7.5015	2.6470	0.4664	0.0410	0.0018	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0026	0.0598	0.6799	3.8588	10.9356	15.4753	10.9356	3.8588	0.6799	0.0598	0.0026	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0030	0.0684	0.7771	4.4102	12.4984	17.6868	12.4984	4.4102	0.7771	0.0684	0.0030	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0028	0.0626	0.7120	4.0409	11.4517	16.2056	11.4517	4.0409	0.7120	0.0626	0.0028	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0022	0.0502	0.5702	3.2359	9.1702	12.9771	9.1702	3.2359	0.5702	0.0502	0.0022	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0019	0.0439	0.4990	2.8321	8.0261	11.3580	8.0261	2.8321	0.4990	0.0439	0.0019	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0022	0.0502	0.5702	3.2359	9.1702	12.9771	9.1702	3.2359	0.5702	0.0502	0.0022	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0028	0.0626	0.7120	4.0409	11.4517	16.2056	11.4517	4.0409	0.7120	0.0626	0.0028	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0030	0.0684	0.7771	4.4102	12.4984	17.6868	12.4984	4.4102	0.7771	0.0684	0.0030	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0026	0.0598	0.6799	3.8588	10.9356	15.4753	10.9356	3.8588	0.6799	0.0598	0.0026	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0018	0.0410	0.4664	2.6470	7.5015	10.6156	7.5015	2.6470	0.4664	0.0410	0.0018	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0220	0.2495	1.4162	4.0135	5.6797	4.0135	1.4162	0.2495	0.0220	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0092	0.1040	0.5903	1.6729	2.3674	1.6729	0.5903	0.1040	0.0092	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0030	0.0338	0.1916	0.5431	0.7686	0.5431	0.1916	0.0338	0.0030	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0085	0.0485	0.1373	0.1943	0.1373	0.0485	0.0085	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0017	0.0095	0.0270	0.0383	0.0270	0.0095	0.0017	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0015	0.0041	0.0059	0.0041	0.0015	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-136. Casualty Rate at Each Personnel Location for 5.0 degrees/s Scan Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0009	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0023	0.0141	0.0236	0.0141	0.0023	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0019	0.0328	0.1137	0.1596	0.1137	0.0328	0.0019	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0197	0.1576	0.3553	0.4364	0.3553	0.1576	0.0197	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0844	0.3743	0.6228	0.6999	0.6228	0.3743	0.0844	0.0022	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0101	0.1993	0.5838	0.8009	0.8545	0.8009	0.5838	0.1993	0.0101	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0261	0.3214	0.7230	0.8898	0.9245	0.8898	0.7230	0.3214	0.0261	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0434	0.4073	0.7942	0.9271	0.9521	0.9271	0.7942	0.4073	0.0434	0.0002	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0000	0.0002	0.0514	0.4391	0.8165	0.9377	0.9597	0.9377	0.8165	0.4391	0.0514	0.0002	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0461	0.4182	0.8021	0.9309	0.9548	0.9309	0.8021	0.4182	0.0461	0.0002	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0344	0.3663	0.7624	0.9111	0.9404	0.9111	0.7624	0.3663	0.0344	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0287	0.3363	0.7366	0.8973	0.9302	0.8973	0.7366	0.3363	0.0287	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0344	0.3663	0.7624	0.9111	0.9404	0.9111	0.7624	0.3663	0.0344	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0461	0.4182	0.8021	0.9309	0.9548	0.9309	0.8021	0.4182	0.0461	0.0002	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0000	0.0002	0.0514	0.4391	0.8165	0.9377	0.9597	0.9377	0.8165	0.4391	0.0514	0.0002	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0434	0.4073	0.7942	0.9271	0.9521	0.9271	0.7942	0.4073	0.0434	0.0002	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0261	0.3214	0.7230	0.8898	0.9245	0.8898	0.7230	0.3214	0.0261	0.0001	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0101	0.1993	0.5838	0.8009	0.8545	0.8009	0.5838	0.1993	0.0101	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0022	0.0844	0.3743	0.6228	0.6999	0.6228	0.3743	0.0844	0.0022	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0197	0.1576	0.3553	0.4364	0.3553	0.1576	0.0197	0.0002	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0019	0.0328	0.1137	0.1596	0.1137	0.0328	0.0019	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0023	0.0141	0.0236	0.0141	0.0023	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0009	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-137. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Collector Location Using a 5.0 degrees/s Scan Rate

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0037	0.0104	0.0147	0.0104	0.0037	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0033	0.0186	0.0528	0.0746	0.0528	0.0186	0.0033	0.0003	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0011	0.0130	0.0736	0.2086	0.2952	0.2086	0.0736	0.0130	0.0011	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0035	0.0400	0.2268	0.6427	0.9094	0.6427	0.2268	0.0400	0.0035	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0004	0.0084	0.0959	0.5440	1.5418	2.1819	1.5418	0.5440	0.0959	0.0084	0.0004	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0007	0.0158	0.1792	1.0169	2.8817	4.0780	2.8817	1.0169	0.1792	0.0158	0.0007	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0010	0.0230	0.2612	1.4824	4.2009	5.9449	4.2009	1.4824	0.2612	0.0230	0.0010	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0012	0.0263	0.2985	1.6942	4.8012	6.7944	4.8012	1.6942	0.2985	0.0263	0.0012	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0011	0.0241	0.2735	1.5523	4.3992	6.2254	4.3992	1.5523	0.2735	0.0241	0.0011	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0008	0.0193	0.2190	1.2431	3.5227	4.9851	3.5227	1.2431	0.2190	0.0193	0.0008	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0007	0.0169	0.1917	1.0880	3.0832	4.3632	3.0832	1.0880	0.1917	0.0169	0.0007	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0008	0.0193	0.2190	1.2431	3.5227	4.9851	3.5227	1.2431	0.2190	0.0193	0.0008	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0011	0.0241	0.2735	1.5523	4.3992	6.2254	4.3992	1.5523	0.2735	0.0241	0.0011	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0012	0.0263	0.2985	1.6942	4.8012	6.7944	4.8012	1.6942	0.2985	0.0263	0.0012	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0010	0.0230	0.2612	1.4824	4.2009	5.9449	4.2009	1.4824	0.2612	0.0230	0.0010	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0007	0.0158	0.1792	1.0169	2.8817	4.0780	2.8817	1.0169	0.1792	0.0158	0.0007	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0004	0.0084	0.0959	0.5440	1.5418	2.1819	1.5418	0.5440	0.0959	0.0084	0.0004	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0035	0.0400	0.2268	0.6427	0.9094	0.6427	0.2268	0.0400	0.0035	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0011	0.0130	0.0736	0.2086	0.2952	0.2086	0.0736	0.0130	0.0011	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0033	0.0186	0.0528	0.0746	0.0528	0.0186	0.0033	0.0003	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0037	0.0104	0.0147	0.0104	0.0037	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0006	0.0016	0.0023	0.0016	0.0006	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-138. Angle (in degrees) at which the Standoff Detector Is Directed at Each *CBStrike* Time Step for Each Scan Rate

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
0	85.0	85.0	85.0
1	85.5	86.0	90.0
2	86.0	87.0	95.0
3	86.5	88.0	95.0
4	87.0	89.0	90.0
5	87.5	90.0	85.0
6	88.0	91.0	85.0
7	88.5	92.0	90.0
8	89.0	93.0	95.0
9	89.5	94.0	95.0
10	90.0	95.0	90.0
11	90.5	95.0	85.0
12	91.0	94.0	85.0
13	91.5	93.0	90.0
14	92.0	92.0	95.0
15	92.5	91.0	95.0
16	93.0	90.0	90.0
17	93.5	89.0	85.0
18	94.0	88.0	85.0
19	94.5	87.0	90.0
20	95.0	86.0	95.0
21	95.0	85.0	95.0
22	94.5	85.0	90.0
23	94.0	86.0	85.0
24	93.5	87.0	85.0
25	93.0	88.0	90.0
26	92.5	89.0	95.0
27	92.0	90.0	95.0
28	91.5	91.0	90.0
29	91.0	92.0	85.0
30	90.5	93.0	85.0
31	90.0	94.0	90.0
32	89.5	95.0	95.0
33	89.0	95.0	95.0
34	88.5	94.0	90.0
35	88.0	93.0	85.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
36	87.5	92.0	85.0
37	87.0	91.0	90.0
38	86.5	90.0	95.0
39	86.0	89.0	95.0
40	85.5	88.0	90.0
41	85.0	87.0	85.0
42	85.0	86.0	85.0
43	85.5	85.0	90.0
44	86.0	85.0	95.0
45	86.5	86.0	95.0
46	87.0	87.0	90.0
47	87.5	88.0	85.0
48	88.0	89.0	85.0
49	88.5	90.0	90.0
50	89.0	91.0	95.0
51	89.5	92.0	95.0
52	90.0	93.0	90.0
53	90.5	94.0	85.0
54	91.0	95.0	85.0
55	91.5	95.0	90.0
56	92.0	94.0	95.0
57	92.5	93.0	95.0
58	93.0	92.0	90.0
59	93.5	91.0	85.0
60	94.0	90.0	85.0
61	94.5	89.0	90.0
62	95.0	88.0	95.0
63	95.0	87.0	95.0
64	94.5	86.0	90.0
65	94.0	85.0	85.0
66	93.5	85.0	85.0
67	93.0	86.0	90.0
68	92.5	87.0	95.0
69	92.0	88.0	95.0
70	91.5	89.0	90.0
71	91.0	90.0	85.0
72	90.5	91.0	85.0
73	90.0	92.0	90.0
74	89.5	93.0	95.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
75	89.0	94.0	95.0
76	88.5	95.0	90.0
77	88.0	95.0	85.0
78	87.5	94.0	85.0
79	87.0	93.0	90.0
80	86.5	92.0	95.0
81	86.0	91.0	95.0
82	85.5	90.0	90.0
83	85.0	89.0	85.0
84	85.0	88.0	85.0
85	85.5	87.0	90.0
86	86.0	86.0	95.0
87	86.5	85.0	95.0
88	87.0	85.0	90.0
89	87.5	86.0	85.0
90	88.0	87.0	85.0
91	88.5	88.0	90.0
92	89.0	89.0	95.0
93	89.5	90.0	95.0
94	90.0	91.0	90.0
95	90.5	92.0	85.0
96	91.0	93.0	85.0
97	91.5	94.0	90.0
98	92.0	95.0	95.0
99	92.5	95.0	95.0
100	93.0	94.0	90.0
101	93.5	93.0	85.0
102	94.0	92.0	85.0
103	94.5	91.0	90.0
104	95.0	90.0	95.0
105	95.0	89.0	95.0
106	94.5	88.0	90.0
107	94.0	87.0	85.0
108	93.5	86.0	85.0
109	93.0	85.0	90.0
110	92.5	85.0	95.0
111	92.0	86.0	95.0
112	91.5	87.0	90.0
113	91.0	88.0	85.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
114	90.5	89.0	85.0
115	90.0	90.0	90.0
116	89.5	91.0	95.0
117	89.0	92.0	95.0
118	88.5	93.0	90.0
119	88.0	94.0	85.0
120	87.5	95.0	85.0
121	87.0	95.0	90.0
122	86.5	94.0	95.0
123	86.0	93.0	95.0
124	85.5	92.0	90.0
125	85.0	91.0	85.0
126	85.0	90.0	85.0
127	85.5	89.0	90.0
128	86.0	88.0	95.0
129	86.5	87.0	95.0
130	87.0	86.0	90.0
131	87.5	85.0	85.0
132	88.0	85.0	85.0
133	88.5	86.0	90.0
134	89.0	87.0	95.0
135	89.5	88.0	95.0
136	90.0	89.0	90.0
137	90.5	90.0	85.0
138	91.0	91.0	85.0
139	91.5	92.0	90.0
140	92.0	93.0	95.0
141	92.5	94.0	95.0
142	93.0	95.0	90.0
143	93.5	95.0	85.0
144	94.0	94.0	85.0
145	94.5	93.0	90.0
146	95.0	92.0	95.0
147	95.0	91.0	95.0
148	94.5	90.0	90.0
149	94.0	89.0	85.0
150	93.5	88.0	85.0
151	93.0	87.0	90.0
152	92.5	86.0	95.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
153	92.0	85.0	95.0
154	91.5	85.0	90.0
155	91.0	86.0	85.0
156	90.5	87.0	85.0
157	90.0	88.0	90.0
158	89.5	89.0	95.0
159	89.0	90.0	95.0
160	88.5	91.0	90.0
161	88.0	92.0	85.0
162	87.5	93.0	85.0
163	87.0	94.0	90.0
164	86.5	95.0	95.0
165	86.0	95.0	95.0
166	85.5	94.0	90.0
167	85.0	93.0	85.0
168	85.0	92.0	85.0
169	85.5	91.0	90.0
170	86.0	90.0	95.0
171	86.5	89.0	95.0
172	87.0	88.0	90.0
173	87.5	87.0	85.0
174	88.0	86.0	85.0
175	88.5	85.0	90.0
176	89.0	85.0	95.0
177	89.5	86.0	95.0
178	90.0	87.0	90.0
179	90.5	88.0	85.0
180	91.0	89.0	85.0
181	91.5	90.0	90.0
182	92.0	91.0	95.0
183	92.5	92.0	95.0
184	93.0	93.0	90.0
185	93.5	94.0	85.0
186	94.0	95.0	85.0
187	94.5	95.0	90.0
188	95.0	94.0	95.0
189	95.0	93.0	95.0
190	94.5	92.0	90.0
191	94.0	91.0	85.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
192	93.5	90.0	85.0
193	93.0	89.0	90.0
194	92.5	88.0	95.0
195	92.0	87.0	95.0
196	91.5	86.0	90.0
197	91.0	85.0	85.0
198	90.5	85.0	85.0
199	90.0	86.0	90.0
200	89.5	87.0	95.0
201	89.0	88.0	95.0
202	88.5	89.0	90.0
203	88.0	90.0	85.0
204	87.5	91.0	85.0
205	87.0	92.0	90.0
206	86.5	93.0	95.0
207	86.0	94.0	95.0
208	85.5	95.0	90.0
209	85.0	95.0	85.0
210	85.0	94.0	85.0
211	85.5	93.0	90.0
212	86.0	92.0	95.0
213	86.5	91.0	95.0
214	87.0	90.0	90.0
215	87.5	89.0	85.0
216	88.0	88.0	85.0
217	88.5	87.0	90.0
218	89.0	86.0	95.0
219	89.5	85.0	95.0
220	90.0	85.0	90.0
221	90.5	86.0	85.0
222	91.0	87.0	85.0
223	91.5	88.0	90.0
224	92.0	89.0	95.0
225	92.5	90.0	95.0
226	93.0	91.0	90.0
227	93.5	92.0	85.0
228	94.0	93.0	85.0
229	94.5	94.0	90.0
230	95.0	95.0	95.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
231	95.0	95.0	95.0
232	94.5	94.0	90.0
233	94.0	93.0	85.0
234	93.5	92.0	85.0
235	93.0	91.0	90.0
236	92.5	90.0	95.0
237	92.0	89.0	95.0
238	91.5	88.0	90.0
239	91.0	87.0	85.0
240	90.5	86.0	85.0
241	90.0	85.0	90.0
242	89.5	85.0	95.0
243	89.0	86.0	95.0
244	88.5	87.0	90.0
245	88.0	88.0	85.0
246	87.5	89.0	85.0
247	87.0	90.0	90.0
248	86.5	91.0	95.0
249	86.0	92.0	95.0
250	85.5	93.0	90.0
251	85.0	94.0	85.0
252	85.0	95.0	85.0
253	85.5	95.0	90.0
254	86.0	94.0	95.0
255	86.5	93.0	95.0
256	87.0	92.0	90.0
257	87.5	91.0	85.0
258	88.0	90.0	85.0
259	88.5	89.0	90.0
260	89.0	88.0	95.0
261	89.5	87.0	95.0
262	90.0	86.0	90.0
263	90.5	85.0	85.0
264	91.0	85.0	85.0
265	91.5	86.0	90.0
266	92.0	87.0	95.0
267	92.5	88.0	95.0
268	93.0	89.0	90.0
269	93.5	90.0	85.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
270	94.0	91.0	85.0
271	94.5	92.0	90.0
272	95.0	93.0	95.0
273	95.0	94.0	95.0
274	94.5	95.0	90.0
275	94.0	95.0	85.0
276	93.5	94.0	85.0
277	93.0	93.0	90.0
278	92.5	92.0	95.0
279	92.0	91.0	95.0
280	91.5	90.0	90.0
281	91.0	89.0	85.0
282	90.5	88.0	85.0
283	90.0	87.0	90.0
284	89.5	86.0	95.0
285	89.0	85.0	95.0
286	88.5	85.0	90.0
287	88.0	86.0	85.0
288	87.5	87.0	85.0
289	87.0	88.0	90.0
290	86.5	89.0	95.0
291	86.0	90.0	95.0
292	85.5	91.0	90.0
293	85.0	92.0	85.0
294	85.0	93.0	85.0
295	85.5	94.0	90.0
296	86.0	95.0	95.0
297	86.5	95.0	95.0
298	87.0	94.0	90.0
299	87.5	93.0	85.0
300	88.0	92.0	85.0
301	88.5	91.0	90.0
302	89.0	90.0	95.0
303	89.5	89.0	95.0
304	90.0	88.0	90.0
305	90.5	87.0	85.0
306	91.0	86.0	85.0
307	91.5	85.0	90.0
308	92.0	85.0	95.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
309	92.5	86.0	95.0
310	93.0	87.0	90.0
311	93.5	88.0	85.0
312	94.0	89.0	85.0
313	94.5	90.0	90.0
314	95.0	91.0	95.0
315	95.0	92.0	95.0
316	94.5	93.0	90.0
317	94.0	94.0	85.0
318	93.5	95.0	85.0
319	93.0	95.0	90.0
320	92.5	94.0	95.0
321	92.0	93.0	95.0
322	91.5	92.0	90.0
323	91.0	91.0	85.0
324	90.5	90.0	85.0
325	90.0	89.0	90.0
326	89.5	88.0	95.0
327	89.0	87.0	95.0
328	88.5	86.0	90.0
329	88.0	85.0	85.0
330	87.5	85.0	85.0
331	87.0	86.0	90.0
332	86.5	87.0	95.0
333	86.0	88.0	95.0
334	85.5	89.0	90.0
335	85.0	90.0	85.0
336	85.0	91.0	85.0
337	85.5	92.0	90.0
338	86.0	93.0	95.0
339	86.5	94.0	95.0
340	87.0	95.0	90.0
341	87.5	95.0	85.0
342	88.0	94.0	85.0
343	88.5	93.0	90.0
344	89.0	92.0	95.0
345	89.5	91.0	95.0
346	90.0	90.0	90.0
347	90.5	89.0	85.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
348	91.0	88.0	85.0
349	91.5	87.0	90.0
350	92.0	86.0	95.0
351	92.5	85.0	95.0
352	93.0	85.0	90.0
353	93.5	86.0	85.0
354	94.0	87.0	85.0
355	94.5	88.0	90.0
356	95.0	89.0	95.0
357	95.0	90.0	95.0
358	94.5	91.0	90.0
359	94.0	92.0	85.0
360	93.5	93.0	85.0
361	93.0	94.0	90.0
362	92.5	95.0	95.0
363	92.0	95.0	95.0
364	91.5	94.0	90.0
365	91.0	93.0	85.0
366	90.5	92.0	85.0
367	90.0	91.0	90.0
368	89.5	90.0	95.0
369	89.0	89.0	95.0
370	88.5	88.0	90.0
371	88.0	87.0	85.0
372	87.5	86.0	85.0
373	87.0	85.0	90.0
374	86.5	85.0	95.0
375	86.0	86.0	95.0
376	85.5	87.0	90.0
377	85.0	88.0	85.0
378	85.0	89.0	85.0
379	85.5	90.0	90.0
380	86.0	91.0	95.0
381	86.5	92.0	95.0
382	87.0	93.0	90.0
383	87.5	94.0	85.0
384	88.0	95.0	85.0
385	88.5	95.0	90.0
386	89.0	94.0	95.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
387	89.5	93.0	95.0
388	90.0	92.0	90.0
389	90.5	91.0	85.0
390	91.0	90.0	85.0
391	91.5	89.0	90.0
392	92.0	88.0	95.0
393	92.5	87.0	95.0
394	93.0	86.0	90.0
395	93.5	85.0	85.0
396	94.0	85.0	85.0
397	94.5	86.0	90.0
398	95.0	87.0	95.0
399	95.0	88.0	95.0
400	94.5	89.0	90.0
401	94.0	90.0	85.0
402	93.5	91.0	85.0
403	93.0	92.0	90.0
404	92.5	93.0	95.0
405	92.0	94.0	95.0
406	91.5	95.0	90.0
407	91.0	95.0	85.0
408	90.5	94.0	85.0
409	90.0	93.0	90.0
410	89.5	92.0	95.0
411	89.0	91.0	95.0
412	88.5	90.0	90.0
413	88.0	89.0	85.0
414	87.5	88.0	85.0
415	87.0	87.0	90.0
416	86.5	86.0	95.0
417	86.0	85.0	95.0
418	85.5	85.0	90.0
419	85.0	86.0	85.0
420	85.0	87.0	85.0
421	85.5	88.0	90.0
422	86.0	89.0	95.0
423	86.5	90.0	95.0
424	87.0	91.0	90.0
425	87.5	92.0	85.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
426	88.0	93.0	85.0
427	88.5	94.0	90.0
428	89.0	95.0	95.0
429	89.5	95.0	95.0
430	90.0	94.0	90.0
431	90.5	93.0	85.0
432	91.0	92.0	85.0
433	91.5	91.0	90.0
434	92.0	90.0	95.0
435	92.5	89.0	95.0
436	93.0	88.0	90.0
437	93.5	87.0	85.0
438	94.0	86.0	85.0
439	94.5	85.0	90.0
440	95.0	85.0	95.0
441	95.0	86.0	95.0
442	94.5	87.0	90.0
443	94.0	88.0	85.0
444	93.5	89.0	85.0
445	93.0	90.0	90.0
446	92.5	91.0	95.0
447	92.0	92.0	95.0
448	91.5	93.0	90.0
449	91.0	94.0	85.0
450	90.5	95.0	85.0
451	90.0	95.0	90.0
452	89.5	94.0	95.0
453	89.0	93.0	95.0
454	88.5	92.0	90.0
455	88.0	91.0	85.0
456	87.5	90.0	85.0
457	87.0	89.0	90.0
458	86.5	88.0	95.0
459	86.0	87.0	95.0
460	85.5	86.0	90.0
461	85.0	85.0	85.0
462	85.0	85.0	85.0
463	85.5	86.0	90.0
464	86.0	87.0	95.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
465	86.5	88.0	95.0
466	87.0	89.0	90.0
467	87.5	90.0	85.0
468	88.0	91.0	85.0
469	88.5	92.0	90.0
470	89.0	93.0	95.0
471	89.5	94.0	95.0
472	90.0	95.0	90.0
473	90.5	95.0	85.0
474	91.0	94.0	85.0
475	91.5	93.0	90.0
476	92.0	92.0	95.0
477	92.5	91.0	95.0
478	93.0	90.0	90.0
479	93.5	89.0	85.0
480	94.0	88.0	85.0
481	94.5	87.0	90.0
482	95.0	86.0	95.0
483	95.0	85.0	95.0
484	94.5	85.0	90.0
485	94.0	86.0	85.0
486	93.5	87.0	85.0
487	93.0	88.0	90.0
488	92.5	89.0	95.0
489	92.0	90.0	95.0
490	91.5	91.0	90.0
491	91.0	92.0	85.0
492	90.5	93.0	85.0
493	90.0	94.0	90.0
494	89.5	95.0	95.0
495	89.0	95.0	95.0
496	88.5	94.0	90.0
497	88.0	93.0	85.0
498	87.5	92.0	85.0
499	87.0	91.0	90.0
500	86.5	90.0	95.0
501	86.0	89.0	95.0
502	85.5	88.0	90.0
503	85.0	87.0	85.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
504	85.0	86.0	85.0
505	85.5	85.0	90.0
506	86.0	85.0	95.0
507	86.5	86.0	95.0
508	87.0	87.0	90.0
509	87.5	88.0	85.0
510	88.0	89.0	85.0
511	88.5	90.0	90.0
512	89.0	91.0	95.0
513	89.5	92.0	95.0
514	90.0	93.0	90.0
515	90.5	94.0	85.0
516	91.0	95.0	85.0
517	91.5	95.0	90.0
518	92.0	94.0	95.0
519	92.5	93.0	95.0
520	93.0	92.0	90.0
521	93.5	91.0	85.0
522	94.0	90.0	85.0
523	94.5	89.0	90.0
524	95.0	88.0	95.0
525	95.0	87.0	95.0
526	94.5	86.0	90.0
527	94.0	85.0	85.0
528	93.5	85.0	85.0
529	93.0	86.0	90.0
530	92.5	87.0	95.0
531	92.0	88.0	95.0
532	91.5	89.0	90.0
533	91.0	90.0	85.0
534	90.5	91.0	85.0
535	90.0	92.0	90.0
536	89.5	93.0	95.0
537	89.0	94.0	95.0
538	88.5	95.0	90.0
539	88.0	95.0	85.0
540	87.5	94.0	85.0
541	87.0	93.0	90.0
542	86.5	92.0	95.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
543	86.0	91.0	95.0
544	85.5	90.0	90.0
545	85.0	89.0	85.0
546	85.0	88.0	85.0
547	85.5	87.0	90.0
548	86.0	86.0	95.0
549	86.5	85.0	95.0
550	87.0	85.0	90.0
551	87.5	86.0	85.0
552	88.0	87.0	85.0
553	88.5	88.0	90.0
554	89.0	89.0	95.0
555	89.5	90.0	95.0
556	90.0	91.0	90.0
557	90.5	92.0	85.0
558	91.0	93.0	85.0
559	91.5	94.0	90.0
560	92.0	95.0	95.0
561	92.5	95.0	95.0
562	93.0	94.0	90.0
563	93.5	93.0	85.0
564	94.0	92.0	85.0
565	94.5	91.0	90.0
566	95.0	90.0	95.0
567	95.0	89.0	95.0
568	94.5	88.0	90.0
569	94.0	87.0	85.0
570	93.5	86.0	85.0
571	93.0	85.0	90.0
572	92.5	85.0	95.0
573	92.0	86.0	95.0
574	91.5	87.0	90.0
575	91.0	88.0	85.0
576	90.5	89.0	85.0
577	90.0	90.0	90.0
578	89.5	91.0	95.0
579	89.0	92.0	95.0
580	88.5	93.0	90.0
581	88.0	94.0	85.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
582	87.5	95.0	85.0
583	87.0	95.0	90.0
584	86.5	94.0	95.0
585	86.0	93.0	95.0
586	85.5	92.0	90.0
587	85.0	91.0	85.0
588	85.0	90.0	85.0
589	85.5	89.0	90.0
590	86.0	88.0	95.0
591	86.5	87.0	95.0
592	87.0	86.0	90.0
593	87.5	85.0	85.0
594	88.0	85.0	85.0
595	88.5	86.0	90.0
596	89.0	87.0	95.0
597	89.5	88.0	95.0
598	90.0	89.0	90.0
599	90.5	90.0	85.0
600	91.0	91.0	85.0
601	91.5	92.0	90.0
602	92.0	93.0	95.0
603	92.5	94.0	95.0
604	93.0	95.0	90.0
605	93.5	95.0	85.0
606	94.0	94.0	85.0
607	94.5	93.0	90.0
608	95.0	92.0	95.0
609	95.0	91.0	95.0
610	94.5	90.0	90.0
611	94.0	89.0	85.0
612	93.5	88.0	85.0
613	93.0	87.0	90.0
614	92.5	86.0	95.0
615	92.0	85.0	95.0
616	91.5	85.0	90.0
617	91.0	86.0	85.0
618	90.5	87.0	85.0
619	90.0	88.0	90.0
620	89.5	89.0	95.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
621	89.0	90.0	95.0
622	88.5	91.0	90.0
623	88.0	92.0	85.0
624	87.5	93.0	85.0
625	87.0	94.0	90.0
626	86.5	95.0	95.0
627	86.0	95.0	95.0
628	85.5	94.0	90.0
629	85.0	93.0	85.0
630	85.0	92.0	85.0
631	85.5	91.0	90.0
632	86.0	90.0	95.0
633	86.5	89.0	95.0
634	87.0	88.0	90.0
635	87.5	87.0	85.0
636	88.0	86.0	85.0
637	88.5	85.0	90.0
638	89.0	85.0	95.0
639	89.5	86.0	95.0
640	90.0	87.0	90.0
641	90.5	88.0	85.0
642	91.0	89.0	85.0
643	91.5	90.0	90.0
644	92.0	91.0	95.0
645	92.5	92.0	95.0
646	93.0	93.0	90.0
647	93.5	94.0	85.0
648	94.0	95.0	85.0
649	94.5	95.0	90.0
650	95.0	94.0	95.0
651	95.0	93.0	95.0
652	94.5	92.0	90.0
653	94.0	91.0	85.0
654	93.5	90.0	85.0
655	93.0	89.0	90.0
656	92.5	88.0	95.0
657	92.0	87.0	95.0
658	91.5	86.0	90.0
659	91.0	85.0	85.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
660	90.5	85.0	85.0
661	90.0	86.0	90.0
662	89.5	87.0	95.0
663	89.0	88.0	95.0
664	88.5	89.0	90.0
665	88.0	90.0	85.0
666	87.5	91.0	85.0
667	87.0	92.0	90.0
668	86.5	93.0	95.0
669	86.0	94.0	95.0
670	85.5	95.0	90.0
671	85.0	95.0	85.0
672	85.0	94.0	85.0
673	85.5	93.0	90.0
674	86.0	92.0	95.0
675	86.5	91.0	95.0
676	87.0	90.0	90.0
677	87.5	89.0	85.0
678	88.0	88.0	85.0
679	88.5	87.0	90.0
680	89.0	86.0	95.0
681	89.5	85.0	95.0
682	90.0	85.0	90.0
683	90.5	86.0	85.0
684	91.0	87.0	85.0
685	91.5	88.0	90.0
686	92.0	89.0	95.0
687	92.5	90.0	95.0
688	93.0	91.0	90.0
689	93.5	92.0	85.0
690	94.0	93.0	85.0
691	94.5	94.0	90.0
692	95.0	95.0	95.0
693	95.0	95.0	95.0
694	94.5	94.0	90.0
695	94.0	93.0	85.0
696	93.5	92.0	85.0
697	93.0	91.0	90.0
698	92.5	90.0	95.0

Time (s)	Scan Rate		
	0.5 degrees/s	1.0 degree/s	5 degrees/s
699	92.0	89.0	95.0
700	91.5	88.0	90.0
701	91.0	87.0	85.0
702	90.5	86.0	85.0
703	90.0	85.0	90.0
704	89.5	85.0	95.0
705	89.0	86.0	95.0
706	88.5	87.0	90.0
707	88.0	88.0	85.0
708	87.5	89.0	85.0
709	87.0	90.0	90.0
710	86.5	91.0	95.0
711	86.0	92.0	95.0
712	85.5	93.0	90.0
713	85.0	94.0	85.0
714	85.0	95.0	85.0
715	85.5	95.0	90.0
716	86.0	94.0	95.0
717	86.5	93.0	95.0
718	87.0	92.0	90.0
719	87.5	91.0	85.0
720	88.0	90.0	85.0

3. Warning Delay

Table B-139. Dose (μg) Received at Each Personnel Location for 0 s Warning Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0011	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0024	0.0068	0.0096	0.0068	0.0024	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0002	0.0028	0.0156	0.0443	0.0627	0.0443	0.0156	0.0028	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0012	0.0140	0.0794	0.2250	0.3185	0.2250	0.0794	0.0140	0.0012	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0002	0.0049	0.0553	0.3141	0.8901	1.2596	0.8901	0.3141	0.0553	0.0049	0.0002	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0007	0.0150	0.1705	0.9674	2.7417	3.8798	2.7417	0.9674	0.1705	0.0150	0.0007	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0016	0.0360	0.4090	2.3210	6.5775	9.3081	6.5775	2.3210	0.4090	0.0360	0.0016	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0030	0.0673	0.7644	4.3380	12.2937	17.3973	12.2937	4.3380	0.7644	0.0673	0.0030	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0043	0.0980	1.1143	6.3240	17.9217	25.3616	17.9217	6.3240	1.1143	0.0980	0.0043	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0049	0.1121	1.2735	7.2277	20.4828	28.9858	20.4828	7.2277	1.2735	0.1121	0.0049	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0001	0.0045	0.1027	1.1669	6.6224	18.7675	26.5584	18.7675	6.6224	1.1669	0.1027	0.0045	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0036	0.0822	0.9344	5.3031	15.0285	21.2674	15.0285	5.3031	0.9344	0.0822	0.0036	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0032	0.0720	0.8178	4.6414	13.1535	18.6139	13.1535	4.6414	0.8178	0.0720	0.0032	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0036	0.0822	0.9344	5.3031	15.0285	21.2674	15.0285	5.3031	0.9344	0.0822	0.0036	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0001	0.0045	0.1027	1.1669	6.6224	18.7675	26.5584	18.7675	6.6224	1.1669	0.1027	0.0045	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0049	0.1121	1.2735	7.2277	20.4828	28.9858	20.4828	7.2277	1.2735	0.1121	0.0049	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0001	0.0043	0.0980	1.1143	6.3240	17.9217	25.3616	17.9217	6.3240	1.1143	0.0980	0.0043	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0001	0.0030	0.0673	0.7644	4.3380	12.2937	17.3973	12.2937	4.3380	0.7644	0.0673	0.0030	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0016	0.0360	0.4090	2.3210	6.5775	9.3081	6.5775	2.3210	0.4090	0.0360	0.0016	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0007	0.0150	0.1705	0.9674	2.7417	3.8798	2.7417	0.9674	0.1705	0.0150	0.0007	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0002	0.0049	0.0553	0.3141	0.8901	1.2596	0.8901	0.3141	0.0553	0.0049	0.0002	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0001	0.0012	0.0140	0.0794	0.2250	0.3185	0.2250	0.0794	0.0140	0.0012	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0028	0.0156	0.0443	0.0627	0.0443	0.0156	0.0028	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0024	0.0068	0.0096	0.0068	0.0024	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0008	0.0011	0.0008	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-140. Casualty Rate at Each Personnel Location for 0 s Warning Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0024	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0057	0.0291	0.0461	0.0291	0.0057	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0047	0.0618	0.1822	0.2433	0.1822	0.0618	0.0047	0.0000	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0006	0.0392	0.2407	0.4718	0.5558	0.4718	0.2407	0.0392	0.0006	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0053	0.1410	0.4920	0.7301	0.7951	0.7301	0.4920	0.1410	0.0053	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0000	0.0216	0.2933	0.6957	0.8740	0.9125	0.8740	0.6957	0.2933	0.0216	0.0000	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0002	0.0504	0.4351	0.8139	0.9364	0.9588	0.9364	0.8139	0.4351	0.0504	0.0002	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0005	0.0790	0.5262	0.8689	0.9603	0.9753	0.9603	0.8689	0.5262	0.0790	0.0005	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0006	0.0916	0.5584	0.8854	0.9668	0.9797	0.9668	0.8854	0.5584	0.0916	0.0006	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0005	0.0832	0.5374	0.8748	0.9627	0.9769	0.9627	0.8748	0.5374	0.0832	0.0005	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0003	0.0644	0.4836	0.8448	0.9503	0.9685	0.9503	0.8448	0.4836	0.0644	0.0003	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0002	0.0548	0.4513	0.8247	0.9414	0.9623	0.9414	0.8247	0.4513	0.0548	0.0002	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0003	0.0644	0.4836	0.8448	0.9503	0.9685	0.9503	0.8448	0.4836	0.0644	0.0003	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0005	0.0832	0.5374	0.8748	0.9627	0.9769	0.9627	0.8748	0.5374	0.0832	0.0005	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0006	0.0916	0.5584	0.8854	0.9668	0.9797	0.9668	0.8854	0.5584	0.0916	0.0006	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0005	0.0790	0.5262	0.8689	0.9603	0.9753	0.9603	0.8689	0.5262	0.0790	0.0005	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0002	0.0504	0.4351	0.8139	0.9364	0.9588	0.9364	0.8139	0.4351	0.0504	0.0002	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0000	0.0216	0.2933	0.6957	0.8740	0.9125	0.8740	0.6957	0.2933	0.0216	0.0000	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0000	0.0053	0.1410	0.4920	0.7301	0.7951	0.7301	0.4920	0.1410	0.0053	0.0000	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0006	0.0392	0.2407	0.4718	0.5558	0.4718	0.2407	0.0392	0.0006	0.0000	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0047	0.0618	0.1822	0.2433	0.1822	0.0618	0.0047	0.0000	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0057	0.0291	0.0461	0.0291	0.0057	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0012	0.0024	0.0012	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-141. Dose (μg) Received at Each Personnel Location for 10 s Warning Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0005	0.0013	0.0018	0.0013	0.0005	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0109	0.0154	0.0109	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0004	0.0044	0.0250	0.0708	0.1002	0.0708	0.0250	0.0044	0.0004	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0001	0.0020	0.0224	0.1269	0.3596	0.5089	0.3596	0.1269	0.0224	0.0020	0.0001	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0003	0.0078	0.0884	0.5019	1.4223	2.0128	1.4223	0.5019	0.0884	0.0078	0.0003	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0011	0.0240	0.2724	1.5460	4.3812	6.2000	4.3812	1.5460	0.2724	0.0240	0.0011	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0001	0.0025	0.0575	0.6535	3.7090	10.5110	14.8744	10.5110	3.7090	0.6535	0.0575	0.0025	0.0001	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0001	0.0047	0.1075	1.2215	6.9322	19.6455	27.8009	19.6455	6.9322	1.2215	0.1075	0.0047	0.0001	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0002	0.0069	0.1567	1.7807	10.1057	28.6390	40.5280	28.6390	10.1057	1.7807	0.1567	0.0069	0.0002	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0002	0.0079	0.1791	2.0351	11.5499	32.7316	46.3196	32.7316	11.5499	2.0351	0.1791	0.0079	0.0002	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0002	0.0072	0.1641	1.8647	10.5826	29.9905	42.4405	29.9905	10.5826	1.8647	0.1641	0.0072	0.0002	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0001	0.0058	0.1314	1.4932	8.4743	24.0157	33.9854	24.0157	8.4743	1.4932	0.1314	0.0058	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0001	0.0051	0.1150	1.3069	7.4170	21.0193	29.7451	21.0193	7.4170	1.3069	0.1150	0.0051	0.0001	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0058	0.1314	1.4932	8.4743	24.0157	33.9854	24.0157	8.4743	1.4932	0.1314	0.0058	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0002	0.0072	0.1641	1.8647	10.5826	29.9905	42.4405	29.9905	10.5826	1.8647	0.1641	0.0072	0.0002	0.0000	0.0000
	0.00	0.0000	0.0000	0.0002	0.0079	0.1791	2.0351	11.5499	32.7316	46.3196	32.7316	11.5499	2.0351	0.1791	0.0079	0.0002	0.0000	0.0000
	0.25	0.0000	0.0000	0.0002	0.0069	0.1567	1.7807	10.1057	28.6390	40.5280	28.6390	10.1057	1.7807	0.1567	0.0069	0.0002	0.0000	0.0000
0.50	0.0000	0.0000	0.0001	0.0047	0.1075	1.2215	6.9322	19.6455	27.8009	19.6455	6.9322	1.2215	0.1075	0.0047	0.0001	0.0000	0.0000	
0.75	0.0000	0.0000	0.0001	0.0025	0.0575	0.6535	3.7090	10.5110	14.8744	10.5110	3.7090	0.6535	0.0575	0.0025	0.0001	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0011	0.0240	0.2724	1.5460	4.3812	6.2000	4.3812	1.5460	0.2724	0.0240	0.0011	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0003	0.0078	0.0884	0.5019	1.4223	2.0128	1.4223	0.5019	0.0884	0.0078	0.0003	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0001	0.0020	0.0224	0.1269	0.3596	0.5089	0.3596	0.1269	0.0224	0.0020	0.0001	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0004	0.0044	0.0250	0.0708	0.1002	0.0708	0.0250	0.0044	0.0004	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0038	0.0109	0.0154	0.0109	0.0038	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0005	0.0013	0.0018	0.0013	0.0005	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-142. Casualty Rate at Each Personnel Location for 10 s Warning Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0030	0.0056	0.0030	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0124	0.0537	0.0809	0.0537	0.0124	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0001	0.0104	0.1047	0.2670	0.3406	0.2670	0.1047	0.0104	0.0001	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0016	0.0701	0.3376	0.5848	0.6647	0.5848	0.3376	0.0701	0.0016	0.0000	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0116	0.2146	0.6045	0.8155	0.8664	0.8155	0.6045	0.2146	0.0116	0.0000	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0001	0.0412	0.3980	0.7873	0.9237	0.9496	0.9237	0.7873	0.3980	0.0412	0.0001	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0006	0.0875	0.5484	0.8804	0.9649	0.9784	0.9649	0.8804	0.5484	0.0875	0.0006	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0012	0.1299	0.6371	0.9202	0.9793	0.9878	0.9793	0.9202	0.6371	0.1299	0.0012	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0016	0.1478	0.6671	0.9316	0.9830	0.9902	0.9830	0.9316	0.6671	0.1478	0.0016	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0014	0.1359	0.6476	0.9243	0.9807	0.9887	0.9807	0.9243	0.6476	0.1359	0.0014	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0009	0.1086	0.5963	0.9031	0.9734	0.9840	0.9734	0.9031	0.5963	0.1086	0.0009	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0007	0.0942	0.5646	0.8885	0.9680	0.9804	0.9680	0.8885	0.5646	0.0942	0.0007	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0009	0.1086	0.5963	0.9031	0.9734	0.9840	0.9734	0.9031	0.5963	0.1086	0.0009	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0014	0.1359	0.6476	0.9243	0.9807	0.9887	0.9807	0.9243	0.6476	0.1359	0.0014	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0016	0.1478	0.6671	0.9316	0.9830	0.9902	0.9830	0.9316	0.6671	0.1478	0.0016	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0012	0.1299	0.6371	0.9202	0.9793	0.9878	0.9793	0.9202	0.6371	0.1299	0.0012	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0006	0.0875	0.5484	0.8804	0.9649	0.9784	0.9649	0.8804	0.5484	0.0875	0.0006	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0001	0.0412	0.3980	0.7873	0.9237	0.9496	0.9237	0.7873	0.3980	0.0412	0.0001	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0000	0.0116	0.2146	0.6045	0.8155	0.8664	0.8155	0.6045	0.2146	0.0116	0.0000	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0016	0.0701	0.3376	0.5848	0.6647	0.5848	0.3376	0.0701	0.0016	0.0000	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0001	0.0104	0.1047	0.2670	0.3406	0.2670	0.1047	0.0104	0.0001	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0124	0.0537	0.0809	0.0537	0.0124	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	0.0030	0.0056	0.0030	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-143. Dose (μg) Received at Each Personnel Location for 60 s Warning Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0018	0.0052	0.0074	0.0052	0.0018	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0027	0.0154	0.0437	0.0619	0.0437	0.0154	0.0027	0.0002	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0016	0.0177	0.1006	0.2852	0.4036	0.2852	0.1006	0.0177	0.0016	0.0001	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0079	0.0900	0.5110	1.4483	2.0495	1.4483	0.5110	0.0900	0.0079	0.0003	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0014	0.0313	0.3561	2.0212	5.7280	8.1059	5.7280	2.0212	0.3561	0.0313	0.0014	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0001	0.0042	0.0965	1.0970	6.2259	17.6439	24.9684	17.6439	6.2259	1.0970	0.0965	0.0042	0.0001	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0002	0.0102	0.2316	2.6319	14.9367	42.3295	59.9018	42.3295	14.9367	2.6319	0.2316	0.0102	0.0002	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0004	0.0190	0.4328	4.9192	27.9173	79.1159	111.9594	79.1159	27.9173	4.9192	0.4328	0.0190	0.0004	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0006	0.0277	0.6310	7.1711	40.6976	115.3345	163.2135	115.3345	40.6976	7.1711	0.6310	0.0277	0.0006	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0007	0.0317	0.7211	8.1959	46.5135	131.8163	186.5373	131.8163	46.5135	8.1959	0.7211	0.0317	0.0007	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0006	0.0290	0.6607	7.5095	42.6182	120.7773	170.9158	120.7773	42.6182	7.5095	0.6607	0.0290	0.0006	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0005	0.0232	0.5291	6.0134	34.1276	96.7156	136.8652	96.7156	34.1276	6.0134	0.5291	0.0232	0.0005	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0004	0.0203	0.4631	5.2632	29.8696	84.6486	111.9594	84.6486	29.8696	5.2632	0.4631	0.0203	0.0004	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0005	0.0232	0.5291	6.0134	34.1276	96.7156	136.8652	96.7156	34.1276	6.0134	0.5291	0.0232	0.0005	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0006	0.0290	0.6607	7.5095	42.6182	120.7773	170.9158	120.7773	42.6182	7.5095	0.6607	0.0290	0.0006	0.0000
	0.00	0.0000	0.0000	0.0000	0.0007	0.0317	0.7211	8.1959	46.5135	131.8163	186.5373	131.8163	46.5135	8.1959	0.7211	0.0317	0.0007	0.0000
	0.25	0.0000	0.0000	0.0000	0.0006	0.0277	0.6310	7.1711	40.6976	115.3345	163.2135	115.3345	40.6976	7.1711	0.6310	0.0277	0.0006	0.0000
0.50	0.0000	0.0000	0.0000	0.0004	0.0190	0.4328	4.9192	27.9173	79.1159	111.9594	79.1159	27.9173	4.9192	0.4328	0.0190	0.0004	0.0000	
0.75	0.0000	0.0000	0.0000	0.0002	0.0102	0.2316	2.6319	14.9367	42.3295	59.9018	42.3295	14.9367	2.6319	0.2316	0.0102	0.0002	0.0000	
1.00	0.0000	0.0000	0.0000	0.0001	0.0042	0.0965	1.0970	6.2259	17.6439	24.9684	17.6439	6.2259	1.0970	0.0965	0.0042	0.0001	0.0000	
1.25	0.0000	0.0000	0.0000	0.0000	0.0014	0.0313	0.3561	2.0212	5.7280	8.1059	5.7280	2.0212	0.3561	0.0313	0.0014	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0079	0.0900	0.5110	1.4483	2.0495	1.4483	0.5110	0.0900	0.0079	0.0003	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0016	0.0177	0.1006	0.2852	0.4036	0.2852	0.1006	0.0177	0.0016	0.0001	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0027	0.0154	0.0437	0.0619	0.0437	0.0154	0.0027	0.0002	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0018	0.0052	0.0074	0.0052	0.0018	0.0003	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0007	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-144. Casualty Rate at Each Personnel Location for 60 s Warning Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0014	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0056	0.0285	0.0453	0.0285	0.0056	0.0002	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0071	0.0813	0.2228	0.2906	0.2228	0.0813	0.0071	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0016	0.0716	0.3416	0.5891	0.6687	0.5891	0.3416	0.0716	0.0016	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0176	0.2651	0.6656	0.8557	0.8984	0.8557	0.6656	0.2651	0.0176	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0004	0.0776	0.5225	0.8669	0.9595	0.9748	0.9595	0.8669	0.5225	0.0776	0.0004	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0026	0.1869	0.7219	0.9499	0.9886	0.9936	0.9886	0.9499	0.7219	0.1869	0.0026	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0080	0.3053	0.8336	0.9785	0.9961	0.9979	0.9961	0.9785	0.8336	0.3053	0.0080	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0146	0.3897	0.8845	0.9879	0.9981	0.9990	0.9981	0.9879	0.8845	0.3897	0.0146	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0179	0.4212	0.8896	0.9902	0.9985	0.9993	0.9985	0.9902	0.8896	0.4212	0.0179	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0157	0.4005	0.8899	0.9887	0.9982	0.9991	0.9982	0.9887	0.8899	0.4005	0.0157	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0111	0.3494	0.8623	0.9841	0.9973	0.9986	0.9973	0.9841	0.8623	0.3494	0.0111	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0089	0.3199	0.8437	0.9806	0.9965	0.9982	0.9965	0.9806	0.8437	0.3199	0.0089	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0111	0.3494	0.8623	0.9841	0.9973	0.9986	0.9973	0.9841	0.8623	0.3494	0.0111	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0157	0.4005	0.8899	0.9887	0.9982	0.9991	0.9982	0.9887	0.8899	0.4005	0.0157	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0179	0.4212	0.8896	0.9902	0.9985	0.9993	0.9985	0.9902	0.8896	0.4212	0.0179	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0146	0.3897	0.8845	0.9879	0.9981	0.9990	0.9981	0.9879	0.8845	0.3897	0.0146	0.0000	0.0000	0.0000
	0.50	0.0000	0.0000	0.0000	0.0080	0.3053	0.8336	0.9785	0.9961	0.9979	0.9961	0.9785	0.8336	0.3053	0.0080	0.0000	0.0000	0.0000
	0.75	0.0000	0.0000	0.0000	0.0026	0.1869	0.7219	0.9499	0.9886	0.9936	0.9886	0.9499	0.7219	0.1869	0.0026	0.0000	0.0000	0.0000
	1.00	0.0000	0.0000	0.0000	0.0004	0.0776	0.5225	0.8669	0.9595	0.9748	0.9595	0.8669	0.5225	0.0776	0.0004	0.0000	0.0000	0.0000
	1.25	0.0000	0.0000	0.0000	0.0000	0.0176	0.2651	0.6656	0.8557	0.8984	0.8557	0.6656	0.2651	0.0176	0.0000	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0016	0.0716	0.3416	0.5891	0.6687	0.5891	0.3416	0.0716	0.0016	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0071	0.0813	0.2228	0.2906	0.2228	0.0813	0.0071	0.0000	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0056	0.0285	0.0453	0.0285	0.0056	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0014	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

4. Collector Delay

Table B-145. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Collector Location for 0 s Collector Delay

Y-coordinate (m)	X-coordinate (m)																
	-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0019	0.0027	0.0019	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0044	0.0126	0.0178	0.0126	0.0044	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000
-3.00	0.0000	0.0000	0.0000	0.0000	0.0003	0.0040	0.0225	0.0638	0.0903	0.0638	0.0225	0.0040	0.0003	0.0000	0.0000	0.0000	0.0000
-2.75	0.0000	0.0000	0.0000	0.0001	0.0014	0.0157	0.0891	0.2524	0.3572	0.2524	0.0891	0.0157	0.0014	0.0001	0.0000	0.0000	0.0000
-2.50	0.0000	0.0000	0.0000	0.0002	0.0043	0.0483	0.2744	0.7776	1.1004	0.7776	0.2744	0.0483	0.0043	0.0002	0.0000	0.0000	0.0000
-2.25	0.0000	0.0000	0.0000	0.0004	0.0102	0.1160	0.6583	1.8655	2.6400	1.8655	0.6583	0.1160	0.0102	0.0004	0.0000	0.0000	0.0000
-2.00	0.0000	0.0000	0.0000	0.0008	0.0191	0.2168	1.2304	3.4868	4.9343	3.4868	1.2304	0.2168	0.0191	0.0008	0.0000	0.0000	0.0000
-1.75	0.0000	0.0000	0.0000	0.0012	0.0278	0.3160	1.7936	5.0830	7.1931	5.0830	1.7936	0.3160	0.0278	0.0012	0.0000	0.0000	0.0000
-1.50	0.0000	0.0000	0.0000	0.0014	0.0318	0.3612	2.0499	5.8094	8.2210	5.8094	2.0499	0.3612	0.0318	0.0014	0.0000	0.0000	0.0000
-1.25	0.0000	0.0000	0.0000	0.0013	0.0291	0.3310	1.8783	5.3229	7.5326	5.3229	1.8783	0.3310	0.0291	0.0013	0.0000	0.0000	0.0000
-1.00	0.0000	0.0000	0.0000	0.0010	0.0233	0.2650	1.5041	4.2624	6.0319	4.2624	1.5041	0.2650	0.0233	0.0010	0.0000	0.0000	0.0000
-0.75	0.0000	0.0000	0.0000	0.0009	0.0204	0.2320	1.3164	3.7306	5.2793	3.7306	1.3164	0.2320	0.0204	0.0009	0.0000	0.0000	0.0000
-0.50	0.0000	0.0000	0.0000	0.0010	0.0233	0.2650	1.5041	4.2624	6.0319	4.2624	1.5041	0.2650	0.0233	0.0010	0.0000	0.0000	0.0000
-0.25	0.0000	0.0000	0.0000	0.0013	0.0291	0.3310	1.8783	5.3229	7.5326	5.3229	1.8783	0.3310	0.0291	0.0013	0.0000	0.0000	0.0000
0.00	0.0000	0.0000	0.0000	0.0014	0.0318	0.3612	2.0499	5.8094	8.2210	5.8094	2.0499	0.3612	0.0318	0.0014	0.0000	0.0000	0.0000
0.25	0.0000	0.0000	0.0000	0.0012	0.0278	0.3160	1.7936	5.0830	7.1931	5.0830	1.7936	0.3160	0.0278	0.0012	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0008	0.0191	0.2168	1.2304	3.4868	4.9343	3.4868	1.2304	0.2168	0.0191	0.0008	0.0000	0.0000	0.0000
0.75	0.0000	0.0000	0.0000	0.0004	0.0102	0.1160	0.6583	1.8655	2.6400	1.8655	0.6583	0.1160	0.0102	0.0004	0.0000	0.0000	0.0000
1.00	0.0000	0.0000	0.0000	0.0002	0.0043	0.0483	0.2744	0.7776	1.1004	0.7776	0.2744	0.0483	0.0043	0.0002	0.0000	0.0000	0.0000
1.25	0.0000	0.0000	0.0000	0.0001	0.0014	0.0157	0.0891	0.2524	0.3572	0.2524	0.0891	0.0157	0.0014	0.0001	0.0000	0.0000	0.0000
1.50	0.0000	0.0000	0.0000	0.0000	0.0003	0.0040	0.0225	0.0638	0.0903	0.0638	0.0225	0.0040	0.0003	0.0000	0.0000	0.0000	0.0000
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0044	0.0126	0.0178	0.0126	0.0044	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0007	0.0019	0.0027	0.0019	0.0007	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0003	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Table B-146. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Collector Location for 10 s Collector Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0004	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0023	0.0033	0.0023	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0001	0.0010	0.0054	0.0153	0.0216	0.0153	0.0054	0.0010	0.0001	0.0000	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0004	0.0048	0.0274	0.0777	0.1099	0.0777	0.0274	0.0048	0.0004	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0001	0.0017	0.0191	0.1084	0.3072	0.4347	0.3072	0.1084	0.0191	0.0017	0.0001	0.0000	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0002	0.0052	0.0588	0.3339	0.9463	1.3391	0.9463	0.3339	0.0588	0.0052	0.0002	0.0000	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0005	0.0124	0.1412	0.8011	2.2702	3.2126	2.2702	0.8011	0.1412	0.0124	0.0005	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0010	0.0232	0.2638	1.4973	4.2431	6.0046	4.2431	1.4973	0.2638	0.0232	0.0010	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0000	0.0015	0.0338	0.3846	2.1827	6.1856	8.7534	6.1856	2.1827	0.3846	0.0338	0.0015	0.0000	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0000	0.0017	0.0387	0.4396	2.4946	7.0696	10.0043	7.0696	2.4946	0.4396	0.0387	0.0017	0.0000	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0016	0.0354	0.4027	2.2857	6.4775	9.1665	6.4775	2.2857	0.4027	0.0354	0.0016	0.0000	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0012	0.0284	0.3225	1.8303	5.1870	7.3403	5.1870	1.8303	0.3225	0.0284	0.0012	0.0000	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0011	0.0248	0.2823	1.6020	4.5399	6.4243	4.5399	1.6020	0.2823	0.0248	0.0011	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0000	0.0012	0.0284	0.3225	1.8303	5.1870	7.3403	5.1870	1.8303	0.3225	0.0284	0.0012	0.0000	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0016	0.0354	0.4027	2.2857	6.4775	9.1665	6.4775	2.2857	0.4027	0.0354	0.0016	0.0000	0.0000	0.0000
	0.00	0.0000	0.0000	0.0000	0.0017	0.0387	0.4396	2.4946	7.0696	10.0043	7.0696	2.4946	0.4396	0.0387	0.0017	0.0000	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0015	0.0338	0.3846	2.1827	6.1856	8.7534	6.1856	2.1827	0.3846	0.0338	0.0015	0.0000	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0010	0.0232	0.2638	1.4973	4.2431	6.0046	4.2431	1.4973	0.2638	0.0232	0.0010	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0005	0.0124	0.1412	0.8011	2.2702	3.2126	2.2702	0.8011	0.1412	0.0124	0.0005	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0002	0.0052	0.0588	0.3339	0.9463	1.3391	0.9463	0.3339	0.0588	0.0052	0.0002	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0017	0.0191	0.1084	0.3072	0.4347	0.3072	0.1084	0.0191	0.0017	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0004	0.0048	0.0274	0.0777	0.1099	0.0777	0.0274	0.0048	0.0004	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0010	0.0054	0.0153	0.0216	0.0153	0.0054	0.0010	0.0001	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0008	0.0023	0.0033	0.0023	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0003	0.0004	0.0003	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

Table B-147. Concentrations of Liquid Samples (µg/mL) Produced by Collectors at Each Collector Location for 60 s Collector Delay

		X-coordinate (m)																
		-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.50	-0.25	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00
Y-coordinate (m)	-4.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-4.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	-3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0045	0.0063	0.0045	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000
	-3.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000
	-3.00	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1475	0.2087	0.1475	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000
	-2.75	0.0000	0.0000	0.0000	0.0000	0.0001	0.0032	0.0363	0.2058	0.5832	0.8253	0.5832	0.2058	0.0363	0.0032	0.0001	0.0000	0.0000
	-2.50	0.0000	0.0000	0.0000	0.0000	0.0004	0.0098	0.1117	0.6339	1.7964	2.5421	1.7964	0.6339	0.1117	0.0098	0.0004	0.0000	0.0000
	-2.25	0.0000	0.0000	0.0000	0.0010	0.0236	0.2680	1.5208	4.3098	6.0989	4.3098	1.5208	0.2680	0.0236	0.0010	0.0000	0.0000	0.0000
	-2.00	0.0000	0.0000	0.0000	0.0019	0.0441	0.5008	2.8424	8.0551	11.3991	8.0551	2.8424	0.5008	0.0441	0.0019	0.0000	0.0000	0.0000
	-1.75	0.0000	0.0000	0.0001	0.0028	0.0642	0.7301	4.1436	11.7427	16.6175	11.7427	4.1436	0.7301	0.0642	0.0028	0.0001	0.0000	0.0000
	-1.50	0.0000	0.0000	0.0001	0.0032	0.0734	0.8345	4.7357	13.4208	18.9922	13.4208	4.7357	0.8345	0.0734	0.0032	0.0001	0.0000	0.0000
	-1.25	0.0000	0.0000	0.0000	0.0030	0.0673	0.7646	4.3392	12.2969	17.4017	12.2969	4.3392	0.7646	0.0673	0.0030	0.0001	0.0000	0.0000
	-1.00	0.0000	0.0000	0.0000	0.0024	0.0539	0.6123	3.4747	9.8470	13.9349	9.8470	3.4747	0.6123	0.0539	0.0024	0.0001	0.0000	0.0000
	-0.75	0.0000	0.0000	0.0000	0.0021	0.0471	0.5359	3.0412	8.6185	12.1962	8.6185	3.0412	0.5359	0.0471	0.0021	0.0000	0.0000	0.0000
	-0.50	0.0000	0.0000	0.0001	0.0024	0.0539	0.6123	3.4747	9.8470	13.9349	9.8470	3.4747	0.6123	0.0539	0.0024	0.0001	0.0000	0.0000
	-0.25	0.0000	0.0000	0.0000	0.0030	0.0673	0.7646	4.3392	12.2969	17.4017	12.2969	4.3392	0.7646	0.0673	0.0030	0.0001	0.0000	0.0000
	0.00	0.0000	0.0000	0.0001	0.0032	0.0734	0.8345	4.7357	13.4208	18.9922	13.4208	4.7357	0.8345	0.0734	0.0032	0.0001	0.0000	0.0000
	0.25	0.0000	0.0000	0.0000	0.0028	0.0642	0.7301	4.1436	11.7427	16.6175	11.7427	4.1436	0.7301	0.0642	0.0028	0.0001	0.0000	0.0000
0.50	0.0000	0.0000	0.0000	0.0019	0.0441	0.5008	2.8424	8.0551	11.3991	8.0551	2.8424	0.5008	0.0441	0.0019	0.0000	0.0000	0.0000	
0.75	0.0000	0.0000	0.0000	0.0010	0.0236	0.2680	1.5208	4.3098	6.0989	4.3098	1.5208	0.2680	0.0236	0.0010	0.0000	0.0000	0.0000	
1.00	0.0000	0.0000	0.0000	0.0004	0.0098	0.1117	0.6339	1.7964	2.5421	1.7964	0.6339	0.1117	0.0098	0.0004	0.0000	0.0000	0.0000	
1.25	0.0000	0.0000	0.0000	0.0001	0.0032	0.0363	0.2058	0.5832	0.8253	0.5832	0.2058	0.0363	0.0032	0.0001	0.0000	0.0000	0.0000	
1.50	0.0000	0.0000	0.0000	0.0000	0.0008	0.0092	0.0520	0.1475	0.2087	0.1475	0.0520	0.0092	0.0008	0.0000	0.0000	0.0000	0.0000	
1.75	0.0000	0.0000	0.0000	0.0000	0.0002	0.0018	0.0102	0.0290	0.0411	0.0290	0.0102	0.0018	0.0002	0.0000	0.0000	0.0000	0.0000	
2.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0003	0.0016	0.0045	0.0063	0.0045	0.0016	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	
2.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0005	0.0008	0.0005	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
2.75	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

G. UAS Modeling

1. UAS Time Steps

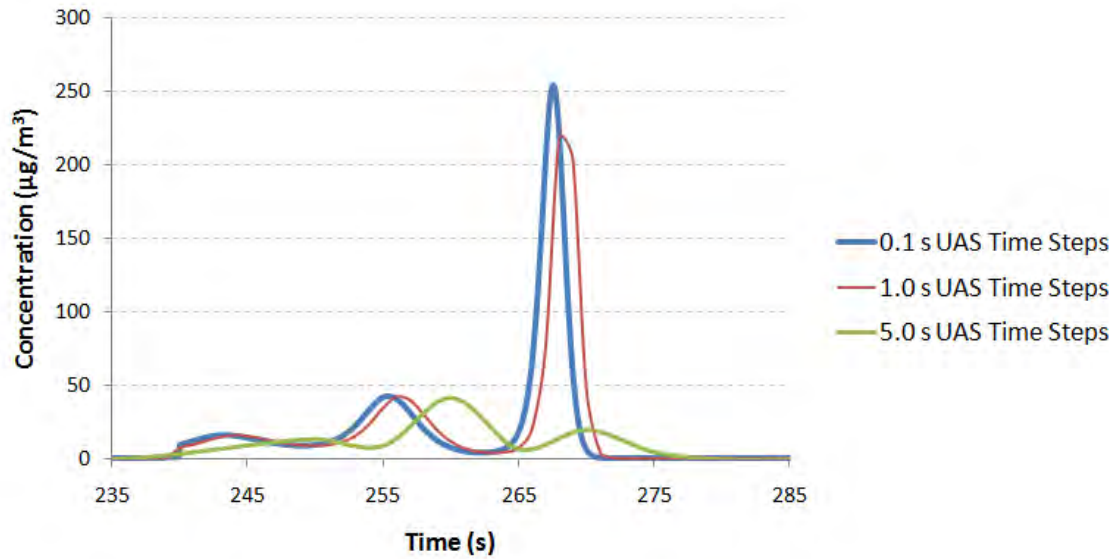


Figure B-1. Aerosol Concentration Experienced by UAS for Each UAS Time Step

2. Uncertainty Radius

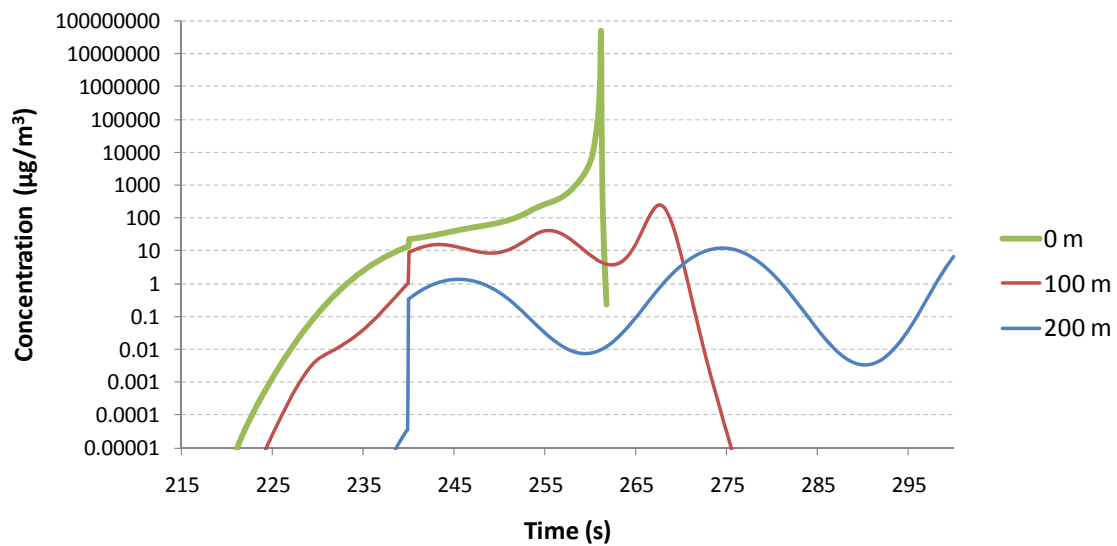


Figure B-2. Aerosol Concentration Experienced by UAS for Each Uncertainty Radius

3. Initial Location

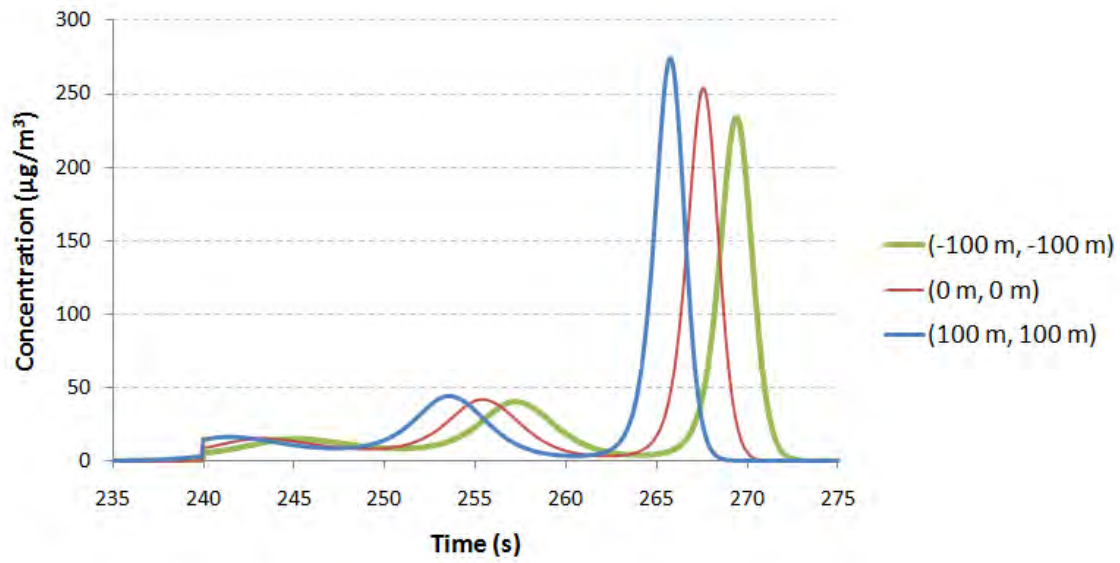


Figure B-3. Aerosol Concentration Experienced by UAS for Each Launch Location

4. Launch Delay

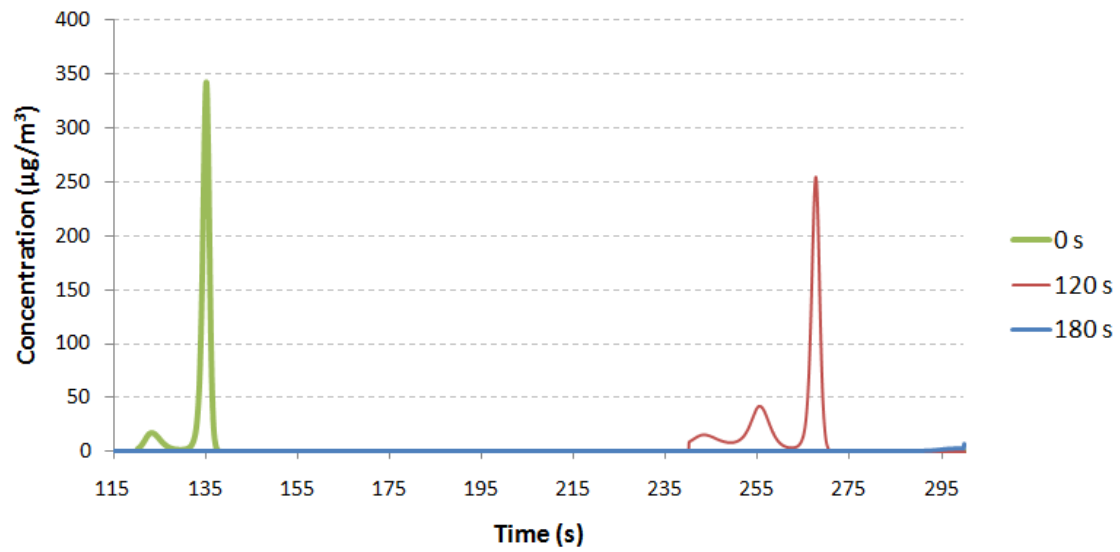


Figure B-4. Aerosol Concentration Experienced by UAS for Each Launch Delay

5. Altitude

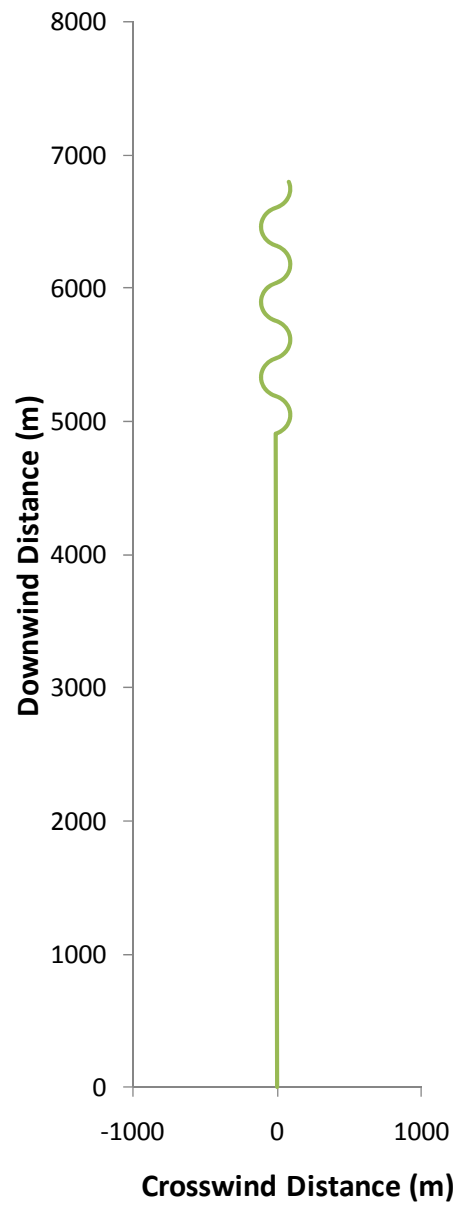


Figure B-5. UAS Flight Path During All Altitude Testing

6. Turning Radius

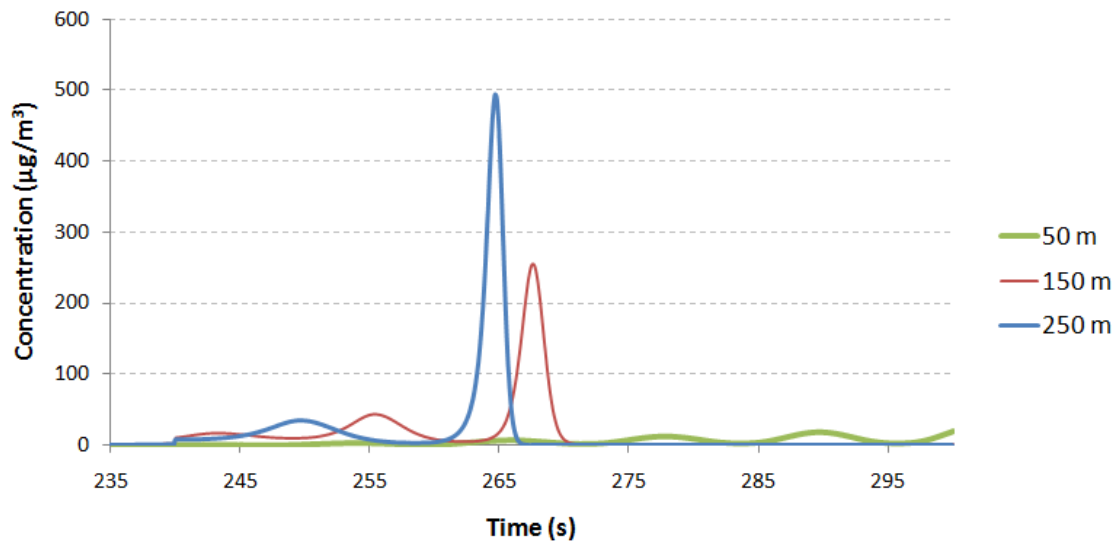


Figure B-6. Aerosol Concentration Experienced by UAS for Each Turning Radius

7. Dash Speed

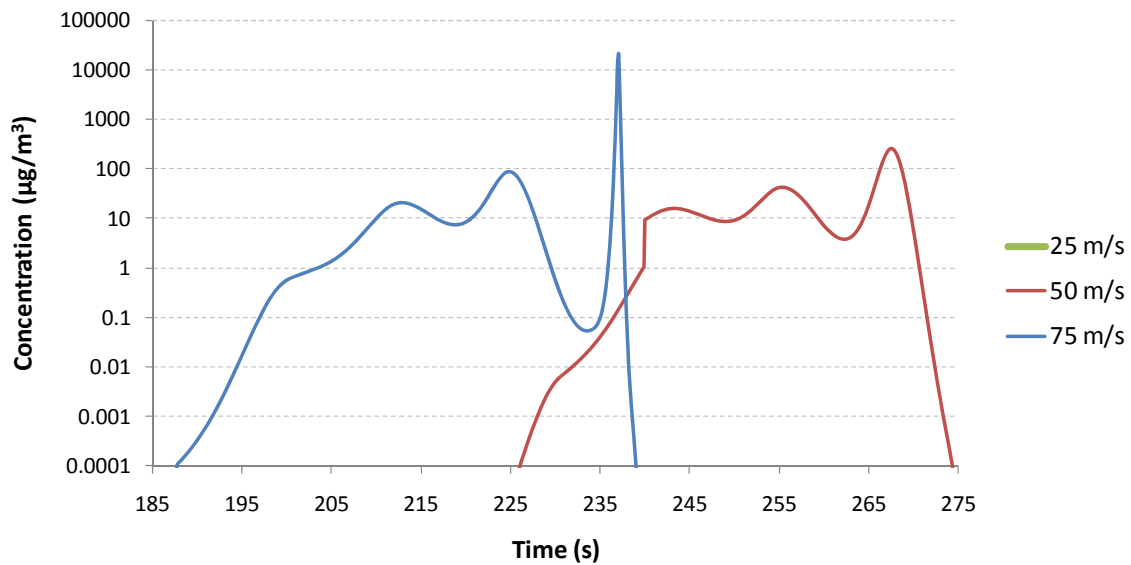


Figure B-7. Aerosol Concentration Experienced by UAS for Each Dash Speed

8. Search Speed

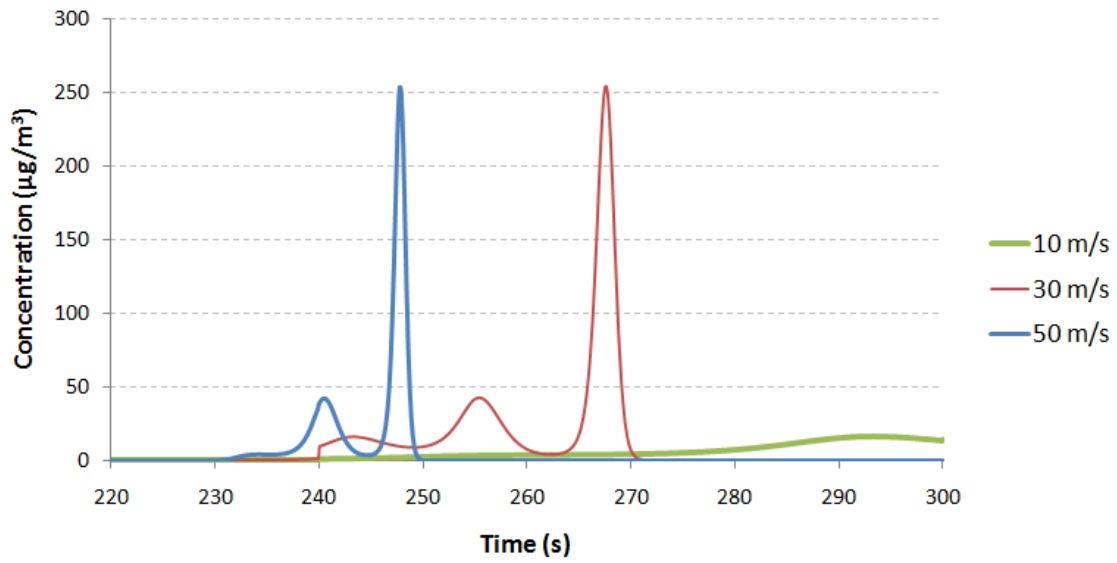


Figure B-8. Aerosol Concentration Experienced by UAS for Each Search Speed

9. Wind Speed

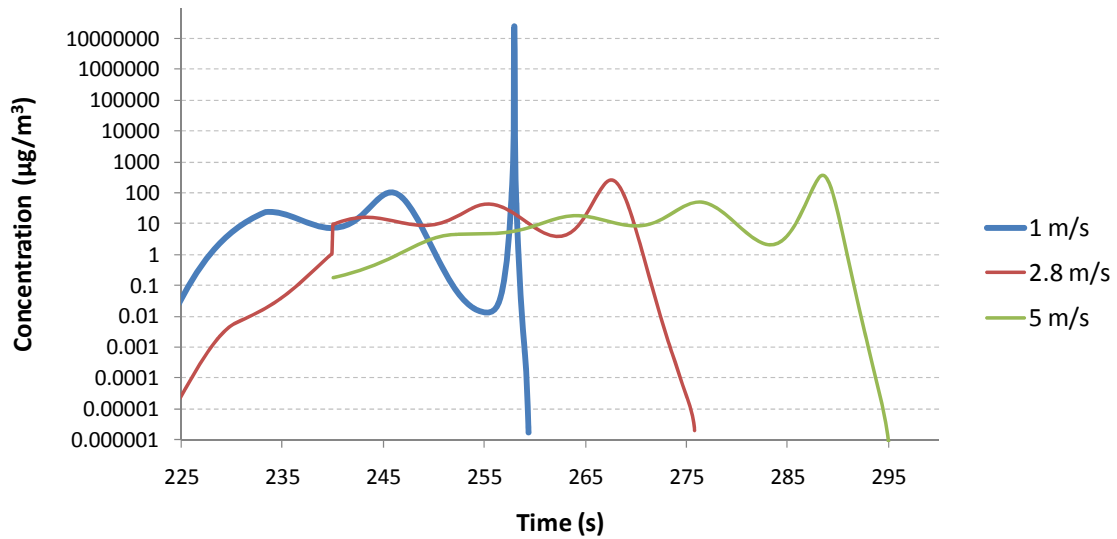


Figure B-9. Aerosol Concentration Experienced by UAS for Each Wind Speed

10. Wind Speed Safety Factor

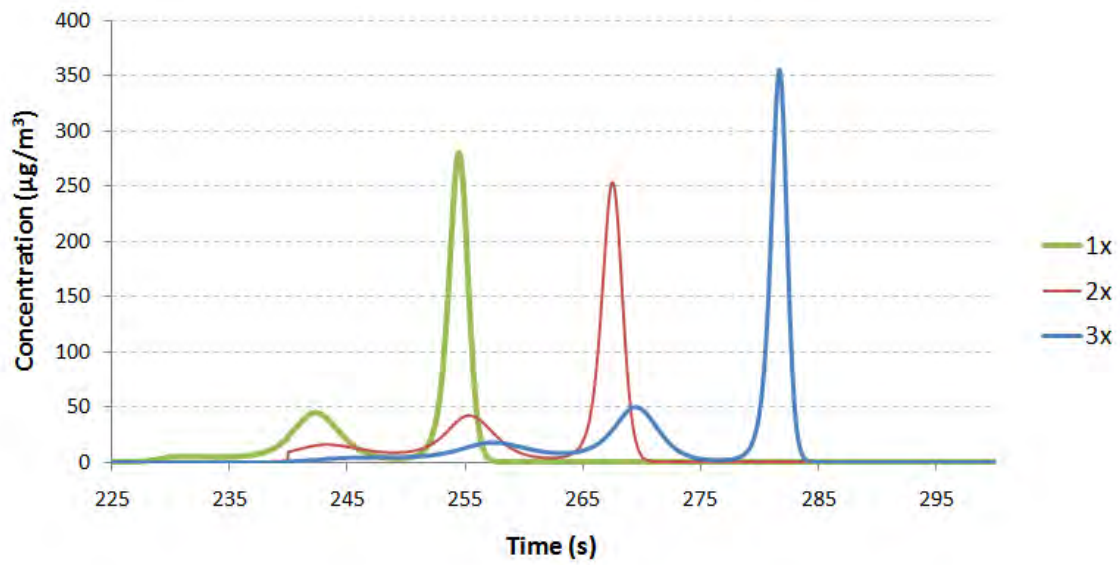


Figure B-10. Aerosol Concentration Experienced by UAS for Each Wind Speed Safety Factor

Appendix C

Puff Tracking Files

The puff tracking data provided in subsection A was used for testing all *CBStrike* core functions and all custom features except the unmanned aerial system (UAS) modeling and the standoff detector modeling. For the standoff detector modeling, the test cloud provided in this section was extended to have a duration of 720 s while maintaining the same rate of increase in the puff masses. The puff tracking data used for testing the UAS functionality is provided in subsection B.

A. Puff Tracking Data for Test Cloud

time	idrop	in	x-dist.	y-dist.	height	sigma_x	sigma_y	sigma_z	shavg	shght	mix. ht	rot	radius	conc.	mass
0	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	3.37E+03	1.66E+03
0	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	3.37E+03	1.66E+03
1	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	3.57E+03	1.76E+03
1	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	3.57E+03	1.76E+03
2	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	3.78E+03	1.86E+03
2	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	3.78E+03	1.86E+03
3	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	3.98E+03	1.96E+03
3	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	3.98E+03	1.96E+03
4	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	4.18E+03	2.06E+03
4	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	4.18E+03	2.06E+03
5	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	4.39E+03	2.16E+03
5	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	4.39E+03	2.16E+03
6	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	4.59E+03	2.26E+03
6	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	4.59E+03	2.26E+03
7	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	4.79E+03	2.36E+03
7	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	4.79E+03	2.36E+03
8	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	4.99E+03	2.46E+03
8	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	4.99E+03	2.46E+03
9	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	5.20E+03	2.56E+03
9	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	5.20E+03	2.56E+03
10	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	5.40E+03	2.66E+03
10	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	5.40E+03	2.66E+03
11	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	5.60E+03	2.76E+03
11	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	5.60E+03	2.76E+03
12	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	5.81E+03	2.86E+03

12	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	5.81E+03	2.86E+03
13	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	6.01E+03	2.96E+03
13	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	6.01E+03	2.96E+03
14	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	6.21E+03	3.06E+03
14	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	6.21E+03	3.06E+03
15	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	6.42E+03	3.16E+03
15	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	6.42E+03	3.16E+03
16	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	6.62E+03	3.26E+03
16	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	6.62E+03	3.26E+03
17	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	6.82E+03	3.36E+03
17	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	6.82E+03	3.36E+03
18	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	7.02E+03	3.46E+03
18	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	7.02E+03	3.46E+03
19	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	7.23E+03	3.56E+03
19	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	7.23E+03	3.56E+03
20	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	7.43E+03	3.66E+03
20	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	7.43E+03	3.66E+03
21	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	7.63E+03	3.76E+03
21	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	7.63E+03	3.76E+03
22	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	7.84E+03	3.86E+03
22	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	7.84E+03	3.86E+03
23	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	8.04E+03	3.96E+03
23	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	8.04E+03	3.96E+03
24	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	8.24E+03	4.06E+03
24	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	8.24E+03	4.06E+03
25	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	8.45E+03	4.16E+03
25	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	8.45E+03	4.16E+03
26	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	8.65E+03	4.26E+03
26	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	8.65E+03	4.26E+03
27	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	8.85E+03	4.36E+03
27	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	8.85E+03	4.36E+03
28	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	9.05E+03	4.46E+03
28	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	9.05E+03	4.46E+03
29	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	9.26E+03	4.56E+03
29	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	9.26E+03	4.56E+03
30	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	9.46E+03	4.66E+03
30	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	9.46E+03	4.66E+03
31	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	9.66E+03	4.76E+03
31	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	9.66E+03	4.76E+03
32	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	9.87E+03	4.86E+03
32	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	9.87E+03	4.86E+03
33	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.01E+04	4.96E+03
33	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.01E+04	4.96E+03

34	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.03E+04	5.06E+03
34	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.03E+04	5.06E+03
35	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.05E+04	5.16E+03
35	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.05E+04	5.16E+03
36	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.07E+04	5.26E+03
36	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.07E+04	5.26E+03
37	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.09E+04	5.36E+03
37	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.09E+04	5.36E+03
38	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.11E+04	5.46E+03
38	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.11E+04	5.46E+03
39	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.13E+04	5.56E+03
39	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.13E+04	5.56E+03
40	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.15E+04	5.66E+03
40	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.15E+04	5.66E+03
41	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.17E+04	5.76E+03
41	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.17E+04	5.76E+03
42	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.19E+04	5.86E+03
42	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.19E+04	5.86E+03
43	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.21E+04	5.96E+03
43	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.21E+04	5.96E+03
44	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.23E+04	6.06E+03
44	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.23E+04	6.06E+03
45	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.25E+04	6.16E+03
45	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.25E+04	6.16E+03
46	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.27E+04	6.26E+03
46	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.27E+04	6.26E+03
47	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.29E+04	6.36E+03
47	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.29E+04	6.36E+03
48	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.31E+04	6.46E+03
48	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.31E+04	6.46E+03
49	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.33E+04	6.56E+03
49	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.33E+04	6.56E+03
50	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.35E+04	6.66E+03
50	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.35E+04	6.66E+03
51	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.37E+04	6.76E+03
51	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.37E+04	6.76E+03
52	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.39E+04	6.86E+03
52	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.39E+04	6.86E+03
53	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.41E+04	6.96E+03
53	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.41E+04	6.96E+03
54	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.43E+04	7.06E+03
54	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.43E+04	7.06E+03
55	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.45E+04	7.16E+03

55	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.45E+04	7.16E+03
56	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.47E+04	7.26E+03
56	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.47E+04	7.26E+03
57	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.49E+04	7.36E+03
57	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.49E+04	7.36E+03
58	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.51E+04	7.46E+03
58	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.51E+04	7.46E+03
59	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.53E+04	7.56E+03
59	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.53E+04	7.56E+03
60	1	1	0	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.56E+04	7.66E+03
60	1	2	1.5	0	2	0.5	0.3	0.3	0	0	1400	0	5.3	1.56E+04	7.66E+03

B. Puff Tracking Data Used for Testing UAS Modeling

The puff tracking data provided in this section was only used for testing the UAS modeling.

time	idrop	in	x-dist.	y-dist.	height	sigma_x	sigma_y	sigma_z	shavg	shght	mix. Ht	cld rot	radius	conc.	mass
0	1	1	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
0	2	1	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
0	1	2	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
0	2	2	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
0	1	3	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
0	2	3	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
0	1	4	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
0	2	4	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
0	1	5	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
0	2	5	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
0	1	6	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
0	2	6	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
0	1	7	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
0	2	7	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
0	1	8	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
0	2	8	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
0	1	9	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
0	2	9	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
0	1	10	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
0	2	10	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
0	1	11	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
0	2	11	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
60	1	1	112.5	0	2	31.7	14.5	13.2	0	0	231.1	0	1.3	4.95E-02	2.78E+03
60	2	1	112.5	0	2	31.7	14.5	13.2	0	0	231.1	0	1.2	2.35E+01	1.31E+06
60	1	2	109.9	0	2	31.2	14.2	12.9	0	0	231.1	0	1.3	5.24E-02	2.78E+03
60	2	2	109.9	0	2	31.2	14.2	12.9	0	0	231.1	0	1.2	2.48E+01	1.31E+06
60	1	3	107.7	0	2	30.7	13.9	12.7	0	0	231.1	0	1.3	5.54E-02	2.78E+03
60	2	3	107.7	0	2	30.7	13.9	12.7	0	0	231.1	0	1.2	2.63E+01	1.31E+06
60	1	4	105.5	0	2	30.2	13.6	12.4	0	0	231.1	0	1.3	5.86E-02	2.78E+03
60	2	4	105.5	0	2	30.2	13.6	12.4	0	0	231.1	0	1.2	2.78E+01	1.31E+06
60	1	5	103.2	0	2	29.7	13.3	12.2	0	0	231.1	0	1.3	6.21E-02	2.78E+03
60	2	5	103.2	0	2	29.7	13.3	12.2	0	0	231.1	0	1.2	2.95E+01	1.31E+06
60	1	6	101	0	2	29.2	13	12	0	0	231.1	0	1.3	6.59E-02	2.78E+03
60	2	6	101	0	2	29.2	13	12	0	0	231.1	0	1.2	3.12E+01	1.31E+06
60	1	7	98.7	0	2	28.7	12.7	11.7	0	0	231.1	0	1.3	6.99E-02	2.78E+03
60	2	7	98.7	0	2	28.7	12.7	11.7	0	0	231.1	0	1.2	3.31E+01	1.31E+06
60	1	8	96.4	0	2	28.1	12.4	11.5	0	0	231.1	0	1.3	7.42E-02	2.78E+03

60	2	8	96.4	0	2	28.1	12.4	11.5	0	0	231.1	0	1.2	3.52E+01	1.31E+06
60	1	9	94.1	0	2	27.6	12.1	11.2	0	0	231.1	0	1.3	7.88E-02	2.78E+03
60	2	9	94.1	0	2	27.6	12.1	11.2	0	0	231.1	0	1.2	3.74E+01	1.31E+06
60	1	10	91.8	0	2	27.1	11.9	11	0	0	231.1	0	1.3	8.38E-02	2.78E+03
60	2	10	91.8	0	2	27.1	11.9	11	0	0	231.1	0	1.2	3.98E+01	1.31E+06
60	1	11	89.5	0	2	26.6	11.6	10.8	0	0	231.1	0	1.3	8.92E-02	2.78E+03
60	2	11	89.5	0	2	26.6	11.6	10.8	0	0	231.1	0	1.2	4.23E+01	1.31E+06
60	1	12	87.1	0	2	26.1	11.3	10.5	0	0	231.1	0	1.3	9.51E-02	2.78E+03
60	2	12	87.1	0	2	26.1	11.3	10.5	0	0	231.1	0	1.2	4.51E+01	1.31E+06
60	1	13	84.7	0	2	25.6	11	10.3	0	0	231.1	0	1.3	1.02E-01	2.78E+03
60	2	13	84.7	0	2	25.6	11	10.3	0	0	231.1	0	1.2	4.82E+01	1.31E+06
60	1	14	82.7	0	2	25.1	10.8	10.1	0	0	231.1	0	1.3	1.09E-01	2.78E+03
60	2	14	82.7	0	2	25.1	10.8	10.1	0	0	231.1	0	1.2	5.16E+01	1.31E+06
60	1	15	80.7	0	2	24.6	10.5	9.8	0	0	231.1	0	1.3	1.17E-01	2.78E+03
60	2	15	80.7	0	2	24.6	10.5	9.8	0	0	231.1	0	1.2	5.52E+01	1.31E+06
60	1	16	78.6	0	2	24.1	10.2	9.6	0	0	231.1	0	1.3	1.25E-01	2.78E+03
60	2	16	78.6	0	2	24.1	10.2	9.6	0	0	231.1	0	1.2	5.92E+01	1.31E+06
60	1	17	76.6	0	2	23.6	9.9	9.4	0	0	231.1	0	1.3	1.34E-01	2.78E+03
60	2	17	76.6	0	2	23.6	9.9	9.4	0	0	231.1	0	1.2	6.35E+01	1.31E+06
60	1	18	74.5	0	2	23.1	9.7	9.1	0	0	231.1	0	1.3	1.44E-01	2.78E+03
60	2	18	74.5	0	2	23.1	9.7	9.1	0	0	231.1	0	1.2	6.82E+01	1.31E+06
60	1	19	72.4	0	2	22.6	9.4	8.9	0	0	231.1	0	1.3	1.55E-01	2.78E+03
60	2	19	72.4	0	2	22.6	9.4	8.9	0	0	231.1	0	1.2	7.33E+01	1.31E+06
60	1	20	70.3	0	2	22.1	9.2	8.7	0	0	231.1	0	1.3	1.66E-01	2.78E+03
60	2	20	70.3	0	2	22.1	9.2	8.7	0	0	231.1	0	1.2	7.88E+01	1.31E+06
60	1	21	68.2	0	2	21.6	8.9	8.5	0	0	231.1	0	1.3	1.79E-01	2.78E+03
60	2	21	68.2	0	2	21.6	8.9	8.5	0	0	231.1	0	1.2	8.50E+01	1.31E+06
60	1	22	66.1	0	2	21.1	8.7	8.2	0	0	231.1	0	1.3	1.93E-01	2.78E+03
60	2	22	66.1	0	2	21.1	8.7	8.2	0	0	231.1	0	1.2	9.17E+01	1.31E+06
60	1	23	63.9	0	2	20.6	8.4	8	0	0	231.1	0	1.3	2.09E-01	2.78E+03
60	2	23	63.9	0	2	20.6	8.4	8	0	0	231.1	0	1.2	9.91E+01	1.31E+06
60	1	24	61.8	0	2	20.1	8.2	7.8	0	0	231.1	0	1.3	2.27E-01	2.78E+03
60	2	24	61.8	0	2	20.1	8.2	7.8	0	0	231.1	0	1.2	1.08E+02	1.31E+06
60	1	25	60	0	2	19.6	7.9	7.5	0	0	231.1	0	1.3	2.47E-01	2.78E+03
60	2	25	60	0	2	19.6	7.9	7.5	0	0	231.1	0	1.2	1.17E+02	1.31E+06
60	1	26	58.2	0	2	19.1	7.6	7.3	0	0	231.1	0	1.3	2.69E-01	2.78E+03
60	2	26	58.2	0	2	19.1	7.6	7.3	0	0	231.1	0	1.2	1.27E+02	1.31E+06
60	1	27	56.4	0	2	18.6	7.4	7.1	0	0	231.1	0	1.3	2.93E-01	2.78E+03
60	2	27	56.4	0	2	18.6	7.4	7.1	0	0	231.1	0	1.2	1.39E+02	1.31E+06
60	1	28	54.5	0	2	18.1	7.2	6.9	0	0	231.1	0	1.3	3.19E-01	2.78E+03
60	2	28	54.5	0	2	18.1	7.2	6.9	0	0	231.1	0	1.2	1.51E+02	1.31E+06
60	1	29	52.7	0	2	17.6	6.9	6.7	0	0	231.1	0	1.3	3.49E-01	2.78E+03
60	2	29	52.7	0	2	17.6	6.9	6.7	0	0	231.1	0	1.2	1.65E+02	1.31E+06

60	1	30	50.9	0	2	17.2	6.7	6.5	0	0	231.1	0	1.3	3.82E-01	2.78E+03
60	2	30	50.9	0	2	17.2	6.7	6.5	0	0	231.1	0	1.2	1.81E+02	1.31E+06
60	1	31	49	0	2	16.7	6.5	6.2	0	0	231.1	0	1.3	4.18E-01	2.79E+03
60	2	31	49	0	2	16.7	6.5	6.2	0	0	231.1	0	1.2	1.98E+02	1.31E+06
60	1	32	47.2	0	2	16.2	6.2	6	0	0	231.1	0	1.3	4.60E-01	2.79E+03
60	2	32	47.2	0	2	16.2	6.2	6	0	0	231.1	0	1.2	2.18E+02	1.31E+06
60	1	33	45.3	0	2	15.7	6	5.8	0	0	231.1	0	1.3	5.06E-01	2.79E+03
60	2	33	45.3	0	2	15.7	6	5.8	0	0	231.1	0	1.2	2.40E+02	1.31E+06
60	1	34	43.4	0	2	15.2	5.8	5.6	0	0	231.1	0	1.3	5.59E-01	2.79E+03
60	2	34	43.4	0	2	15.2	5.8	5.6	0	0	231.1	0	1.2	2.65E+02	1.31E+06
60	1	35	41.5	0	2	14.7	5.5	5.4	0	0	231.1	0	1.3	6.22E-01	2.79E+03
60	2	35	41.5	0	2	14.7	5.5	5.4	0	0	231.1	0	1.2	2.95E+02	1.32E+06
60	1	36	40	0	2	14.3	5.3	5.2	0	0	231.1	0	1.3	6.93E-01	2.79E+03
60	2	36	40	0	2	14.3	5.3	5.2	0	0	231.1	0	1.2	3.28E+02	1.32E+06
60	1	37	38.4	0	2	13.8	5.1	5	0	0	231.1	0	1.3	7.74E-01	2.79E+03
60	2	37	38.4	0	2	13.8	5.1	5	0	0	231.1	0	1.2	3.67E+02	1.32E+06
60	1	38	36.9	0	2	13.3	4.9	4.8	0	0	231.1	0	1.3	8.65E-01	2.79E+03
60	2	38	36.9	0	2	13.3	4.9	4.8	0	0	231.1	0	1.2	4.10E+02	1.32E+06
60	1	39	35.4	0	2	12.8	4.7	4.6	0	0	231.1	0	1.3	9.69E-01	2.79E+03
60	2	39	35.4	0	2	12.8	4.7	4.6	0	0	231.1	0	1.2	4.59E+02	1.32E+06
60	1	40	33.8	0	2	12.3	4.4	4.4	0	0	231.1	0	1.3	1.09E+00	2.79E+03
60	2	40	33.8	0	2	12.3	4.4	4.4	0	0	231.1	0	1.2	5.15E+02	1.32E+06
60	1	41	32.3	0	2	11.9	4.2	4.2	0	0	231.1	0	1.3	1.22E+00	2.79E+03
60	2	41	32.3	0	2	11.9	4.2	4.2	0	0	231.1	0	1.2	5.80E+02	1.32E+06
60	1	42	30.7	0	2	11.4	4	4	0	0	231.1	0	1.3	1.38E+00	2.79E+03
60	2	42	30.7	0	2	11.4	4	4	0	0	231.1	0	1.2	6.54E+02	1.32E+06
60	1	43	29.1	0	2	10.9	3.9	3.8	0	0	231.1	0	1.3	1.56E+00	2.79E+03
60	2	43	29.1	0	2	10.9	3.9	3.8	0	0	231.1	0	1.2	7.39E+02	1.32E+06
60	1	44	27.5	0	2	10.5	3.7	3.6	0	0	231.1	0	1.3	1.77E+00	2.79E+03
60	2	44	27.5	0	2	10.5	3.7	3.6	0	0	231.1	0	1.2	8.39E+02	1.32E+06
60	1	45	25.9	0	2	10	3.5	3.5	0	0	231.1	0	1.3	2.03E+00	2.79E+03
60	2	45	25.9	0	2	10	3.5	3.5	0	0	231.1	0	1.2	9.60E+02	1.32E+06
60	1	46	24.4	0	2	9.5	3.3	3.3	0	0	231.1	0	1.3	2.36E+00	2.79E+03
60	2	46	24.4	0	2	9.5	3.3	3.3	0	0	231.1	0	1.2	1.12E+03	1.32E+06
60	1	47	23.3	0	2	9	3	3.1	0	0	231.1	0	1.3	2.75E+00	2.79E+03
60	2	47	23.3	0	2	9	3	3.1	0	0	231.1	0	1.2	1.30E+03	1.32E+06
60	1	48	22.1	0	2	8.6	2.9	2.9	0	0	231.1	0	1.3	3.23E+00	2.79E+03
60	2	48	22.1	0	2	8.6	2.9	2.9	0	0	231.1	0	1.2	1.53E+03	1.32E+06
60	1	49	20.9	0	2	8.1	2.7	2.7	0	0	231.1	0	1.3	3.79E+00	2.79E+03
60	2	49	20.9	0	2	8.1	2.7	2.7	0	0	231.1	0	1.2	1.79E+03	1.32E+06
60	1	50	19.7	0	2	7.6	2.5	2.5	0	0	231.1	0	1.3	4.48E+00	2.79E+03
60	2	50	19.7	0	2	7.6	2.5	2.5	0	0	231.1	0	1.2	2.12E+03	1.32E+06
60	1	51	18.6	0	2	7.2	2.3	2.3	0	0	231.1	0	1.3	5.33E+00	2.79E+03

60	2	51	18.6	0	2	7.2	2.3	2.3	0	0	231.1	0	1.2	2.52E+03	1.32E+06
60	1	52	17.4	0	2	6.7	2.2	2.2	0	0	231.1	0	1.3	6.37E+00	2.79E+03
60	2	52	17.4	0	2	6.7	2.2	2.2	0	0	231.1	0	1.2	3.01E+03	1.32E+06
60	1	53	16.2	0	2	6.3	2	2	0	0	231.1	0	1.3	7.70E+00	2.79E+03
60	2	53	16.2	0	2	6.3	2	2	0	0	231.1	0	1.2	3.64E+03	1.32E+06
60	1	54	15	0	2	5.8	1.9	1.9	0	0	231.1	0	1.3	9.41E+00	2.79E+03
60	2	54	15	0	2	5.8	1.9	1.9	0	0	231.1	0	1.2	4.45E+03	1.32E+06
60	1	55	13.8	0	2	5.3	1.7	1.7	0	0	231.1	0	1.3	1.17E+01	2.79E+03
60	2	55	13.8	0	2	5.3	1.7	1.7	0	0	231.1	0	1.2	5.53E+03	1.32E+06
60	1	56	12.7	0	2	4.9	1.6	1.6	0	0	231.1	0	1.3	1.51E+01	2.79E+03
60	2	56	12.7	0	2	4.9	1.6	1.6	0	0	231.1	0	1.2	7.14E+03	1.32E+06
60	1	57	11.5	0	2	4.4	1.3	1.4	0	0	231.1	0	1.3	2.17E+01	2.79E+03
60	2	57	11.5	0	2	4.4	1.3	1.4	0	0	231.1	0	1.2	1.02E+04	1.32E+06
60	1	58	10.3	0	2	4	1.2	1.2	0	0	231.1	0	1.3	3.27E+01	2.79E+03
60	2	58	10.3	0	2	4	1.2	1.2	0	0	231.1	0	1.2	1.54E+04	1.32E+06
60	1	59	9.1	0	2	3.5	1	1	0	0	231.1	0	1.3	5.19E+01	2.79E+03
60	2	59	9.1	0	2	3.5	1	1	0	0	231.1	0	1.2	2.45E+04	1.32E+06
60	1	60	8	0	2	3	0.8	0.8	0	0	231.1	0	1.3	8.70E+01	2.79E+03
60	2	60	8	0	2	3	0.8	0.8	0	0	231.1	0	1.2	4.11E+04	1.32E+06
60	1	61	6.8	0	2	2.6	0.7	0.7	0	0	231.1	0	1.3	1.55E+02	2.79E+03
60	2	61	6.8	0	2	2.6	0.7	0.7	0	0	231.1	0	1.2	7.34E+04	1.32E+06
60	1	62	5.6	0	2	2.2	0.5	0.5	0	0	231.1	0	1.3	2.98E+02	2.79E+03
60	2	62	5.6	0	2	2.2	0.5	0.5	0	0	231.1	0	1.2	1.41E+05	1.32E+06
60	1	63	4.4	0	2	1.7	0.4	0.4	0	0	231.1	0	1.3	6.13E+02	2.79E+03
60	2	63	4.4	0	2	1.7	0.4	0.4	0	0	231.1	0	1.2	2.90E+05	1.32E+06
60	1	64	3.2	0	2	1.3	0.3	0.3	0	0	231.1	0	1.3	1.31E+03	2.79E+03
60	2	64	3.2	0	2	1.3	0.3	0.3	0	0	231.1	0	1.2	6.17E+05	1.32E+06
60	1	65	2.1	0	2	0.9	0.3	0.3	0	0	231.1	0	1.3	2.65E+03	2.79E+03
60	2	65	2.1	0	2	0.9	0.3	0.3	0	0	231.1	0	1.2	1.25E+06	1.32E+06
60	1	66	0.9	0	2	0.6	0.3	0.3	0	0	231.1	0	1.3	4.69E+03	2.79E+03
60	2	66	0.9	0	2	0.6	0.3	0.3	0	0	231.1	0	1.2	2.21E+06	1.32E+06
60	1	67	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
60	2	67	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
60	1	68	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
60	2	68	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
60	1	69	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
60	2	69	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
60	1	70	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
60	2	70	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
60	1	71	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
60	2	71	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
60	1	72	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
60	2	72	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06

60	1	73	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
60	2	73	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
60	1	74	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
60	2	74	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
60	1	75	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
60	2	75	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
60	1	76	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
60	2	76	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
60	1	77	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
60	2	77	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
120	1	1	299.7	0	2	67.5	36.9	29.8	0	0	231.1	0	1.3	4.10E-03	2.78E+03
120	2	1	299.7	0	2	67.5	36.9	29.8	0	0	231.1	0	1.2	1.94E+00	1.31E+06
120	1	2	296.3	0	2	66.9	36.5	29.5	0	0	231.1	0	1.3	4.21E-03	2.78E+03
120	2	2	296.3	0	2	66.9	36.5	29.5	0	0	231.1	0	1.2	2.00E+00	1.31E+06
120	1	3	293.2	0	2	66.4	36.1	29.3	0	0	231.1	0	1.3	4.33E-03	2.78E+03
120	2	3	293.2	0	2	66.4	36.1	29.3	0	0	231.1	0	1.2	2.05E+00	1.31E+06
120	1	4	290.1	0	2	65.8	35.8	29	0	0	231.1	0	1.3	4.45E-03	2.78E+03
120	2	4	290.1	0	2	65.8	35.8	29	0	0	231.1	0	1.2	2.11E+00	1.31E+06
120	1	5	287	0	2	65.2	35.4	28.8	0	0	231.1	0	1.3	4.58E-03	2.78E+03
120	2	5	287	0	2	65.2	35.4	28.8	0	0	231.1	0	1.2	2.17E+00	1.31E+06
120	1	6	283.9	0	2	64.7	35	28.5	0	0	231.1	0	1.3	4.71E-03	2.78E+03
120	2	6	283.9	0	2	64.7	35	28.5	0	0	231.1	0	1.2	2.23E+00	1.31E+06
120	1	7	280.8	0	2	64.1	34.6	28.3	0	0	231.1	0	1.3	4.84E-03	2.78E+03
120	2	7	280.8	0	2	64.1	34.6	28.3	0	0	231.1	0	1.2	2.30E+00	1.31E+06
120	1	8	277.7	0	2	63.5	34.3	28	0	0	231.1	0	1.3	4.98E-03	2.78E+03
120	2	8	277.7	0	2	63.5	34.3	28	0	0	231.1	0	1.2	2.36E+00	1.31E+06
120	1	9	274.5	0	2	63	33.9	27.7	0	0	231.1	0	1.3	5.13E-03	2.78E+03
120	2	9	274.5	0	2	63	33.9	27.7	0	0	231.1	0	1.2	2.43E+00	1.31E+06
120	1	10	271.3	0	2	62.4	33.5	27.5	0	0	231.1	0	1.3	5.28E-03	2.78E+03
120	2	10	271.3	0	2	62.4	33.5	27.5	0	0	231.1	0	1.2	2.50E+00	1.31E+06
120	1	11	268.1	0	2	61.9	33.2	27.2	0	0	231.1	0	1.3	5.44E-03	2.78E+03
120	2	11	268.1	0	2	61.9	33.2	27.2	0	0	231.1	0	1.2	2.58E+00	1.31E+06
120	1	12	264.8	0	2	61.3	32.8	27	0	0	231.1	0	1.3	5.60E-03	2.78E+03
120	2	12	264.8	0	2	61.3	32.8	27	0	0	231.1	0	1.2	2.66E+00	1.31E+06
120	1	13	261.5	0	2	60.7	32.4	26.7	0	0	231.1	0	1.3	5.77E-03	2.78E+03
120	2	13	261.5	0	2	60.7	32.4	26.7	0	0	231.1	0	1.2	2.74E+00	1.31E+06
120	1	14	258.6	0	2	60.2	32	26.5	0	0	231.1	0	1.3	5.95E-03	2.78E+03
120	2	14	258.6	0	2	60.2	32	26.5	0	0	231.1	0	1.2	2.82E+00	1.31E+06
120	1	15	255.6	0	2	59.6	31.7	26.2	0	0	231.1	0	1.3	6.13E-03	2.78E+03
120	2	15	255.6	0	2	59.6	31.7	26.2	0	0	231.1	0	1.2	2.91E+00	1.31E+06
120	1	16	252.6	0	2	59.1	31.3	26	0	0	231.1	0	1.3	6.32E-03	2.78E+03
120	2	16	252.6	0	2	59.1	31.3	26	0	0	231.1	0	1.2	3.00E+00	1.31E+06
120	1	17	249.6	0	2	58.5	31	25.7	0	0	231.1	0	1.3	6.52E-03	2.78E+03

120	2	17	249.6	0	2	58.5	31	25.7	0	0	231.1	0	1.2	3.09E+00	1.31E+06
120	1	18	246.6	0	2	57.9	30.6	25.4	0	0	231.1	0	1.3	6.73E-03	2.78E+03
120	2	18	246.6	0	2	57.9	30.6	25.4	0	0	231.1	0	1.2	3.19E+00	1.31E+06
120	1	19	243.6	0	2	57.4	30.2	25.2	0	0	231.1	0	1.3	6.94E-03	2.78E+03
120	2	19	243.6	0	2	57.4	30.2	25.2	0	0	231.1	0	1.2	3.29E+00	1.31E+06
120	1	20	240.6	0	2	56.8	29.9	24.9	0	0	231.1	0	1.3	7.16E-03	2.78E+03
120	2	20	240.6	0	2	56.8	29.9	24.9	0	0	231.1	0	1.2	3.40E+00	1.31E+06
120	1	21	237.5	0	2	56.3	29.5	24.7	0	0	231.1	0	1.3	7.40E-03	2.78E+03
120	2	21	237.5	0	2	56.3	29.5	24.7	0	0	231.1	0	1.2	3.51E+00	1.31E+06
120	1	22	234.4	0	2	55.7	29.2	24.4	0	0	231.1	0	1.3	7.64E-03	2.78E+03
120	2	22	234.4	0	2	55.7	29.2	24.4	0	0	231.1	0	1.2	3.62E+00	1.31E+06
120	1	23	231.2	0	2	55.2	28.8	24.2	0	0	231.1	0	1.3	7.89E-03	2.78E+03
120	2	23	231.2	0	2	55.2	28.8	24.2	0	0	231.1	0	1.2	3.74E+00	1.31E+06
120	1	24	228.1	0	2	54.6	28.4	23.9	0	0	231.1	0	1.3	8.16E-03	2.78E+03
120	2	24	228.1	0	2	54.6	28.4	23.9	0	0	231.1	0	1.2	3.87E+00	1.31E+06
120	1	25	225.2	0	2	54.1	28.1	23.7	0	0	231.1	0	1.3	8.44E-03	2.78E+03
120	2	25	225.2	0	2	54.1	28.1	23.7	0	0	231.1	0	1.2	4.00E+00	1.31E+06
120	1	26	222.4	0	2	53.5	27.7	23.4	0	0	231.1	0	1.3	8.73E-03	2.78E+03
120	2	26	222.4	0	2	53.5	27.7	23.4	0	0	231.1	0	1.2	4.14E+00	1.31E+06
120	1	27	219.5	0	2	53	27.4	23.2	0	0	231.1	0	1.3	9.03E-03	2.78E+03
120	2	27	219.5	0	2	53	27.4	23.2	0	0	231.1	0	1.2	4.28E+00	1.31E+06
120	1	28	216.7	0	2	52.4	27	22.9	0	0	231.1	0	1.3	9.34E-03	2.78E+03
120	2	28	216.7	0	2	52.4	27	22.9	0	0	231.1	0	1.2	4.43E+00	1.31E+06
120	1	29	213.8	0	2	51.9	26.7	22.6	0	0	231.1	0	1.3	9.67E-03	2.78E+03
120	2	29	213.8	0	2	51.9	26.7	22.6	0	0	231.1	0	1.2	4.59E+00	1.31E+06
120	1	30	210.9	0	2	51.3	26.3	22.4	0	0	231.1	0	1.3	1.00E-02	2.78E+03
120	2	30	210.9	0	2	51.3	26.3	22.4	0	0	231.1	0	1.2	4.75E+00	1.31E+06
120	1	31	208	0	2	50.8	26	22.1	0	0	231.1	0	1.3	1.04E-02	2.78E+03
120	2	31	208	0	2	50.8	26	22.1	0	0	231.1	0	1.2	4.92E+00	1.31E+06
120	1	32	205	0	2	50.2	25.6	21.9	0	0	231.1	0	1.3	1.08E-02	2.78E+03
120	2	32	205	0	2	50.2	25.6	21.9	0	0	231.1	0	1.2	5.10E+00	1.31E+06
120	1	33	202	0	2	49.7	25.3	21.6	0	0	231.1	0	1.3	1.11E-02	2.78E+03
120	2	33	202	0	2	49.7	25.3	21.6	0	0	231.1	0	1.2	5.28E+00	1.31E+06
120	1	34	199	0	2	49.1	25	21.4	0	0	231.1	0	1.3	1.16E-02	2.78E+03
120	2	34	199	0	2	49.1	25	21.4	0	0	231.1	0	1.2	5.48E+00	1.31E+06
120	1	35	196	0	2	48.6	24.6	21.1	0	0	231.1	0	1.3	1.20E-02	2.78E+03
120	2	35	196	0	2	48.6	24.6	21.1	0	0	231.1	0	1.2	5.69E+00	1.31E+06
120	1	36	193.3	0	2	48.1	24.3	20.9	0	0	231.1	0	1.3	1.24E-02	2.78E+03
120	2	36	193.3	0	2	48.1	24.3	20.9	0	0	231.1	0	1.2	5.90E+00	1.31E+06
120	1	37	190.6	0	2	47.5	23.9	20.6	0	0	231.1	0	1.3	1.29E-02	2.78E+03
120	2	37	190.6	0	2	47.5	23.9	20.6	0	0	231.1	0	1.2	6.13E+00	1.31E+06
120	1	38	187.9	0	2	47	23.6	20.3	0	0	231.1	0	1.3	1.34E-02	2.78E+03
120	2	38	187.9	0	2	47	23.6	20.3	0	0	231.1	0	1.2	6.37E+00	1.31E+06

120	1	39	185.1	0	2	46.4	23.2	20.1	0	0	231.1	0	1.3	1.40E-02	2.78E+03
120	2	39	185.1	0	2	46.4	23.2	20.1	0	0	231.1	0	1.2	6.62E+00	1.31E+06
120	1	40	182.4	0	2	45.9	22.9	19.8	0	0	231.1	0	1.3	1.45E-02	2.78E+03
120	2	40	182.4	0	2	45.9	22.9	19.8	0	0	231.1	0	1.2	6.88E+00	1.31E+06
120	1	41	179.6	0	2	45.4	22.6	19.6	0	0	231.1	0	1.3	1.51E-02	2.78E+03
120	2	41	179.6	0	2	45.4	22.6	19.6	0	0	231.1	0	1.2	7.15E+00	1.31E+06
120	1	42	176.8	0	2	44.8	22.2	19.3	0	0	231.1	0	1.3	1.57E-02	2.78E+03
120	2	42	176.8	0	2	44.8	22.2	19.3	0	0	231.1	0	1.2	7.44E+00	1.31E+06
120	1	43	174	0	2	44.3	21.9	19.1	0	0	231.1	0	1.3	1.63E-02	2.78E+03
120	2	43	174	0	2	44.3	21.9	19.1	0	0	231.1	0	1.2	7.74E+00	1.31E+06
120	1	44	171.2	0	2	43.7	21.6	18.8	0	0	231.1	0	1.3	1.70E-02	2.78E+03
120	2	44	171.2	0	2	43.7	21.6	18.8	0	0	231.1	0	1.2	8.06E+00	1.31E+06
120	1	45	168.3	0	2	43.2	21.3	18.6	0	0	231.1	0	1.3	1.77E-02	2.78E+03
120	2	45	168.3	0	2	43.2	21.3	18.6	0	0	231.1	0	1.2	8.40E+00	1.31E+06
120	1	46	165.4	0	2	42.7	20.9	18.3	0	0	231.1	0	1.3	1.85E-02	2.78E+03
120	2	46	165.4	0	2	42.7	20.9	18.3	0	0	231.1	0	1.2	8.76E+00	1.31E+06
120	1	47	162.9	0	2	42.1	20.6	18.1	0	0	231.1	0	1.3	1.93E-02	2.78E+03
120	2	47	162.9	0	2	42.1	20.6	18.1	0	0	231.1	0	1.2	9.14E+00	1.31E+06
120	1	48	160.3	0	2	41.6	20.3	17.8	0	0	231.1	0	1.3	2.01E-02	2.78E+03
120	2	48	160.3	0	2	41.6	20.3	17.8	0	0	231.1	0	1.2	9.53E+00	1.31E+06
120	1	49	157.7	0	2	41.1	19.9	17.6	0	0	231.1	0	1.3	2.10E-02	2.78E+03
120	2	49	157.7	0	2	41.1	19.9	17.6	0	0	231.1	0	1.2	9.95E+00	1.31E+06
120	1	50	155.2	0	2	40.5	19.6	17.3	0	0	231.1	0	1.3	2.19E-02	2.78E+03
120	2	50	155.2	0	2	40.5	19.6	17.3	0	0	231.1	0	1.2	1.04E+01	1.31E+06
120	1	51	152.6	0	2	40	19.3	17.1	0	0	231.1	0	1.3	2.29E-02	2.78E+03
120	2	51	152.6	0	2	40	19.3	17.1	0	0	231.1	0	1.2	1.09E+01	1.31E+06
120	1	52	149.9	0	2	39.5	19	16.8	0	0	231.1	0	1.3	2.39E-02	2.78E+03
120	2	52	149.9	0	2	39.5	19	16.8	0	0	231.1	0	1.2	1.14E+01	1.31E+06
120	1	53	147.3	0	2	38.9	18.7	16.6	0	0	231.1	0	1.3	2.50E-02	2.78E+03
120	2	53	147.3	0	2	38.9	18.7	16.6	0	0	231.1	0	1.2	1.19E+01	1.31E+06
120	1	54	144.6	0	2	38.4	18.4	16.3	0	0	231.1	0	1.3	2.62E-02	2.78E+03
120	2	54	144.6	0	2	38.4	18.4	16.3	0	0	231.1	0	1.2	1.24E+01	1.31E+06
120	1	55	141.9	0	2	37.9	18	16.1	0	0	231.1	0	1.3	2.74E-02	2.78E+03
120	2	55	141.9	0	2	37.9	18	16.1	0	0	231.1	0	1.2	1.30E+01	1.31E+06
120	1	56	139.2	0	2	37.4	17.7	15.8	0	0	231.1	0	1.3	2.87E-02	2.78E+03
120	2	56	139.2	0	2	37.4	17.7	15.8	0	0	231.1	0	1.2	1.36E+01	1.31E+06
120	1	57	136.5	0	2	36.8	17.4	15.6	0	0	231.1	0	1.3	3.02E-02	2.78E+03
120	2	57	136.5	0	2	36.8	17.4	15.6	0	0	231.1	0	1.2	1.43E+01	1.31E+06
120	1	58	134.1	0	2	36.3	17.1	15.3	0	0	231.1	0	1.3	3.16E-02	2.78E+03
120	2	58	134.1	0	2	36.3	17.1	15.3	0	0	231.1	0	1.2	1.50E+01	1.31E+06
120	1	59	131.7	0	2	35.8	16.8	15.1	0	0	231.1	0	1.3	3.32E-02	2.78E+03
120	2	59	131.7	0	2	35.8	16.8	15.1	0	0	231.1	0	1.2	1.58E+01	1.31E+06
120	1	60	129.3	0	2	35.3	16.5	14.8	0	0	231.1	0	1.3	3.49E-02	2.78E+03

120	2	60	129.3	0	2	35.3	16.5	14.8	0	0	231.1	0	1.2	1.66E+01	1.31E+06
120	1	61	126.9	0	2	34.7	16.2	14.6	0	0	231.1	0	1.3	3.67E-02	2.78E+03
120	2	61	126.9	0	2	34.7	16.2	14.6	0	0	231.1	0	1.2	1.74E+01	1.31E+06
120	1	62	124.4	0	2	34.2	15.9	14.3	0	0	231.1	0	1.3	3.86E-02	2.78E+03
120	2	62	124.4	0	2	34.2	15.9	14.3	0	0	231.1	0	1.2	1.83E+01	1.31E+06
120	1	63	122	0	2	33.7	15.6	14.1	0	0	231.1	0	1.3	4.06E-02	2.78E+03
120	2	63	122	0	2	33.7	15.6	14.1	0	0	231.1	0	1.2	1.93E+01	1.31E+06
120	1	64	119.5	0	2	33.2	15.3	13.8	0	0	231.1	0	1.3	4.28E-02	2.78E+03
120	2	64	119.5	0	2	33.2	15.3	13.8	0	0	231.1	0	1.2	2.03E+01	1.31E+06
120	1	65	117	0	2	32.7	15	13.6	0	0	231.1	0	1.3	4.51E-02	2.78E+03
120	2	65	117	0	2	32.7	15	13.6	0	0	231.1	0	1.2	2.14E+01	1.31E+06
120	1	66	114.5	0	2	32.1	14.7	13.4	0	0	231.1	0	1.3	4.76E-02	2.78E+03
120	2	66	114.5	0	2	32.1	14.7	13.4	0	0	231.1	0	1.2	2.26E+01	1.31E+06
120	1	67	111.9	0	2	31.6	14.4	13.1	0	0	231.1	0	1.3	5.02E-02	2.78E+03
120	2	67	111.9	0	2	31.6	14.4	13.1	0	0	231.1	0	1.2	2.38E+01	1.31E+06
120	1	68	109.4	0	2	31.1	14.1	12.9	0	0	231.1	0	1.3	5.31E-02	2.78E+03
120	2	68	109.4	0	2	31.1	14.1	12.9	0	0	231.1	0	1.2	2.52E+01	1.31E+06
120	1	69	107.1	0	2	30.6	13.8	12.6	0	0	231.1	0	1.3	5.62E-02	2.78E+03
120	2	69	107.1	0	2	30.6	13.8	12.6	0	0	231.1	0	1.2	2.66E+01	1.31E+06
120	1	70	104.9	0	2	30.1	13.5	12.4	0	0	231.1	0	1.3	5.95E-02	2.78E+03
120	2	70	104.9	0	2	30.1	13.5	12.4	0	0	231.1	0	1.2	2.82E+01	1.31E+06
120	1	71	102.7	0	2	29.6	13.2	12.1	0	0	231.1	0	1.3	6.30E-02	2.78E+03
120	2	71	102.7	0	2	29.6	13.2	12.1	0	0	231.1	0	1.2	2.99E+01	1.31E+06
120	1	72	100.4	0	2	29	12.9	11.9	0	0	231.1	0	1.3	6.68E-02	2.78E+03
120	2	72	100.4	0	2	29	12.9	11.9	0	0	231.1	0	1.2	3.17E+01	1.31E+06
120	1	73	98.1	0	2	28.5	12.6	11.7	0	0	231.1	0	1.3	7.09E-02	2.78E+03
120	2	73	98.1	0	2	28.5	12.6	11.7	0	0	231.1	0	1.2	3.36E+01	1.31E+06
120	1	74	95.9	0	2	28	12.4	11.4	0	0	231.1	0	1.3	7.53E-02	2.78E+03
120	2	74	95.9	0	2	28	12.4	11.4	0	0	231.1	0	1.2	3.57E+01	1.31E+06
120	1	75	93.6	0	2	27.5	12.1	11.2	0	0	231.1	0	1.3	8.00E-02	2.78E+03
120	2	75	93.6	0	2	27.5	12.1	11.2	0	0	231.1	0	1.2	3.80E+01	1.31E+06
120	1	76	91.3	0	2	27	11.8	10.9	0	0	231.1	0	1.3	8.51E-02	2.78E+03
120	2	76	91.3	0	2	27	11.8	10.9	0	0	231.1	0	1.2	4.04E+01	1.31E+06
120	1	77	88.9	0	2	26.5	11.5	10.7	0	0	231.1	0	1.3	9.07E-02	2.78E+03
120	2	77	88.9	0	2	26.5	11.5	10.7	0	0	231.1	0	1.2	4.30E+01	1.31E+06
120	1	78	86.5	0	2	26	11.2	10.5	0	0	231.1	0	1.3	9.67E-02	2.78E+03
120	2	78	86.5	0	2	26	11.2	10.5	0	0	231.1	0	1.2	4.59E+01	1.31E+06
120	1	79	84.2	0	2	25.5	11	10.2	0	0	231.1	0	1.3	1.03E-01	2.78E+03
120	2	79	84.2	0	2	25.5	11	10.2	0	0	231.1	0	1.2	4.90E+01	1.31E+06
120	1	80	82.2	0	2	25	10.7	10	0	0	231.1	0	1.3	1.11E-01	2.78E+03
120	2	80	82.2	0	2	25	10.7	10	0	0	231.1	0	1.2	5.25E+01	1.31E+06
120	1	81	80.2	0	2	24.5	10.4	9.8	0	0	231.1	0	1.3	1.19E-01	2.78E+03
120	2	81	80.2	0	2	24.5	10.4	9.8	0	0	231.1	0	1.2	5.62E+01	1.31E+06

120	1	82	78.1	0	2	24	10.1	9.5	0	0	231.1	0	1.3	1.27E-01	2.78E+03
120	2	82	78.1	0	2	24	10.1	9.5	0	0	231.1	0	1.2	6.02E+01	1.31E+06
120	1	83	76.1	0	2	23.5	9.9	9.3	0	0	231.1	0	1.3	1.36E-01	2.78E+03
120	2	83	76.1	0	2	23.5	9.9	9.3	0	0	231.1	0	1.2	6.46E+01	1.31E+06
120	1	84	74	0	2	23	9.6	9.1	0	0	231.1	0	1.3	1.46E-01	2.78E+03
120	2	84	74	0	2	23	9.6	9.1	0	0	231.1	0	1.2	6.94E+01	1.31E+06
120	1	85	71.9	0	2	22.5	9.4	8.8	0	0	231.1	0	1.3	1.57E-01	2.78E+03
120	2	85	71.9	0	2	22.5	9.4	8.8	0	0	231.1	0	1.2	7.46E+01	1.31E+06
120	1	86	69.8	0	2	22	9.1	8.6	0	0	231.1	0	1.3	1.69E-01	2.78E+03
120	2	86	69.8	0	2	22	9.1	8.6	0	0	231.1	0	1.2	8.03E+01	1.31E+06
120	1	87	67.7	0	2	21.5	8.9	8.4	0	0	231.1	0	1.3	1.83E-01	2.78E+03
120	2	87	67.7	0	2	21.5	8.9	8.4	0	0	231.1	0	1.2	8.66E+01	1.31E+06
120	1	88	65.6	0	2	21	8.6	8.2	0	0	231.1	0	1.3	1.97E-01	2.78E+03
120	2	88	65.6	0	2	21	8.6	8.2	0	0	231.1	0	1.2	9.35E+01	1.31E+06
120	1	89	63.4	0	2	20.5	8.3	8	0	0	231.1	0	1.3	2.13E-01	2.78E+03
120	2	89	63.4	0	2	20.5	8.3	8	0	0	231.1	0	1.2	1.01E+02	1.31E+06
120	1	90	61.3	0	2	20	8.1	7.7	0	0	231.1	0	1.3	2.32E-01	2.78E+03
120	2	90	61.3	0	2	20	8.1	7.7	0	0	231.1	0	1.2	1.10E+02	1.31E+06
120	1	91	59.5	0	2	19.5	7.8	7.5	0	0	231.1	0	1.3	2.52E-01	2.78E+03
120	2	91	59.5	0	2	19.5	7.8	7.5	0	0	231.1	0	1.2	1.20E+02	1.31E+06
120	1	92	57.7	0	2	19	7.6	7.3	0	0	231.1	0	1.3	2.74E-01	2.78E+03
120	2	92	57.7	0	2	19	7.6	7.3	0	0	231.1	0	1.2	1.30E+02	1.31E+06
120	1	93	55.9	0	2	18.5	7.3	7	0	0	231.1	0	1.3	2.99E-01	2.78E+03
120	2	93	55.9	0	2	18.5	7.3	7	0	0	231.1	0	1.2	1.42E+02	1.31E+06
120	1	94	54.1	0	2	18	7.1	6.8	0	0	231.1	0	1.3	3.27E-01	2.78E+03
120	2	94	54.1	0	2	18	7.1	6.8	0	0	231.1	0	1.2	1.55E+02	1.31E+06
120	1	95	52.3	0	2	17.5	6.9	6.6	0	0	231.1	0	1.3	3.57E-01	2.78E+03
120	2	95	52.3	0	2	17.5	6.9	6.6	0	0	231.1	0	1.2	1.69E+02	1.31E+06
120	1	96	50.4	0	2	17	6.6	6.4	0	0	231.1	0	1.3	3.91E-01	2.78E+03
120	2	96	50.4	0	2	17	6.6	6.4	0	0	231.1	0	1.2	1.85E+02	1.31E+06
120	1	97	48.6	0	2	16.6	6.4	6.2	0	0	231.1	0	1.3	4.28E-01	2.79E+03
120	2	97	48.6	0	2	16.6	6.4	6.2	0	0	231.1	0	1.2	2.03E+02	1.31E+06
120	1	98	46.7	0	2	16.1	6.2	6	0	0	231.1	0	1.3	4.71E-01	2.79E+03
120	2	98	46.7	0	2	16.1	6.2	6	0	0	231.1	0	1.2	2.23E+02	1.31E+06
120	1	99	44.8	0	2	15.6	5.9	5.8	0	0	231.1	0	1.3	5.18E-01	2.79E+03
120	2	99	44.8	0	2	15.6	5.9	5.8	0	0	231.1	0	1.2	2.46E+02	1.31E+06
120	1	100	42.8	0	2	15.1	5.7	5.6	0	0	231.1	0	1.3	5.74E-01	2.79E+03
120	2	100	42.8	0	2	15.1	5.7	5.6	0	0	231.1	0	1.2	2.72E+02	1.32E+06
120	1	101	41.1	0	2	14.6	5.5	5.4	0	0	231.1	0	1.3	6.39E-01	2.79E+03
120	2	101	41.1	0	2	14.6	5.5	5.4	0	0	231.1	0	1.2	3.03E+02	1.32E+06
120	1	102	39.6	0	2	14.1	5.3	5.1	0	0	231.1	0	1.3	7.12E-01	2.79E+03
120	2	102	39.6	0	2	14.1	5.3	5.1	0	0	231.1	0	1.2	3.38E+02	1.32E+06
120	1	103	38	0	2	13.6	5	4.9	0	0	231.1	0	1.3	7.96E-01	2.79E+03

120	2	103	38	0	2	13.6	5	4.9	0	0	231.1	0	1.2	3.77E+02	1.32E+06
120	1	104	36.5	0	2	13.2	4.8	4.7	0	0	231.1	0	1.3	8.90E-01	2.79E+03
120	2	104	36.5	0	2	13.2	4.8	4.7	0	0	231.1	0	1.2	4.22E+02	1.32E+06
120	1	105	35	0	2	12.7	4.6	4.5	0	0	231.1	0	1.3	9.98E-01	2.79E+03
120	2	105	35	0	2	12.7	4.6	4.5	0	0	231.1	0	1.2	4.73E+02	1.32E+06
120	1	106	33.4	0	2	12.2	4.4	4.3	0	0	231.1	0	1.3	1.12E+00	2.79E+03
120	2	106	33.4	0	2	12.2	4.4	4.3	0	0	231.1	0	1.2	5.31E+02	1.32E+06
120	1	107	31.9	0	2	11.7	4.2	4.1	0	0	231.1	0	1.3	1.26E+00	2.79E+03
120	2	107	31.9	0	2	11.7	4.2	4.1	0	0	231.1	0	1.2	5.97E+02	1.32E+06
120	1	108	30.3	0	2	11.3	4	4	0	0	231.1	0	1.3	1.42E+00	2.79E+03
120	2	108	30.3	0	2	11.3	4	4	0	0	231.1	0	1.2	6.74E+02	1.32E+06
120	1	109	28.7	0	2	10.8	3.8	3.8	0	0	231.1	0	1.3	1.61E+00	2.79E+03
120	2	109	28.7	0	2	10.8	3.8	3.8	0	0	231.1	0	1.2	7.63E+02	1.32E+06
120	1	110	27.1	0	2	10.3	3.6	3.6	0	0	231.1	0	1.3	1.83E+00	2.79E+03
120	2	110	27.1	0	2	10.3	3.6	3.6	0	0	231.1	0	1.2	8.67E+02	1.32E+06
120	1	111	25.5	0	2	9.9	3.4	3.4	0	0	231.1	0	1.3	2.10E+00	2.79E+03
120	2	111	25.5	0	2	9.9	3.4	3.4	0	0	231.1	0	1.2	9.96E+02	1.32E+06
120	1	112	24.2	0	2	9.4	3.2	3.2	0	0	231.1	0	1.3	2.45E+00	2.79E+03
120	2	112	24.2	0	2	9.4	3.2	3.2	0	0	231.1	0	1.2	1.16E+03	1.32E+06
120	1	113	23	0	2	8.9	3	3	0	0	231.1	0	1.3	2.86E+00	2.79E+03
120	2	113	23	0	2	8.9	3	3	0	0	231.1	0	1.2	1.36E+03	1.32E+06
120	1	114	21.8	0	2	8.4	2.8	2.8	0	0	231.1	0	1.3	3.36E+00	2.79E+03
120	2	114	21.8	0	2	8.4	2.8	2.8	0	0	231.1	0	1.2	1.59E+03	1.32E+06
120	1	115	20.6	0	2	8	2.6	2.6	0	0	231.1	0	1.3	3.95E+00	2.79E+03
120	2	115	20.6	0	2	8	2.6	2.6	0	0	231.1	0	1.2	1.87E+03	1.32E+06
120	1	116	19.4	0	2	7.5	2.4	2.5	0	0	231.1	0	1.3	4.68E+00	2.79E+03
120	2	116	19.4	0	2	7.5	2.4	2.5	0	0	231.1	0	1.2	2.21E+03	1.32E+06
120	1	117	18.3	0	2	7.1	2.3	2.3	0	0	231.1	0	1.3	5.57E+00	2.79E+03
120	2	117	18.3	0	2	7.1	2.3	2.3	0	0	231.1	0	1.2	2.63E+03	1.32E+06
120	1	118	17.1	0	2	6.6	2.1	2.1	0	0	231.1	0	1.3	6.68E+00	2.79E+03
120	2	118	17.1	0	2	6.6	2.1	2.1	0	0	231.1	0	1.2	3.16E+03	1.32E+06
120	1	119	15.9	0	2	6.1	2	2	0	0	231.1	0	1.3	8.09E+00	2.79E+03
120	2	119	15.9	0	2	6.1	2	2	0	0	231.1	0	1.2	3.82E+03	1.32E+06
120	1	120	14.7	0	2	5.7	1.8	1.8	0	0	231.1	0	1.3	9.92E+00	2.79E+03
120	2	120	14.7	0	2	5.7	1.8	1.8	0	0	231.1	0	1.2	4.69E+03	1.32E+06
120	1	121	13.5	0	2	5.2	1.7	1.7	0	0	231.1	0	1.3	1.24E+01	2.79E+03
120	2	121	13.5	0	2	5.2	1.7	1.7	0	0	231.1	0	1.2	5.85E+03	1.32E+06
120	1	122	12.4	0	2	4.8	1.5	1.5	0	0	231.1	0	1.3	1.65E+01	2.79E+03
120	2	122	12.4	0	2	4.8	1.5	1.5	0	0	231.1	0	1.2	7.78E+03	1.32E+06
120	1	123	11.2	0	2	4.3	1.3	1.3	0	0	231.1	0	1.3	2.39E+01	2.79E+03
120	2	123	11.2	0	2	4.3	1.3	1.3	0	0	231.1	0	1.2	1.13E+04	1.32E+06
120	1	124	10	0	2	3.8	1.1	1.1	0	0	231.1	0	1.3	3.65E+01	2.79E+03
120	2	124	10	0	2	3.8	1.1	1.1	0	0	231.1	0	1.2	1.72E+04	1.32E+06

120	1	125	8.8	0	2	3.4	0.9	1	0	0	231.1	0	1.3	5.87E+01	2.79E+03
120	2	125	8.8	0	2	3.4	0.9	1	0	0	231.1	0	1.2	2.77E+04	1.32E+06
120	1	126	7.7	0	2	2.9	0.8	0.8	0	0	231.1	0	1.3	9.99E+01	2.79E+03
120	2	126	7.7	0	2	2.9	0.8	0.8	0	0	231.1	0	1.2	4.72E+04	1.32E+06
120	1	127	6.5	0	2	2.5	0.6	0.6	0	0	231.1	0	1.3	1.82E+02	2.79E+03
120	2	127	6.5	0	2	2.5	0.6	0.6	0	0	231.1	0	1.2	8.58E+04	1.32E+06
120	1	128	5.3	0	2	2	0.5	0.5	0	0	231.1	0	1.3	3.55E+02	2.79E+03
120	2	128	5.3	0	2	2	0.5	0.5	0	0	231.1	0	1.2	1.68E+05	1.32E+06
120	1	129	4.1	0	2	1.6	0.4	0.4	0	0	231.1	0	1.3	7.40E+02	2.79E+03
120	2	129	4.1	0	2	1.6	0.4	0.4	0	0	231.1	0	1.2	3.49E+05	1.32E+06
120	1	130	2.9	0	2	1.2	0.3	0.3	0	0	231.1	0	1.3	1.57E+03	2.79E+03
120	2	130	2.9	0	2	1.2	0.3	0.3	0	0	231.1	0	1.2	7.42E+05	1.32E+06
120	1	131	1.8	0	2	0.8	0.3	0.3	0	0	231.1	0	1.3	3.11E+03	2.79E+03
120	2	131	1.8	0	2	0.8	0.3	0.3	0	0	231.1	0	1.2	1.47E+06	1.32E+06
120	1	132	0.6	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.18E+03	2.79E+03
120	2	132	0.6	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.44E+06	1.32E+06
120	1	133	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
120	2	133	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
120	1	134	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
120	2	134	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
120	1	135	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
120	2	135	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
120	1	136	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
120	2	136	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
120	1	137	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
120	2	137	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
120	1	138	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
120	2	138	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
120	1	139	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
120	2	139	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
120	1	140	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
120	2	140	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
120	1	141	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
120	2	141	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
120	1	142	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
120	2	142	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
120	1	143	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
120	2	143	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
180	1	1	532	0	2	105.9	63.5	46	0	0	231.1	0	1.3	9.82E-04	2.78E+03
180	2	1	532	0	2	105.9	63.5	46	0	0	231.1	0	1.2	4.66E-01	1.31E+06
180	1	2	528	0	2	105.3	63.1	45.8	0	0	231.1	0	1.3	1.00E-03	2.78E+03
180	2	2	528	0	2	105.3	63.1	45.8	0	0	231.1	0	1.2	4.74E-01	1.31E+06
180	1	3	524.3	0	2	104.7	62.7	45.5	0	0	231.1	0	1.3	1.02E-03	2.78E+03

180	2	3	524.3	0	2	104.7	62.7	45.5	0	0	231.1	0	1.2	4.83E-01	1.31E+06
180	1	4	520.6	0	2	104.1	62.2	45.3	0	0	231.1	0	1.3	1.04E-03	2.78E+03
180	2	4	520.6	0	2	104.1	62.2	45.3	0	0	231.1	0	1.2	4.91E-01	1.31E+06
180	1	5	517	0	2	103.5	61.8	45.1	0	0	231.1	0	1.3	1.05E-03	2.78E+03
180	2	5	517	0	2	103.5	61.8	45.1	0	0	231.1	0	1.2	5.00E-01	1.31E+06
180	1	6	513.3	0	2	102.9	61.4	44.8	0	0	231.1	0	1.3	1.07E-03	2.78E+03
180	2	6	513.3	0	2	102.9	61.4	44.8	0	0	231.1	0	1.2	5.09E-01	1.31E+06
180	1	7	509.5	0	2	102.3	61	44.6	0	0	231.1	0	1.3	1.09E-03	2.78E+03
180	2	7	509.5	0	2	102.3	61	44.6	0	0	231.1	0	1.2	5.19E-01	1.31E+06
180	1	8	505.8	0	2	101.7	60.5	44.3	0	0	231.1	0	1.3	1.11E-03	2.78E+03
180	2	8	505.8	0	2	101.7	60.5	44.3	0	0	231.1	0	1.2	5.28E-01	1.31E+06
180	1	9	502.1	0	2	101.2	60.1	44.1	0	0	231.1	0	1.3	1.13E-03	2.78E+03
180	2	9	502.1	0	2	101.2	60.1	44.1	0	0	231.1	0	1.2	5.38E-01	1.31E+06
180	1	10	498.3	0	2	100.6	59.7	43.9	0	0	231.1	0	1.3	1.16E-03	2.78E+03
180	2	10	498.3	0	2	100.6	59.7	43.9	0	0	231.1	0	1.2	5.48E-01	1.31E+06
180	1	11	494.4	0	2	100	59.3	43.6	0	0	231.1	0	1.3	1.18E-03	2.78E+03
180	2	11	494.4	0	2	100	59.3	43.6	0	0	231.1	0	1.2	5.58E-01	1.31E+06
180	1	12	490.6	0	2	99.4	58.9	43.4	0	0	231.1	0	1.3	1.20E-03	2.78E+03
180	2	12	490.6	0	2	99.4	58.9	43.4	0	0	231.1	0	1.2	5.69E-01	1.31E+06
180	1	13	486.6	0	2	98.8	58.4	43.1	0	0	231.1	0	1.3	1.22E-03	2.78E+03
180	2	13	486.6	0	2	98.8	58.4	43.1	0	0	231.1	0	1.2	5.79E-01	1.31E+06
180	1	14	483.1	0	2	98.2	58	42.9	0	0	231.1	0	1.3	1.24E-03	2.78E+03
180	2	14	483.1	0	2	98.2	58	42.9	0	0	231.1	0	1.2	5.90E-01	1.31E+06
180	1	15	479.5	0	2	97.6	57.6	42.7	0	0	231.1	0	1.3	1.27E-03	2.78E+03
180	2	15	479.5	0	2	97.6	57.6	42.7	0	0	231.1	0	1.2	6.02E-01	1.31E+06
180	1	16	475.9	0	2	97	57.2	42.4	0	0	231.1	0	1.3	1.29E-03	2.78E+03
180	2	16	475.9	0	2	97	57.2	42.4	0	0	231.1	0	1.2	6.13E-01	1.31E+06
180	1	17	472.3	0	2	96.4	56.8	42.2	0	0	231.1	0	1.3	1.32E-03	2.78E+03
180	2	17	472.3	0	2	96.4	56.8	42.2	0	0	231.1	0	1.2	6.25E-01	1.31E+06
180	1	18	468.7	0	2	95.8	56.3	41.9	0	0	231.1	0	1.3	1.34E-03	2.78E+03
180	2	18	468.7	0	2	95.8	56.3	41.9	0	0	231.1	0	1.2	6.37E-01	1.31E+06
180	1	19	465	0	2	95.2	55.9	41.7	0	0	231.1	0	1.3	1.37E-03	2.78E+03
180	2	19	465	0	2	95.2	55.9	41.7	0	0	231.1	0	1.2	6.50E-01	1.31E+06
180	1	20	461.3	0	2	94.6	55.5	41.4	0	0	231.1	0	1.3	1.40E-03	2.78E+03
180	2	20	461.3	0	2	94.6	55.5	41.4	0	0	231.1	0	1.2	6.63E-01	1.31E+06
180	1	21	457.6	0	2	94	55.1	41.2	0	0	231.1	0	1.3	1.43E-03	2.78E+03
180	2	21	457.6	0	2	94	55.1	41.2	0	0	231.1	0	1.2	6.76E-01	1.31E+06
180	1	22	453.9	0	2	93.4	54.7	41	0	0	231.1	0	1.3	1.45E-03	2.78E+03
180	2	22	453.9	0	2	93.4	54.7	41	0	0	231.1	0	1.2	6.89E-01	1.31E+06
180	1	23	450.1	0	2	92.8	54.3	40.7	0	0	231.1	0	1.3	1.48E-03	2.78E+03
180	2	23	450.1	0	2	92.8	54.3	40.7	0	0	231.1	0	1.2	7.03E-01	1.31E+06
180	1	24	446.3	0	2	92.3	53.9	40.5	0	0	231.1	0	1.3	1.51E-03	2.78E+03
180	2	24	446.3	0	2	92.3	53.9	40.5	0	0	231.1	0	1.2	7.17E-01	1.31E+06

180	1	25	442.8	0	2	91.7	53.4	40.2	0	0	231.1	0	1.3	1.54E-03	2.78E+03
180	2	25	442.8	0	2	91.7	53.4	40.2	0	0	231.1	0	1.2	7.32E-01	1.31E+06
180	1	26	439.3	0	2	91.1	53	40	0	0	231.1	0	1.3	1.58E-03	2.78E+03
180	2	26	439.3	0	2	91.1	53	40	0	0	231.1	0	1.2	7.47E-01	1.31E+06
180	1	27	435.8	0	2	90.5	52.6	39.7	0	0	231.1	0	1.3	1.61E-03	2.78E+03
180	2	27	435.8	0	2	90.5	52.6	39.7	0	0	231.1	0	1.2	7.63E-01	1.31E+06
180	1	28	432.3	0	2	89.9	52.2	39.5	0	0	231.1	0	1.3	1.64E-03	2.78E+03
180	2	28	432.3	0	2	89.9	52.2	39.5	0	0	231.1	0	1.2	7.78E-01	1.31E+06
180	1	29	428.8	0	2	89.3	51.8	39.2	0	0	231.1	0	1.3	1.68E-03	2.78E+03
180	2	29	428.8	0	2	89.3	51.8	39.2	0	0	231.1	0	1.2	7.95E-01	1.31E+06
180	1	30	425.2	0	2	88.7	51.4	39	0	0	231.1	0	1.3	1.71E-03	2.78E+03
180	2	30	425.2	0	2	88.7	51.4	39	0	0	231.1	0	1.2	8.11E-01	1.31E+06
180	1	31	421.6	0	2	88.1	51	38.7	0	0	231.1	0	1.3	1.75E-03	2.78E+03
180	2	31	421.6	0	2	88.1	51	38.7	0	0	231.1	0	1.2	8.28E-01	1.31E+06
180	1	32	418	0	2	87.5	50.6	38.5	0	0	231.1	0	1.3	1.78E-03	2.78E+03
180	2	32	418	0	2	87.5	50.6	38.5	0	0	231.1	0	1.2	8.46E-01	1.31E+06
180	1	33	414.4	0	2	87	50.2	38.3	0	0	231.1	0	1.3	1.82E-03	2.78E+03
180	2	33	414.4	0	2	87	50.2	38.3	0	0	231.1	0	1.2	8.64E-01	1.31E+06
180	1	34	410.7	0	2	86.4	49.8	38	0	0	231.1	0	1.3	1.86E-03	2.78E+03
180	2	34	410.7	0	2	86.4	49.8	38	0	0	231.1	0	1.2	8.83E-01	1.31E+06
180	1	35	406.9	0	2	85.8	49.4	37.8	0	0	231.1	0	1.3	1.90E-03	2.78E+03
180	2	35	406.9	0	2	85.8	49.4	37.8	0	0	231.1	0	1.2	9.02E-01	1.31E+06
180	1	36	403.6	0	2	85.2	48.9	37.5	0	0	231.1	0	1.3	1.94E-03	2.78E+03
180	2	36	403.6	0	2	85.2	48.9	37.5	0	0	231.1	0	1.2	9.22E-01	1.31E+06
180	1	37	400.2	0	2	84.6	48.5	37.3	0	0	231.1	0	1.3	1.99E-03	2.78E+03
180	2	37	400.2	0	2	84.6	48.5	37.3	0	0	231.1	0	1.2	9.42E-01	1.31E+06
180	1	38	396.8	0	2	84	48.1	37	0	0	231.1	0	1.3	2.03E-03	2.78E+03
180	2	38	396.8	0	2	84	48.1	37	0	0	231.1	0	1.2	9.63E-01	1.31E+06
180	1	39	393.3	0	2	83.5	47.7	36.8	0	0	231.1	0	1.3	2.08E-03	2.78E+03
180	2	39	393.3	0	2	83.5	47.7	36.8	0	0	231.1	0	1.2	9.85E-01	1.31E+06
180	1	40	389.9	0	2	82.9	47.3	36.5	0	0	231.1	0	1.3	2.12E-03	2.78E+03
180	2	40	389.9	0	2	82.9	47.3	36.5	0	0	231.1	0	1.2	1.01E+00	1.31E+06
180	1	41	386.4	0	2	82.3	46.9	36.3	0	0	231.1	0	1.3	2.17E-03	2.78E+03
180	2	41	386.4	0	2	82.3	46.9	36.3	0	0	231.1	0	1.2	1.03E+00	1.31E+06
180	1	42	382.9	0	2	81.7	46.5	36	0	0	231.1	0	1.3	2.22E-03	2.78E+03
180	2	42	382.9	0	2	81.7	46.5	36	0	0	231.1	0	1.2	1.05E+00	1.31E+06
180	1	43	379.4	0	2	81.1	46.1	35.8	0	0	231.1	0	1.3	2.27E-03	2.78E+03
180	2	43	379.4	0	2	81.1	46.1	35.8	0	0	231.1	0	1.2	1.08E+00	1.31E+06
180	1	44	375.9	0	2	80.5	45.7	35.5	0	0	231.1	0	1.3	2.32E-03	2.78E+03
180	2	44	375.9	0	2	80.5	45.7	35.5	0	0	231.1	0	1.2	1.10E+00	1.31E+06
180	1	45	372.3	0	2	80	45.3	35.3	0	0	231.1	0	1.3	2.38E-03	2.78E+03
180	2	45	372.3	0	2	80	45.3	35.3	0	0	231.1	0	1.2	1.13E+00	1.31E+06
180	1	46	368.7	0	2	79.4	44.9	35	0	0	231.1	0	1.3	2.43E-03	2.78E+03

180	2	46	368.7	0	2	79.4	44.9	35	0	0	231.1	0	1.2	1.15E+00	1.31E+06
180	1	47	365.4	0	2	78.8	44.5	34.8	0	0	231.1	0	1.3	2.49E-03	2.78E+03
180	2	47	365.4	0	2	78.8	44.5	34.8	0	0	231.1	0	1.2	1.18E+00	1.31E+06
180	1	48	362.1	0	2	78.2	44.1	34.5	0	0	231.1	0	1.3	2.55E-03	2.78E+03
180	2	48	362.1	0	2	78.2	44.1	34.5	0	0	231.1	0	1.2	1.21E+00	1.31E+06
180	1	49	358.8	0	2	77.7	43.8	34.3	0	0	231.1	0	1.3	2.61E-03	2.78E+03
180	2	49	358.8	0	2	77.7	43.8	34.3	0	0	231.1	0	1.2	1.24E+00	1.31E+06
180	1	50	355.5	0	2	77.1	43.4	34	0	0	231.1	0	1.3	2.67E-03	2.78E+03
180	2	50	355.5	0	2	77.1	43.4	34	0	0	231.1	0	1.2	1.27E+00	1.31E+06
180	1	51	352.1	0	2	76.5	43	33.8	0	0	231.1	0	1.3	2.74E-03	2.78E+03
180	2	51	352.1	0	2	76.5	43	33.8	0	0	231.1	0	1.2	1.30E+00	1.31E+06
180	1	52	348.7	0	2	75.9	42.6	33.5	0	0	231.1	0	1.3	2.81E-03	2.78E+03
180	2	52	348.7	0	2	75.9	42.6	33.5	0	0	231.1	0	1.2	1.33E+00	1.31E+06
180	1	53	345.4	0	2	75.3	42.2	33.3	0	0	231.1	0	1.3	2.88E-03	2.78E+03
180	2	53	345.4	0	2	75.3	42.2	33.3	0	0	231.1	0	1.2	1.36E+00	1.31E+06
180	1	54	341.9	0	2	74.8	41.8	33	0	0	231.1	0	1.3	2.95E-03	2.78E+03
180	2	54	341.9	0	2	74.8	41.8	33	0	0	231.1	0	1.2	1.40E+00	1.31E+06
180	1	55	338.5	0	2	74.2	41.4	32.8	0	0	231.1	0	1.3	3.02E-03	2.78E+03
180	2	55	338.5	0	2	74.2	41.4	32.8	0	0	231.1	0	1.2	1.43E+00	1.31E+06
180	1	56	335	0	2	73.6	41	32.5	0	0	231.1	0	1.3	3.10E-03	2.78E+03
180	2	56	335	0	2	73.6	41	32.5	0	0	231.1	0	1.2	1.47E+00	1.31E+06
180	1	57	331.5	0	2	73.1	40.6	32.3	0	0	231.1	0	1.3	3.18E-03	2.78E+03
180	2	57	331.5	0	2	73.1	40.6	32.3	0	0	231.1	0	1.2	1.51E+00	1.31E+06
180	1	58	328.3	0	2	72.5	40.2	32	0	0	231.1	0	1.3	3.26E-03	2.78E+03
180	2	58	328.3	0	2	72.5	40.2	32	0	0	231.1	0	1.2	1.54E+00	1.31E+06
180	1	59	325.1	0	2	71.9	39.9	31.7	0	0	231.1	0	1.3	3.34E-03	2.78E+03
180	2	59	325.1	0	2	71.9	39.9	31.7	0	0	231.1	0	1.2	1.58E+00	1.31E+06
180	1	60	321.9	0	2	71.3	39.5	31.5	0	0	231.1	0	1.3	3.43E-03	2.78E+03
180	2	60	321.9	0	2	71.3	39.5	31.5	0	0	231.1	0	1.2	1.63E+00	1.31E+06
180	1	61	318.7	0	2	70.8	39.1	31.2	0	0	231.1	0	1.3	3.52E-03	2.78E+03
180	2	61	318.7	0	2	70.8	39.1	31.2	0	0	231.1	0	1.2	1.67E+00	1.31E+06
180	1	62	315.5	0	2	70.2	38.7	31	0	0	231.1	0	1.3	3.61E-03	2.78E+03
180	2	62	315.5	0	2	70.2	38.7	31	0	0	231.1	0	1.2	1.71E+00	1.31E+06
180	1	63	312.2	0	2	69.6	38.3	30.7	0	0	231.1	0	1.3	3.71E-03	2.78E+03
180	2	63	312.2	0	2	69.6	38.3	30.7	0	0	231.1	0	1.2	1.76E+00	1.31E+06
180	1	64	308.9	0	2	69.1	37.9	30.5	0	0	231.1	0	1.3	3.80E-03	2.78E+03
180	2	64	308.9	0	2	69.1	37.9	30.5	0	0	231.1	0	1.2	1.80E+00	1.31E+06
180	1	65	305.6	0	2	68.5	37.6	30.2	0	0	231.1	0	1.3	3.91E-03	2.78E+03
180	2	65	305.6	0	2	68.5	37.6	30.2	0	0	231.1	0	1.2	1.85E+00	1.31E+06
180	1	66	302.3	0	2	67.9	37.2	30	0	0	231.1	0	1.3	4.01E-03	2.78E+03
180	2	66	302.3	0	2	67.9	37.2	30	0	0	231.1	0	1.2	1.90E+00	1.31E+06
180	1	67	298.9	0	2	67.4	36.8	29.7	0	0	231.1	0	1.3	4.12E-03	2.78E+03
180	2	67	298.9	0	2	67.4	36.8	29.7	0	0	231.1	0	1.2	1.96E+00	1.31E+06

180	1	68	295.5	0	2	66.8	36.4	29.5	0	0	231.1	0	1.3	4.24E-03	2.78E+03
180	2	68	295.5	0	2	66.8	36.4	29.5	0	0	231.1	0	1.2	2.01E+00	1.31E+06
180	1	69	292.5	0	2	66.2	36	29.2	0	0	231.1	0	1.3	4.36E-03	2.78E+03
180	2	69	292.5	0	2	66.2	36	29.2	0	0	231.1	0	1.2	2.07E+00	1.31E+06
180	1	70	289.4	0	2	65.7	35.7	29	0	0	231.1	0	1.3	4.48E-03	2.78E+03
180	2	70	289.4	0	2	65.7	35.7	29	0	0	231.1	0	1.2	2.12E+00	1.31E+06
180	1	71	286.3	0	2	65.1	35.3	28.7	0	0	231.1	0	1.3	4.61E-03	2.78E+03
180	2	71	286.3	0	2	65.1	35.3	28.7	0	0	231.1	0	1.2	2.19E+00	1.31E+06
180	1	72	283.2	0	2	64.5	34.9	28.4	0	0	231.1	0	1.3	4.74E-03	2.78E+03
180	2	72	283.2	0	2	64.5	34.9	28.4	0	0	231.1	0	1.2	2.25E+00	1.31E+06
180	1	73	280	0	2	64	34.5	28.2	0	0	231.1	0	1.3	4.88E-03	2.78E+03
180	2	73	280	0	2	64	34.5	28.2	0	0	231.1	0	1.2	2.31E+00	1.31E+06
180	1	74	276.9	0	2	63.4	34.2	27.9	0	0	231.1	0	1.3	5.02E-03	2.78E+03
180	2	74	276.9	0	2	63.4	34.2	27.9	0	0	231.1	0	1.2	2.38E+00	1.31E+06
180	1	75	273.7	0	2	62.8	33.8	27.7	0	0	231.1	0	1.3	5.16E-03	2.78E+03
180	2	75	273.7	0	2	62.8	33.8	27.7	0	0	231.1	0	1.2	2.45E+00	1.31E+06
180	1	76	270.5	0	2	62.3	33.4	27.4	0	0	231.1	0	1.3	5.32E-03	2.78E+03
180	2	76	270.5	0	2	62.3	33.4	27.4	0	0	231.1	0	1.2	2.52E+00	1.31E+06
180	1	77	267.3	0	2	61.7	33.1	27.2	0	0	231.1	0	1.3	5.48E-03	2.78E+03
180	2	77	267.3	0	2	61.7	33.1	27.2	0	0	231.1	0	1.2	2.60E+00	1.31E+06
180	1	78	264	0	2	61.2	32.7	26.9	0	0	231.1	0	1.3	5.64E-03	2.78E+03
180	2	78	264	0	2	61.2	32.7	26.9	0	0	231.1	0	1.2	2.68E+00	1.31E+06
180	1	79	260.8	0	2	60.6	32.3	26.7	0	0	231.1	0	1.3	5.81E-03	2.78E+03
180	2	79	260.8	0	2	60.6	32.3	26.7	0	0	231.1	0	1.2	2.76E+00	1.31E+06
180	1	80	257.8	0	2	60	32	26.4	0	0	231.1	0	1.3	5.99E-03	2.78E+03
180	2	80	257.8	0	2	60	32	26.4	0	0	231.1	0	1.2	2.84E+00	1.31E+06
180	1	81	254.9	0	2	59.5	31.6	26.2	0	0	231.1	0	1.3	6.18E-03	2.78E+03
180	2	81	254.9	0	2	59.5	31.6	26.2	0	0	231.1	0	1.2	2.93E+00	1.31E+06
180	1	82	251.9	0	2	58.9	31.2	25.9	0	0	231.1	0	1.3	6.37E-03	2.78E+03
180	2	82	251.9	0	2	58.9	31.2	25.9	0	0	231.1	0	1.2	3.02E+00	1.31E+06
180	1	83	248.9	0	2	58.4	30.9	25.6	0	0	231.1	0	1.3	6.57E-03	2.78E+03
180	2	83	248.9	0	2	58.4	30.9	25.6	0	0	231.1	0	1.2	3.12E+00	1.31E+06
180	1	84	245.9	0	2	57.8	30.5	25.4	0	0	231.1	0	1.3	6.78E-03	2.78E+03
180	2	84	245.9	0	2	57.8	30.5	25.4	0	0	231.1	0	1.2	3.22E+00	1.31E+06
180	1	85	242.8	0	2	57.3	30.1	25.1	0	0	231.1	0	1.3	7.00E-03	2.78E+03
180	2	85	242.8	0	2	57.3	30.1	25.1	0	0	231.1	0	1.2	3.32E+00	1.31E+06
180	1	86	239.8	0	2	56.7	29.8	24.9	0	0	231.1	0	1.3	7.22E-03	2.78E+03
180	2	86	239.8	0	2	56.7	29.8	24.9	0	0	231.1	0	1.2	3.43E+00	1.31E+06
180	1	87	236.7	0	2	56.1	29.4	24.6	0	0	231.1	0	1.3	7.46E-03	2.78E+03
180	2	87	236.7	0	2	56.1	29.4	24.6	0	0	231.1	0	1.2	3.54E+00	1.31E+06
180	1	88	233.6	0	2	55.6	29.1	24.4	0	0	231.1	0	1.3	7.70E-03	2.78E+03
180	2	88	233.6	0	2	55.6	29.1	24.4	0	0	231.1	0	1.2	3.65E+00	1.31E+06
180	1	89	230.4	0	2	55	28.7	24.1	0	0	231.1	0	1.3	7.96E-03	2.78E+03

180	2	89	230.4	0	2	55	28.7	24.1	0	0	231.1	0	1.2	3.77E+00	1.31E+06
180	1	90	227.3	0	2	54.5	28.4	23.9	0	0	231.1	0	1.3	8.23E-03	2.78E+03
180	2	90	227.3	0	2	54.5	28.4	23.9	0	0	231.1	0	1.2	3.90E+00	1.31E+06
180	1	91	224.5	0	2	53.9	28	23.6	0	0	231.1	0	1.3	8.51E-03	2.78E+03
180	2	91	224.5	0	2	53.9	28	23.6	0	0	231.1	0	1.2	4.04E+00	1.31E+06
180	1	92	221.7	0	2	53.4	27.6	23.3	0	0	231.1	0	1.3	8.80E-03	2.78E+03
180	2	92	221.7	0	2	53.4	27.6	23.3	0	0	231.1	0	1.2	4.17E+00	1.31E+06
180	1	93	218.8	0	2	52.8	27.3	23.1	0	0	231.1	0	1.3	9.11E-03	2.78E+03
180	2	93	218.8	0	2	52.8	27.3	23.1	0	0	231.1	0	1.2	4.32E+00	1.31E+06
180	1	94	215.9	0	2	52.3	26.9	22.8	0	0	231.1	0	1.3	9.42E-03	2.78E+03
180	2	94	215.9	0	2	52.3	26.9	22.8	0	0	231.1	0	1.2	4.47E+00	1.31E+06
180	1	95	213.1	0	2	51.7	26.6	22.6	0	0	231.1	0	1.3	9.76E-03	2.78E+03
180	2	95	213.1	0	2	51.7	26.6	22.6	0	0	231.1	0	1.2	4.63E+00	1.31E+06
180	1	96	210.2	0	2	51.2	26.2	22.3	0	0	231.1	0	1.3	1.01E-02	2.78E+03
180	2	96	210.2	0	2	51.2	26.2	22.3	0	0	231.1	0	1.2	4.79E+00	1.31E+06
180	1	97	207.2	0	2	50.6	25.9	22.1	0	0	231.1	0	1.3	1.05E-02	2.78E+03
180	2	97	207.2	0	2	50.6	25.9	22.1	0	0	231.1	0	1.2	4.96E+00	1.31E+06
180	1	98	204.3	0	2	50.1	25.6	21.8	0	0	231.1	0	1.3	1.08E-02	2.78E+03
180	2	98	204.3	0	2	50.1	25.6	21.8	0	0	231.1	0	1.2	5.14E+00	1.31E+06
180	1	99	201.3	0	2	49.6	25.2	21.6	0	0	231.1	0	1.3	1.12E-02	2.78E+03
180	2	99	201.3	0	2	49.6	25.2	21.6	0	0	231.1	0	1.2	5.33E+00	1.31E+06
180	1	100	198.2	0	2	49	24.9	21.3	0	0	231.1	0	1.3	1.17E-02	2.78E+03
180	2	100	198.2	0	2	49	24.9	21.3	0	0	231.1	0	1.2	5.53E+00	1.31E+06
180	1	101	195.3	0	2	48.5	24.5	21.1	0	0	231.1	0	1.3	1.21E-02	2.78E+03
180	2	101	195.3	0	2	48.5	24.5	21.1	0	0	231.1	0	1.2	5.74E+00	1.31E+06
180	1	102	192.6	0	2	47.9	24.2	20.8	0	0	231.1	0	1.3	1.26E-02	2.78E+03
180	2	102	192.6	0	2	47.9	24.2	20.8	0	0	231.1	0	1.2	5.96E+00	1.31E+06
180	1	103	189.9	0	2	47.4	23.8	20.5	0	0	231.1	0	1.3	1.31E-02	2.78E+03
180	2	103	189.9	0	2	47.4	23.8	20.5	0	0	231.1	0	1.2	6.19E+00	1.31E+06
180	1	104	187.2	0	2	46.8	23.5	20.3	0	0	231.1	0	1.3	1.36E-02	2.78E+03
180	2	104	187.2	0	2	46.8	23.5	20.3	0	0	231.1	0	1.2	6.43E+00	1.31E+06
180	1	105	184.4	0	2	46.3	23.2	20	0	0	231.1	0	1.3	1.41E-02	2.78E+03
180	2	105	184.4	0	2	46.3	23.2	20	0	0	231.1	0	1.2	6.68E+00	1.31E+06
180	1	106	181.7	0	2	45.8	22.8	19.8	0	0	231.1	0	1.3	1.46E-02	2.78E+03
180	2	106	181.7	0	2	45.8	22.8	19.8	0	0	231.1	0	1.2	6.95E+00	1.31E+06
180	1	107	178.9	0	2	45.2	22.5	19.5	0	0	231.1	0	1.3	1.52E-02	2.78E+03
180	2	107	178.9	0	2	45.2	22.5	19.5	0	0	231.1	0	1.2	7.22E+00	1.31E+06
180	1	108	176.1	0	2	44.7	22.2	19.3	0	0	231.1	0	1.3	1.58E-02	2.78E+03
180	2	108	176.1	0	2	44.7	22.2	19.3	0	0	231.1	0	1.2	7.51E+00	1.31E+06
180	1	109	173.3	0	2	44.1	21.8	19	0	0	231.1	0	1.3	1.65E-02	2.78E+03
180	2	109	173.3	0	2	44.1	21.8	19	0	0	231.1	0	1.2	7.82E+00	1.31E+06
180	1	110	170.5	0	2	43.6	21.5	18.8	0	0	231.1	0	1.3	1.72E-02	2.78E+03
180	2	110	170.5	0	2	43.6	21.5	18.8	0	0	231.1	0	1.2	8.14E+00	1.31E+06

180	1	111	167.5	0	2	43.1	21.2	18.5	0	0	231.1	0	1.3	1.79E-02	2.78E+03
180	2	111	167.5	0	2	43.1	21.2	18.5	0	0	231.1	0	1.2	8.49E+00	1.31E+06
180	1	112	164.8	0	2	42.5	20.8	18.3	0	0	231.1	0	1.3	1.87E-02	2.78E+03
180	2	112	164.8	0	2	42.5	20.8	18.3	0	0	231.1	0	1.2	8.85E+00	1.31E+06
180	1	113	162.2	0	2	42	20.5	18	0	0	231.1	0	1.3	1.95E-02	2.78E+03
180	2	113	162.2	0	2	42	20.5	18	0	0	231.1	0	1.2	9.23E+00	1.31E+06
180	1	114	159.7	0	2	41.5	20.2	17.8	0	0	231.1	0	1.3	2.03E-02	2.78E+03
180	2	114	159.7	0	2	41.5	20.2	17.8	0	0	231.1	0	1.2	9.64E+00	1.31E+06
180	1	115	157.1	0	2	40.9	19.9	17.5	0	0	231.1	0	1.3	2.12E-02	2.78E+03
180	2	115	157.1	0	2	40.9	19.9	17.5	0	0	231.1	0	1.2	1.01E+01	1.31E+06
180	1	116	154.5	0	2	40.4	19.5	17.3	0	0	231.1	0	1.3	2.22E-02	2.78E+03
180	2	116	154.5	0	2	40.4	19.5	17.3	0	0	231.1	0	1.2	1.05E+01	1.31E+06
180	1	117	151.9	0	2	39.9	19.2	17	0	0	231.1	0	1.3	2.32E-02	2.78E+03
180	2	117	151.9	0	2	39.9	19.2	17	0	0	231.1	0	1.2	1.10E+01	1.31E+06
180	1	118	149.3	0	2	39.3	18.9	16.8	0	0	231.1	0	1.3	2.42E-02	2.78E+03
180	2	118	149.3	0	2	39.3	18.9	16.8	0	0	231.1	0	1.2	1.15E+01	1.31E+06
180	1	119	146.6	0	2	38.8	18.6	16.5	0	0	231.1	0	1.3	2.53E-02	2.78E+03
180	2	119	146.6	0	2	38.8	18.6	16.5	0	0	231.1	0	1.2	1.20E+01	1.31E+06
180	1	120	144	0	2	38.3	18.3	16.3	0	0	231.1	0	1.3	2.65E-02	2.78E+03
180	2	120	144	0	2	38.3	18.3	16.3	0	0	231.1	0	1.2	1.26E+01	1.31E+06
180	1	121	141.3	0	2	37.8	18	16	0	0	231.1	0	1.3	2.77E-02	2.78E+03
180	2	121	141.3	0	2	37.8	18	16	0	0	231.1	0	1.2	1.32E+01	1.31E+06
180	1	122	138.5	0	2	37.2	17.6	15.8	0	0	231.1	0	1.3	2.91E-02	2.78E+03
180	2	122	138.5	0	2	37.2	17.6	15.8	0	0	231.1	0	1.2	1.38E+01	1.31E+06
180	1	123	135.9	0	2	36.7	17.3	15.5	0	0	231.1	0	1.3	3.05E-02	2.78E+03
180	2	123	135.9	0	2	36.7	17.3	15.5	0	0	231.1	0	1.2	1.45E+01	1.31E+06
180	1	124	133.5	0	2	36.2	17	15.3	0	0	231.1	0	1.3	3.20E-02	2.78E+03
180	2	124	133.5	0	2	36.2	17	15.3	0	0	231.1	0	1.2	1.52E+01	1.31E+06
180	1	125	131.1	0	2	35.6	16.7	15	0	0	231.1	0	1.3	3.36E-02	2.78E+03
180	2	125	131.1	0	2	35.6	16.7	15	0	0	231.1	0	1.2	1.60E+01	1.31E+06
180	1	126	128.7	0	2	35.1	16.4	14.8	0	0	231.1	0	1.3	3.54E-02	2.78E+03
180	2	126	128.7	0	2	35.1	16.4	14.8	0	0	231.1	0	1.2	1.68E+01	1.31E+06
180	1	127	126.2	0	2	34.6	16.1	14.5	0	0	231.1	0	1.3	3.72E-02	2.78E+03
180	2	127	126.2	0	2	34.6	16.1	14.5	0	0	231.1	0	1.2	1.76E+01	1.31E+06
180	1	128	123.8	0	2	34.1	15.8	14.3	0	0	231.1	0	1.3	3.91E-02	2.78E+03
180	2	128	123.8	0	2	34.1	15.8	14.3	0	0	231.1	0	1.2	1.85E+01	1.31E+06
180	1	129	121.3	0	2	33.6	15.5	14	0	0	231.1	0	1.3	4.12E-02	2.78E+03
180	2	129	121.3	0	2	33.6	15.5	14	0	0	231.1	0	1.2	1.95E+01	1.31E+06
180	1	130	118.9	0	2	33	15.2	13.8	0	0	231.1	0	1.3	4.33E-02	2.78E+03
180	2	130	118.9	0	2	33	15.2	13.8	0	0	231.1	0	1.2	2.06E+01	1.31E+06
180	1	131	116.4	0	2	32.5	14.9	13.5	0	0	231.1	0	1.3	4.57E-02	2.78E+03
180	2	131	116.4	0	2	32.5	14.9	13.5	0	0	231.1	0	1.2	2.17E+01	1.31E+06
180	1	132	113.8	0	2	32	14.6	13.3	0	0	231.1	0	1.3	4.82E-02	2.78E+03

180	2	132	113.8	0	2	32	14.6	13.3	0	0	231.1	0	1.2	2.29E+01	1.31E+06
180	1	133	111.2	0	2	31.5	14.3	13.1	0	0	231.1	0	1.3	5.09E-02	2.78E+03
180	2	133	111.2	0	2	31.5	14.3	13.1	0	0	231.1	0	1.2	2.41E+01	1.31E+06
180	1	134	108.8	0	2	31	14	12.8	0	0	231.1	0	1.3	5.39E-02	2.78E+03
180	2	134	108.8	0	2	31	14	12.8	0	0	231.1	0	1.2	2.55E+01	1.31E+06
180	1	135	106.6	0	2	30.5	13.7	12.6	0	0	231.1	0	1.3	5.70E-02	2.78E+03
180	2	135	106.6	0	2	30.5	13.7	12.6	0	0	231.1	0	1.2	2.70E+01	1.31E+06
180	1	136	104.4	0	2	29.9	13.4	12.3	0	0	231.1	0	1.3	6.04E-02	2.78E+03
180	2	136	104.4	0	2	29.9	13.4	12.3	0	0	231.1	0	1.2	2.86E+01	1.31E+06
180	1	137	102.1	0	2	29.4	13.1	12.1	0	0	231.1	0	1.3	6.40E-02	2.78E+03
180	2	137	102.1	0	2	29.4	13.1	12.1	0	0	231.1	0	1.2	3.03E+01	1.31E+06
180	1	138	99.8	0	2	28.9	12.8	11.8	0	0	231.1	0	1.3	6.78E-02	2.78E+03
180	2	138	99.8	0	2	28.9	12.8	11.8	0	0	231.1	0	1.2	3.22E+01	1.31E+06
180	1	139	97.6	0	2	28.4	12.6	11.6	0	0	231.1	0	1.3	7.20E-02	2.78E+03
180	2	139	97.6	0	2	28.4	12.6	11.6	0	0	231.1	0	1.2	3.41E+01	1.31E+06
180	1	140	95.3	0	2	27.9	12.3	11.4	0	0	231.1	0	1.3	7.64E-02	2.78E+03
180	2	140	95.3	0	2	27.9	12.3	11.4	0	0	231.1	0	1.2	3.63E+01	1.31E+06
180	1	141	93	0	2	27.4	12	11.1	0	0	231.1	0	1.3	8.13E-02	2.78E+03
180	2	141	93	0	2	27.4	12	11.1	0	0	231.1	0	1.2	3.85E+01	1.31E+06
180	1	142	90.7	0	2	26.9	11.7	10.9	0	0	231.1	0	1.3	8.65E-02	2.78E+03
180	2	142	90.7	0	2	26.9	11.7	10.9	0	0	231.1	0	1.2	4.10E+01	1.31E+06
180	1	143	88.3	0	2	26.4	11.5	10.7	0	0	231.1	0	1.3	9.21E-02	2.78E+03
180	2	143	88.3	0	2	26.4	11.5	10.7	0	0	231.1	0	1.2	4.37E+01	1.31E+06
180	1	144	85.9	0	2	25.9	11.2	10.4	0	0	231.1	0	1.3	9.84E-02	2.78E+03
180	2	144	85.9	0	2	25.9	11.2	10.4	0	0	231.1	0	1.2	4.66E+01	1.31E+06
180	1	145	83.7	0	2	25.4	10.9	10.2	0	0	231.1	0	1.3	1.05E-01	2.78E+03
180	2	145	83.7	0	2	25.4	10.9	10.2	0	0	231.1	0	1.2	4.99E+01	1.31E+06
180	1	146	81.7	0	2	24.8	10.6	9.9	0	0	231.1	0	1.3	1.13E-01	2.78E+03
180	2	146	81.7	0	2	24.8	10.6	9.9	0	0	231.1	0	1.2	5.34E+01	1.31E+06
180	1	147	79.6	0	2	24.3	10.3	9.7	0	0	231.1	0	1.3	1.21E-01	2.78E+03
180	2	147	79.6	0	2	24.3	10.3	9.7	0	0	231.1	0	1.2	5.72E+01	1.31E+06
180	1	148	77.6	0	2	23.8	10.1	9.5	0	0	231.1	0	1.3	1.29E-01	2.78E+03
180	2	148	77.6	0	2	23.8	10.1	9.5	0	0	231.1	0	1.2	6.13E+01	1.31E+06
180	1	149	75.5	0	2	23.3	9.8	9.2	0	0	231.1	0	1.3	1.39E-01	2.78E+03
180	2	149	75.5	0	2	23.3	9.8	9.2	0	0	231.1	0	1.2	6.58E+01	1.31E+06
180	1	150	73.5	0	2	22.8	9.6	9	0	0	231.1	0	1.3	1.49E-01	2.78E+03
180	2	150	73.5	0	2	22.8	9.6	9	0	0	231.1	0	1.2	7.07E+01	1.31E+06
180	1	151	71.4	0	2	22.3	9.3	8.8	0	0	231.1	0	1.3	1.60E-01	2.78E+03
180	2	151	71.4	0	2	22.3	9.3	8.8	0	0	231.1	0	1.2	7.60E+01	1.31E+06
180	1	152	69.3	0	2	21.8	9	8.6	0	0	231.1	0	1.3	1.73E-01	2.78E+03
180	2	152	69.3	0	2	21.8	9	8.6	0	0	231.1	0	1.2	8.18E+01	1.31E+06
180	1	153	67.2	0	2	21.3	8.8	8.3	0	0	231.1	0	1.3	1.86E-01	2.78E+03
180	2	153	67.2	0	2	21.3	8.8	8.3	0	0	231.1	0	1.2	8.82E+01	1.31E+06

180	1	154	65	0	2	20.9	8.5	8.1	0	0	231.1	0	1.3	2.01E-01	2.78E+03
180	2	154	65	0	2	20.9	8.5	8.1	0	0	231.1	0	1.2	9.53E+01	1.31E+06
180	1	155	62.8	0	2	20.4	8.3	7.9	0	0	231.1	0	1.3	2.18E-01	2.78E+03
180	2	155	62.8	0	2	20.4	8.3	7.9	0	0	231.1	0	1.2	1.03E+02	1.31E+06
180	1	156	60.9	0	2	19.9	8	7.7	0	0	231.1	0	1.3	2.37E-01	2.78E+03
180	2	156	60.9	0	2	19.9	8	7.7	0	0	231.1	0	1.2	1.12E+02	1.31E+06
180	1	157	59.1	0	2	19.4	7.8	7.4	0	0	231.1	0	1.3	2.57E-01	2.78E+03
180	2	157	59.1	0	2	19.4	7.8	7.4	0	0	231.1	0	1.2	1.22E+02	1.31E+06
180	1	158	57.3	0	2	18.9	7.5	7.2	0	0	231.1	0	1.3	2.80E-01	2.78E+03
180	2	158	57.3	0	2	18.9	7.5	7.2	0	0	231.1	0	1.2	1.33E+02	1.31E+06
180	1	159	55.5	0	2	18.4	7.3	7	0	0	231.1	0	1.3	3.06E-01	2.78E+03
180	2	159	55.5	0	2	18.4	7.3	7	0	0	231.1	0	1.2	1.45E+02	1.31E+06
180	1	160	53.6	0	2	17.9	7	6.8	0	0	231.1	0	1.3	3.34E-01	2.78E+03
180	2	160	53.6	0	2	17.9	7	6.8	0	0	231.1	0	1.2	1.58E+02	1.31E+06
180	1	161	51.8	0	2	17.4	6.8	6.6	0	0	231.1	0	1.3	3.65E-01	2.78E+03
180	2	161	51.8	0	2	17.4	6.8	6.6	0	0	231.1	0	1.2	1.73E+02	1.31E+06
180	1	162	50	0	2	16.9	6.6	6.4	0	0	231.1	0	1.3	4.00E-01	2.78E+03
180	2	162	50	0	2	16.9	6.6	6.4	0	0	231.1	0	1.2	1.89E+02	1.31E+06
180	1	163	48.1	0	2	16.4	6.3	6.1	0	0	231.1	0	1.3	4.38E-01	2.79E+03
180	2	163	48.1	0	2	16.4	6.3	6.1	0	0	231.1	0	1.2	2.08E+02	1.31E+06
180	1	164	46.2	0	2	15.9	6.1	5.9	0	0	231.1	0	1.3	4.82E-01	2.79E+03
180	2	164	46.2	0	2	15.9	6.1	5.9	0	0	231.1	0	1.2	2.28E+02	1.31E+06
180	1	165	44.3	0	2	15.5	5.9	5.7	0	0	231.1	0	1.3	5.31E-01	2.79E+03
180	2	165	44.3	0	2	15.5	5.9	5.7	0	0	231.1	0	1.2	2.52E+02	1.31E+06
180	1	166	42.3	0	2	15	5.7	5.5	0	0	231.1	0	1.3	5.89E-01	2.79E+03
180	2	166	42.3	0	2	15	5.7	5.5	0	0	231.1	0	1.2	2.79E+02	1.32E+06
180	1	167	40.7	0	2	14.5	5.4	5.3	0	0	231.1	0	1.3	6.56E-01	2.79E+03
180	2	167	40.7	0	2	14.5	5.4	5.3	0	0	231.1	0	1.2	3.11E+02	1.32E+06
180	1	168	39.2	0	2	14	5.2	5.1	0	0	231.1	0	1.3	7.32E-01	2.79E+03
180	2	168	39.2	0	2	14	5.2	5.1	0	0	231.1	0	1.2	3.47E+02	1.32E+06
180	1	169	37.7	0	2	13.5	5	4.9	0	0	231.1	0	1.3	8.18E-01	2.79E+03
180	2	169	37.7	0	2	13.5	5	4.9	0	0	231.1	0	1.2	3.88E+02	1.32E+06
180	1	170	36.1	0	2	13	4.8	4.7	0	0	231.1	0	1.3	9.16E-01	2.79E+03
180	2	170	36.1	0	2	13	4.8	4.7	0	0	231.1	0	1.2	4.34E+02	1.32E+06
180	1	171	34.6	0	2	12.6	4.6	4.5	0	0	231.1	0	1.3	1.03E+00	2.79E+03
180	2	171	34.6	0	2	12.6	4.6	4.5	0	0	231.1	0	1.2	4.86E+02	1.32E+06
180	1	172	33	0	2	12.1	4.3	4.3	0	0	231.1	0	1.3	1.15E+00	2.79E+03
180	2	172	33	0	2	12.1	4.3	4.3	0	0	231.1	0	1.2	5.46E+02	1.32E+06
180	1	173	31.5	0	2	11.6	4.1	4.1	0	0	231.1	0	1.3	1.30E+00	2.79E+03
180	2	173	31.5	0	2	11.6	4.1	4.1	0	0	231.1	0	1.2	6.15E+02	1.32E+06
180	1	174	29.9	0	2	11.2	4	3.9	0	0	231.1	0	1.3	1.47E+00	2.79E+03
180	2	174	29.9	0	2	11.2	4	3.9	0	0	231.1	0	1.2	6.95E+02	1.32E+06
180	1	175	28.3	0	2	10.7	3.8	3.7	0	0	231.1	0	1.3	1.66E+00	2.79E+03

180	2	175	28.3	0	2	10.7	3.8	3.7	0	0	231.1	0	1.2	7.87E+02	1.32E+06
180	1	176	26.7	0	2	10.2	3.6	3.6	0	0	231.1	0	1.3	1.89E+00	2.79E+03
180	2	176	26.7	0	2	10.2	3.6	3.6	0	0	231.1	0	1.2	8.96E+02	1.32E+06
180	1	177	25.1	0	2	9.7	3.4	3.4	0	0	231.1	0	1.3	2.19E+00	2.79E+03
180	2	177	25.1	0	2	9.7	3.4	3.4	0	0	231.1	0	1.2	1.03E+03	1.32E+06
180	1	178	23.9	0	2	9.3	3.2	3.2	0	0	231.1	0	1.3	2.55E+00	2.79E+03
180	2	178	23.9	0	2	9.3	3.2	3.2	0	0	231.1	0	1.2	1.21E+03	1.32E+06
180	1	179	22.7	0	2	8.8	2.9	3	0	0	231.1	0	1.3	2.98E+00	2.79E+03
180	2	179	22.7	0	2	8.8	2.9	3	0	0	231.1	0	1.2	1.41E+03	1.32E+06
180	1	180	21.5	0	2	8.3	2.8	2.8	0	0	231.1	0	1.3	3.50E+00	2.79E+03
180	2	180	21.5	0	2	8.3	2.8	2.8	0	0	231.1	0	1.2	1.65E+03	1.32E+06
180	1	181	20.3	0	2	7.9	2.6	2.6	0	0	231.1	0	1.3	4.12E+00	2.79E+03
180	2	181	20.3	0	2	7.9	2.6	2.6	0	0	231.1	0	1.2	1.95E+03	1.32E+06
180	1	182	19.1	0	2	7.4	2.4	2.4	0	0	231.1	0	1.3	4.88E+00	2.79E+03
180	2	182	19.1	0	2	7.4	2.4	2.4	0	0	231.1	0	1.2	2.31E+03	1.32E+06
180	1	183	18	0	2	6.9	2.2	2.3	0	0	231.1	0	1.3	5.82E+00	2.79E+03
180	2	183	18	0	2	6.9	2.2	2.3	0	0	231.1	0	1.2	2.75E+03	1.32E+06
180	1	184	16.8	0	2	6.5	2.1	2.1	0	0	231.1	0	1.3	7.00E+00	2.79E+03
180	2	184	16.8	0	2	6.5	2.1	2.1	0	0	231.1	0	1.2	3.31E+03	1.32E+06
180	1	185	15.6	0	2	6	1.9	2	0	0	231.1	0	1.3	8.50E+00	2.79E+03
180	2	185	15.6	0	2	6	1.9	2	0	0	231.1	0	1.2	4.02E+03	1.32E+06
180	1	186	14.4	0	2	5.6	1.8	1.8	0	0	231.1	0	1.3	1.05E+01	2.79E+03
180	2	186	14.4	0	2	5.6	1.8	1.8	0	0	231.1	0	1.2	4.95E+03	1.32E+06
180	1	187	13.3	0	2	5.1	1.6	1.7	0	0	231.1	0	1.3	1.31E+01	2.79E+03
180	2	187	13.3	0	2	5.1	1.6	1.7	0	0	231.1	0	1.2	6.20E+03	1.32E+06
180	1	188	12.1	0	2	4.7	1.4	1.5	0	0	231.1	0	1.3	1.80E+01	2.79E+03
180	2	188	12.1	0	2	4.7	1.4	1.5	0	0	231.1	0	1.2	8.50E+03	1.32E+06
180	1	189	10.9	0	2	4.2	1.3	1.3	0	0	231.1	0	1.3	2.65E+01	2.79E+03
180	2	189	10.9	0	2	4.2	1.3	1.3	0	0	231.1	0	1.2	1.25E+04	1.32E+06
180	1	190	9.7	0	2	3.7	1.1	1.1	0	0	231.1	0	1.3	4.09E+01	2.79E+03
180	2	190	9.7	0	2	3.7	1.1	1.1	0	0	231.1	0	1.2	1.93E+04	1.32E+06
180	1	191	8.5	0	2	3.3	0.9	0.9	0	0	231.1	0	1.3	6.67E+01	2.79E+03
180	2	191	8.5	0	2	3.3	0.9	0.9	0	0	231.1	0	1.2	3.15E+04	1.32E+06
180	1	192	7.4	0	2	2.8	0.7	0.7	0	0	231.1	0	1.3	1.15E+02	2.79E+03
180	2	192	7.4	0	2	2.8	0.7	0.7	0	0	231.1	0	1.2	5.44E+04	1.32E+06
180	1	193	6.2	0	2	2.4	0.6	0.6	0	0	231.1	0	1.3	2.13E+02	2.79E+03
180	2	193	6.2	0	2	2.4	0.6	0.6	0	0	231.1	0	1.2	1.01E+05	1.32E+06
180	1	194	5	0	2	1.9	0.5	0.5	0	0	231.1	0	1.3	4.25E+02	2.79E+03
180	2	194	5	0	2	1.9	0.5	0.5	0	0	231.1	0	1.2	2.00E+05	1.32E+06
180	1	195	3.8	0	2	1.5	0.4	0.4	0	0	231.1	0	1.3	8.95E+02	2.79E+03
180	2	195	3.8	0	2	1.5	0.4	0.4	0	0	231.1	0	1.2	4.22E+05	1.32E+06
180	1	196	2.7	0	2	1.1	0.3	0.3	0	0	231.1	0	1.3	1.88E+03	2.79E+03
180	2	196	2.7	0	2	1.1	0.3	0.3	0	0	231.1	0	1.2	8.89E+05	1.32E+06

180	1	197	1.5	0	2	0.7	0.3	0.3	0	0	231.1	0	1.3	3.61E+03	2.79E+03
180	2	197	1.5	0	2	0.7	0.3	0.3	0	0	231.1	0	1.2	1.71E+06	1.32E+06
180	1	198	0.3	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.53E+03	2.79E+03
180	2	198	0.3	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.61E+06	1.32E+06
180	1	199	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
180	2	199	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
180	1	200	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
180	2	200	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
180	1	201	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
180	2	201	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
180	1	202	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
180	2	202	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
180	1	203	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
180	2	203	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
180	1	204	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
180	2	204	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
180	1	205	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
180	2	205	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
180	1	206	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
180	2	206	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
180	1	207	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
180	2	207	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
180	1	208	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
180	2	208	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
180	1	209	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
180	2	209	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
240	1	1	797.8	0	2	146.2	92.6	60.9	0	0	231.1	0	1.3	3.69E-04	2.78E+03
240	2	1	797.8	0	2	146.2	92.6	60.9	0	0	231.1	0	1.2	1.75E-01	1.31E+06
240	1	2	793.3	0	2	145.5	92.2	60.7	0	0	231.1	0	1.3	3.73E-04	2.78E+03
240	2	2	793.3	0	2	145.5	92.2	60.7	0	0	231.1	0	1.2	1.77E-01	1.31E+06
240	1	3	789.2	0	2	144.9	91.7	60.5	0	0	231.1	0	1.3	3.78E-04	2.78E+03
240	2	3	789.2	0	2	144.9	91.7	60.5	0	0	231.1	0	1.2	1.79E-01	1.31E+06
240	1	4	785.1	0	2	144.3	91.3	60.3	0	0	231.1	0	1.3	3.83E-04	2.78E+03
240	2	4	785.1	0	2	144.3	91.3	60.3	0	0	231.1	0	1.2	1.82E-01	1.31E+06
240	1	5	780.9	0	2	143.7	90.8	60	0	0	231.1	0	1.3	3.88E-04	2.78E+03
240	2	5	780.9	0	2	143.7	90.8	60	0	0	231.1	0	1.2	1.84E-01	1.31E+06
240	1	6	776.8	0	2	143	90.4	59.8	0	0	231.1	0	1.3	3.93E-04	2.78E+03
240	2	6	776.8	0	2	143	90.4	59.8	0	0	231.1	0	1.2	1.86E-01	1.31E+06
240	1	7	772.6	0	2	142.4	89.9	59.6	0	0	231.1	0	1.3	3.98E-04	2.78E+03
240	2	7	772.6	0	2	142.4	89.9	59.6	0	0	231.1	0	1.2	1.89E-01	1.31E+06
240	1	8	768.4	0	2	141.8	89.5	59.4	0	0	231.1	0	1.3	4.04E-04	2.78E+03
240	2	8	768.4	0	2	141.8	89.5	59.4	0	0	231.1	0	1.2	1.91E-01	1.31E+06
240	1	9	764.2	0	2	141.2	89	59.2	0	0	231.1	0	1.3	4.09E-04	2.78E+03

240	2	9	764.2	0	2	141.2	89	59.2	0	0	231.1	0	1.2	1.94E-01	1.31E+06
240	1	10	759.9	0	2	140.6	88.5	59	0	0	231.1	0	1.3	4.14E-04	2.78E+03
240	2	10	759.9	0	2	140.6	88.5	59	0	0	231.1	0	1.2	1.97E-01	1.31E+06
240	1	11	755.6	0	2	140	88.1	58.7	0	0	231.1	0	1.3	4.20E-04	2.78E+03
240	2	11	755.6	0	2	140	88.1	58.7	0	0	231.1	0	1.2	1.99E-01	1.31E+06
240	1	12	751.3	0	2	139.3	87.6	58.5	0	0	231.1	0	1.3	4.26E-04	2.78E+03
240	2	12	751.3	0	2	139.3	87.6	58.5	0	0	231.1	0	1.2	2.02E-01	1.31E+06
240	1	13	746.9	0	2	138.7	87.2	58.3	0	0	231.1	0	1.3	4.31E-04	2.78E+03
240	2	13	746.9	0	2	138.7	87.2	58.3	0	0	231.1	0	1.2	2.05E-01	1.31E+06
240	1	14	742.8	0	2	138.1	86.7	58.1	0	0	231.1	0	1.3	4.37E-04	2.78E+03
240	2	14	742.8	0	2	138.1	86.7	58.1	0	0	231.1	0	1.2	2.07E-01	1.31E+06
240	1	15	738.8	0	2	137.5	86.3	57.9	0	0	231.1	0	1.3	4.43E-04	2.78E+03
240	2	15	738.8	0	2	137.5	86.3	57.9	0	0	231.1	0	1.2	2.10E-01	1.31E+06
240	1	16	734.7	0	2	136.9	85.8	57.6	0	0	231.1	0	1.3	4.49E-04	2.78E+03
240	2	16	734.7	0	2	136.9	85.8	57.6	0	0	231.1	0	1.2	2.13E-01	1.31E+06
240	1	17	730.6	0	2	136.2	85.4	57.4	0	0	231.1	0	1.3	4.55E-04	2.78E+03
240	2	17	730.6	0	2	136.2	85.4	57.4	0	0	231.1	0	1.2	2.16E-01	1.31E+06
240	1	18	726.5	0	2	135.6	84.9	57.2	0	0	231.1	0	1.3	4.62E-04	2.78E+03
240	2	18	726.5	0	2	135.6	84.9	57.2	0	0	231.1	0	1.2	2.19E-01	1.31E+06
240	1	19	722.4	0	2	135	84.5	57	0	0	231.1	0	1.3	4.68E-04	2.78E+03
240	2	19	722.4	0	2	135	84.5	57	0	0	231.1	0	1.2	2.22E-01	1.31E+06
240	1	20	718.2	0	2	134.4	84	56.8	0	0	231.1	0	1.3	4.74E-04	2.78E+03
240	2	20	718.2	0	2	134.4	84	56.8	0	0	231.1	0	1.2	2.25E-01	1.31E+06
240	1	21	714.1	0	2	133.8	83.6	56.5	0	0	231.1	0	1.3	4.81E-04	2.78E+03
240	2	21	714.1	0	2	133.8	83.6	56.5	0	0	231.1	0	1.2	2.28E-01	1.31E+06
240	1	22	709.8	0	2	133.2	83.1	56.3	0	0	231.1	0	1.3	4.88E-04	2.78E+03
240	2	22	709.8	0	2	133.2	83.1	56.3	0	0	231.1	0	1.2	2.31E-01	1.31E+06
240	1	23	705.6	0	2	132.5	82.7	56.1	0	0	231.1	0	1.3	4.95E-04	2.78E+03
240	2	23	705.6	0	2	132.5	82.7	56.1	0	0	231.1	0	1.2	2.35E-01	1.31E+06
240	1	24	701.2	0	2	131.9	82.2	55.9	0	0	231.1	0	1.3	5.02E-04	2.78E+03
240	2	24	701.2	0	2	131.9	82.2	55.9	0	0	231.1	0	1.2	2.38E-01	1.31E+06
240	1	25	697.3	0	2	131.3	81.8	55.6	0	0	231.1	0	1.3	5.09E-04	2.78E+03
240	2	25	697.3	0	2	131.3	81.8	55.6	0	0	231.1	0	1.2	2.41E-01	1.31E+06
240	1	26	693.3	0	2	130.7	81.3	55.4	0	0	231.1	0	1.3	5.16E-04	2.78E+03
240	2	26	693.3	0	2	130.7	81.3	55.4	0	0	231.1	0	1.2	2.45E-01	1.31E+06
240	1	27	689.3	0	2	130.1	80.9	55.2	0	0	231.1	0	1.3	5.24E-04	2.78E+03
240	2	27	689.3	0	2	130.1	80.9	55.2	0	0	231.1	0	1.2	2.48E-01	1.31E+06
240	1	28	685.3	0	2	129.5	80.5	55	0	0	231.1	0	1.3	5.31E-04	2.78E+03
240	2	28	685.3	0	2	129.5	80.5	55	0	0	231.1	0	1.2	2.52E-01	1.31E+06
240	1	29	681.2	0	2	128.9	80	54.7	0	0	231.1	0	1.3	5.39E-04	2.78E+03
240	2	29	681.2	0	2	128.9	80	54.7	0	0	231.1	0	1.2	2.56E-01	1.31E+06
240	1	30	677.2	0	2	128.2	79.6	54.5	0	0	231.1	0	1.3	5.47E-04	2.78E+03
240	2	30	677.2	0	2	128.2	79.6	54.5	0	0	231.1	0	1.2	2.59E-01	1.31E+06

240	1	31	673.1	0	2	127.6	79.1	54.3	0	0	231.1	0	1.3	5.55E-04	2.78E+03
240	2	31	673.1	0	2	127.6	79.1	54.3	0	0	231.1	0	1.2	2.63E-01	1.31E+06
240	1	32	669	0	2	127	78.7	54.1	0	0	231.1	0	1.3	5.63E-04	2.78E+03
240	2	32	669	0	2	127	78.7	54.1	0	0	231.1	0	1.2	2.67E-01	1.31E+06
240	1	33	664.8	0	2	126.4	78.2	53.8	0	0	231.1	0	1.3	5.71E-04	2.78E+03
240	2	33	664.8	0	2	126.4	78.2	53.8	0	0	231.1	0	1.2	2.71E-01	1.31E+06
240	1	34	660.6	0	2	125.8	77.8	53.6	0	0	231.1	0	1.3	5.80E-04	2.78E+03
240	2	34	660.6	0	2	125.8	77.8	53.6	0	0	231.1	0	1.2	2.75E-01	1.31E+06
240	1	35	656.4	0	2	125.2	77.3	53.4	0	0	231.1	0	1.3	5.88E-04	2.78E+03
240	2	35	656.4	0	2	125.2	77.3	53.4	0	0	231.1	0	1.2	2.79E-01	1.31E+06
240	1	36	652.5	0	2	124.6	76.9	53.2	0	0	231.1	0	1.3	5.97E-04	2.78E+03
240	2	36	652.5	0	2	124.6	76.9	53.2	0	0	231.1	0	1.2	2.83E-01	1.31E+06
240	1	37	648.6	0	2	124	76.5	52.9	0	0	231.1	0	1.3	6.06E-04	2.78E+03
240	2	37	648.6	0	2	124	76.5	52.9	0	0	231.1	0	1.2	2.88E-01	1.31E+06
240	1	38	644.7	0	2	123.3	76	52.7	0	0	231.1	0	1.3	6.15E-04	2.78E+03
240	2	38	644.7	0	2	123.3	76	52.7	0	0	231.1	0	1.2	2.92E-01	1.31E+06
240	1	39	640.7	0	2	122.7	75.6	52.5	0	0	231.1	0	1.3	6.25E-04	2.78E+03
240	2	39	640.7	0	2	122.7	75.6	52.5	0	0	231.1	0	1.2	2.96E-01	1.31E+06
240	1	40	636.8	0	2	122.1	75.1	52.3	0	0	231.1	0	1.3	6.34E-04	2.78E+03
240	2	40	636.8	0	2	122.1	75.1	52.3	0	0	231.1	0	1.2	3.01E-01	1.31E+06
240	1	41	632.8	0	2	121.5	74.7	52	0	0	231.1	0	1.3	6.44E-04	2.78E+03
240	2	41	632.8	0	2	121.5	74.7	52	0	0	231.1	0	1.2	3.05E-01	1.31E+06
240	1	42	628.8	0	2	120.9	74.3	51.8	0	0	231.1	0	1.3	6.54E-04	2.78E+03
240	2	42	628.8	0	2	120.9	74.3	51.8	0	0	231.1	0	1.2	3.10E-01	1.31E+06
240	1	43	624.8	0	2	120.3	73.8	51.6	0	0	231.1	0	1.3	6.64E-04	2.78E+03
240	2	43	624.8	0	2	120.3	73.8	51.6	0	0	231.1	0	1.2	3.15E-01	1.31E+06
240	1	44	620.7	0	2	119.7	73.4	51.3	0	0	231.1	0	1.3	6.75E-04	2.78E+03
240	2	44	620.7	0	2	119.7	73.4	51.3	0	0	231.1	0	1.2	3.20E-01	1.31E+06
240	1	45	616.5	0	2	119.1	72.9	51.1	0	0	231.1	0	1.3	6.85E-04	2.78E+03
240	2	45	616.5	0	2	119.1	72.9	51.1	0	0	231.1	0	1.2	3.25E-01	1.31E+06
240	1	46	612.4	0	2	118.5	72.5	50.9	0	0	231.1	0	1.3	6.96E-04	2.78E+03
240	2	46	612.4	0	2	118.5	72.5	50.9	0	0	231.1	0	1.2	3.30E-01	1.31E+06
240	1	47	608.6	0	2	117.9	72.1	50.6	0	0	231.1	0	1.3	7.07E-04	2.78E+03
240	2	47	608.6	0	2	117.9	72.1	50.6	0	0	231.1	0	1.2	3.35E-01	1.31E+06
240	1	48	604.8	0	2	117.3	71.6	50.4	0	0	231.1	0	1.3	7.18E-04	2.78E+03
240	2	48	604.8	0	2	117.3	71.6	50.4	0	0	231.1	0	1.2	3.41E-01	1.31E+06
240	1	49	600.9	0	2	116.7	71.2	50.2	0	0	231.1	0	1.3	7.30E-04	2.78E+03
240	2	49	600.9	0	2	116.7	71.2	50.2	0	0	231.1	0	1.2	3.46E-01	1.31E+06
240	1	50	597	0	2	116	70.7	49.9	0	0	231.1	0	1.3	7.42E-04	2.78E+03
240	2	50	597	0	2	116	70.7	49.9	0	0	231.1	0	1.2	3.52E-01	1.31E+06
240	1	51	593.2	0	2	115.4	70.3	49.7	0	0	231.1	0	1.3	7.54E-04	2.78E+03
240	2	51	593.2	0	2	115.4	70.3	49.7	0	0	231.1	0	1.2	3.57E-01	1.31E+06
240	1	52	589.3	0	2	114.8	69.9	49.5	0	0	231.1	0	1.3	7.66E-04	2.78E+03

240	2	52	589.3	0	2	114.8	69.9	49.5	0	0	231.1	0	1.2	3.63E-01	1.31E+06
240	1	53	585.3	0	2	114.2	69.4	49.3	0	0	231.1	0	1.3	7.79E-04	2.78E+03
240	2	53	585.3	0	2	114.2	69.4	49.3	0	0	231.1	0	1.2	3.69E-01	1.31E+06
240	1	54	581.4	0	2	113.6	69	49	0	0	231.1	0	1.3	7.91E-04	2.78E+03
240	2	54	581.4	0	2	113.6	69	49	0	0	231.1	0	1.2	3.75E-01	1.31E+06
240	1	55	577.4	0	2	113	68.6	48.8	0	0	231.1	0	1.3	8.04E-04	2.78E+03
240	2	55	577.4	0	2	113	68.6	48.8	0	0	231.1	0	1.2	3.82E-01	1.31E+06
240	1	56	573.3	0	2	112.4	68.1	48.6	0	0	231.1	0	1.3	8.18E-04	2.78E+03
240	2	56	573.3	0	2	112.4	68.1	48.6	0	0	231.1	0	1.2	3.88E-01	1.31E+06
240	1	57	569.3	0	2	111.8	67.7	48.3	0	0	231.1	0	1.3	8.32E-04	2.78E+03
240	2	57	569.3	0	2	111.8	67.7	48.3	0	0	231.1	0	1.2	3.94E-01	1.31E+06
240	1	58	565.5	0	2	111.2	67.3	48.1	0	0	231.1	0	1.3	8.46E-04	2.78E+03
240	2	58	565.5	0	2	111.2	67.3	48.1	0	0	231.1	0	1.2	4.01E-01	1.31E+06
240	1	59	561.8	0	2	110.6	66.8	47.8	0	0	231.1	0	1.3	8.60E-04	2.78E+03
240	2	59	561.8	0	2	110.6	66.8	47.8	0	0	231.1	0	1.2	4.08E-01	1.31E+06
240	1	60	558	0	2	110	66.4	47.6	0	0	231.1	0	1.3	8.75E-04	2.78E+03
240	2	60	558	0	2	110	66.4	47.6	0	0	231.1	0	1.2	4.15E-01	1.31E+06
240	1	61	554.2	0	2	109.4	66	47.4	0	0	231.1	0	1.3	8.89E-04	2.78E+03
240	2	61	554.2	0	2	109.4	66	47.4	0	0	231.1	0	1.2	4.22E-01	1.31E+06
240	1	62	550.4	0	2	108.8	65.6	47.1	0	0	231.1	0	1.3	9.05E-04	2.78E+03
240	2	62	550.4	0	2	108.8	65.6	47.1	0	0	231.1	0	1.2	4.29E-01	1.31E+06
240	1	63	546.6	0	2	108.2	65.1	46.9	0	0	231.1	0	1.3	9.20E-04	2.78E+03
240	2	63	546.6	0	2	108.2	65.1	46.9	0	0	231.1	0	1.2	4.37E-01	1.31E+06
240	1	64	542.8	0	2	107.6	64.7	46.7	0	0	231.1	0	1.3	9.36E-04	2.78E+03
240	2	64	542.8	0	2	107.6	64.7	46.7	0	0	231.1	0	1.2	4.44E-01	1.31E+06
240	1	65	538.9	0	2	107	64.3	46.4	0	0	231.1	0	1.3	9.53E-04	2.78E+03
240	2	65	538.9	0	2	107	64.3	46.4	0	0	231.1	0	1.2	4.52E-01	1.31E+06
240	1	66	535	0	2	106.4	63.8	46.2	0	0	231.1	0	1.3	9.69E-04	2.78E+03
240	2	66	535	0	2	106.4	63.8	46.2	0	0	231.1	0	1.2	4.60E-01	1.31E+06
240	1	67	531	0	2	105.8	63.4	46	0	0	231.1	0	1.3	9.87E-04	2.78E+03
240	2	67	531	0	2	105.8	63.4	46	0	0	231.1	0	1.2	4.68E-01	1.31E+06
240	1	68	527	0	2	105.2	63	45.7	0	0	231.1	0	1.3	1.00E-03	2.78E+03
240	2	68	527	0	2	105.2	63	45.7	0	0	231.1	0	1.2	4.76E-01	1.31E+06
240	1	69	523.4	0	2	104.6	62.6	45.5	0	0	231.1	0	1.3	1.02E-03	2.78E+03
240	2	69	523.4	0	2	104.6	62.6	45.5	0	0	231.1	0	1.2	4.85E-01	1.31E+06
240	1	70	519.7	0	2	104	62.1	45.2	0	0	231.1	0	1.3	1.04E-03	2.78E+03
240	2	70	519.7	0	2	104	62.1	45.2	0	0	231.1	0	1.2	4.94E-01	1.31E+06
240	1	71	516	0	2	103.4	61.7	45	0	0	231.1	0	1.3	1.06E-03	2.78E+03
240	2	71	516	0	2	103.4	61.7	45	0	0	231.1	0	1.2	5.02E-01	1.31E+06
240	1	72	512.3	0	2	102.8	61.3	44.8	0	0	231.1	0	1.3	1.08E-03	2.78E+03
240	2	72	512.3	0	2	102.8	61.3	44.8	0	0	231.1	0	1.2	5.12E-01	1.31E+06
240	1	73	508.6	0	2	102.2	60.9	44.5	0	0	231.1	0	1.3	1.10E-03	2.78E+03
240	2	73	508.6	0	2	102.2	60.9	44.5	0	0	231.1	0	1.2	5.21E-01	1.31E+06

240	1	74	504.9	0	2	101.6	60.4	44.3	0	0	231.1	0	1.3	1.12E-03	2.78E+03
240	2	74	504.9	0	2	101.6	60.4	44.3	0	0	231.1	0	1.2	5.31E-01	1.31E+06
240	1	75	501.1	0	2	101	60	44	0	0	231.1	0	1.3	1.14E-03	2.78E+03
240	2	75	501.1	0	2	101	60	44	0	0	231.1	0	1.2	5.40E-01	1.31E+06
240	1	76	497.3	0	2	100.4	59.6	43.8	0	0	231.1	0	1.3	1.16E-03	2.78E+03
240	2	76	497.3	0	2	100.4	59.6	43.8	0	0	231.1	0	1.2	5.50E-01	1.31E+06
240	1	77	493.5	0	2	99.8	59.2	43.6	0	0	231.1	0	1.3	1.18E-03	2.78E+03
240	2	77	493.5	0	2	99.8	59.2	43.6	0	0	231.1	0	1.2	5.61E-01	1.31E+06
240	1	78	489.5	0	2	99.2	58.8	43.3	0	0	231.1	0	1.3	1.20E-03	2.78E+03
240	2	78	489.5	0	2	99.2	58.8	43.3	0	0	231.1	0	1.2	5.71E-01	1.31E+06
240	1	79	485.7	0	2	98.6	58.3	43.1	0	0	231.1	0	1.3	1.23E-03	2.78E+03
240	2	79	485.7	0	2	98.6	58.3	43.1	0	0	231.1	0	1.2	5.82E-01	1.31E+06
240	1	80	482.2	0	2	98	57.9	42.8	0	0	231.1	0	1.3	1.25E-03	2.78E+03
240	2	80	482.2	0	2	98	57.9	42.8	0	0	231.1	0	1.2	5.93E-01	1.31E+06
240	1	81	478.6	0	2	97.4	57.5	42.6	0	0	231.1	0	1.3	1.27E-03	2.78E+03
240	2	81	478.6	0	2	97.4	57.5	42.6	0	0	231.1	0	1.2	6.05E-01	1.31E+06
240	1	82	475	0	2	96.8	57.1	42.4	0	0	231.1	0	1.3	1.30E-03	2.78E+03
240	2	82	475	0	2	96.8	57.1	42.4	0	0	231.1	0	1.2	6.16E-01	1.31E+06
240	1	83	471.4	0	2	96.2	56.7	42.1	0	0	231.1	0	1.3	1.32E-03	2.78E+03
240	2	83	471.4	0	2	96.2	56.7	42.1	0	0	231.1	0	1.2	6.28E-01	1.31E+06
240	1	84	467.7	0	2	95.6	56.2	41.9	0	0	231.1	0	1.3	1.35E-03	2.78E+03
240	2	84	467.7	0	2	95.6	56.2	41.9	0	0	231.1	0	1.2	6.41E-01	1.31E+06
240	1	85	464.1	0	2	95.1	55.8	41.6	0	0	231.1	0	1.3	1.38E-03	2.78E+03
240	2	85	464.1	0	2	95.1	55.8	41.6	0	0	231.1	0	1.2	6.53E-01	1.31E+06
240	1	86	460.4	0	2	94.5	55.4	41.4	0	0	231.1	0	1.3	1.40E-03	2.78E+03
240	2	86	460.4	0	2	94.5	55.4	41.4	0	0	231.1	0	1.2	6.66E-01	1.31E+06
240	1	87	456.7	0	2	93.9	55	41.1	0	0	231.1	0	1.3	1.43E-03	2.78E+03
240	2	87	456.7	0	2	93.9	55	41.1	0	0	231.1	0	1.2	6.79E-01	1.31E+06
240	1	88	453	0	2	93.3	54.6	40.9	0	0	231.1	0	1.3	1.46E-03	2.78E+03
240	2	88	453	0	2	93.3	54.6	40.9	0	0	231.1	0	1.2	6.93E-01	1.31E+06
240	1	89	449.1	0	2	92.7	54.2	40.7	0	0	231.1	0	1.3	1.49E-03	2.78E+03
240	2	89	449.1	0	2	92.7	54.2	40.7	0	0	231.1	0	1.2	7.07E-01	1.31E+06
240	1	90	445.4	0	2	92.1	53.7	40.4	0	0	231.1	0	1.3	1.52E-03	2.78E+03
240	2	90	445.4	0	2	92.1	53.7	40.4	0	0	231.1	0	1.2	7.21E-01	1.31E+06
240	1	91	441.9	0	2	91.5	53.3	40.2	0	0	231.1	0	1.3	1.55E-03	2.78E+03
240	2	91	441.9	0	2	91.5	53.3	40.2	0	0	231.1	0	1.2	7.36E-01	1.31E+06
240	1	92	438.4	0	2	90.9	52.9	39.9	0	0	231.1	0	1.3	1.58E-03	2.78E+03
240	2	92	438.4	0	2	90.9	52.9	39.9	0	0	231.1	0	1.2	7.51E-01	1.31E+06
240	1	93	434.9	0	2	90.3	52.5	39.7	0	0	231.1	0	1.3	1.62E-03	2.78E+03
240	2	93	434.9	0	2	90.3	52.5	39.7	0	0	231.1	0	1.2	7.67E-01	1.31E+06
240	1	94	431.4	0	2	89.7	52.1	39.4	0	0	231.1	0	1.3	1.65E-03	2.78E+03
240	2	94	431.4	0	2	89.7	52.1	39.4	0	0	231.1	0	1.2	7.82E-01	1.31E+06
240	1	95	427.9	0	2	89.2	51.7	39.2	0	0	231.1	0	1.3	1.68E-03	2.78E+03

240	2	95	427.9	0	2	89.2	51.7	39.2	0	0	231.1	0	1.2	7.99E-01	1.31E+06
240	1	96	424.3	0	2	88.6	51.3	38.9	0	0	231.1	0	1.3	1.72E-03	2.78E+03
240	2	96	424.3	0	2	88.6	51.3	38.9	0	0	231.1	0	1.2	8.16E-01	1.31E+06
240	1	97	420.7	0	2	88	50.9	38.7	0	0	231.1	0	1.3	1.76E-03	2.78E+03
240	2	97	420.7	0	2	88	50.9	38.7	0	0	231.1	0	1.2	8.33E-01	1.31E+06
240	1	98	417.1	0	2	87.4	50.5	38.4	0	0	231.1	0	1.3	1.79E-03	2.78E+03
240	2	98	417.1	0	2	87.4	50.5	38.4	0	0	231.1	0	1.2	8.51E-01	1.31E+06
240	1	99	413.4	0	2	86.8	50.1	38.2	0	0	231.1	0	1.3	1.83E-03	2.78E+03
240	2	99	413.4	0	2	86.8	50.1	38.2	0	0	231.1	0	1.2	8.69E-01	1.31E+06
240	1	100	409.7	0	2	86.2	49.7	37.9	0	0	231.1	0	1.3	1.87E-03	2.78E+03
240	2	100	409.7	0	2	86.2	49.7	37.9	0	0	231.1	0	1.2	8.88E-01	1.31E+06
240	1	101	406.1	0	2	85.6	49.3	37.7	0	0	231.1	0	1.3	1.91E-03	2.78E+03
240	2	101	406.1	0	2	85.6	49.3	37.7	0	0	231.1	0	1.2	9.07E-01	1.31E+06
240	1	102	402.7	0	2	85.1	48.8	37.4	0	0	231.1	0	1.3	1.95E-03	2.78E+03
240	2	102	402.7	0	2	85.1	48.8	37.4	0	0	231.1	0	1.2	9.27E-01	1.31E+06
240	1	103	399.3	0	2	84.5	48.4	37.2	0	0	231.1	0	1.3	2.00E-03	2.78E+03
240	2	103	399.3	0	2	84.5	48.4	37.2	0	0	231.1	0	1.2	9.47E-01	1.31E+06
240	1	104	395.9	0	2	83.9	48	36.9	0	0	231.1	0	1.3	2.04E-03	2.78E+03
240	2	104	395.9	0	2	83.9	48	36.9	0	0	231.1	0	1.2	9.68E-01	1.31E+06
240	1	105	392.5	0	2	83.3	47.6	36.7	0	0	231.1	0	1.3	2.09E-03	2.78E+03
240	2	105	392.5	0	2	83.3	47.6	36.7	0	0	231.1	0	1.2	9.90E-01	1.31E+06
240	1	106	389	0	2	82.7	47.2	36.5	0	0	231.1	0	1.3	2.13E-03	2.78E+03
240	2	106	389	0	2	82.7	47.2	36.5	0	0	231.1	0	1.2	1.01E+00	1.31E+06
240	1	107	385.6	0	2	82.1	46.8	36.2	0	0	231.1	0	1.3	2.18E-03	2.78E+03
240	2	107	385.6	0	2	82.1	46.8	36.2	0	0	231.1	0	1.2	1.04E+00	1.31E+06
240	1	108	382.1	0	2	81.6	46.4	36	0	0	231.1	0	1.3	2.23E-03	2.78E+03
240	2	108	382.1	0	2	81.6	46.4	36	0	0	231.1	0	1.2	1.06E+00	1.31E+06
240	1	109	378.5	0	2	81	46	35.7	0	0	231.1	0	1.3	2.28E-03	2.78E+03
240	2	109	378.5	0	2	81	46	35.7	0	0	231.1	0	1.2	1.08E+00	1.31E+06
240	1	110	375	0	2	80.4	45.6	35.5	0	0	231.1	0	1.3	2.34E-03	2.78E+03
240	2	110	375	0	2	80.4	45.6	35.5	0	0	231.1	0	1.2	1.11E+00	1.31E+06
240	1	111	371.3	0	2	79.8	45.2	35.2	0	0	231.1	0	1.3	2.39E-03	2.78E+03
240	2	111	371.3	0	2	79.8	45.2	35.2	0	0	231.1	0	1.2	1.13E+00	1.31E+06
240	1	112	367.9	0	2	79.2	44.8	35	0	0	231.1	0	1.3	2.45E-03	2.78E+03
240	2	112	367.9	0	2	79.2	44.8	35	0	0	231.1	0	1.2	1.16E+00	1.31E+06
240	1	113	364.6	0	2	78.7	44.4	34.7	0	0	231.1	0	1.3	2.51E-03	2.78E+03
240	2	113	364.6	0	2	78.7	44.4	34.7	0	0	231.1	0	1.2	1.19E+00	1.31E+06
240	1	114	361.3	0	2	78.1	44	34.5	0	0	231.1	0	1.3	2.57E-03	2.78E+03
240	2	114	361.3	0	2	78.1	44	34.5	0	0	231.1	0	1.2	1.22E+00	1.31E+06
240	1	115	357.9	0	2	77.5	43.7	34.2	0	0	231.1	0	1.3	2.63E-03	2.78E+03
240	2	115	357.9	0	2	77.5	43.7	34.2	0	0	231.1	0	1.2	1.25E+00	1.31E+06
240	1	116	354.6	0	2	76.9	43.3	34	0	0	231.1	0	1.3	2.69E-03	2.78E+03
240	2	116	354.6	0	2	76.9	43.3	34	0	0	231.1	0	1.2	1.28E+00	1.31E+06

240	1	117	351.3	0	2	76.4	42.9	33.7	0	0	231.1	0	1.3	2.76E-03	2.78E+03
240	2	117	351.3	0	2	76.4	42.9	33.7	0	0	231.1	0	1.2	1.31E+00	1.31E+06
240	1	118	347.9	0	2	75.8	42.5	33.4	0	0	231.1	0	1.3	2.82E-03	2.78E+03
240	2	118	347.9	0	2	75.8	42.5	33.4	0	0	231.1	0	1.2	1.34E+00	1.31E+06
240	1	119	344.5	0	2	75.2	42.1	33.2	0	0	231.1	0	1.3	2.89E-03	2.78E+03
240	2	119	344.5	0	2	75.2	42.1	33.2	0	0	231.1	0	1.2	1.37E+00	1.31E+06
240	1	120	341.1	0	2	74.6	41.7	32.9	0	0	231.1	0	1.3	2.96E-03	2.78E+03
240	2	120	341.1	0	2	74.6	41.7	32.9	0	0	231.1	0	1.2	1.41E+00	1.31E+06
240	1	121	337.6	0	2	74.1	41.3	32.7	0	0	231.1	0	1.3	3.04E-03	2.78E+03
240	2	121	337.6	0	2	74.1	41.3	32.7	0	0	231.1	0	1.2	1.44E+00	1.31E+06
240	1	122	334.1	0	2	73.5	40.9	32.4	0	0	231.1	0	1.3	3.12E-03	2.78E+03
240	2	122	334.1	0	2	73.5	40.9	32.4	0	0	231.1	0	1.2	1.48E+00	1.31E+06
240	1	123	330.7	0	2	72.9	40.5	32.2	0	0	231.1	0	1.3	3.20E-03	2.78E+03
240	2	123	330.7	0	2	72.9	40.5	32.2	0	0	231.1	0	1.2	1.52E+00	1.31E+06
240	1	124	327.5	0	2	72.3	40.1	31.9	0	0	231.1	0	1.3	3.28E-03	2.78E+03
240	2	124	327.5	0	2	72.3	40.1	31.9	0	0	231.1	0	1.2	1.55E+00	1.31E+06
240	1	125	324.3	0	2	71.8	39.8	31.7	0	0	231.1	0	1.3	3.36E-03	2.78E+03
240	2	125	324.3	0	2	71.8	39.8	31.7	0	0	231.1	0	1.2	1.59E+00	1.31E+06
240	1	126	321.1	0	2	71.2	39.4	31.4	0	0	231.1	0	1.3	3.45E-03	2.78E+03
240	2	126	321.1	0	2	71.2	39.4	31.4	0	0	231.1	0	1.2	1.64E+00	1.31E+06
240	1	127	317.9	0	2	70.6	39	31.2	0	0	231.1	0	1.3	3.54E-03	2.78E+03
240	2	127	317.9	0	2	70.6	39	31.2	0	0	231.1	0	1.2	1.68E+00	1.31E+06
240	1	128	314.7	0	2	70.1	38.6	30.9	0	0	231.1	0	1.3	3.63E-03	2.78E+03
240	2	128	314.7	0	2	70.1	38.6	30.9	0	0	231.1	0	1.2	1.72E+00	1.31E+06
240	1	129	311.4	0	2	69.5	38.2	30.7	0	0	231.1	0	1.3	3.73E-03	2.78E+03
240	2	129	311.4	0	2	69.5	38.2	30.7	0	0	231.1	0	1.2	1.77E+00	1.31E+06
240	1	130	308.1	0	2	68.9	37.8	30.4	0	0	231.1	0	1.3	3.83E-03	2.78E+03
240	2	130	308.1	0	2	68.9	37.8	30.4	0	0	231.1	0	1.2	1.82E+00	1.31E+06
240	1	131	304.8	0	2	68.3	37.5	30.2	0	0	231.1	0	1.3	3.93E-03	2.78E+03
240	2	131	304.8	0	2	68.3	37.5	30.2	0	0	231.1	0	1.2	1.87E+00	1.31E+06
240	1	132	301.4	0	2	67.8	37.1	29.9	0	0	231.1	0	1.3	4.04E-03	2.78E+03
240	2	132	301.4	0	2	67.8	37.1	29.9	0	0	231.1	0	1.2	1.92E+00	1.31E+06
240	1	133	298	0	2	67.2	36.7	29.7	0	0	231.1	0	1.3	4.15E-03	2.78E+03
240	2	133	298	0	2	67.2	36.7	29.7	0	0	231.1	0	1.2	1.97E+00	1.31E+06
240	1	134	294.8	0	2	66.6	36.3	29.4	0	0	231.1	0	1.3	4.27E-03	2.78E+03
240	2	134	294.8	0	2	66.6	36.3	29.4	0	0	231.1	0	1.2	2.02E+00	1.31E+06
240	1	135	291.7	0	2	66.1	35.9	29.1	0	0	231.1	0	1.3	4.39E-03	2.78E+03
240	2	135	291.7	0	2	66.1	35.9	29.1	0	0	231.1	0	1.2	2.08E+00	1.31E+06
240	1	136	288.6	0	2	65.5	35.6	28.9	0	0	231.1	0	1.3	4.51E-03	2.78E+03
240	2	136	288.6	0	2	65.5	35.6	28.9	0	0	231.1	0	1.2	2.14E+00	1.31E+06
240	1	137	285.5	0	2	65	35.2	28.6	0	0	231.1	0	1.3	4.64E-03	2.78E+03
240	2	137	285.5	0	2	65	35.2	28.6	0	0	231.1	0	1.2	2.20E+00	1.31E+06
240	1	138	282.4	0	2	64.4	34.8	28.4	0	0	231.1	0	1.3	4.77E-03	2.78E+03

240	2	138	282.4	0	2	64.4	34.8	28.4	0	0	231.1	0	1.2	2.26E+00	1.31E+06
240	1	139	279.3	0	2	63.8	34.4	28.1	0	0	231.1	0	1.3	4.91E-03	2.78E+03
240	2	139	279.3	0	2	63.8	34.4	28.1	0	0	231.1	0	1.2	2.33E+00	1.31E+06
240	1	140	276.1	0	2	63.3	34.1	27.9	0	0	231.1	0	1.3	5.05E-03	2.78E+03
240	2	140	276.1	0	2	63.3	34.1	27.9	0	0	231.1	0	1.2	2.40E+00	1.31E+06
240	1	141	272.9	0	2	62.7	33.7	27.6	0	0	231.1	0	1.3	5.20E-03	2.78E+03
240	2	141	272.9	0	2	62.7	33.7	27.6	0	0	231.1	0	1.2	2.47E+00	1.31E+06
240	1	142	269.7	0	2	62.1	33.3	27.4	0	0	231.1	0	1.3	5.36E-03	2.78E+03
240	2	142	269.7	0	2	62.1	33.3	27.4	0	0	231.1	0	1.2	2.54E+00	1.31E+06
240	1	143	266.5	0	2	61.6	33	27.1	0	0	231.1	0	1.3	5.52E-03	2.78E+03
240	2	143	266.5	0	2	61.6	33	27.1	0	0	231.1	0	1.2	2.62E+00	1.31E+06
240	1	144	263.1	0	2	61	32.6	26.9	0	0	231.1	0	1.3	5.68E-03	2.78E+03
240	2	144	263.1	0	2	61	32.6	26.9	0	0	231.1	0	1.2	2.70E+00	1.31E+06
240	1	145	260	0	2	60.5	32.2	26.6	0	0	231.1	0	1.3	5.86E-03	2.78E+03
240	2	145	260	0	2	60.5	32.2	26.6	0	0	231.1	0	1.2	2.78E+00	1.31E+06
240	1	146	257.1	0	2	59.9	31.9	26.3	0	0	231.1	0	1.3	6.04E-03	2.78E+03
240	2	146	257.1	0	2	59.9	31.9	26.3	0	0	231.1	0	1.2	2.86E+00	1.31E+06
240	1	147	254.1	0	2	59.3	31.5	26.1	0	0	231.1	0	1.3	6.23E-03	2.78E+03
240	2	147	254.1	0	2	59.3	31.5	26.1	0	0	231.1	0	1.2	2.95E+00	1.31E+06
240	1	148	251.1	0	2	58.8	31.1	25.8	0	0	231.1	0	1.3	6.42E-03	2.78E+03
240	2	148	251.1	0	2	58.8	31.1	25.8	0	0	231.1	0	1.2	3.04E+00	1.31E+06
240	1	149	248.1	0	2	58.2	30.8	25.6	0	0	231.1	0	1.3	6.62E-03	2.78E+03
240	2	149	248.1	0	2	58.2	30.8	25.6	0	0	231.1	0	1.2	3.14E+00	1.31E+06
240	1	150	245.1	0	2	57.7	30.4	25.3	0	0	231.1	0	1.3	6.83E-03	2.78E+03
240	2	150	245.1	0	2	57.7	30.4	25.3	0	0	231.1	0	1.2	3.24E+00	1.31E+06
240	1	151	242.1	0	2	57.1	30	25.1	0	0	231.1	0	1.3	7.05E-03	2.78E+03
240	2	151	242.1	0	2	57.1	30	25.1	0	0	231.1	0	1.2	3.34E+00	1.31E+06
240	1	152	239	0	2	56.6	29.7	24.8	0	0	231.1	0	1.3	7.28E-03	2.78E+03
240	2	152	239	0	2	56.6	29.7	24.8	0	0	231.1	0	1.2	3.45E+00	1.31E+06
240	1	153	235.9	0	2	56	29.3	24.6	0	0	231.1	0	1.3	7.52E-03	2.78E+03
240	2	153	235.9	0	2	56	29.3	24.6	0	0	231.1	0	1.2	3.57E+00	1.31E+06
240	1	154	232.8	0	2	55.5	29	24.3	0	0	231.1	0	1.3	7.77E-03	2.78E+03
240	2	154	232.8	0	2	55.5	29	24.3	0	0	231.1	0	1.2	3.68E+00	1.31E+06
240	1	155	229.6	0	2	54.9	28.6	24	0	0	231.1	0	1.3	8.03E-03	2.78E+03
240	2	155	229.6	0	2	54.9	28.6	24	0	0	231.1	0	1.2	3.81E+00	1.31E+06
240	1	156	226.6	0	2	54.4	28.3	23.8	0	0	231.1	0	1.3	8.30E-03	2.78E+03
240	2	156	226.6	0	2	54.4	28.3	23.8	0	0	231.1	0	1.2	3.94E+00	1.31E+06
240	1	157	223.8	0	2	53.8	27.9	23.5	0	0	231.1	0	1.3	8.58E-03	2.78E+03
240	2	157	223.8	0	2	53.8	27.9	23.5	0	0	231.1	0	1.2	4.07E+00	1.31E+06
240	1	158	221	0	2	53.2	27.6	23.3	0	0	231.1	0	1.3	8.88E-03	2.78E+03
240	2	158	221	0	2	53.2	27.6	23.3	0	0	231.1	0	1.2	4.21E+00	1.31E+06
240	1	159	218.1	0	2	52.7	27.2	23	0	0	231.1	0	1.3	9.19E-03	2.78E+03
240	2	159	218.1	0	2	52.7	27.2	23	0	0	231.1	0	1.2	4.36E+00	1.31E+06

240	1	160	215.2	0	2	52.1	26.9	22.8	0	0	231.1	0	1.3	9.51E-03	2.78E+03
240	2	160	215.2	0	2	52.1	26.9	22.8	0	0	231.1	0	1.2	4.51E+00	1.31E+06
240	1	161	212.3	0	2	51.6	26.5	22.5	0	0	231.1	0	1.3	9.84E-03	2.78E+03
240	2	161	212.3	0	2	51.6	26.5	22.5	0	0	231.1	0	1.2	4.67E+00	1.31E+06
240	1	162	209.4	0	2	51.1	26.2	22.3	0	0	231.1	0	1.3	1.02E-02	2.78E+03
240	2	162	209.4	0	2	51.1	26.2	22.3	0	0	231.1	0	1.2	4.83E+00	1.31E+06
240	1	163	206.5	0	2	50.5	25.8	22	0	0	231.1	0	1.3	1.06E-02	2.78E+03
240	2	163	206.5	0	2	50.5	25.8	22	0	0	231.1	0	1.2	5.01E+00	1.31E+06
240	1	164	203.5	0	2	50	25.5	21.8	0	0	231.1	0	1.3	1.09E-02	2.78E+03
240	2	164	203.5	0	2	50	25.5	21.8	0	0	231.1	0	1.2	5.19E+00	1.31E+06
240	1	165	200.5	0	2	49.4	25.1	21.5	0	0	231.1	0	1.3	1.13E-02	2.78E+03
240	2	165	200.5	0	2	49.4	25.1	21.5	0	0	231.1	0	1.2	5.38E+00	1.31E+06
240	1	166	197.4	0	2	48.9	24.8	21.2	0	0	231.1	0	1.3	1.18E-02	2.78E+03
240	2	166	197.4	0	2	48.9	24.8	21.2	0	0	231.1	0	1.2	5.58E+00	1.31E+06
240	1	167	194.6	0	2	48.3	24.4	21	0	0	231.1	0	1.3	1.22E-02	2.78E+03
240	2	167	194.6	0	2	48.3	24.4	21	0	0	231.1	0	1.2	5.79E+00	1.31E+06
240	1	168	191.9	0	2	47.8	24.1	20.7	0	0	231.1	0	1.3	1.27E-02	2.78E+03
240	2	168	191.9	0	2	47.8	24.1	20.7	0	0	231.1	0	1.2	6.02E+00	1.31E+06
240	1	169	189.2	0	2	47.2	23.8	20.5	0	0	231.1	0	1.3	1.32E-02	2.78E+03
240	2	169	189.2	0	2	47.2	23.8	20.5	0	0	231.1	0	1.2	6.25E+00	1.31E+06
240	1	170	186.5	0	2	46.7	23.4	20.2	0	0	231.1	0	1.3	1.37E-02	2.78E+03
240	2	170	186.5	0	2	46.7	23.4	20.2	0	0	231.1	0	1.2	6.49E+00	1.31E+06
240	1	171	183.8	0	2	46.2	23.1	20	0	0	231.1	0	1.3	1.42E-02	2.78E+03
240	2	171	183.8	0	2	46.2	23.1	20	0	0	231.1	0	1.2	6.75E+00	1.31E+06
240	1	172	181	0	2	45.6	22.7	19.7	0	0	231.1	0	1.3	1.48E-02	2.78E+03
240	2	172	181	0	2	45.6	22.7	19.7	0	0	231.1	0	1.2	7.01E+00	1.31E+06
240	1	173	178.2	0	2	45.1	22.4	19.5	0	0	231.1	0	1.3	1.54E-02	2.78E+03
240	2	173	178.2	0	2	45.1	22.4	19.5	0	0	231.1	0	1.2	7.29E+00	1.31E+06
240	1	174	175.4	0	2	44.5	22.1	19.2	0	0	231.1	0	1.3	1.60E-02	2.78E+03
240	2	174	175.4	0	2	44.5	22.1	19.2	0	0	231.1	0	1.2	7.59E+00	1.31E+06
240	1	175	172.6	0	2	44	21.7	19	0	0	231.1	0	1.3	1.67E-02	2.78E+03
240	2	175	172.6	0	2	44	21.7	19	0	0	231.1	0	1.2	7.90E+00	1.31E+06
240	1	176	169.8	0	2	43.5	21.4	18.7	0	0	231.1	0	1.3	1.73E-02	2.78E+03
240	2	176	169.8	0	2	43.5	21.4	18.7	0	0	231.1	0	1.2	8.23E+00	1.31E+06
240	1	177	166.8	0	2	42.9	21.1	18.5	0	0	231.1	0	1.3	1.81E-02	2.78E+03
240	2	177	166.8	0	2	42.9	21.1	18.5	0	0	231.1	0	1.2	8.58E+00	1.31E+06
240	1	178	164.2	0	2	42.4	20.8	18.2	0	0	231.1	0	1.3	1.89E-02	2.78E+03
240	2	178	164.2	0	2	42.4	20.8	18.2	0	0	231.1	0	1.2	8.94E+00	1.31E+06
240	1	179	161.6	0	2	41.9	20.4	17.9	0	0	231.1	0	1.3	1.97E-02	2.78E+03
240	2	179	161.6	0	2	41.9	20.4	17.9	0	0	231.1	0	1.2	9.33E+00	1.31E+06
240	1	180	159	0	2	41.3	20.1	17.7	0	0	231.1	0	1.3	2.05E-02	2.78E+03
240	2	180	159	0	2	41.3	20.1	17.7	0	0	231.1	0	1.2	9.74E+00	1.31E+06
240	1	181	156.4	0	2	40.8	19.8	17.4	0	0	231.1	0	1.3	2.14E-02	2.78E+03

240	2	181	156.4	0	2	40.8	19.8	17.4	0	0	231.1	0	1.2	1.02E+01	1.31E+06
240	1	182	153.9	0	2	40.3	19.5	17.2	0	0	231.1	0	1.3	2.24E-02	2.78E+03
240	2	182	153.9	0	2	40.3	19.5	17.2	0	0	231.1	0	1.2	1.06E+01	1.31E+06
240	1	183	151.2	0	2	39.7	19.1	16.9	0	0	231.1	0	1.3	2.34E-02	2.78E+03
240	2	183	151.2	0	2	39.7	19.1	16.9	0	0	231.1	0	1.2	1.11E+01	1.31E+06
240	1	184	148.6	0	2	39.2	18.8	16.7	0	0	231.1	0	1.3	2.45E-02	2.78E+03
240	2	184	148.6	0	2	39.2	18.8	16.7	0	0	231.1	0	1.2	1.16E+01	1.31E+06
240	1	185	146	0	2	38.7	18.5	16.4	0	0	231.1	0	1.3	2.56E-02	2.78E+03
240	2	185	146	0	2	38.7	18.5	16.4	0	0	231.1	0	1.2	1.21E+01	1.31E+06
240	1	186	143.3	0	2	38.1	18.2	16.2	0	0	231.1	0	1.3	2.68E-02	2.78E+03
240	2	186	143.3	0	2	38.1	18.2	16.2	0	0	231.1	0	1.2	1.27E+01	1.31E+06
240	1	187	140.6	0	2	37.6	17.9	15.9	0	0	231.1	0	1.3	2.81E-02	2.78E+03
240	2	187	140.6	0	2	37.6	17.9	15.9	0	0	231.1	0	1.2	1.33E+01	1.31E+06
240	1	188	137.7	0	2	37.1	17.6	15.7	0	0	231.1	0	1.3	2.94E-02	2.78E+03
240	2	188	137.7	0	2	37.1	17.6	15.7	0	0	231.1	0	1.2	1.40E+01	1.31E+06
240	1	189	135.3	0	2	36.6	17.3	15.4	0	0	231.1	0	1.3	3.09E-02	2.78E+03
240	2	189	135.3	0	2	36.6	17.3	15.4	0	0	231.1	0	1.2	1.46E+01	1.31E+06
240	1	190	132.9	0	2	36	16.9	15.2	0	0	231.1	0	1.3	3.24E-02	2.78E+03
240	2	190	132.9	0	2	36	16.9	15.2	0	0	231.1	0	1.2	1.54E+01	1.31E+06
240	1	191	130.5	0	2	35.5	16.6	14.9	0	0	231.1	0	1.3	3.41E-02	2.78E+03
240	2	191	130.5	0	2	35.5	16.6	14.9	0	0	231.1	0	1.2	1.62E+01	1.31E+06
240	1	192	128.1	0	2	35	16.3	14.7	0	0	231.1	0	1.3	3.58E-02	2.78E+03
240	2	192	128.1	0	2	35	16.3	14.7	0	0	231.1	0	1.2	1.70E+01	1.31E+06
240	1	193	125.6	0	2	34.5	16	14.5	0	0	231.1	0	1.3	3.76E-02	2.78E+03
240	2	193	125.6	0	2	34.5	16	14.5	0	0	231.1	0	1.2	1.78E+01	1.31E+06
240	1	194	123.2	0	2	33.9	15.7	14.2	0	0	231.1	0	1.3	3.96E-02	2.78E+03
240	2	194	123.2	0	2	33.9	15.7	14.2	0	0	231.1	0	1.2	1.88E+01	1.31E+06
240	1	195	120.7	0	2	33.4	15.4	14	0	0	231.1	0	1.3	4.17E-02	2.78E+03
240	2	195	120.7	0	2	33.4	15.4	14	0	0	231.1	0	1.2	1.98E+01	1.31E+06
240	1	196	118.2	0	2	32.9	15.1	13.7	0	0	231.1	0	1.3	4.39E-02	2.78E+03
240	2	196	118.2	0	2	32.9	15.1	13.7	0	0	231.1	0	1.2	2.08E+01	1.31E+06
240	1	197	115.7	0	2	32.4	14.8	13.5	0	0	231.1	0	1.3	4.63E-02	2.78E+03
240	2	197	115.7	0	2	32.4	14.8	13.5	0	0	231.1	0	1.2	2.20E+01	1.31E+06
240	1	198	113.2	0	2	31.9	14.5	13.2	0	0	231.1	0	1.3	4.88E-02	2.78E+03
240	2	198	113.2	0	2	31.9	14.5	13.2	0	0	231.1	0	1.2	2.32E+01	1.31E+06
240	1	199	110.5	0	2	31.4	14.2	13	0	0	231.1	0	1.3	5.16E-02	2.78E+03
240	2	199	110.5	0	2	31.4	14.2	13	0	0	231.1	0	1.2	2.45E+01	1.31E+06
240	1	200	108.3	0	2	30.8	13.9	12.7	0	0	231.1	0	1.3	5.46E-02	2.78E+03
240	2	200	108.3	0	2	30.8	13.9	12.7	0	0	231.1	0	1.2	2.59E+01	1.31E+06
240	1	201	106	0	2	30.3	13.6	12.5	0	0	231.1	0	1.3	5.78E-02	2.78E+03
240	2	201	106	0	2	30.3	13.6	12.5	0	0	231.1	0	1.2	2.74E+01	1.31E+06
240	1	202	103.8	0	2	29.8	13.3	12.3	0	0	231.1	0	1.3	6.12E-02	2.78E+03
240	2	202	103.8	0	2	29.8	13.3	12.3	0	0	231.1	0	1.2	2.90E+01	1.31E+06

240	1	203	101.5	0	2	29.3	13.1	12	0	0	231.1	0	1.3	6.49E-02	2.78E+03
240	2	203	101.5	0	2	29.3	13.1	12	0	0	231.1	0	1.2	3.08E+01	1.31E+06
240	1	204	99.3	0	2	28.8	12.8	11.8	0	0	231.1	0	1.3	6.88E-02	2.78E+03
240	2	204	99.3	0	2	28.8	12.8	11.8	0	0	231.1	0	1.2	3.26E+01	1.31E+06
240	1	205	97	0	2	28.3	12.5	11.5	0	0	231.1	0	1.3	7.31E-02	2.78E+03
240	2	205	97	0	2	28.3	12.5	11.5	0	0	231.1	0	1.2	3.46E+01	1.31E+06
240	1	206	94.7	0	2	27.8	12.2	11.3	0	0	231.1	0	1.3	7.76E-02	2.78E+03
240	2	206	94.7	0	2	27.8	12.2	11.3	0	0	231.1	0	1.2	3.68E+01	1.31E+06
240	1	207	92.4	0	2	27.3	11.9	11.1	0	0	231.1	0	1.3	8.25E-02	2.78E+03
240	2	207	92.4	0	2	27.3	11.9	11.1	0	0	231.1	0	1.2	3.91E+01	1.31E+06
240	1	208	90.1	0	2	26.7	11.7	10.8	0	0	231.1	0	1.3	8.78E-02	2.78E+03
240	2	208	90.1	0	2	26.7	11.7	10.8	0	0	231.1	0	1.2	4.17E+01	1.31E+06
240	1	209	87.7	0	2	26.2	11.4	10.6	0	0	231.1	0	1.3	9.36E-02	2.78E+03
240	2	209	87.7	0	2	26.2	11.4	10.6	0	0	231.1	0	1.2	4.44E+01	1.31E+06
240	1	210	85.2	0	2	25.7	11.1	10.4	0	0	231.1	0	1.3	1.00E-01	2.78E+03
240	2	210	85.2	0	2	25.7	11.1	10.4	0	0	231.1	0	1.2	4.74E+01	1.31E+06
240	1	211	83.2	0	2	25.2	10.8	10.1	0	0	231.1	0	1.3	1.07E-01	2.78E+03
240	2	211	83.2	0	2	25.2	10.8	10.1	0	0	231.1	0	1.2	5.07E+01	1.31E+06
240	1	212	81.2	0	2	24.7	10.6	9.9	0	0	231.1	0	1.3	1.15E-01	2.78E+03
240	2	212	81.2	0	2	24.7	10.6	9.9	0	0	231.1	0	1.2	5.43E+01	1.31E+06
240	1	213	79.1	0	2	24.2	10.3	9.6	0	0	231.1	0	1.3	1.23E-01	2.78E+03
240	2	213	79.1	0	2	24.2	10.3	9.6	0	0	231.1	0	1.2	5.82E+01	1.31E+06
240	1	214	77.1	0	2	23.7	10	9.4	0	0	231.1	0	1.3	1.32E-01	2.78E+03
240	2	214	77.1	0	2	23.7	10	9.4	0	0	231.1	0	1.2	6.24E+01	1.31E+06
240	1	215	75	0	2	23.2	9.8	9.2	0	0	231.1	0	1.3	1.41E-01	2.78E+03
240	2	215	75	0	2	23.2	9.8	9.2	0	0	231.1	0	1.2	6.70E+01	1.31E+06
240	1	216	73	0	2	22.7	9.5	9	0	0	231.1	0	1.3	1.52E-01	2.78E+03
240	2	216	73	0	2	22.7	9.5	9	0	0	231.1	0	1.2	7.20E+01	1.31E+06
240	1	217	70.9	0	2	22.2	9.2	8.7	0	0	231.1	0	1.3	1.63E-01	2.78E+03
240	2	217	70.9	0	2	22.2	9.2	8.7	0	0	231.1	0	1.2	7.74E+01	1.31E+06
240	1	218	68.8	0	2	21.7	9	8.5	0	0	231.1	0	1.3	1.76E-01	2.78E+03
240	2	218	68.8	0	2	21.7	9	8.5	0	0	231.1	0	1.2	8.34E+01	1.31E+06
240	1	219	66.6	0	2	21.2	8.7	8.3	0	0	231.1	0	1.3	1.90E-01	2.78E+03
240	2	219	66.6	0	2	21.2	8.7	8.3	0	0	231.1	0	1.2	8.99E+01	1.31E+06
240	1	220	64.5	0	2	20.7	8.5	8.1	0	0	231.1	0	1.3	2.05E-01	2.78E+03
240	2	220	64.5	0	2	20.7	8.5	8.1	0	0	231.1	0	1.2	9.72E+01	1.31E+06
240	1	221	62.2	0	2	20.2	8.2	7.8	0	0	231.1	0	1.3	2.22E-01	2.78E+03
240	2	221	62.2	0	2	20.2	8.2	7.8	0	0	231.1	0	1.2	1.05E+02	1.31E+06
240	1	222	60.4	0	2	19.7	8	7.6	0	0	231.1	0	1.3	2.42E-01	2.78E+03
240	2	222	60.4	0	2	19.7	8	7.6	0	0	231.1	0	1.2	1.15E+02	1.31E+06
240	1	223	58.6	0	2	19.2	7.7	7.4	0	0	231.1	0	1.3	2.63E-01	2.78E+03
240	2	223	58.6	0	2	19.2	7.7	7.4	0	0	231.1	0	1.2	1.25E+02	1.31E+06
240	1	224	56.8	0	2	18.7	7.5	7.2	0	0	231.1	0	1.3	2.87E-01	2.78E+03

240	2	224	56.8	0	2	18.7	7.5	7.2	0	0	231.1	0	1.2	1.36E+02	1.31E+06
240	1	225	55	0	2	18.3	7.2	6.9	0	0	231.1	0	1.3	3.12E-01	2.78E+03
240	2	225	55	0	2	18.3	7.2	6.9	0	0	231.1	0	1.2	1.48E+02	1.31E+06
240	1	226	53.2	0	2	17.8	7	6.7	0	0	231.1	0	1.3	3.41E-01	2.78E+03
240	2	226	53.2	0	2	17.8	7	6.7	0	0	231.1	0	1.2	1.62E+02	1.31E+06
240	1	227	51.3	0	2	17.3	6.7	6.5	0	0	231.1	0	1.3	3.73E-01	2.78E+03
240	2	227	51.3	0	2	17.3	6.7	6.5	0	0	231.1	0	1.2	1.77E+02	1.31E+06
240	1	228	49.5	0	2	16.8	6.5	6.3	0	0	231.1	0	1.3	4.09E-01	2.79E+03
240	2	228	49.5	0	2	16.8	6.5	6.3	0	0	231.1	0	1.2	1.94E+02	1.31E+06
240	1	229	47.6	0	2	16.3	6.3	6.1	0	0	231.1	0	1.3	4.49E-01	2.79E+03
240	2	229	47.6	0	2	16.3	6.3	6.1	0	0	231.1	0	1.2	2.13E+02	1.31E+06
240	1	230	45.7	0	2	15.8	6.1	5.9	0	0	231.1	0	1.3	4.94E-01	2.79E+03
240	2	230	45.7	0	2	15.8	6.1	5.9	0	0	231.1	0	1.2	2.34E+02	1.31E+06
240	1	231	43.8	0	2	15.3	5.8	5.7	0	0	231.1	0	1.3	5.44E-01	2.79E+03
240	2	231	43.8	0	2	15.3	5.8	5.7	0	0	231.1	0	1.2	2.58E+02	1.31E+06
240	1	232	41.9	0	2	14.9	5.6	5.5	0	0	231.1	0	1.3	6.05E-01	2.79E+03
240	2	232	41.9	0	2	14.9	5.6	5.5	0	0	231.1	0	1.2	2.87E+02	1.32E+06
240	1	233	40.3	0	2	14.4	5.4	5.2	0	0	231.1	0	1.3	6.74E-01	2.79E+03
240	2	233	40.3	0	2	14.4	5.4	5.2	0	0	231.1	0	1.2	3.20E+02	1.32E+06
240	1	234	38.8	0	2	13.9	5.1	5	0	0	231.1	0	1.3	7.53E-01	2.79E+03
240	2	234	38.8	0	2	13.9	5.1	5	0	0	231.1	0	1.2	3.57E+02	1.32E+06
240	1	235	37.3	0	2	13.4	4.9	4.8	0	0	231.1	0	1.3	8.41E-01	2.79E+03
240	2	235	37.3	0	2	13.4	4.9	4.8	0	0	231.1	0	1.2	3.99E+02	1.32E+06
240	1	236	35.7	0	2	12.9	4.7	4.6	0	0	231.1	0	1.3	9.42E-01	2.79E+03
240	2	236	35.7	0	2	12.9	4.7	4.6	0	0	231.1	0	1.2	4.46E+02	1.32E+06
240	1	237	34.2	0	2	12.5	4.5	4.4	0	0	231.1	0	1.3	1.06E+00	2.79E+03
240	2	237	34.2	0	2	12.5	4.5	4.4	0	0	231.1	0	1.2	5.01E+02	1.32E+06
240	1	238	32.6	0	2	12	4.3	4.2	0	0	231.1	0	1.3	1.19E+00	2.79E+03
240	2	238	32.6	0	2	12	4.3	4.2	0	0	231.1	0	1.2	5.63E+02	1.32E+06
240	1	239	31.1	0	2	11.5	4.1	4.1	0	0	231.1	0	1.3	1.34E+00	2.79E+03
240	2	239	31.1	0	2	11.5	4.1	4.1	0	0	231.1	0	1.2	6.34E+02	1.32E+06
240	1	240	29.5	0	2	11	3.9	3.9	0	0	231.1	0	1.3	1.51E+00	2.79E+03
240	2	240	29.5	0	2	11	3.9	3.9	0	0	231.1	0	1.2	7.17E+02	1.32E+06
240	1	241	27.9	0	2	10.6	3.7	3.7	0	0	231.1	0	1.3	1.72E+00	2.79E+03
240	2	241	27.9	0	2	10.6	3.7	3.7	0	0	231.1	0	1.2	8.13E+02	1.32E+06
240	1	242	26.3	0	2	10.1	3.5	3.5	0	0	231.1	0	1.3	1.95E+00	2.79E+03
240	2	242	26.3	0	2	10.1	3.5	3.5	0	0	231.1	0	1.2	9.26E+02	1.32E+06
240	1	243	24.7	0	2	9.6	3.3	3.3	0	0	231.1	0	1.3	2.27E+00	2.79E+03
240	2	243	24.7	0	2	9.6	3.3	3.3	0	0	231.1	0	1.2	1.07E+03	1.32E+06
240	1	244	23.6	0	2	9.1	3.1	3.1	0	0	231.1	0	1.3	2.65E+00	2.79E+03
240	2	244	23.6	0	2	9.1	3.1	3.1	0	0	231.1	0	1.2	1.25E+03	1.32E+06
240	1	245	22.4	0	2	8.7	2.9	2.9	0	0	231.1	0	1.3	3.10E+00	2.79E+03
240	2	245	22.4	0	2	8.7	2.9	2.9	0	0	231.1	0	1.2	1.47E+03	1.32E+06

240	1	246	21.2	0	2	8.2	2.7	2.7	0	0	231.1	0	1.3	3.64E+00	2.79E+03
240	2	246	21.2	0	2	8.2	2.7	2.7	0	0	231.1	0	1.2	1.72E+03	1.32E+06
240	1	247	20	0	2	7.7	2.5	2.5	0	0	231.1	0	1.3	4.30E+00	2.79E+03
240	2	247	20	0	2	7.7	2.5	2.5	0	0	231.1	0	1.2	2.03E+03	1.32E+06
240	1	248	18.8	0	2	7.3	2.4	2.4	0	0	231.1	0	1.3	5.10E+00	2.79E+03
240	2	248	18.8	0	2	7.3	2.4	2.4	0	0	231.1	0	1.2	2.41E+03	1.32E+06
240	1	249	17.7	0	2	6.8	2.2	2.2	0	0	231.1	0	1.3	6.09E+00	2.79E+03
240	2	249	17.7	0	2	6.8	2.2	2.2	0	0	231.1	0	1.2	2.88E+03	1.32E+06
240	1	250	16.5	0	2	6.4	2	2.1	0	0	231.1	0	1.3	7.34E+00	2.79E+03
240	2	250	16.5	0	2	6.4	2	2.1	0	0	231.1	0	1.2	3.47E+03	1.32E+06
240	1	251	15.3	0	2	5.9	1.9	1.9	0	0	231.1	0	1.3	8.94E+00	2.79E+03
240	2	251	15.3	0	2	5.9	1.9	1.9	0	0	231.1	0	1.2	4.22E+03	1.32E+06
240	1	252	14.1	0	2	5.5	1.7	1.8	0	0	231.1	0	1.3	1.11E+01	2.79E+03
240	2	252	14.1	0	2	5.5	1.7	1.8	0	0	231.1	0	1.2	5.22E+03	1.32E+06
240	1	253	13	0	2	5	1.6	1.6	0	0	231.1	0	1.3	1.40E+01	2.79E+03
240	2	253	13	0	2	5	1.6	1.6	0	0	231.1	0	1.2	6.59E+03	1.32E+06
240	1	254	11.8	0	2	4.5	1.4	1.4	0	0	231.1	0	1.3	1.97E+01	2.79E+03
240	2	254	11.8	0	2	4.5	1.4	1.4	0	0	231.1	0	1.2	9.32E+03	1.32E+06
240	1	255	10.6	0	2	4.1	1.2	1.2	0	0	231.1	0	1.3	2.94E+01	2.79E+03
240	2	255	10.6	0	2	4.1	1.2	1.2	0	0	231.1	0	1.2	1.39E+04	1.32E+06
240	1	256	9.4	0	2	3.6	1	1	0	0	231.1	0	1.3	4.60E+01	2.79E+03
240	2	256	9.4	0	2	3.6	1	1	0	0	231.1	0	1.2	2.17E+04	1.32E+06
240	1	257	8.2	0	2	3.2	0.8	0.9	0	0	231.1	0	1.3	7.60E+01	2.79E+03
240	2	257	8.2	0	2	3.2	0.8	0.9	0	0	231.1	0	1.2	3.59E+04	1.32E+06
240	1	258	7.1	0	2	2.7	0.7	0.7	0	0	231.1	0	1.3	1.34E+02	2.79E+03
240	2	258	7.1	0	2	2.7	0.7	0.7	0	0	231.1	0	1.2	6.31E+04	1.32E+06
240	1	259	5.9	0	2	2.3	0.5	0.6	0	0	231.1	0	1.3	2.52E+02	2.79E+03
240	2	259	5.9	0	2	2.3	0.5	0.6	0	0	231.1	0	1.2	1.19E+05	1.32E+06
240	1	260	4.7	0	2	1.8	0.4	0.4	0	0	231.1	0	1.3	5.09E+02	2.79E+03
240	2	260	4.7	0	2	1.8	0.4	0.4	0	0	231.1	0	1.2	2.40E+05	1.32E+06
240	1	261	3.5	0	2	1.4	0.3	0.3	0	0	231.1	0	1.3	1.08E+03	2.79E+03
240	2	261	3.5	0	2	1.4	0.3	0.3	0	0	231.1	0	1.2	5.11E+05	1.32E+06
240	1	262	2.4	0	2	1	0.3	0.3	0	0	231.1	0	1.3	2.24E+03	2.79E+03
240	2	262	2.4	0	2	1	0.3	0.3	0	0	231.1	0	1.2	1.06E+06	1.32E+06
240	1	263	1.2	0	2	0.7	0.3	0.3	0	0	231.1	0	1.3	4.15E+03	2.79E+03
240	2	263	1.2	0	2	0.7	0.3	0.3	0	0	231.1	0	1.2	1.96E+06	1.32E+06
240	1	264	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
240	2	264	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
240	1	265	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
240	2	265	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
240	1	266	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
240	2	266	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
240	1	267	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03

240	2	267	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
240	1	268	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
240	2	268	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
240	1	269	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
240	2	269	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
240	1	270	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
240	2	270	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
240	1	271	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
240	2	271	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
240	1	272	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
240	2	272	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
240	1	273	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
240	2	273	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
240	1	274	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
240	2	274	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
300	1	1	1090.5	0	2	187.5	123.2	74.3	0	0	231.1	0	1.3	1.77E-04	2.77E+03
300	2	1	1090.5	0	2	187.5	123.2	74.3	0	0	231.1	0	1.2	8.39E-02	1.31E+06
300	1	2	1085.7	0	2	186.9	122.8	74.1	0	0	231.1	0	1.3	1.79E-04	2.77E+03
300	2	2	1085.7	0	2	186.9	122.8	74.1	0	0	231.1	0	1.2	8.48E-02	1.31E+06
300	1	3	1081.2	0	2	186.2	122.3	73.9	0	0	231.1	0	1.3	1.80E-04	2.77E+03
300	2	3	1081.2	0	2	186.2	122.3	73.9	0	0	231.1	0	1.2	8.56E-02	1.31E+06
300	1	4	1076.7	0	2	185.6	121.8	73.7	0	0	231.1	0	1.3	1.82E-04	2.77E+03
300	2	4	1076.7	0	2	185.6	121.8	73.7	0	0	231.1	0	1.2	8.65E-02	1.31E+06
300	1	5	1072.2	0	2	185	121.3	73.5	0	0	231.1	0	1.3	1.84E-04	2.77E+03
300	2	5	1072.2	0	2	185	121.3	73.5	0	0	231.1	0	1.2	8.73E-02	1.31E+06
300	1	6	1067.6	0	2	184.3	120.9	73.3	0	0	231.1	0	1.3	1.86E-04	2.77E+03
300	2	6	1067.6	0	2	184.3	120.9	73.3	0	0	231.1	0	1.2	8.82E-02	1.31E+06
300	1	7	1063.1	0	2	183.7	120.4	73.1	0	0	231.1	0	1.3	1.88E-04	2.77E+03
300	2	7	1063.1	0	2	183.7	120.4	73.1	0	0	231.1	0	1.2	8.91E-02	1.31E+06
300	1	8	1058.5	0	2	183.1	119.9	73	0	0	231.1	0	1.3	1.90E-04	2.77E+03
300	2	8	1058.5	0	2	183.1	119.9	73	0	0	231.1	0	1.2	9.00E-02	1.31E+06
300	1	9	1053.9	0	2	182.4	119.5	72.8	0	0	231.1	0	1.3	1.92E-04	2.77E+03
300	2	9	1053.9	0	2	182.4	119.5	72.8	0	0	231.1	0	1.2	9.09E-02	1.31E+06
300	1	10	1049.3	0	2	181.8	119	72.6	0	0	231.1	0	1.3	1.94E-04	2.77E+03
300	2	10	1049.3	0	2	181.8	119	72.6	0	0	231.1	0	1.2	9.18E-02	1.31E+06
300	1	11	1044.6	0	2	181.2	118.5	72.4	0	0	231.1	0	1.3	1.96E-04	2.77E+03
300	2	11	1044.6	0	2	181.2	118.5	72.4	0	0	231.1	0	1.2	9.28E-02	1.31E+06
300	1	12	1039.9	0	2	180.5	118	72.2	0	0	231.1	0	1.3	1.98E-04	2.77E+03
300	2	12	1039.9	0	2	180.5	118	72.2	0	0	231.1	0	1.2	9.37E-02	1.31E+06
300	1	13	1035.1	0	2	179.9	117.6	72	0	0	231.1	0	1.3	2.00E-04	2.77E+03
300	2	13	1035.1	0	2	179.9	117.6	72	0	0	231.1	0	1.2	9.47E-02	1.31E+06
300	1	14	1030.7	0	2	179.3	117.1	71.8	0	0	231.1	0	1.3	2.02E-04	2.77E+03
300	2	14	1030.7	0	2	179.3	117.1	71.8	0	0	231.1	0	1.2	9.57E-02	1.31E+06

300	1	15	1026.2	0	2	178.6	116.6	71.6	0	0	231.1	0	1.3	2.04E-04	2.77E+03
300	2	15	1026.2	0	2	178.6	116.6	71.6	0	0	231.1	0	1.2	9.67E-02	1.31E+06
300	1	16	1021.7	0	2	178	116.2	71.4	0	0	231.1	0	1.3	2.06E-04	2.77E+03
300	2	16	1021.7	0	2	178	116.2	71.4	0	0	231.1	0	1.2	9.77E-02	1.31E+06
300	1	17	1017.3	0	2	177.4	115.7	71.2	0	0	231.1	0	1.3	2.08E-04	2.77E+03
300	2	17	1017.3	0	2	177.4	115.7	71.2	0	0	231.1	0	1.2	9.87E-02	1.31E+06
300	1	18	1012.8	0	2	176.7	115.2	71	0	0	231.1	0	1.3	2.10E-04	2.77E+03
300	2	18	1012.8	0	2	176.7	115.2	71	0	0	231.1	0	1.2	9.97E-02	1.31E+06
300	1	19	1008.3	0	2	176.1	114.8	70.8	0	0	231.1	0	1.3	2.12E-04	2.77E+03
300	2	19	1008.3	0	2	176.1	114.8	70.8	0	0	231.1	0	1.2	1.01E-01	1.31E+06
300	1	20	1003.7	0	2	175.5	114.3	70.6	0	0	231.1	0	1.3	2.15E-04	2.77E+03
300	2	20	1003.7	0	2	175.5	114.3	70.6	0	0	231.1	0	1.2	1.02E-01	1.31E+06
300	1	21	999.1	0	2	174.8	113.8	70.4	0	0	231.1	0	1.3	2.17E-04	2.77E+03
300	2	21	999.1	0	2	174.8	113.8	70.4	0	0	231.1	0	1.2	1.03E-01	1.31E+06
300	1	22	994.5	0	2	174.2	113.3	70.2	0	0	231.1	0	1.3	2.19E-04	2.77E+03
300	2	22	994.5	0	2	174.2	113.3	70.2	0	0	231.1	0	1.2	1.04E-01	1.31E+06
300	1	23	989.9	0	2	173.6	112.9	70	0	0	231.1	0	1.3	2.22E-04	2.77E+03
300	2	23	989.9	0	2	173.6	112.9	70	0	0	231.1	0	1.2	1.05E-01	1.31E+06
300	1	24	985.1	0	2	172.9	112.4	69.8	0	0	231.1	0	1.3	2.24E-04	2.77E+03
300	2	24	985.1	0	2	172.9	112.4	69.8	0	0	231.1	0	1.2	1.06E-01	1.31E+06
300	1	25	980.8	0	2	172.3	111.9	69.6	0	0	231.1	0	1.3	2.26E-04	2.77E+03
300	2	25	980.8	0	2	172.3	111.9	69.6	0	0	231.1	0	1.2	1.07E-01	1.31E+06
300	1	26	976.4	0	2	171.7	111.5	69.4	0	0	231.1	0	1.3	2.29E-04	2.77E+03
300	2	26	976.4	0	2	171.7	111.5	69.4	0	0	231.1	0	1.2	1.09E-01	1.31E+06
300	1	27	972	0	2	171	111	69.2	0	0	231.1	0	1.3	2.31E-04	2.77E+03
300	2	27	972	0	2	171	111	69.2	0	0	231.1	0	1.2	1.10E-01	1.31E+06
300	1	28	967.6	0	2	170.4	110.5	69	0	0	231.1	0	1.3	2.34E-04	2.77E+03
300	2	28	967.6	0	2	170.4	110.5	69	0	0	231.1	0	1.2	1.11E-01	1.31E+06
300	1	29	963.1	0	2	169.8	110.1	68.8	0	0	231.1	0	1.3	2.36E-04	2.77E+03
300	2	29	963.1	0	2	169.8	110.1	68.8	0	0	231.1	0	1.2	1.12E-01	1.31E+06
300	1	30	958.7	0	2	169.2	109.6	68.6	0	0	231.1	0	1.3	2.39E-04	2.77E+03
300	2	30	958.7	0	2	169.2	109.6	68.6	0	0	231.1	0	1.2	1.13E-01	1.31E+06
300	1	31	954.2	0	2	168.5	109.1	68.4	0	0	231.1	0	1.3	2.42E-04	2.77E+03
300	2	31	954.2	0	2	168.5	109.1	68.4	0	0	231.1	0	1.2	1.15E-01	1.31E+06
300	1	32	949.7	0	2	167.9	108.7	68.2	0	0	231.1	0	1.3	2.44E-04	2.77E+03
300	2	32	949.7	0	2	167.9	108.7	68.2	0	0	231.1	0	1.2	1.16E-01	1.31E+06
300	1	33	945.1	0	2	167.3	108.2	68	0	0	231.1	0	1.3	2.47E-04	2.77E+03
300	2	33	945.1	0	2	167.3	108.2	68	0	0	231.1	0	1.2	1.17E-01	1.31E+06
300	1	34	940.5	0	2	166.6	107.7	67.8	0	0	231.1	0	1.3	2.50E-04	2.77E+03
300	2	34	940.5	0	2	166.6	107.7	67.8	0	0	231.1	0	1.2	1.18E-01	1.31E+06
300	1	35	935.9	0	2	166	107.3	67.6	0	0	231.1	0	1.3	2.53E-04	2.77E+03
300	2	35	935.9	0	2	166	107.3	67.6	0	0	231.1	0	1.2	1.20E-01	1.31E+06
300	1	36	931.6	0	2	165.4	106.8	67.4	0	0	231.1	0	1.3	2.55E-04	2.77E+03

300	2	36	931.6	0	2	165.4	106.8	67.4	0	0	231.1	0	1.2	1.21E-01	1.31E+06
300	1	37	927.2	0	2	164.8	106.3	67.2	0	0	231.1	0	1.3	2.58E-04	2.77E+03
300	2	37	927.2	0	2	164.8	106.3	67.2	0	0	231.1	0	1.2	1.23E-01	1.31E+06
300	1	38	922.9	0	2	164.1	105.9	66.9	0	0	231.1	0	1.3	2.61E-04	2.77E+03
300	2	38	922.9	0	2	164.1	105.9	66.9	0	0	231.1	0	1.2	1.24E-01	1.31E+06
300	1	39	918.6	0	2	163.5	105.4	66.7	0	0	231.1	0	1.3	2.64E-04	2.77E+03
300	2	39	918.6	0	2	163.5	105.4	66.7	0	0	231.1	0	1.2	1.25E-01	1.31E+06
300	1	40	914.2	0	2	162.9	104.9	66.5	0	0	231.1	0	1.3	2.67E-04	2.77E+03
300	2	40	914.2	0	2	162.9	104.9	66.5	0	0	231.1	0	1.2	1.27E-01	1.31E+06
300	1	41	909.8	0	2	162.2	104.5	66.3	0	0	231.1	0	1.3	2.70E-04	2.77E+03
300	2	41	909.8	0	2	162.2	104.5	66.3	0	0	231.1	0	1.2	1.28E-01	1.31E+06
300	1	42	905.4	0	2	161.6	104	66.1	0	0	231.1	0	1.3	2.73E-04	2.77E+03
300	2	42	905.4	0	2	161.6	104	66.1	0	0	231.1	0	1.2	1.30E-01	1.31E+06
300	1	43	900.9	0	2	161	103.6	65.9	0	0	231.1	0	1.3	2.77E-04	2.77E+03
300	2	43	900.9	0	2	161	103.6	65.9	0	0	231.1	0	1.2	1.31E-01	1.31E+06
300	1	44	896.4	0	2	160.4	103.1	65.7	0	0	231.1	0	1.3	2.80E-04	2.77E+03
300	2	44	896.4	0	2	160.4	103.1	65.7	0	0	231.1	0	1.2	1.33E-01	1.31E+06
300	1	45	891.8	0	2	159.7	102.6	65.5	0	0	231.1	0	1.3	2.83E-04	2.77E+03
300	2	45	891.8	0	2	159.7	102.6	65.5	0	0	231.1	0	1.2	1.34E-01	1.31E+06
300	1	46	887.3	0	2	159.1	102.2	65.3	0	0	231.1	0	1.3	2.86E-04	2.77E+03
300	2	46	887.3	0	2	159.1	102.2	65.3	0	0	231.1	0	1.2	1.36E-01	1.31E+06
300	1	47	883	0	2	158.5	101.7	65.1	0	0	231.1	0	1.3	2.90E-04	2.77E+03
300	2	47	883	0	2	158.5	101.7	65.1	0	0	231.1	0	1.2	1.37E-01	1.31E+06
300	1	48	878.8	0	2	157.9	101.2	64.9	0	0	231.1	0	1.3	2.93E-04	2.77E+03
300	2	48	878.8	0	2	157.9	101.2	64.9	0	0	231.1	0	1.2	1.39E-01	1.31E+06
300	1	49	874.5	0	2	157.2	100.8	64.7	0	0	231.1	0	1.3	2.97E-04	2.77E+03
300	2	49	874.5	0	2	157.2	100.8	64.7	0	0	231.1	0	1.2	1.41E-01	1.31E+06
300	1	50	870.2	0	2	156.6	100.3	64.5	0	0	231.1	0	1.3	3.00E-04	2.77E+03
300	2	50	870.2	0	2	156.6	100.3	64.5	0	0	231.1	0	1.2	1.42E-01	1.31E+06
300	1	51	865.9	0	2	156	99.9	64.3	0	0	231.1	0	1.3	3.04E-04	2.77E+03
300	2	51	865.9	0	2	156	99.9	64.3	0	0	231.1	0	1.2	1.44E-01	1.31E+06
300	1	52	861.6	0	2	155.3	99.4	64	0	0	231.1	0	1.3	3.07E-04	2.77E+03
300	2	52	861.6	0	2	155.3	99.4	64	0	0	231.1	0	1.2	1.46E-01	1.31E+06
300	1	53	857.2	0	2	154.7	98.9	63.8	0	0	231.1	0	1.3	3.11E-04	2.77E+03
300	2	53	857.2	0	2	154.7	98.9	63.8	0	0	231.1	0	1.2	1.48E-01	1.31E+06
300	1	54	852.8	0	2	154.1	98.5	63.6	0	0	231.1	0	1.3	3.15E-04	2.77E+03
300	2	54	852.8	0	2	154.1	98.5	63.6	0	0	231.1	0	1.2	1.49E-01	1.31E+06
300	1	55	848.4	0	2	153.5	98	63.4	0	0	231.1	0	1.3	3.19E-04	2.77E+03
300	2	55	848.4	0	2	153.5	98	63.4	0	0	231.1	0	1.2	1.51E-01	1.31E+06
300	1	56	843.9	0	2	152.9	97.6	63.2	0	0	231.1	0	1.3	3.23E-04	2.77E+03
300	2	56	843.9	0	2	152.9	97.6	63.2	0	0	231.1	0	1.2	1.53E-01	1.31E+06
300	1	57	839.4	0	2	152.2	97.1	63	0	0	231.1	0	1.3	3.27E-04	2.77E+03
300	2	57	839.4	0	2	152.2	97.1	63	0	0	231.1	0	1.2	1.55E-01	1.31E+06

300	1	58	835.2	0	2	151.6	96.6	62.8	0	0	231.1	0	1.3	3.31E-04	2.78E+03
300	2	58	835.2	0	2	151.6	96.6	62.8	0	0	231.1	0	1.2	1.57E-01	1.31E+06
300	1	59	831	0	2	151	96.2	62.6	0	0	231.1	0	1.3	3.35E-04	2.78E+03
300	2	59	831	0	2	151	96.2	62.6	0	0	231.1	0	1.2	1.59E-01	1.31E+06
300	1	60	826.8	0	2	150.4	95.7	62.4	0	0	231.1	0	1.3	3.39E-04	2.78E+03
300	2	60	826.8	0	2	150.4	95.7	62.4	0	0	231.1	0	1.2	1.61E-01	1.31E+06
300	1	61	822.6	0	2	149.7	95.3	62.1	0	0	231.1	0	1.3	3.43E-04	2.78E+03
300	2	61	822.6	0	2	149.7	95.3	62.1	0	0	231.1	0	1.2	1.63E-01	1.31E+06
300	1	62	818.4	0	2	149.1	94.8	61.9	0	0	231.1	0	1.3	3.47E-04	2.78E+03
300	2	62	818.4	0	2	149.1	94.8	61.9	0	0	231.1	0	1.2	1.65E-01	1.31E+06
300	1	63	814.1	0	2	148.5	94.3	61.7	0	0	231.1	0	1.3	3.52E-04	2.78E+03
300	2	63	814.1	0	2	148.5	94.3	61.7	0	0	231.1	0	1.2	1.67E-01	1.31E+06
300	1	64	809.8	0	2	147.9	93.9	61.5	0	0	231.1	0	1.3	3.56E-04	2.78E+03
300	2	64	809.8	0	2	147.9	93.9	61.5	0	0	231.1	0	1.2	1.69E-01	1.31E+06
300	1	65	805.5	0	2	147.2	93.4	61.3	0	0	231.1	0	1.3	3.61E-04	2.78E+03
300	2	65	805.5	0	2	147.2	93.4	61.3	0	0	231.1	0	1.2	1.71E-01	1.31E+06
300	1	66	801.1	0	2	146.6	93	61.1	0	0	231.1	0	1.3	3.65E-04	2.78E+03
300	2	66	801.1	0	2	146.6	93	61.1	0	0	231.1	0	1.2	1.73E-01	1.31E+06
300	1	67	796.6	0	2	146	92.5	60.9	0	0	231.1	0	1.3	3.70E-04	2.78E+03
300	2	67	796.6	0	2	146	92.5	60.9	0	0	231.1	0	1.2	1.75E-01	1.31E+06
300	1	68	792.3	0	2	145.4	92.1	60.6	0	0	231.1	0	1.3	3.75E-04	2.78E+03
300	2	68	792.3	0	2	145.4	92.1	60.6	0	0	231.1	0	1.2	1.78E-01	1.31E+06
300	1	69	788.2	0	2	144.8	91.6	60.4	0	0	231.1	0	1.3	3.79E-04	2.78E+03
300	2	69	788.2	0	2	144.8	91.6	60.4	0	0	231.1	0	1.2	1.80E-01	1.31E+06
300	1	70	784	0	2	144.1	91.2	60.2	0	0	231.1	0	1.3	3.84E-04	2.78E+03
300	2	70	784	0	2	144.1	91.2	60.2	0	0	231.1	0	1.2	1.82E-01	1.31E+06
300	1	71	779.9	0	2	143.5	90.7	60	0	0	231.1	0	1.3	3.89E-04	2.78E+03
300	2	71	779.9	0	2	143.5	90.7	60	0	0	231.1	0	1.2	1.85E-01	1.31E+06
300	1	72	775.7	0	2	142.9	90.2	59.8	0	0	231.1	0	1.3	3.94E-04	2.78E+03
300	2	72	775.7	0	2	142.9	90.2	59.8	0	0	231.1	0	1.2	1.87E-01	1.31E+06
300	1	73	771.5	0	2	142.3	89.8	59.6	0	0	231.1	0	1.3	4.00E-04	2.78E+03
300	2	73	771.5	0	2	142.3	89.8	59.6	0	0	231.1	0	1.2	1.90E-01	1.31E+06
300	1	74	767.3	0	2	141.7	89.3	59.3	0	0	231.1	0	1.3	4.05E-04	2.78E+03
300	2	74	767.3	0	2	141.7	89.3	59.3	0	0	231.1	0	1.2	1.92E-01	1.31E+06
300	1	75	763.1	0	2	141	88.9	59.1	0	0	231.1	0	1.3	4.10E-04	2.78E+03
300	2	75	763.1	0	2	141	88.9	59.1	0	0	231.1	0	1.2	1.95E-01	1.31E+06
300	1	76	758.8	0	2	140.4	88.4	58.9	0	0	231.1	0	1.3	4.16E-04	2.78E+03
300	2	76	758.8	0	2	140.4	88.4	58.9	0	0	231.1	0	1.2	1.97E-01	1.31E+06
300	1	77	754.5	0	2	139.8	88	58.7	0	0	231.1	0	1.3	4.21E-04	2.78E+03
300	2	77	754.5	0	2	139.8	88	58.7	0	0	231.1	0	1.2	2.00E-01	1.31E+06
300	1	78	750.2	0	2	139.2	87.5	58.5	0	0	231.1	0	1.3	4.27E-04	2.78E+03
300	2	78	750.2	0	2	139.2	87.5	58.5	0	0	231.1	0	1.2	2.02E-01	1.31E+06
300	1	79	745.9	0	2	138.6	87.1	58.2	0	0	231.1	0	1.3	4.33E-04	2.78E+03

300	2	79	745.9	0	2	138.6	87.1	58.2	0	0	231.1	0	1.2	2.05E-01	1.31E+06
300	1	80	741.8	0	2	137.9	86.6	58	0	0	231.1	0	1.3	4.39E-04	2.78E+03
300	2	80	741.8	0	2	137.9	86.6	58	0	0	231.1	0	1.2	2.08E-01	1.31E+06
300	1	81	737.8	0	2	137.3	86.2	57.8	0	0	231.1	0	1.3	4.45E-04	2.78E+03
300	2	81	737.8	0	2	137.3	86.2	57.8	0	0	231.1	0	1.2	2.11E-01	1.31E+06
300	1	82	733.7	0	2	136.7	85.7	57.6	0	0	231.1	0	1.3	4.51E-04	2.78E+03
300	2	82	733.7	0	2	136.7	85.7	57.6	0	0	231.1	0	1.2	2.14E-01	1.31E+06
300	1	83	729.6	0	2	136.1	85.3	57.4	0	0	231.1	0	1.3	4.57E-04	2.78E+03
300	2	83	729.6	0	2	136.1	85.3	57.4	0	0	231.1	0	1.2	2.17E-01	1.31E+06
300	1	84	725.5	0	2	135.5	84.8	57.1	0	0	231.1	0	1.3	4.63E-04	2.78E+03
300	2	84	725.5	0	2	135.5	84.8	57.1	0	0	231.1	0	1.2	2.20E-01	1.31E+06
300	1	85	721.4	0	2	134.9	84.4	56.9	0	0	231.1	0	1.3	4.70E-04	2.78E+03
300	2	85	721.4	0	2	134.9	84.4	56.9	0	0	231.1	0	1.2	2.23E-01	1.31E+06
300	1	86	717.2	0	2	134.2	83.9	56.7	0	0	231.1	0	1.3	4.76E-04	2.78E+03
300	2	86	717.2	0	2	134.2	83.9	56.7	0	0	231.1	0	1.2	2.26E-01	1.31E+06
300	1	87	713	0	2	133.6	83.5	56.5	0	0	231.1	0	1.3	4.83E-04	2.78E+03
300	2	87	713	0	2	133.6	83.5	56.5	0	0	231.1	0	1.2	2.29E-01	1.31E+06
300	1	88	708.8	0	2	133	83	56.3	0	0	231.1	0	1.3	4.89E-04	2.78E+03
300	2	88	708.8	0	2	133	83	56.3	0	0	231.1	0	1.2	2.32E-01	1.31E+06
300	1	89	704.4	0	2	132.4	82.6	56	0	0	231.1	0	1.3	4.96E-04	2.78E+03
300	2	89	704.4	0	2	132.4	82.6	56	0	0	231.1	0	1.2	2.35E-01	1.31E+06
300	1	90	700.3	0	2	131.8	82.1	55.8	0	0	231.1	0	1.3	5.03E-04	2.78E+03
300	2	90	700.3	0	2	131.8	82.1	55.8	0	0	231.1	0	1.2	2.39E-01	1.31E+06
300	1	91	696.3	0	2	131.2	81.7	55.6	0	0	231.1	0	1.3	5.11E-04	2.78E+03
300	2	91	696.3	0	2	131.2	81.7	55.6	0	0	231.1	0	1.2	2.42E-01	1.31E+06
300	1	92	692.3	0	2	130.5	81.2	55.4	0	0	231.1	0	1.3	5.18E-04	2.78E+03
300	2	92	692.3	0	2	130.5	81.2	55.4	0	0	231.1	0	1.2	2.46E-01	1.31E+06
300	1	93	688.3	0	2	129.9	80.8	55.1	0	0	231.1	0	1.3	5.25E-04	2.78E+03
300	2	93	688.3	0	2	129.9	80.8	55.1	0	0	231.1	0	1.2	2.49E-01	1.31E+06
300	1	94	684.3	0	2	129.3	80.3	54.9	0	0	231.1	0	1.3	5.33E-04	2.78E+03
300	2	94	684.3	0	2	129.3	80.3	54.9	0	0	231.1	0	1.2	2.53E-01	1.31E+06
300	1	95	680.2	0	2	128.7	79.9	54.7	0	0	231.1	0	1.3	5.41E-04	2.78E+03
300	2	95	680.2	0	2	128.7	79.9	54.7	0	0	231.1	0	1.2	2.56E-01	1.31E+06
300	1	96	676.2	0	2	128.1	79.4	54.5	0	0	231.1	0	1.3	5.49E-04	2.78E+03
300	2	96	676.2	0	2	128.1	79.4	54.5	0	0	231.1	0	1.2	2.60E-01	1.31E+06
300	1	97	672.1	0	2	127.5	79	54.2	0	0	231.1	0	1.3	5.57E-04	2.78E+03
300	2	97	672.1	0	2	127.5	79	54.2	0	0	231.1	0	1.2	2.64E-01	1.31E+06
300	1	98	668	0	2	126.9	78.6	54	0	0	231.1	0	1.3	5.65E-04	2.78E+03
300	2	98	668	0	2	126.9	78.6	54	0	0	231.1	0	1.2	2.68E-01	1.31E+06
300	1	99	663.8	0	2	126.3	78.1	53.8	0	0	231.1	0	1.3	5.73E-04	2.78E+03
300	2	99	663.8	0	2	126.3	78.1	53.8	0	0	231.1	0	1.2	2.72E-01	1.31E+06
300	1	100	659.5	0	2	125.6	77.7	53.6	0	0	231.1	0	1.3	5.82E-04	2.78E+03
300	2	100	659.5	0	2	125.6	77.7	53.6	0	0	231.1	0	1.2	2.76E-01	1.31E+06

300	1	101	655.4	0	2	125	77.2	53.3	0	0	231.1	0	1.3	5.91E-04	2.78E+03
300	2	101	655.4	0	2	125	77.2	53.3	0	0	231.1	0	1.2	2.80E-01	1.31E+06
300	1	102	651.5	0	2	124.4	76.8	53.1	0	0	231.1	0	1.3	5.99E-04	2.78E+03
300	2	102	651.5	0	2	124.4	76.8	53.1	0	0	231.1	0	1.2	2.84E-01	1.31E+06
300	1	103	647.6	0	2	123.8	76.3	52.9	0	0	231.1	0	1.3	6.08E-04	2.78E+03
300	2	103	647.6	0	2	123.8	76.3	52.9	0	0	231.1	0	1.2	2.89E-01	1.31E+06
300	1	104	643.7	0	2	123.2	75.9	52.7	0	0	231.1	0	1.3	6.18E-04	2.78E+03
300	2	104	643.7	0	2	123.2	75.9	52.7	0	0	231.1	0	1.2	2.93E-01	1.31E+06
300	1	105	639.8	0	2	122.6	75.5	52.4	0	0	231.1	0	1.3	6.27E-04	2.78E+03
300	2	105	639.8	0	2	122.6	75.5	52.4	0	0	231.1	0	1.2	2.97E-01	1.31E+06
300	1	106	635.8	0	2	122	75	52.2	0	0	231.1	0	1.3	6.37E-04	2.78E+03
300	2	106	635.8	0	2	122	75	52.2	0	0	231.1	0	1.2	3.02E-01	1.31E+06
300	1	107	631.8	0	2	121.4	74.6	52	0	0	231.1	0	1.3	6.47E-04	2.78E+03
300	2	107	631.8	0	2	121.4	74.6	52	0	0	231.1	0	1.2	3.07E-01	1.31E+06
300	1	108	627.8	0	2	120.8	74.1	51.7	0	0	231.1	0	1.3	6.57E-04	2.78E+03
300	2	108	627.8	0	2	120.8	74.1	51.7	0	0	231.1	0	1.2	3.11E-01	1.31E+06
300	1	109	623.7	0	2	120.1	73.7	51.5	0	0	231.1	0	1.3	6.67E-04	2.78E+03
300	2	109	623.7	0	2	120.1	73.7	51.5	0	0	231.1	0	1.2	3.16E-01	1.31E+06
300	1	110	619.7	0	2	119.5	73.3	51.3	0	0	231.1	0	1.3	6.77E-04	2.78E+03
300	2	110	619.7	0	2	119.5	73.3	51.3	0	0	231.1	0	1.2	3.21E-01	1.31E+06
300	1	111	615.5	0	2	118.9	72.8	51	0	0	231.1	0	1.3	6.88E-04	2.78E+03
300	2	111	615.5	0	2	118.9	72.8	51	0	0	231.1	0	1.2	3.26E-01	1.31E+06
300	1	112	611.5	0	2	118.3	72.4	50.8	0	0	231.1	0	1.3	6.99E-04	2.78E+03
300	2	112	611.5	0	2	118.3	72.4	50.8	0	0	231.1	0	1.2	3.31E-01	1.31E+06
300	1	113	607.6	0	2	117.7	71.9	50.6	0	0	231.1	0	1.3	7.10E-04	2.78E+03
300	2	113	607.6	0	2	117.7	71.9	50.6	0	0	231.1	0	1.2	3.37E-01	1.31E+06
300	1	114	603.8	0	2	117.1	71.5	50.4	0	0	231.1	0	1.3	7.21E-04	2.78E+03
300	2	114	603.8	0	2	117.1	71.5	50.4	0	0	231.1	0	1.2	3.42E-01	1.31E+06
300	1	115	599.9	0	2	116.5	71.1	50.1	0	0	231.1	0	1.3	7.33E-04	2.78E+03
300	2	115	599.9	0	2	116.5	71.1	50.1	0	0	231.1	0	1.2	3.48E-01	1.31E+06
300	1	116	596.1	0	2	115.9	70.6	49.9	0	0	231.1	0	1.3	7.45E-04	2.78E+03
300	2	116	596.1	0	2	115.9	70.6	49.9	0	0	231.1	0	1.2	3.53E-01	1.31E+06
300	1	117	592.2	0	2	115.3	70.2	49.7	0	0	231.1	0	1.3	7.57E-04	2.78E+03
300	2	117	592.2	0	2	115.3	70.2	49.7	0	0	231.1	0	1.2	3.59E-01	1.31E+06
300	1	118	588.3	0	2	114.7	69.8	49.4	0	0	231.1	0	1.3	7.69E-04	2.78E+03
300	2	118	588.3	0	2	114.7	69.8	49.4	0	0	231.1	0	1.2	3.65E-01	1.31E+06
300	1	119	584.3	0	2	114.1	69.3	49.2	0	0	231.1	0	1.3	7.82E-04	2.78E+03
300	2	119	584.3	0	2	114.1	69.3	49.2	0	0	231.1	0	1.2	3.71E-01	1.31E+06
300	1	120	580.4	0	2	113.5	68.9	49	0	0	231.1	0	1.3	7.95E-04	2.78E+03
300	2	120	580.4	0	2	113.5	68.9	49	0	0	231.1	0	1.2	3.77E-01	1.31E+06
300	1	121	576.4	0	2	112.9	68.5	48.7	0	0	231.1	0	1.3	8.08E-04	2.78E+03
300	2	121	576.4	0	2	112.9	68.5	48.7	0	0	231.1	0	1.2	3.83E-01	1.31E+06
300	1	122	572.2	0	2	112.3	68	48.5	0	0	231.1	0	1.3	8.21E-04	2.78E+03

300	2	122	572.2	0	2	112.3	68	48.5	0	0	231.1	0	1.2	3.89E-01	1.31E+06
300	1	123	568.3	0	2	111.7	67.6	48.3	0	0	231.1	0	1.3	8.35E-04	2.78E+03
300	2	123	568.3	0	2	111.7	67.6	48.3	0	0	231.1	0	1.2	3.96E-01	1.31E+06
300	1	124	564.6	0	2	111.1	67.2	48	0	0	231.1	0	1.3	8.49E-04	2.78E+03
300	2	124	564.6	0	2	111.1	67.2	48	0	0	231.1	0	1.2	4.03E-01	1.31E+06
300	1	125	560.8	0	2	110.5	66.7	47.8	0	0	231.1	0	1.3	8.64E-04	2.78E+03
300	2	125	560.8	0	2	110.5	66.7	47.8	0	0	231.1	0	1.2	4.10E-01	1.31E+06
300	1	126	557.1	0	2	109.8	66.3	47.6	0	0	231.1	0	1.3	8.78E-04	2.78E+03
300	2	126	557.1	0	2	109.8	66.3	47.6	0	0	231.1	0	1.2	4.17E-01	1.31E+06
300	1	127	553.3	0	2	109.2	65.9	47.3	0	0	231.1	0	1.3	8.93E-04	2.78E+03
300	2	127	553.3	0	2	109.2	65.9	47.3	0	0	231.1	0	1.2	4.24E-01	1.31E+06
300	1	128	549.5	0	2	108.6	65.4	47.1	0	0	231.1	0	1.3	9.09E-04	2.78E+03
300	2	128	549.5	0	2	108.6	65.4	47.1	0	0	231.1	0	1.2	4.31E-01	1.31E+06
300	1	129	545.6	0	2	108	65	46.8	0	0	231.1	0	1.3	9.24E-04	2.78E+03
300	2	129	545.6	0	2	108	65	46.8	0	0	231.1	0	1.2	4.38E-01	1.31E+06
300	1	130	541.8	0	2	107.4	64.6	46.6	0	0	231.1	0	1.3	9.40E-04	2.78E+03
300	2	130	541.8	0	2	107.4	64.6	46.6	0	0	231.1	0	1.2	4.46E-01	1.31E+06
300	1	131	537.9	0	2	106.8	64.2	46.4	0	0	231.1	0	1.3	9.57E-04	2.78E+03
300	2	131	537.9	0	2	106.8	64.2	46.4	0	0	231.1	0	1.2	4.54E-01	1.31E+06
300	1	132	534	0	2	106.2	63.7	46.1	0	0	231.1	0	1.3	9.74E-04	2.78E+03
300	2	132	534	0	2	106.2	63.7	46.1	0	0	231.1	0	1.2	4.62E-01	1.31E+06
300	1	133	529.9	0	2	105.6	63.3	45.9	0	0	231.1	0	1.3	9.91E-04	2.78E+03
300	2	133	529.9	0	2	105.6	63.3	45.9	0	0	231.1	0	1.2	4.70E-01	1.31E+06
300	1	134	526.1	0	2	105	62.9	45.7	0	0	231.1	0	1.3	1.01E-03	2.78E+03
300	2	134	526.1	0	2	105	62.9	45.7	0	0	231.1	0	1.2	4.78E-01	1.31E+06
300	1	135	522.5	0	2	104.4	62.5	45.4	0	0	231.1	0	1.3	1.03E-03	2.78E+03
300	2	135	522.5	0	2	104.4	62.5	45.4	0	0	231.1	0	1.2	4.87E-01	1.31E+06
300	1	136	518.8	0	2	103.8	62	45.2	0	0	231.1	0	1.3	1.05E-03	2.78E+03
300	2	136	518.8	0	2	103.8	62	45.2	0	0	231.1	0	1.2	4.96E-01	1.31E+06
300	1	137	515.1	0	2	103.2	61.6	44.9	0	0	231.1	0	1.3	1.06E-03	2.78E+03
300	2	137	515.1	0	2	103.2	61.6	44.9	0	0	231.1	0	1.2	5.05E-01	1.31E+06
300	1	138	511.4	0	2	102.6	61.2	44.7	0	0	231.1	0	1.3	1.08E-03	2.78E+03
300	2	138	511.4	0	2	102.6	61.2	44.7	0	0	231.1	0	1.2	5.14E-01	1.31E+06
300	1	139	507.7	0	2	102	60.8	44.5	0	0	231.1	0	1.3	1.10E-03	2.78E+03
300	2	139	507.7	0	2	102	60.8	44.5	0	0	231.1	0	1.2	5.23E-01	1.31E+06
300	1	140	503.9	0	2	101.5	60.3	44.2	0	0	231.1	0	1.3	1.12E-03	2.78E+03
300	2	140	503.9	0	2	101.5	60.3	44.2	0	0	231.1	0	1.2	5.33E-01	1.31E+06
300	1	141	500.2	0	2	100.9	59.9	44	0	0	231.1	0	1.3	1.14E-03	2.78E+03
300	2	141	500.2	0	2	100.9	59.9	44	0	0	231.1	0	1.2	5.43E-01	1.31E+06
300	1	142	496.4	0	2	100.3	59.5	43.7	0	0	231.1	0	1.3	1.17E-03	2.78E+03
300	2	142	496.4	0	2	100.3	59.5	43.7	0	0	231.1	0	1.2	5.53E-01	1.31E+06
300	1	143	492.5	0	2	99.7	59.1	43.5	0	0	231.1	0	1.3	1.19E-03	2.78E+03
300	2	143	492.5	0	2	99.7	59.1	43.5	0	0	231.1	0	1.2	5.63E-01	1.31E+06

300	1	144	488.5	0	2	99.1	58.6	43.3	0	0	231.1	0	1.3	1.21E-03	2.78E+03
300	2	144	488.5	0	2	99.1	58.6	43.3	0	0	231.1	0	1.2	5.74E-01	1.31E+06
300	1	145	484.9	0	2	98.5	58.2	43	0	0	231.1	0	1.3	1.23E-03	2.78E+03
300	2	145	484.9	0	2	98.5	58.2	43	0	0	231.1	0	1.2	5.85E-01	1.31E+06
300	1	146	481.3	0	2	97.9	57.8	42.8	0	0	231.1	0	1.3	1.26E-03	2.78E+03
300	2	146	481.3	0	2	97.9	57.8	42.8	0	0	231.1	0	1.2	5.96E-01	1.31E+06
300	1	147	477.7	0	2	97.3	57.4	42.5	0	0	231.1	0	1.3	1.28E-03	2.78E+03
300	2	147	477.7	0	2	97.3	57.4	42.5	0	0	231.1	0	1.2	6.08E-01	1.31E+06
300	1	148	474.1	0	2	96.7	57	42.3	0	0	231.1	0	1.3	1.31E-03	2.78E+03
300	2	148	474.1	0	2	96.7	57	42.3	0	0	231.1	0	1.2	6.19E-01	1.31E+06
300	1	149	470.5	0	2	96.1	56.5	42	0	0	231.1	0	1.3	1.33E-03	2.78E+03
300	2	149	470.5	0	2	96.1	56.5	42	0	0	231.1	0	1.2	6.31E-01	1.31E+06
300	1	150	466.8	0	2	95.5	56.1	41.8	0	0	231.1	0	1.3	1.36E-03	2.78E+03
300	2	150	466.8	0	2	95.5	56.1	41.8	0	0	231.1	0	1.2	6.44E-01	1.31E+06
300	1	151	463.2	0	2	94.9	55.7	41.6	0	0	231.1	0	1.3	1.38E-03	2.78E+03
300	2	151	463.2	0	2	94.9	55.7	41.6	0	0	231.1	0	1.2	6.56E-01	1.31E+06
300	1	152	459.5	0	2	94.3	55.3	41.3	0	0	231.1	0	1.3	1.41E-03	2.78E+03
300	2	152	459.5	0	2	94.3	55.3	41.3	0	0	231.1	0	1.2	6.69E-01	1.31E+06
300	1	153	455.8	0	2	93.7	54.9	41.1	0	0	231.1	0	1.3	1.44E-03	2.78E+03
300	2	153	455.8	0	2	93.7	54.9	41.1	0	0	231.1	0	1.2	6.83E-01	1.31E+06
300	1	154	452	0	2	93.1	54.5	40.8	0	0	231.1	0	1.3	1.47E-03	2.78E+03
300	2	154	452	0	2	93.1	54.5	40.8	0	0	231.1	0	1.2	6.96E-01	1.31E+06
300	1	155	448.1	0	2	92.5	54.1	40.6	0	0	231.1	0	1.3	1.50E-03	2.78E+03
300	2	155	448.1	0	2	92.5	54.1	40.6	0	0	231.1	0	1.2	7.10E-01	1.31E+06
300	1	156	444.5	0	2	92	53.6	40.3	0	0	231.1	0	1.3	1.53E-03	2.78E+03
300	2	156	444.5	0	2	92	53.6	40.3	0	0	231.1	0	1.2	7.25E-01	1.31E+06
300	1	157	441.1	0	2	91.4	53.2	40.1	0	0	231.1	0	1.3	1.56E-03	2.78E+03
300	2	157	441.1	0	2	91.4	53.2	40.1	0	0	231.1	0	1.2	7.40E-01	1.31E+06
300	1	158	437.6	0	2	90.8	52.8	39.9	0	0	231.1	0	1.3	1.59E-03	2.78E+03
300	2	158	437.6	0	2	90.8	52.8	39.9	0	0	231.1	0	1.2	7.55E-01	1.31E+06
300	1	159	434.1	0	2	90.2	52.4	39.6	0	0	231.1	0	1.3	1.62E-03	2.78E+03
300	2	159	434.1	0	2	90.2	52.4	39.6	0	0	231.1	0	1.2	7.70E-01	1.31E+06
300	1	160	430.5	0	2	89.6	52	39.4	0	0	231.1	0	1.3	1.66E-03	2.78E+03
300	2	160	430.5	0	2	89.6	52	39.4	0	0	231.1	0	1.2	7.86E-01	1.31E+06
300	1	161	427	0	2	89	51.6	39.1	0	0	231.1	0	1.3	1.69E-03	2.78E+03
300	2	161	427	0	2	89	51.6	39.1	0	0	231.1	0	1.2	8.03E-01	1.31E+06
300	1	162	423.4	0	2	88.4	51.2	38.9	0	0	231.1	0	1.3	1.73E-03	2.78E+03
300	2	162	423.4	0	2	88.4	51.2	38.9	0	0	231.1	0	1.2	8.20E-01	1.31E+06
300	1	163	419.8	0	2	87.8	50.8	38.6	0	0	231.1	0	1.3	1.77E-03	2.78E+03
300	2	163	419.8	0	2	87.8	50.8	38.6	0	0	231.1	0	1.2	8.37E-01	1.31E+06
300	1	164	416.2	0	2	87.3	50.4	38.4	0	0	231.1	0	1.3	1.80E-03	2.78E+03
300	2	164	416.2	0	2	87.3	50.4	38.4	0	0	231.1	0	1.2	8.55E-01	1.31E+06
300	1	165	412.5	0	2	86.7	50	38.1	0	0	231.1	0	1.3	1.84E-03	2.78E+03

300	2	165	412.5	0	2	86.7	50	38.1	0	0	231.1	0	1.2	8.73E-01	1.31E+06
300	1	166	408.7	0	2	86.1	49.6	37.9	0	0	231.1	0	1.3	1.88E-03	2.78E+03
300	2	166	408.7	0	2	86.1	49.6	37.9	0	0	231.1	0	1.2	8.92E-01	1.31E+06
300	1	167	405.3	0	2	85.5	49.1	37.6	0	0	231.1	0	1.3	1.92E-03	2.78E+03
300	2	167	405.3	0	2	85.5	49.1	37.6	0	0	231.1	0	1.2	9.12E-01	1.31E+06
300	1	168	401.9	0	2	84.9	48.7	37.4	0	0	231.1	0	1.3	1.97E-03	2.78E+03
300	2	168	401.9	0	2	84.9	48.7	37.4	0	0	231.1	0	1.2	9.32E-01	1.31E+06
300	1	169	398.5	0	2	84.3	48.3	37.1	0	0	231.1	0	1.3	2.01E-03	2.78E+03
300	2	169	398.5	0	2	84.3	48.3	37.1	0	0	231.1	0	1.2	9.53E-01	1.31E+06
300	1	170	395	0	2	83.7	47.9	36.9	0	0	231.1	0	1.3	2.05E-03	2.78E+03
300	2	170	395	0	2	83.7	47.9	36.9	0	0	231.1	0	1.2	9.74E-01	1.31E+06
300	1	171	391.6	0	2	83.2	47.5	36.6	0	0	231.1	0	1.3	2.10E-03	2.78E+03
300	2	171	391.6	0	2	83.2	47.5	36.6	0	0	231.1	0	1.2	9.96E-01	1.31E+06
300	1	172	388.2	0	2	82.6	47.1	36.4	0	0	231.1	0	1.3	2.15E-03	2.78E+03
300	2	172	388.2	0	2	82.6	47.1	36.4	0	0	231.1	0	1.2	1.02E+00	1.31E+06
300	1	173	384.7	0	2	82	46.7	36.1	0	0	231.1	0	1.3	2.20E-03	2.78E+03
300	2	173	384.7	0	2	82	46.7	36.1	0	0	231.1	0	1.2	1.04E+00	1.31E+06
300	1	174	381.2	0	2	81.4	46.3	35.9	0	0	231.1	0	1.3	2.25E-03	2.78E+03
300	2	174	381.2	0	2	81.4	46.3	35.9	0	0	231.1	0	1.2	1.06E+00	1.31E+06
300	1	175	377.7	0	2	80.8	45.9	35.6	0	0	231.1	0	1.3	2.30E-03	2.78E+03
300	2	175	377.7	0	2	80.8	45.9	35.6	0	0	231.1	0	1.2	1.09E+00	1.31E+06
300	1	176	374.1	0	2	80.3	45.5	35.4	0	0	231.1	0	1.3	2.35E-03	2.78E+03
300	2	176	374.1	0	2	80.3	45.5	35.4	0	0	231.1	0	1.2	1.11E+00	1.31E+06
300	1	177	370.4	0	2	79.7	45.1	35.1	0	0	231.1	0	1.3	2.41E-03	2.78E+03
300	2	177	370.4	0	2	79.7	45.1	35.1	0	0	231.1	0	1.2	1.14E+00	1.31E+06
300	1	178	367	0	2	79.1	44.7	34.9	0	0	231.1	0	1.3	2.46E-03	2.78E+03
300	2	178	367	0	2	79.1	44.7	34.9	0	0	231.1	0	1.2	1.17E+00	1.31E+06
300	1	179	363.7	0	2	78.5	44.3	34.6	0	0	231.1	0	1.3	2.52E-03	2.78E+03
300	2	179	363.7	0	2	78.5	44.3	34.6	0	0	231.1	0	1.2	1.20E+00	1.31E+06
300	1	180	360.4	0	2	77.9	43.9	34.4	0	0	231.1	0	1.3	2.58E-03	2.78E+03
300	2	180	360.4	0	2	77.9	43.9	34.4	0	0	231.1	0	1.2	1.22E+00	1.31E+06
300	1	181	357.1	0	2	77.4	43.6	34.1	0	0	231.1	0	1.3	2.64E-03	2.78E+03
300	2	181	357.1	0	2	77.4	43.6	34.1	0	0	231.1	0	1.2	1.25E+00	1.31E+06
300	1	182	353.8	0	2	76.8	43.2	33.9	0	0	231.1	0	1.3	2.71E-03	2.78E+03
300	2	182	353.8	0	2	76.8	43.2	33.9	0	0	231.1	0	1.2	1.28E+00	1.31E+06
300	1	183	350.4	0	2	76.2	42.8	33.6	0	0	231.1	0	1.3	2.77E-03	2.78E+03
300	2	183	350.4	0	2	76.2	42.8	33.6	0	0	231.1	0	1.2	1.31E+00	1.31E+06
300	1	184	347.1	0	2	75.6	42.4	33.4	0	0	231.1	0	1.3	2.84E-03	2.78E+03
300	2	184	347.1	0	2	75.6	42.4	33.4	0	0	231.1	0	1.2	1.35E+00	1.31E+06
300	1	185	343.7	0	2	75.1	42	33.1	0	0	231.1	0	1.3	2.91E-03	2.78E+03
300	2	185	343.7	0	2	75.1	42	33.1	0	0	231.1	0	1.2	1.38E+00	1.31E+06
300	1	186	340.2	0	2	74.5	41.6	32.9	0	0	231.1	0	1.3	2.98E-03	2.78E+03
300	2	186	340.2	0	2	74.5	41.6	32.9	0	0	231.1	0	1.2	1.41E+00	1.31E+06

300	1	187	336.8	0	2	73.9	41.2	32.6	0	0	231.1	0	1.3	3.06E-03	2.78E+03
300	2	187	336.8	0	2	73.9	41.2	32.6	0	0	231.1	0	1.2	1.45E+00	1.31E+06
300	1	188	333.1	0	2	73.3	40.8	32.4	0	0	231.1	0	1.3	3.14E-03	2.78E+03
300	2	188	333.1	0	2	73.3	40.8	32.4	0	0	231.1	0	1.2	1.49E+00	1.31E+06
300	1	189	329.9	0	2	72.8	40.4	32.1	0	0	231.1	0	1.3	3.22E-03	2.78E+03
300	2	189	329.9	0	2	72.8	40.4	32.1	0	0	231.1	0	1.2	1.53E+00	1.31E+06
300	1	190	326.7	0	2	72.2	40	31.9	0	0	231.1	0	1.3	3.30E-03	2.78E+03
300	2	190	326.7	0	2	72.2	40	31.9	0	0	231.1	0	1.2	1.56E+00	1.31E+06
300	1	191	323.5	0	2	71.6	39.7	31.6	0	0	231.1	0	1.3	3.38E-03	2.78E+03
300	2	191	323.5	0	2	71.6	39.7	31.6	0	0	231.1	0	1.2	1.60E+00	1.31E+06
300	1	192	320.3	0	2	71.1	39.3	31.4	0	0	231.1	0	1.3	3.47E-03	2.78E+03
300	2	192	320.3	0	2	71.1	39.3	31.4	0	0	231.1	0	1.2	1.65E+00	1.31E+06
300	1	193	317.1	0	2	70.5	38.9	31.1	0	0	231.1	0	1.3	3.56E-03	2.78E+03
300	2	193	317.1	0	2	70.5	38.9	31.1	0	0	231.1	0	1.2	1.69E+00	1.31E+06
300	1	194	313.8	0	2	69.9	38.5	30.9	0	0	231.1	0	1.3	3.66E-03	2.78E+03
300	2	194	313.8	0	2	69.9	38.5	30.9	0	0	231.1	0	1.2	1.73E+00	1.31E+06
300	1	195	310.6	0	2	69.3	38.1	30.6	0	0	231.1	0	1.3	3.75E-03	2.78E+03
300	2	195	310.6	0	2	69.3	38.1	30.6	0	0	231.1	0	1.2	1.78E+00	1.31E+06
300	1	196	307.3	0	2	68.8	37.7	30.4	0	0	231.1	0	1.3	3.86E-03	2.78E+03
300	2	196	307.3	0	2	68.8	37.7	30.4	0	0	231.1	0	1.2	1.83E+00	1.31E+06
300	1	197	304	0	2	68.2	37.4	30.1	0	0	231.1	0	1.3	3.96E-03	2.78E+03
300	2	197	304	0	2	68.2	37.4	30.1	0	0	231.1	0	1.2	1.88E+00	1.31E+06
300	1	198	300.6	0	2	67.6	37	29.9	0	0	231.1	0	1.3	4.07E-03	2.78E+03
300	2	198	300.6	0	2	67.6	37	29.9	0	0	231.1	0	1.2	1.93E+00	1.31E+06
300	1	199	297.1	0	2	67.1	36.6	29.6	0	0	231.1	0	1.3	4.18E-03	2.78E+03
300	2	199	297.1	0	2	67.1	36.6	29.6	0	0	231.1	0	1.2	1.98E+00	1.31E+06
300	1	200	294	0	2	66.5	36.2	29.3	0	0	231.1	0	1.3	4.30E-03	2.78E+03
300	2	200	294	0	2	66.5	36.2	29.3	0	0	231.1	0	1.2	2.04E+00	1.31E+06
300	1	201	290.9	0	2	65.9	35.8	29.1	0	0	231.1	0	1.3	4.42E-03	2.78E+03
300	2	201	290.9	0	2	65.9	35.8	29.1	0	0	231.1	0	1.2	2.10E+00	1.31E+06
300	1	202	287.8	0	2	65.4	35.5	28.8	0	0	231.1	0	1.3	4.54E-03	2.78E+03
300	2	202	287.8	0	2	65.4	35.5	28.8	0	0	231.1	0	1.2	2.15E+00	1.31E+06
300	1	203	284.7	0	2	64.8	35.1	28.6	0	0	231.1	0	1.3	4.67E-03	2.78E+03
300	2	203	284.7	0	2	64.8	35.1	28.6	0	0	231.1	0	1.2	2.22E+00	1.31E+06
300	1	204	281.6	0	2	64.2	34.7	28.3	0	0	231.1	0	1.3	4.81E-03	2.78E+03
300	2	204	281.6	0	2	64.2	34.7	28.3	0	0	231.1	0	1.2	2.28E+00	1.31E+06
300	1	205	278.5	0	2	63.7	34.4	28.1	0	0	231.1	0	1.3	4.95E-03	2.78E+03
300	2	205	278.5	0	2	63.7	34.4	28.1	0	0	231.1	0	1.2	2.35E+00	1.31E+06
300	1	206	275.3	0	2	63.1	34	27.8	0	0	231.1	0	1.3	5.09E-03	2.78E+03
300	2	206	275.3	0	2	63.1	34	27.8	0	0	231.1	0	1.2	2.41E+00	1.31E+06
300	1	207	272.1	0	2	62.6	33.6	27.6	0	0	231.1	0	1.3	5.24E-03	2.78E+03
300	2	207	272.1	0	2	62.6	33.6	27.6	0	0	231.1	0	1.2	2.49E+00	1.31E+06
300	1	208	268.9	0	2	62	33.2	27.3	0	0	231.1	0	1.3	5.40E-03	2.78E+03

300	2	208	268.9	0	2	62	33.2	27.3	0	0	231.1	0	1.2	2.56E+00	1.31E+06
300	1	209	265.7	0	2	61.4	32.9	27.1	0	0	231.1	0	1.3	5.56E-03	2.78E+03
300	2	209	265.7	0	2	61.4	32.9	27.1	0	0	231.1	0	1.2	2.64E+00	1.31E+06
300	1	210	262.3	0	2	60.9	32.5	26.8	0	0	231.1	0	1.3	5.73E-03	2.78E+03
300	2	210	262.3	0	2	60.9	32.5	26.8	0	0	231.1	0	1.2	2.72E+00	1.31E+06
300	1	211	259.3	0	2	60.3	32.1	26.5	0	0	231.1	0	1.3	5.90E-03	2.78E+03
300	2	211	259.3	0	2	60.3	32.1	26.5	0	0	231.1	0	1.2	2.80E+00	1.31E+06
300	1	212	256.3	0	2	59.8	31.8	26.3	0	0	231.1	0	1.3	6.08E-03	2.78E+03
300	2	212	256.3	0	2	59.8	31.8	26.3	0	0	231.1	0	1.2	2.89E+00	1.31E+06
300	1	213	253.4	0	2	59.2	31.4	26	0	0	231.1	0	1.3	6.27E-03	2.78E+03
300	2	213	253.4	0	2	59.2	31.4	26	0	0	231.1	0	1.2	2.98E+00	1.31E+06
300	1	214	250.4	0	2	58.6	31	25.8	0	0	231.1	0	1.3	6.47E-03	2.78E+03
300	2	214	250.4	0	2	58.6	31	25.8	0	0	231.1	0	1.2	3.07E+00	1.31E+06
300	1	215	247.4	0	2	58.1	30.7	25.5	0	0	231.1	0	1.3	6.67E-03	2.78E+03
300	2	215	247.4	0	2	58.1	30.7	25.5	0	0	231.1	0	1.2	3.17E+00	1.31E+06
300	1	216	244.4	0	2	57.5	30.3	25.3	0	0	231.1	0	1.3	6.89E-03	2.78E+03
300	2	216	244.4	0	2	57.5	30.3	25.3	0	0	231.1	0	1.2	3.27E+00	1.31E+06
300	1	217	241.3	0	2	57	30	25	0	0	231.1	0	1.3	7.11E-03	2.78E+03
300	2	217	241.3	0	2	57	30	25	0	0	231.1	0	1.2	3.37E+00	1.31E+06
300	1	218	238.3	0	2	56.4	29.6	24.8	0	0	231.1	0	1.3	7.34E-03	2.78E+03
300	2	218	238.3	0	2	56.4	29.6	24.8	0	0	231.1	0	1.2	3.48E+00	1.31E+06
300	1	219	235.2	0	2	55.9	29.2	24.5	0	0	231.1	0	1.3	7.58E-03	2.78E+03
300	2	219	235.2	0	2	55.9	29.2	24.5	0	0	231.1	0	1.2	3.59E+00	1.31E+06
300	1	220	232	0	2	55.3	28.9	24.2	0	0	231.1	0	1.3	7.83E-03	2.78E+03
300	2	220	232	0	2	55.3	28.9	24.2	0	0	231.1	0	1.2	3.71E+00	1.31E+06
300	1	221	228.8	0	2	54.8	28.5	24	0	0	231.1	0	1.3	8.09E-03	2.78E+03
300	2	221	228.8	0	2	54.8	28.5	24	0	0	231.1	0	1.2	3.84E+00	1.31E+06
300	1	222	225.9	0	2	54.2	28.2	23.7	0	0	231.1	0	1.3	8.37E-03	2.78E+03
300	2	222	225.9	0	2	54.2	28.2	23.7	0	0	231.1	0	1.2	3.97E+00	1.31E+06
300	1	223	223.1	0	2	53.7	27.8	23.5	0	0	231.1	0	1.3	8.65E-03	2.78E+03
300	2	223	223.1	0	2	53.7	27.8	23.5	0	0	231.1	0	1.2	4.10E+00	1.31E+06
300	1	224	220.2	0	2	53.1	27.5	23.2	0	0	231.1	0	1.3	8.95E-03	2.78E+03
300	2	224	220.2	0	2	53.1	27.5	23.2	0	0	231.1	0	1.2	4.25E+00	1.31E+06
300	1	225	217.4	0	2	52.6	27.1	23	0	0	231.1	0	1.3	9.26E-03	2.78E+03
300	2	225	217.4	0	2	52.6	27.1	23	0	0	231.1	0	1.2	4.39E+00	1.31E+06
300	1	226	214.5	0	2	52	26.8	22.7	0	0	231.1	0	1.3	9.59E-03	2.78E+03
300	2	226	214.5	0	2	52	26.8	22.7	0	0	231.1	0	1.2	4.55E+00	1.31E+06
300	1	227	211.6	0	2	51.5	26.4	22.5	0	0	231.1	0	1.3	9.93E-03	2.78E+03
300	2	227	211.6	0	2	51.5	26.4	22.5	0	0	231.1	0	1.2	4.71E+00	1.31E+06
300	1	228	208.7	0	2	50.9	26.1	22.2	0	0	231.1	0	1.3	1.03E-02	2.78E+03
300	2	228	208.7	0	2	50.9	26.1	22.2	0	0	231.1	0	1.2	4.88E+00	1.31E+06
300	1	229	205.8	0	2	50.4	25.7	21.9	0	0	231.1	0	1.3	1.07E-02	2.78E+03
300	2	229	205.8	0	2	50.4	25.7	21.9	0	0	231.1	0	1.2	5.05E+00	1.31E+06

300	1	230	202.8	0	2	49.8	25.4	21.7	0	0	231.1	0	1.3	1.10E-02	2.78E+03
300	2	230	202.8	0	2	49.8	25.4	21.7	0	0	231.1	0	1.2	5.24E+00	1.31E+06
300	1	231	199.8	0	2	49.3	25	21.4	0	0	231.1	0	1.3	1.14E-02	2.78E+03
300	2	231	199.8	0	2	49.3	25	21.4	0	0	231.1	0	1.2	5.43E+00	1.31E+06
300	1	232	196.7	0	2	48.7	24.7	21.2	0	0	231.1	0	1.3	1.19E-02	2.78E+03
300	2	232	196.7	0	2	48.7	24.7	21.2	0	0	231.1	0	1.2	5.63E+00	1.31E+06
300	1	233	194	0	2	48.2	24.3	20.9	0	0	231.1	0	1.3	1.23E-02	2.78E+03
300	2	233	194	0	2	48.2	24.3	20.9	0	0	231.1	0	1.2	5.85E+00	1.31E+06
300	1	234	191.3	0	2	47.6	24	20.7	0	0	231.1	0	1.3	1.28E-02	2.78E+03
300	2	234	191.3	0	2	47.6	24	20.7	0	0	231.1	0	1.2	6.07E+00	1.31E+06
300	1	235	188.5	0	2	47.1	23.7	20.4	0	0	231.1	0	1.3	1.33E-02	2.78E+03
300	2	235	188.5	0	2	47.1	23.7	20.4	0	0	231.1	0	1.2	6.31E+00	1.31E+06
300	1	236	185.8	0	2	46.6	23.3	20.2	0	0	231.1	0	1.3	1.38E-02	2.78E+03
300	2	236	185.8	0	2	46.6	23.3	20.2	0	0	231.1	0	1.2	6.55E+00	1.31E+06
300	1	237	183.1	0	2	46	23	19.9	0	0	231.1	0	1.3	1.44E-02	2.78E+03
300	2	237	183.1	0	2	46	23	19.9	0	0	231.1	0	1.2	6.81E+00	1.31E+06
300	1	238	180.3	0	2	45.5	22.7	19.7	0	0	231.1	0	1.3	1.49E-02	2.78E+03
300	2	238	180.3	0	2	45.5	22.7	19.7	0	0	231.1	0	1.2	7.08E+00	1.31E+06
300	1	239	177.5	0	2	44.9	22.3	19.4	0	0	231.1	0	1.3	1.55E-02	2.78E+03
300	2	239	177.5	0	2	44.9	22.3	19.4	0	0	231.1	0	1.2	7.37E+00	1.31E+06
300	1	240	174.7	0	2	44.4	22	19.2	0	0	231.1	0	1.3	1.62E-02	2.78E+03
300	2	240	174.7	0	2	44.4	22	19.2	0	0	231.1	0	1.2	7.67E+00	1.31E+06
300	1	241	171.9	0	2	43.9	21.7	18.9	0	0	231.1	0	1.3	1.68E-02	2.78E+03
300	2	241	171.9	0	2	43.9	21.7	18.9	0	0	231.1	0	1.2	7.98E+00	1.31E+06
300	1	242	169	0	2	43.3	21.3	18.6	0	0	231.1	0	1.3	1.75E-02	2.78E+03
300	2	242	169	0	2	43.3	21.3	18.6	0	0	231.1	0	1.2	8.31E+00	1.31E+06
300	1	243	166.1	0	2	42.8	21	18.4	0	0	231.1	0	1.3	1.83E-02	2.78E+03
300	2	243	166.1	0	2	42.8	21	18.4	0	0	231.1	0	1.2	8.67E+00	1.31E+06
300	1	244	163.5	0	2	42.3	20.7	18.1	0	0	231.1	0	1.3	1.91E-02	2.78E+03
300	2	244	163.5	0	2	42.3	20.7	18.1	0	0	231.1	0	1.2	9.04E+00	1.31E+06
300	1	245	161	0	2	41.7	20.3	17.9	0	0	231.1	0	1.3	1.99E-02	2.78E+03
300	2	245	161	0	2	41.7	20.3	17.9	0	0	231.1	0	1.2	9.43E+00	1.31E+06
300	1	246	158.4	0	2	41.2	20	17.6	0	0	231.1	0	1.3	2.08E-02	2.78E+03
300	2	246	158.4	0	2	41.2	20	17.6	0	0	231.1	0	1.2	9.84E+00	1.31E+06
300	1	247	155.8	0	2	40.7	19.7	17.4	0	0	231.1	0	1.3	2.17E-02	2.78E+03
300	2	247	155.8	0	2	40.7	19.7	17.4	0	0	231.1	0	1.2	1.03E+01	1.31E+06
300	1	248	153.2	0	2	40.1	19.4	17.1	0	0	231.1	0	1.3	2.26E-02	2.78E+03
300	2	248	153.2	0	2	40.1	19.4	17.1	0	0	231.1	0	1.2	1.07E+01	1.31E+06
300	1	249	150.6	0	2	39.6	19.1	16.9	0	0	231.1	0	1.3	2.37E-02	2.78E+03
300	2	249	150.6	0	2	39.6	19.1	16.9	0	0	231.1	0	1.2	1.12E+01	1.31E+06
300	1	250	148	0	2	39.1	18.7	16.6	0	0	231.1	0	1.3	2.48E-02	2.78E+03
300	2	250	148	0	2	39.1	18.7	16.6	0	0	231.1	0	1.2	1.17E+01	1.31E+06
300	1	251	145.3	0	2	38.5	18.4	16.4	0	0	231.1	0	1.3	2.59E-02	2.78E+03

300	2	251	145.3	0	2	38.5	18.4	16.4	0	0	231.1	0	1.2	1.23E+01	1.31E+06
300	1	252	142.6	0	2	38	18.1	16.1	0	0	231.1	0	1.3	2.71E-02	2.78E+03
300	2	252	142.6	0	2	38	18.1	16.1	0	0	231.1	0	1.2	1.29E+01	1.31E+06
300	1	253	139.9	0	2	37.5	17.8	15.9	0	0	231.1	0	1.3	2.84E-02	2.78E+03
300	2	253	139.9	0	2	37.5	17.8	15.9	0	0	231.1	0	1.2	1.35E+01	1.31E+06
300	1	254	137.1	0	2	37	17.5	15.6	0	0	231.1	0	1.3	2.98E-02	2.78E+03
300	2	254	137.1	0	2	37	17.5	15.6	0	0	231.1	0	1.2	1.41E+01	1.31E+06
300	1	255	134.7	0	2	36.4	17.2	15.4	0	0	231.1	0	1.3	3.13E-02	2.78E+03
300	2	255	134.7	0	2	36.4	17.2	15.4	0	0	231.1	0	1.2	1.48E+01	1.31E+06
300	1	256	132.3	0	2	35.9	16.9	15.1	0	0	231.1	0	1.3	3.28E-02	2.78E+03
300	2	256	132.3	0	2	35.9	16.9	15.1	0	0	231.1	0	1.2	1.56E+01	1.31E+06
300	1	257	129.9	0	2	35.4	16.6	14.9	0	0	231.1	0	1.3	3.45E-02	2.78E+03
300	2	257	129.9	0	2	35.4	16.6	14.9	0	0	231.1	0	1.2	1.64E+01	1.31E+06
300	1	258	127.5	0	2	34.9	16.2	14.6	0	0	231.1	0	1.3	3.62E-02	2.78E+03
300	2	258	127.5	0	2	34.9	16.2	14.6	0	0	231.1	0	1.2	1.72E+01	1.31E+06
300	1	259	125	0	2	34.3	15.9	14.4	0	0	231.1	0	1.3	3.81E-02	2.78E+03
300	2	259	125	0	2	34.3	15.9	14.4	0	0	231.1	0	1.2	1.81E+01	1.31E+06
300	1	260	122.6	0	2	33.8	15.6	14.1	0	0	231.1	0	1.3	4.01E-02	2.78E+03
300	2	260	122.6	0	2	33.8	15.6	14.1	0	0	231.1	0	1.2	1.90E+01	1.31E+06
300	1	261	120.1	0	2	33.3	15.3	13.9	0	0	231.1	0	1.3	4.22E-02	2.78E+03
300	2	261	120.1	0	2	33.3	15.3	13.9	0	0	231.1	0	1.2	2.00E+01	1.31E+06
300	1	262	117.6	0	2	32.8	15	13.7	0	0	231.1	0	1.3	4.45E-02	2.78E+03
300	2	262	117.6	0	2	32.8	15	13.7	0	0	231.1	0	1.2	2.11E+01	1.31E+06
300	1	263	115.1	0	2	32.3	14.8	13.4	0	0	231.1	0	1.3	4.69E-02	2.78E+03
300	2	263	115.1	0	2	32.3	14.8	13.4	0	0	231.1	0	1.2	2.23E+01	1.31E+06
300	1	264	112.5	0	2	31.7	14.5	13.2	0	0	231.1	0	1.3	4.95E-02	2.78E+03
300	2	264	112.5	0	2	31.7	14.5	13.2	0	0	231.1	0	1.2	2.35E+01	1.31E+06
300	1	265	109.9	0	2	31.2	14.2	12.9	0	0	231.1	0	1.3	5.24E-02	2.78E+03
300	2	265	109.9	0	2	31.2	14.2	12.9	0	0	231.1	0	1.2	2.48E+01	1.31E+06
300	1	266	107.7	0	2	30.7	13.9	12.7	0	0	231.1	0	1.3	5.54E-02	2.78E+03
300	2	266	107.7	0	2	30.7	13.9	12.7	0	0	231.1	0	1.2	2.63E+01	1.31E+06
300	1	267	105.5	0	2	30.2	13.6	12.4	0	0	231.1	0	1.3	5.86E-02	2.78E+03
300	2	267	105.5	0	2	30.2	13.6	12.4	0	0	231.1	0	1.2	2.78E+01	1.31E+06
300	1	268	103.2	0	2	29.7	13.3	12.2	0	0	231.1	0	1.3	6.21E-02	2.78E+03
300	2	268	103.2	0	2	29.7	13.3	12.2	0	0	231.1	0	1.2	2.95E+01	1.31E+06
300	1	269	101	0	2	29.2	13	12	0	0	231.1	0	1.3	6.59E-02	2.78E+03
300	2	269	101	0	2	29.2	13	12	0	0	231.1	0	1.2	3.12E+01	1.31E+06
300	1	270	98.7	0	2	28.7	12.7	11.7	0	0	231.1	0	1.3	6.99E-02	2.78E+03
300	2	270	98.7	0	2	28.7	12.7	11.7	0	0	231.1	0	1.2	3.31E+01	1.31E+06
300	1	271	96.4	0	2	28.1	12.4	11.5	0	0	231.1	0	1.3	7.42E-02	2.78E+03
300	2	271	96.4	0	2	28.1	12.4	11.5	0	0	231.1	0	1.2	3.52E+01	1.31E+06
300	1	272	94.1	0	2	27.6	12.1	11.2	0	0	231.1	0	1.3	7.88E-02	2.78E+03
300	2	272	94.1	0	2	27.6	12.1	11.2	0	0	231.1	0	1.2	3.74E+01	1.31E+06

300	1	273	91.8	0	2	27.1	11.9	11	0	0	231.1	0	1.3	8.38E-02	2.78E+03
300	2	273	91.8	0	2	27.1	11.9	11	0	0	231.1	0	1.2	3.97E+01	1.31E+06
300	1	274	89.5	0	2	26.6	11.6	10.8	0	0	231.1	0	1.3	8.92E-02	2.78E+03
300	2	274	89.5	0	2	26.6	11.6	10.8	0	0	231.1	0	1.2	4.23E+01	1.31E+06
300	1	275	87.1	0	2	26.1	11.3	10.5	0	0	231.1	0	1.3	9.51E-02	2.78E+03
300	2	275	87.1	0	2	26.1	11.3	10.5	0	0	231.1	0	1.2	4.51E+01	1.31E+06
300	1	276	84.7	0	2	25.6	11	10.3	0	0	231.1	0	1.3	1.02E-01	2.78E+03
300	2	276	84.7	0	2	25.6	11	10.3	0	0	231.1	0	1.2	4.82E+01	1.31E+06
300	1	277	82.7	0	2	25.1	10.8	10.1	0	0	231.1	0	1.3	1.09E-01	2.78E+03
300	2	277	82.7	0	2	25.1	10.8	10.1	0	0	231.1	0	1.2	5.16E+01	1.31E+06
300	1	278	80.7	0	2	24.6	10.5	9.8	0	0	231.1	0	1.3	1.17E-01	2.78E+03
300	2	278	80.7	0	2	24.6	10.5	9.8	0	0	231.1	0	1.2	5.52E+01	1.31E+06
300	1	279	78.6	0	2	24.1	10.2	9.6	0	0	231.1	0	1.3	1.25E-01	2.78E+03
300	2	279	78.6	0	2	24.1	10.2	9.6	0	0	231.1	0	1.2	5.92E+01	1.31E+06
300	1	280	76.6	0	2	23.6	9.9	9.4	0	0	231.1	0	1.3	1.34E-01	2.78E+03
300	2	280	76.6	0	2	23.6	9.9	9.4	0	0	231.1	0	1.2	6.35E+01	1.31E+06
300	1	281	74.5	0	2	23.1	9.7	9.1	0	0	231.1	0	1.3	1.44E-01	2.78E+03
300	2	281	74.5	0	2	23.1	9.7	9.1	0	0	231.1	0	1.2	6.82E+01	1.31E+06
300	1	282	72.4	0	2	22.6	9.4	8.9	0	0	231.1	0	1.3	1.55E-01	2.78E+03
300	2	282	72.4	0	2	22.6	9.4	8.9	0	0	231.1	0	1.2	7.33E+01	1.31E+06
300	1	283	70.3	0	2	22.1	9.2	8.7	0	0	231.1	0	1.3	1.66E-01	2.78E+03
300	2	283	70.3	0	2	22.1	9.2	8.7	0	0	231.1	0	1.2	7.88E+01	1.31E+06
300	1	284	68.2	0	2	21.6	8.9	8.5	0	0	231.1	0	1.3	1.79E-01	2.78E+03
300	2	284	68.2	0	2	21.6	8.9	8.5	0	0	231.1	0	1.2	8.50E+01	1.31E+06
300	1	285	66.1	0	2	21.1	8.7	8.2	0	0	231.1	0	1.3	1.93E-01	2.78E+03
300	2	285	66.1	0	2	21.1	8.7	8.2	0	0	231.1	0	1.2	9.17E+01	1.31E+06
300	1	286	63.9	0	2	20.6	8.4	8	0	0	231.1	0	1.3	2.09E-01	2.78E+03
300	2	286	63.9	0	2	20.6	8.4	8	0	0	231.1	0	1.2	9.91E+01	1.31E+06
300	1	287	61.8	0	2	20.1	8.2	7.8	0	0	231.1	0	1.3	2.27E-01	2.78E+03
300	2	287	61.8	0	2	20.1	8.2	7.8	0	0	231.1	0	1.2	1.08E+02	1.31E+06
300	1	288	60	0	2	19.6	7.9	7.5	0	0	231.1	0	1.3	2.47E-01	2.78E+03
300	2	288	60	0	2	19.6	7.9	7.5	0	0	231.1	0	1.2	1.17E+02	1.31E+06
300	1	289	58.2	0	2	19.1	7.6	7.3	0	0	231.1	0	1.3	2.69E-01	2.78E+03
300	2	289	58.2	0	2	19.1	7.6	7.3	0	0	231.1	0	1.2	1.27E+02	1.31E+06
300	1	290	56.4	0	2	18.6	7.4	7.1	0	0	231.1	0	1.3	2.93E-01	2.78E+03
300	2	290	56.4	0	2	18.6	7.4	7.1	0	0	231.1	0	1.2	1.39E+02	1.31E+06
300	1	291	54.5	0	2	18.1	7.2	6.9	0	0	231.1	0	1.3	3.19E-01	2.78E+03
300	2	291	54.5	0	2	18.1	7.2	6.9	0	0	231.1	0	1.2	1.51E+02	1.31E+06
300	1	292	52.7	0	2	17.6	6.9	6.7	0	0	231.1	0	1.3	3.49E-01	2.78E+03
300	2	292	52.7	0	2	17.6	6.9	6.7	0	0	231.1	0	1.2	1.65E+02	1.31E+06
300	1	293	50.9	0	2	17.2	6.7	6.5	0	0	231.1	0	1.3	3.82E-01	2.78E+03
300	2	293	50.9	0	2	17.2	6.7	6.5	0	0	231.1	0	1.2	1.81E+02	1.31E+06
300	1	294	49	0	2	16.7	6.5	6.2	0	0	231.1	0	1.3	4.18E-01	2.79E+03

300	2	294	49	0	2	16.7	6.5	6.2	0	0	231.1	0	1.2	1.98E+02	1.31E+06
300	1	295	47.2	0	2	16.2	6.2	6	0	0	231.1	0	1.3	4.60E-01	2.79E+03
300	2	295	47.2	0	2	16.2	6.2	6	0	0	231.1	0	1.2	2.18E+02	1.31E+06
300	1	296	45.3	0	2	15.7	6	5.8	0	0	231.1	0	1.3	5.06E-01	2.79E+03
300	2	296	45.3	0	2	15.7	6	5.8	0	0	231.1	0	1.2	2.40E+02	1.31E+06
300	1	297	43.4	0	2	15.2	5.8	5.6	0	0	231.1	0	1.3	5.58E-01	2.79E+03
300	2	297	43.4	0	2	15.2	5.8	5.6	0	0	231.1	0	1.2	2.65E+02	1.31E+06
300	1	298	41.5	0	2	14.7	5.5	5.4	0	0	231.1	0	1.3	6.22E-01	2.79E+03
300	2	298	41.5	0	2	14.7	5.5	5.4	0	0	231.1	0	1.2	2.95E+02	1.32E+06
300	1	299	40	0	2	14.3	5.3	5.2	0	0	231.1	0	1.3	6.93E-01	2.79E+03
300	2	299	40	0	2	14.3	5.3	5.2	0	0	231.1	0	1.2	3.28E+02	1.32E+06
300	1	300	38.4	0	2	13.8	5.1	5	0	0	231.1	0	1.3	7.74E-01	2.79E+03
300	2	300	38.4	0	2	13.8	5.1	5	0	0	231.1	0	1.2	3.67E+02	1.32E+06
300	1	301	36.9	0	2	13.3	4.9	4.8	0	0	231.1	0	1.3	8.65E-01	2.79E+03
300	2	301	36.9	0	2	13.3	4.9	4.8	0	0	231.1	0	1.2	4.10E+02	1.32E+06
300	1	302	35.4	0	2	12.8	4.7	4.6	0	0	231.1	0	1.3	9.69E-01	2.79E+03
300	2	302	35.4	0	2	12.8	4.7	4.6	0	0	231.1	0	1.2	4.59E+02	1.32E+06
300	1	303	33.8	0	2	12.3	4.4	4.4	0	0	231.1	0	1.3	1.09E+00	2.79E+03
300	2	303	33.8	0	2	12.3	4.4	4.4	0	0	231.1	0	1.2	5.15E+02	1.32E+06
300	1	304	32.3	0	2	11.9	4.2	4.2	0	0	231.1	0	1.3	1.22E+00	2.79E+03
300	2	304	32.3	0	2	11.9	4.2	4.2	0	0	231.1	0	1.2	5.80E+02	1.32E+06
300	1	305	30.7	0	2	11.4	4	4	0	0	231.1	0	1.3	1.38E+00	2.79E+03
300	2	305	30.7	0	2	11.4	4	4	0	0	231.1	0	1.2	6.54E+02	1.32E+06
300	1	306	29.1	0	2	10.9	3.9	3.8	0	0	231.1	0	1.3	1.56E+00	2.79E+03
300	2	306	29.1	0	2	10.9	3.9	3.8	0	0	231.1	0	1.2	7.39E+02	1.32E+06
300	1	307	27.5	0	2	10.5	3.7	3.6	0	0	231.1	0	1.3	1.77E+00	2.79E+03
300	2	307	27.5	0	2	10.5	3.7	3.6	0	0	231.1	0	1.2	8.39E+02	1.32E+06
300	1	308	25.9	0	2	10	3.5	3.5	0	0	231.1	0	1.3	2.03E+00	2.79E+03
300	2	308	25.9	0	2	10	3.5	3.5	0	0	231.1	0	1.2	9.59E+02	1.32E+06
300	1	309	24.4	0	2	9.5	3.3	3.3	0	0	231.1	0	1.3	2.36E+00	2.79E+03
300	2	309	24.4	0	2	9.5	3.3	3.3	0	0	231.1	0	1.2	1.12E+03	1.32E+06
300	1	310	23.3	0	2	9	3	3.1	0	0	231.1	0	1.3	2.75E+00	2.79E+03
300	2	310	23.3	0	2	9	3	3.1	0	0	231.1	0	1.2	1.30E+03	1.32E+06
300	1	311	22.1	0	2	8.6	2.9	2.9	0	0	231.1	0	1.3	3.22E+00	2.79E+03
300	2	311	22.1	0	2	8.6	2.9	2.9	0	0	231.1	0	1.2	1.53E+03	1.32E+06
300	1	312	20.9	0	2	8.1	2.7	2.7	0	0	231.1	0	1.3	3.79E+00	2.79E+03
300	2	312	20.9	0	2	8.1	2.7	2.7	0	0	231.1	0	1.2	1.79E+03	1.32E+06
300	1	313	19.7	0	2	7.6	2.5	2.5	0	0	231.1	0	1.3	4.48E+00	2.79E+03
300	2	313	19.7	0	2	7.6	2.5	2.5	0	0	231.1	0	1.2	2.12E+03	1.32E+06
300	1	314	18.6	0	2	7.2	2.3	2.3	0	0	231.1	0	1.3	5.32E+00	2.79E+03
300	2	314	18.6	0	2	7.2	2.3	2.3	0	0	231.1	0	1.2	2.52E+03	1.32E+06
300	1	315	17.4	0	2	6.7	2.2	2.2	0	0	231.1	0	1.3	6.37E+00	2.79E+03
300	2	315	17.4	0	2	6.7	2.2	2.2	0	0	231.1	0	1.2	3.01E+03	1.32E+06

300	1	316	16.2	0	2	6.3	2	2	0	0	231.1	0	1.3	7.70E+00	2.79E+03
300	2	316	16.2	0	2	6.3	2	2	0	0	231.1	0	1.2	3.64E+03	1.32E+06
300	1	317	15	0	2	5.8	1.9	1.9	0	0	231.1	0	1.3	9.41E+00	2.79E+03
300	2	317	15	0	2	5.8	1.9	1.9	0	0	231.1	0	1.2	4.45E+03	1.32E+06
300	1	318	13.8	0	2	5.3	1.7	1.7	0	0	231.1	0	1.3	1.17E+01	2.79E+03
300	2	318	13.8	0	2	5.3	1.7	1.7	0	0	231.1	0	1.2	5.52E+03	1.32E+06
300	1	319	12.7	0	2	4.9	1.6	1.6	0	0	231.1	0	1.3	1.51E+01	2.79E+03
300	2	319	12.7	0	2	4.9	1.6	1.6	0	0	231.1	0	1.2	7.14E+03	1.32E+06
300	1	320	11.5	0	2	4.4	1.3	1.4	0	0	231.1	0	1.3	2.17E+01	2.79E+03
300	2	320	11.5	0	2	4.4	1.3	1.4	0	0	231.1	0	1.2	1.02E+04	1.32E+06
300	1	321	10.3	0	2	4	1.2	1.2	0	0	231.1	0	1.3	3.27E+01	2.79E+03
300	2	321	10.3	0	2	4	1.2	1.2	0	0	231.1	0	1.2	1.54E+04	1.32E+06
300	1	322	9.1	0	2	3.5	1	1	0	0	231.1	0	1.3	5.19E+01	2.79E+03
300	2	322	9.1	0	2	3.5	1	1	0	0	231.1	0	1.2	2.45E+04	1.32E+06
300	1	323	8	0	2	3	0.8	0.8	0	0	231.1	0	1.3	8.70E+01	2.79E+03
300	2	323	8	0	2	3	0.8	0.8	0	0	231.1	0	1.2	4.11E+04	1.32E+06
300	1	324	6.8	0	2	2.6	0.7	0.7	0	0	231.1	0	1.3	1.55E+02	2.79E+03
300	2	324	6.8	0	2	2.6	0.7	0.7	0	0	231.1	0	1.2	7.34E+04	1.32E+06
300	1	325	5.6	0	2	2.2	0.5	0.5	0	0	231.1	0	1.3	2.98E+02	2.79E+03
300	2	325	5.6	0	2	2.2	0.5	0.5	0	0	231.1	0	1.2	1.41E+05	1.32E+06
300	1	326	4.4	0	2	1.7	0.4	0.4	0	0	231.1	0	1.3	6.13E+02	2.79E+03
300	2	326	4.4	0	2	1.7	0.4	0.4	0	0	231.1	0	1.2	2.89E+05	1.32E+06
300	1	327	3.2	0	2	1.3	0.3	0.3	0	0	231.1	0	1.3	1.31E+03	2.79E+03
300	2	327	3.2	0	2	1.3	0.3	0.3	0	0	231.1	0	1.2	6.16E+05	1.32E+06
300	1	328	2.1	0	2	0.9	0.3	0.3	0	0	231.1	0	1.3	2.65E+03	2.79E+03
300	2	328	2.1	0	2	0.9	0.3	0.3	0	0	231.1	0	1.2	1.25E+06	1.32E+06
300	1	329	0.9	0	2	0.6	0.3	0.3	0	0	231.1	0	1.3	4.69E+03	2.79E+03
300	2	329	0.9	0	2	0.6	0.3	0.3	0	0	231.1	0	1.2	2.21E+06	1.32E+06
300	1	330	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
300	2	330	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
300	1	331	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
300	2	331	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
300	1	332	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
300	2	332	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
300	1	333	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
300	2	333	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
300	1	334	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
300	2	334	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
300	1	335	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
300	2	335	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
300	1	336	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
300	2	336	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
300	1	337	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03

300	2	337	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
300	1	338	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
300	2	338	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
300	1	339	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
300	2	339	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06
300	1	340	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.3	5.66E+03	2.79E+03
300	2	340	0	0	2	0.5	0.3	0.3	0	0	231.1	0	1.2	2.67E+06	1.32E+06

Appendix D

Illustrations

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Appendix E

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Appendix F

Abbreviations

CFU	colony forming units
ED ₅₀	median effective dose
IDA	Institute for Defense Analyses
JBSDS	Joint Biological Standoff Detection System
JBTDS	Joint Biological Tactical Detection System
m	meters
min	minute
mL	milliliter
s	seconds
UAS	unmanned aerial systems
µg	microgram
µm	micrometer
VLSTRACK	vapor, liquid and solid tracking

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
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1. REPORT DATE (DD-MM-YY) May 2011		2. REPORT TYPE Final		3. DATES COVERED (From - To)	
4. TITLE AND SUBTITLE Testing of IDA's <i>CBStrike</i> Model				5a. CONTRACT NO. DASW01-04-C-0003	
				5b. GRANT NO.	
				5c. PROGRAM ELEMENT NO(S).	
6. AUTHOR(S) Scott L. Weinrich, Alison E. Lawrence				5d. PROJECT NO.	
				5e. TASK NO. DM-6-3192	
				5f. WORK UNIT NO.	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Institute for Defense Analyses 4850 Mark Center Drive Alexandria, VA 22311-1882				8. PERFORMING ORGANIZATION REPORT NO. IDA Document D-4209	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Office of the Joint Project Manager for Biological Defense 5183 Blackhawk Road Building E3551 APG, MD 21010				10. SPONSOR'S / MONITOR'S ACRONYM(S) JPM-BD	
				11. SPONSOR'S / MONITOR'S REPORT NO(S).	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT <i>CBStrike</i> is a modeling tool developed by the Institute for Defense Analyses that simulates the effects of chemical or biological attacks on specific force laydowns that may employ detection, collection, and identification systems including point, standoff, and unmanned aerial system-mounted detection capability. <i>CBStrike</i> has undergone testing to ensure it is operating as intended. The testing of <i>CBStrike</i> involved systematically varying each <i>CBStrike</i> input parameter individually and comparing the resulting <i>CBStrike</i> output to independent calculations. All <i>CBStrike</i> outputs potentially affected by changes in individual input parameter values were included in the comparison to independent calculations. The <i>CBStrike</i> outputs from each test matched the results from independent calculations. Hence, all tests of individual inputs demonstrate that <i>CBStrike</i> is operating as intended and all calculations are performed correctly.					
15. SUBJECT TERMS <i>CBStrike</i> model; <i>CBStrike</i> testing; model verification; transport and dispersion model; biological attack; biological warfare; chemical attack; chemical warfare; biological simulation; BioStrike model; biological agent detection; point detection; standoff detection; unmanned aerial systems; biological casualties; individual protective equipment; biological agent exposure; biological agent identification; biological agent collection					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NO. OF PAGES 300	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (Include Area Code)
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