

Appendix 5C

Sample Output files for Air
Dispersion Models

Sample Computer Output of FDM Calculations

Dusty Construction Activities-TSP

1 FDM - (DATED 93070)

IBM-PC VERSION (1.10)
(C) COPYRIGHT 1991-1995, TRINITY CONSULTANTS, INC.

DATE AT START OF RUN: 01/17/02 TIME AT START OF RUN: 18:53:26.05

RUN TITLE:
CLS - working hours 1.5m above ground

INPUT FILE NAME: gd_m.dat
OUTPUT FILE NAME: gd_m.lst

CONVERGENCE OPTION 1=OFF, 2=ON 1
MET OPTION SWITCH, 1=CARDS, 2=PREPROCESSED 1
PLOT FILE OUTPUT, 1=NO, 2=YES 1
MET DATA PRINT SWITCH, 1=NO, 2=YES 1
POST-PROCESSOR OUTPUT, 1=NO, 2=YES 1
DEP. VEL./GRAV. SETTL. VEL., 1=DEFAULT, 2=USER 1
PRINT 1-HOUR AVERAGE CONCEN, 1=NO, 2=YES 3
PRINT 3-HOUR AVERAGE CONCEN, 1=NO, 2=YES 1
PRINT 8-HOUR AVERAGE CONCEN, 1=NO, 2=YES 1
PRINT 24-HOUR AVERAGE CONCEN, 1=NO, 2=YES 3
PRINT LONG-TERM AVERAGE CONCEN, 1=NO, 2=YES 1
BYPASS RAMMET CALMS RECOGNITION, 1=NO, 2=YES 1
READ HOURLY EMISSION RATES, 1=NO, 2=YES 0
NUMBER OF SOURCES PROCESSED 100
NUMBER OF RECEPTORS PROCESSED 9
NUMBER OF PARTICLE SIZE CLASSES 9
NUMBER OF HOURS OF MET DATA PROCESSED 8760
LENGTH IN MINUTES OF 1-HOUR OF MET DATA 60.
ROUGHNESS LENGTH IN CM 100.00
SCALING FACTOR FOR SOURCE AND RECEPTORS 1.0000
PARTICLE DENSITY IN G/CM**3 2.50
ANEMOMETER HEIGHT IN M 98.50

GENERAL PARTICLE SIZE CLASS INFORMATION

| PARTICLE SIZE CLASS | CHAR. DIA. (UM) | GRAV. SETTLING VELOCITY (M/SEC) | DEPOSITION VELOCITY (M/SEC) | FRACTION IN EACH SIZE CLASS |
|---------------------|-----------------|---------------------------------|-----------------------------|-----------------------------|
| 1 | 0.5000000 | ** | ** | 0.0400 |
| 2 | 1.5000000 | ** | ** | 0.0700 |
| 3 | 2.2500000 | ** | ** | 0.0400 |
| 4 | 2.7500000 | ** | ** | 0.0300 |
| 5 | 3.5000000 | ** | ** | 0.0700 |
| 6 | 4.5000000 | ** | ** | 0.0500 |
| 7 | 5.5000000 | ** | ** | 0.0400 |
| 8 | 8.0000000 | ** | ** | 0.1700 |
| 9 | 20.0000000 | ** | ** | 0.4900 |

1 ** COMPUTED BY FDM

RECEPTOR COORDINATES (X,Y,Z)

1

(22306., 20179., 5.) (21493., 19396.,140.) (21436., 20164.,180.)
(21087., 20848.,120.) (20544., 21462., 15.) (20000., 18200., 5.)
(22500., 17000., 5.) (22480., 22330., 48.) (22293., 22414., 7.)

SOURCE INFORMATION

| TYPE | ENTERED EMIS. RATE (G/SEC, G/SEC/M OR G/SEC/M**2) | TOTAL EMISSION RATE (G/SEC) | WIND SPEED FAC. | X1 (M) | Y1 (M) | X2 (M) | Y2 (M) | HEIGHT (M) | WIDTH (M) |
|------|---|-----------------------------|-----------------|--------|--------|--------|--------|------------|-----------|
| 3 | 0.000000127 | 0.00022 | 0.000 | 21535. | 20903. | 41. | 42. | 5.00 | 32.46 |
| 3 | 0.000000571 | 0.00022 | 0.000 | 21564. | 20922. | 24. | 16. | 5.00 | 35.37 |
| 3 | 0.000000226 | 0.00022 | 0.000 | 21589. | 20909. | 51. | 19. | 5.00 | 34.92 |
| 3 | 0.000000034 | 0.00022 | 0.000 | 21592. | 20862. | 133. | 48. | 5.00 | 32.73 |
| 3 | 0.000000099 | 0.00022 | 0.000 | 21588. | 20781. | 33. | 67. | 5.00 | 33.93 |
| 3 | 0.000000068 | 0.00022 | 0.000 | 21653. | 20811. | 43. | 75. | 5.00 | 33.99 |
| 3 | 0.000001050 | 0.00022 | 0.000 | 21706. | 20868. | 11. | 19. | 5.00 | 34.53 |
| 3 | 0.000000243 | 0.00023 | 0.000 | 21786. | 20760. | 21. | 43. | 5.00 | 46.50 |
| 3 | 0.000000196 | 0.00022 | 0.000 | 21824. | 20747. | 20. | 56. | 5.00 | 1.38 |
| 3 | 0.000000166 | 0.00022 | 0.000 | 21899. | 20821. | 55. | 24. | 5.00 | 37.80 |
| 3 | 0.000000075 | 0.00022 | 0.000 | 21951. | 20874. | 68. | 43. | 5.00 | 39.33 |
| 3 | 0.000000095 | 0.00022 | 0.000 | 21988. | 20807. | 48. | 48. | 5.00 | 37.47 |
| 3 | 0.000000081 | 0.00022 | 0.000 | 22015. | 20710. | 41. | 66. | 5.00 | 44.90 |
| 3 | 0.000000072 | 0.00022 | 0.000 | 22076. | 20666. | 71. | 43. | 5.00 | 43.85 |
| 3 | 0.000000855 | 0.00605 | 0.000 | 21551. | 20906. | 117. | 60. | 5.00 | 33.53 |
| 3 | 0.000000216 | 0.00605 | 0.000 | 21637. | 20830. | 180. | 156. | 5.00 | 34.53 |
| 3 | 0.000001704 | 0.00605 | 0.000 | 21769. | 20784. | 51. | 70. | 5.00 | 39.85 |

| | | | | | | | | | |
|---|-------------|----------|-------|--------|--------|--------|--------|------|-------|
| 3 | 0.000000802 | 0.00605 | 0.000 | 21845. | 20724. | 63. | 120. | 5.00 | 39.13 |
| 3 | 0.000001003 | 0.00605 | 0.000 | 21894. | 20750. | 42. | 143. | 5.00 | 40.92 |
| 3 | 0.000000216 | 0.00605 | 0.000 | 21978. | 20809. | 162. | 173. | 5.00 | 44.61 |
| 3 | 0.000000105 | 0.00605 | 0.000 | 22170. | 20611. | 155. | 371. | 5.00 | 44.09 |
| 3 | 0.000000211 | 0.00605 | 0.000 | 22363. | 20412. | 156. | 184. | 5.00 | 44.09 |
| 3 | 0.000000044 | 0.00091 | 0.000 | 21813. | 20875. | 135. | 153. | 5.00 | 89.99 |
| 3 | 0.000000077 | 0.00090 | 0.000 | 22131. | 20812. | 56. | 210. | 5.00 | 45.44 |
| 3 | 0.000000000 | 0.00000 | 0.000 | 21813. | 20875. | 135. | 153. | 5.00 | 89.99 |
| 3 | 0.000000000 | 0.00000 | 0.000 | 22131. | 20812. | 56. | 210. | 5.00 | 45.44 |
| 2 | 0.000071809 | 0.01427 | 0.000 | 21415. | 21230. | 21466. | 21038. | 5.00 | 3.00 |
| 2 | 0.000071809 | 0.00379 | 0.000 | 21466. | 21038. | 21497. | 20995. | 5.00 | 3.00 |
| 2 | 0.000071809 | 0.01821 | 0.000 | 21497. | 20995. | 21651. | 20794. | 5.00 | 3.00 |
| 2 | 0.000071809 | 0.02705 | 0.000 | 21651. | 20794. | 21665. | 20418. | 5.00 | 3.00 |
| 2 | 0.000071809 | 0.04408 | 0.000 | 21665. | 20418. | 21921. | 19860. | 5.00 | 3.00 |
| 2 | 0.000071809 | 0.021871 | 0.000 | 21921. | 19860. | 22053. | 20085. | 5.00 | 3.00 |
| 2 | 0.000071809 | 0.02985 | 0.000 | 22053. | 20085. | 22162. | 20486. | 5.00 | 3.00 |
| 2 | 0.000071809 | 0.00885 | 0.000 | 22162. | 20486. | 22194. | 20605. | 5.00 | 3.00 |
| 2 | 0.000071809 | 0.01257 | 0.000 | 21643. | 20924. | 21753. | 20788. | 5.00 | 3.00 |
| 2 | 0.000071809 | 0.00680 | 0.000 | 21753. | 20788. | 21847. | 20778. | 5.00 | 3.00 |
| 2 | 0.000071809 | 0.01309 | 0.000 | 21847. | 20778. | 22029. | 20775. | 5.00 | 3.00 |
| 2 | 0.000071809 | 0.01718 | 0.000 | 22029. | 20779. | 22194. | 20605. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.02854 | 0.000 | 21415. | 21230. | 21466. | 21038. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.00758 | 0.000 | 21466. | 21038. | 21497. | 20995. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.03642 | 0.000 | 21497. | 20995. | 21651. | 20794. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.05411 | 0.000 | 21651. | 20794. | 21665. | 20418. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.08816 | 0.000 | 21665. | 20418. | 21921. | 19860. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.03742 | 0.000 | 21921. | 19860. | 22053. | 20085. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.05971 | 0.000 | 22053. | 20085. | 22162. | 20486. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.01770 | 0.000 | 22162. | 20486. | 22194. | 20605. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.02514 | 0.000 | 21643. | 20924. | 21753. | 20788. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.01360 | 0.000 | 21753. | 20788. | 21847. | 20778. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.02617 | 0.000 | 21847. | 20778. | 22029. | 20775. | 5.00 | 3.00 |
| 2 | 0.000143617 | 0.03437 | 0.000 | 22029. | 20779. | 22194. | 20605. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.00733 | 0.000 | 22262. | 20486. | 22381. | 22245. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01502 | 0.000 | 22245. | 22357. | 22241. | 22298. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.02154 | 0.000 | 22241. | 22298. | 22209. | 22218. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.02397 | 0.000 | 22209. | 22218. | 22132. | 22163. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.00730 | 0.000 | 22132. | 22163. | 22104. | 22172. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01859 | 0.000 | 22104. | 22172. | 22032. | 22156. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01111 | 0.000 | 22032. | 22156. | 22003. | 22123. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.00645 | 0.000 | 22003. | 22123. | 21978. | 22115. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.00790 | 0.000 | 21978. | 22115. | 21947. | 22116. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.07163 | 0.000 | 21947. | 22116. | 21699. | 21976. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.02728 | 0.000 | 21701. | 21976. | 21607. | 21923. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.03151 | 0.000 | 21607. | 21923. | 21501. | 21856. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.03213 | 0.000 | 21501. | 21856. | 21401. | 21776. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.02511 | 0.000 | 21401. | 21776. | 21465. | 21699. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01703 | 0.000 | 21465. | 21699. | 21436. | 21638. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.02004 | 0.000 | 21436. | 21638. | 21389. | 21573. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01511 | 0.000 | 21389. | 21573. | 21364. | 21519. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01564 | 0.000 | 21364. | 21519. | 21350. | 21458. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01458 | 0.000 | 21350. | 21458. | 21348. | 21400. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01519 | 0.000 | 21349. | 21399. | 21360. | 21340. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.02036 | 0.000 | 21360. | 21340. | 21392. | 21266. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.07612 | 0.000 | 21392. | 21266. | 21536. | 21000. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.02866 | 0.000 | 21536. | 21000. | 21603. | 20907. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01802 | 0.000 | 21603. | 20907. | 21650. | 20853. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01715 | 0.000 | 21650. | 20853. | 21699. | 20806. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01809 | 0.000 | 21700. | 20806. | 21761. | 20767. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.02339 | 0.000 | 21761. | 20767. | 21849. | 20738. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.05174 | 0.000 | 21849. | 20738. | 22055. | 20722. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01928 | 0.000 | 22055. | 20722. | 22130. | 20706. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01297 | 0.000 | 22130. | 20706. | 22174. | 20680. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01371 | 0.000 | 22174. | 20680. | 22208. | 20637. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.02362 | 0.000 | 22208. | 20637. | 22233. | 20547. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01221 | 0.000 | 22233. | 20547. | 22257. | 20505. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01128 | 0.000 | 22257. | 20505. | 22244. | 20462. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01187 | 0.000 | 22244. | 20462. | 22204. | 20437. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.03260 | 0.000 | 22245. | 22357. | 22359. | 22420. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01553 | 0.000 | 22359. | 22420. | 22406. | 22460. | 5.00 | 3.00 |
| 2 | 0.000251330 | 0.01161 | 0.000 | 22406. | 22460. | 22440. | 22492. | 5.00 | 3.00 |
| 1 | 0.002541947 | 0.00254 | 0.000 | 22440. | 22492. | 0. | 0. | 5.00 | 0.00 |
| 1 | 0.000907838 | 0.00091 | 0.000 | 22031. | 20764. | 0. | 0. | 5.00 | 0.00 |
| 3 | 0.000001348 | 0.00954 | 0.000 | 21551. | 20906. | 117. | 60. | 5.00 | 33.53 |
| 3 | 0.000001348 | 0.03776 | 0.000 | 21637. | 20830. | 180. | 156. | 5.00 | 34.53 |
| 3 | 0.000001348 | 0.00479 | 0.000 | 21769. | 20784. | 51. | 70. | 5.00 | 39.85 |
| 3 | 0.000001348 | 0.01017 | 0.000 | 21845. | 20724. | 63. | 120. | 5.00 | 39.13 |
| 3 | 0.000001348 | 0.00813 | 0.000 | 21894. | 20750. | 42. | 143. | 5.00 | 40.92 |
| 3 | 0.000001348 | 0.03781 | 0.000 | 21978. | 20809. | 162. | 173. | 5.00 | 44.61 |
| 3 | 0.000001348 | 0.07757 | 0.000 | 22170. | 20611. | 155. | 371. | 5.00 | 44.09 |
| 3 | 0.000001348 | 0.03858 | 0.000 | 22363. | 20412. | 156. | 184. | 5.00 | 44.09 |
| 3 | 0.000001348 | 0.02784 | 0.000 | 21813. | 20875. | 135. | 153. | 5.00 | 89.99 |
| 3 | 0.000001348 | 0.01576 | 0.000 | 22131. | 20812. | 56. | 210. | 5.00 | 45.44 |

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TOTAL EMISSIONS 0.17908E+01 GRAMS/SEC

LONG DISTANCE (50,000 M) MASS CONSERVATION CORRECTION FACTORS USED

1

TOP 50 TABLE FOR 1 HOUR AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
|------|----------|--------------|--------------|-------------|---------------|------------|

| | | | | | | |
|----|---|---------|---------|------|----------|--------|
| 1 | 9 | 22293.0 | 22414.4 | 3647 | 120.8793 | 1.6266 |
| 2 | 9 | 22293.0 | 22414.4 | 5262 | 118.9862 | 1.5986 |
| 3 | 9 | 22293.0 | 22414.4 | 3115 | 117.0220 | 1.5495 |
| 4 | 9 | 22293.0 | 22414.4 | 6750 | 117.0208 | 1.5575 |
| 5 | 9 | 22293.0 | 22414.4 | 4488 | 115.6963 | 1.5749 |
| 6 | 9 | 22293.0 | 22414.4 | 2589 | 114.7301 | 1.5967 |
| 7 | 9 | 22293.0 | 22414.4 | 4422 | 114.3100 | 1.5179 |
| 8 | 9 | 22293.0 | 22414.4 | 5334 | 111.8944 | 1.5222 |
| 9 | 9 | 22293.0 | 22414.4 | 8251 | 109.5976 | 1.4627 |
| 10 | 9 | 22293.0 | 22414.4 | 1581 | 109.5954 | 1.4778 |
| 11 | 9 | 22293.0 | 22414.4 | 764 | 106.9834 | 1.4360 |
| 12 | 9 | 22293.0 | 22414.4 | 5542 | 106.9807 | 1.4542 |
| 13 | 9 | 22293.0 | 22414.4 | 594 | 100.7127 | 1.3359 |
| 14 | 9 | 22293.0 | 22414.4 | 6027 | 97.7720 | 1.6221 |
| 15 | 9 | 22293.0 | 22414.4 | 4018 | 96.6452 | 1.6077 |
| 16 | 9 | 22293.0 | 22414.4 | 117 | 96.4210 | 1.2587 |
| 17 | 9 | 22293.0 | 22414.4 | 5834 | 91.4783 | 1.4996 |
| 18 | 9 | 22293.0 | 22414.4 | 3142 | 90.8194 | 1.5329 |
| 19 | 9 | 22293.0 | 22414.4 | 4412 | 89.3834 | 1.5400 |
| 20 | 9 | 22293.0 | 22414.4 | 2060 | 88.1514 | 1.4815 |
| 21 | 9 | 22293.0 | 22414.4 | 6067 | 87.6925 | 1.2921 |
| 22 | 9 | 22293.0 | 22414.4 | 6050 | 87.4976 | 1.4538 |
| 23 | 9 | 22293.0 | 22414.4 | 1509 | 85.9425 | 1.0691 |
| 24 | 9 | 22293.0 | 22414.4 | 6139 | 85.9390 | 1.0935 |
| 25 | 9 | 22293.0 | 22414.4 | 6666 | 84.2081 | 1.1065 |
| 26 | 9 | 22293.0 | 22414.4 | 4435 | 83.9588 | 1.4761 |
| 27 | 9 | 22293.0 | 22414.4 | 3744 | 83.0117 | 1.4749 |
| 28 | 1 | 22306.0 | 20179.0 | 3675 | 81.9794 | 1.0974 |
| 29 | 1 | 22306.0 | 20179.0 | 6099 | 81.9789 | 1.1002 |
| 30 | 1 | 22306.0 | 20179.0 | 6100 | 81.6184 | 1.0998 |
| 31 | 1 | 22306.0 | 20179.0 | 4417 | 80.6522 | 1.0879 |
| 32 | 1 | 22306.0 | 20179.0 | 5879 | 80.6517 | 1.0906 |
| 33 | 9 | 22293.0 | 22414.4 | 6026 | 78.6547 | 1.4353 |
| 34 | 1 | 22306.0 | 20179.0 | 426 | 77.2785 | 0.9912 |
| 35 | 9 | 22293.0 | 22414.4 | 4992 | 75.3566 | 0.9341 |
| 36 | 9 | 22293.0 | 22414.4 | 116 | 74.9215 | 0.9375 |
| 37 | 9 | 22293.0 | 22414.4 | 6028 | 74.9174 | 0.9640 |
| 38 | 9 | 22293.0 | 22414.4 | 4534 | 73.9726 | 1.3375 |
| 39 | 9 | 22293.0 | 22414.4 | 1512 | 73.3347 | 0.9389 |
| 40 | 1 | 22306.0 | 20179.0 | 550 | 73.0192 | 0.9272 |
| 41 | 1 | 22306.0 | 20179.0 | 1516 | 73.0192 | 0.9272 |
| 42 | 9 | 22293.0 | 22414.4 | 4064 | 72.0819 | 1.2976 |
| 43 | 1 | 22306.0 | 20179.0 | 2692 | 70.3762 | 0.9547 |
| 44 | 1 | 22306.0 | 20179.0 | 6773 | 70.3754 | 0.9595 |
| 45 | 9 | 22293.0 | 22414.4 | 6116 | 70.0492 | 0.8930 |
| 46 | 9 | 22293.0 | 22414.4 | 4080 | 68.9276 | 1.1554 |
| 47 | 1 | 22306.0 | 20179.0 | 6746 | 68.3789 | 1.0387 |
| 48 | 9 | 22293.0 | 22414.4 | 6068 | 67.6492 | 1.2656 |
| 49 | 1 | 22306.0 | 20179.0 | 7301 | 66.4401 | 0.9049 |
| 50 | 1 | 22306.0 | 20179.0 | 8226 | 66.2100 | 0.8250 |

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HIGHEST AND SECOND HIGHEST VALUES FOR 1 HOUR AVERAGES

| RECEPTOR | X-COORDINATE | Y-COORDINATE | HIGHEST VALUE | ENDING HOUR | DEPOSITION | SECOND HIGH | ENDING HOUR | DEPOSITION |
|----------|--------------|--------------|---------------|-------------|------------|-------------|-------------|------------|
| 1 | 22306.0 | 20179.0 | 81.9794 | 3675. | 1.0974 | 81.9789 | 6099. | 1.1002 |
| 2 | 21493.0 | 19396.0 | 1.5676 | 8674. | 0.0276 | 1.4881 | 2242. | 0.0332 |
| 3 | 21436.0 | 20164.0 | 1.6214 | 1306. | 0.0313 | 1.2127 | 2193. | 0.0237 |
| 4 | 21087.0 | 20848.0 | 3.3811 | 4116. | 0.0612 | 2.7478 | 5937. | 0.0499 |
| 5 | 20544.0 | 21462.0 | 31.7940 | 6667. | 0.2038 | 30.9628 | 5683. | 0.1950 |
| 6 | 20000.0 | 18200.0 | 11.1570 | 6647. | 0.0552 | 11.1561 | 7293. | 0.0556 |
| 7 | 22500.0 | 17000.0 | 14.4460 | 7301. | 0.0689 | 14.2432 | 2692. | 0.0673 |
| 8 | 22480.3 | 22330.3 | 5.8562 | 4080. | 0.0519 | 5.8560 | 5834. | 0.0467 |
| 9 | 22293.0 | 22414.4 | 120.8793 | 3647. | 1.6266 | 118.9862 | 5262. | 1.5986 |

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TOP 50 TABLE FOR 24 HOUR AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
| 1 | 9 | 22293.0 | 22414.4 | 6072 | 23.2053 | 0.4887 |
| 2 | 9 | 22293.0 | 22414.4 | 2592 | 22.1326 | 0.6611 |
| 3 | 9 | 22293.0 | 22414.4 | 5808C | 19.6843 | 0.6797 |
| 4 | 9 | 22293.0 | 22414.4 | 3888 | 19.3114 | 0.6540 |
| 5 | 9 | 22293.0 | 22414.4 | 4680 | 18.6891 | 0.5434 |
| 6 | 9 | 22293.0 | 22414.4 | 600 | 18.6136 | 0.3620 |
| 7 | 9 | 22293.0 | 22414.4 | 120 | 18.5965 | 0.3301 |
| 8 | 9 | 22293.0 | 22414.4 | 4080 | 18.4757 | 0.4351 |
| 9 | 9 | 22293.0 | 22414.4 | 4632 | 18.3463 | 0.6593 |
| 10 | 9 | 22293.0 | 22414.4 | 4872 | 18.2705 | 0.4165 |
| 11 | 9 | 22293.0 | 22414.4 | 6144 | 17.9442 | 0.3590 |
| 12 | 9 | 22293.0 | 22414.4 | 4608 | 17.9114 | 0.7270 |
| 13 | 9 | 22293.0 | 22414.4 | 4056 | 17.8899 | 0.5628 |
| 14 | 9 | 22293.0 | 22414.4 | 1512 | 17.6023 | 0.3290 |
| 15 | 9 | 22293.0 | 22414.4 | 4584 | 17.4778 | 0.7409 |
| 16 | 9 | 22293.0 | 22414.4 | 5280 | 17.2939 | 0.5755 |
| 17 | 9 | 22293.0 | 22414.4 | 5472 | 16.8462 | 0.4776 |
| 18 | 9 | 22293.0 | 22414.4 | 2616 | 16.7252 | 0.3044 |
| 19 | 9 | 22293.0 | 22414.4 | 4320 | 16.5414 | 0.6634 |
| 20 | 9 | 22293.0 | 22414.4 | 4656 | 16.5050 | 0.5138 |

| | | | | | | |
|----|---|---------|---------|-------|---------|--------|
| 21 | 9 | 22293.0 | 22414.4 | 4440 | 16.4289 | 0.3888 |
| 22 | 9 | 22293.0 | 22414.4 | 3456 | 16.3369 | 0.6488 |
| 23 | 9 | 22293.0 | 22414.4 | 3648C | 16.3149 | 0.3484 |
| 24 | 9 | 22293.0 | 22414.4 | 5688 | 16.2527 | 0.4700 |
| 25 | 9 | 22293.0 | 22414.4 | 3984 | 15.8757 | 0.5086 |
| 26 | 9 | 22293.0 | 22414.4 | 4728 | 15.7661 | 0.6299 |
| 27 | 9 | 22293.0 | 22414.4 | 5544C | 15.7614 | 0.3503 |
| 28 | 9 | 22293.0 | 22414.4 | 4368 | 15.7328 | 0.4795 |
| 29 | 1 | 22306.0 | 20179.0 | 8472C | 15.4473 | 0.2688 |
| 30 | 9 | 22293.0 | 22414.4 | 6048C | 15.2550 | 0.2460 |
| 31 | 9 | 22293.0 | 22414.4 | 4752 | 15.1938 | 0.6572 |
| 32 | 9 | 22293.0 | 22414.4 | 3432 | 15.0272 | 0.4200 |
| 33 | 9 | 22293.0 | 22414.4 | 5496 | 14.9364 | 0.5444 |
| 34 | 9 | 22293.0 | 22414.4 | 4560 | 14.9361 | 0.5646 |
| 35 | 9 | 22293.0 | 22414.4 | 5352 | 14.8397 | 0.4675 |
| 36 | 9 | 22293.0 | 22414.4 | 2064 | 14.8138 | 0.3420 |
| 37 | 9 | 22293.0 | 22414.4 | 4296 | 14.7923 | 0.5897 |
| 38 | 9 | 22293.0 | 22414.4 | 4032C | 14.6870 | 0.3396 |
| 39 | 9 | 22293.0 | 22414.4 | 3480 | 14.5644 | 0.6869 |
| 40 | 9 | 22293.0 | 22414.4 | 1128 | 14.4193 | 0.2608 |
| 41 | 9 | 22293.0 | 22414.4 | 2568 | 14.4096 | 0.5378 |
| 42 | 9 | 22293.0 | 22414.4 | 8256 | 14.3866 | 0.2733 |
| 43 | 9 | 22293.0 | 22414.4 | 4272 | 14.3563 | 0.5680 |
| 44 | 9 | 22293.0 | 22414.4 | 3288 | 14.2694 | 0.6803 |
| 45 | 9 | 22293.0 | 22414.4 | 3144 | 14.0080 | 0.3045 |
| 46 | 9 | 22293.0 | 22414.4 | 3960 | 13.7941 | 0.5236 |
| 47 | 1 | 22306.0 | 20179.0 | 8496C | 13.7507 | 0.2392 |
| 48 | 9 | 22293.0 | 22414.4 | 6120C | 13.6189 | 0.2850 |
| 49 | 9 | 22293.0 | 22414.4 | 2952 | 13.2875 | 0.3368 |
| 50 | 9 | 22293.0 | 22414.4 | 6264C | 13.2100 | 0.4522 |

1

HIGHEST AND SECOND HIGHEST VALUES FOR 24 HOUR AVERAGES

| RECEPTOR | X-COORDINATE | Y-COORDINATE | HIGHEST VALUE | ENDING HOUR | DEPOSITION | SECOND HIGH | ENDING HOUR | DEPOSITION |
|----------|--------------|--------------|---------------|-------------|------------|-------------|-------------|------------|
| 1 | 22306.0 | 20179.0 | 15.4473 | 8472.C | 0.2688 | 13.7507 | 8496.C | 0.2392 |
| 2 | 21493.0 | 19396.0 | 0.8848 | 8472.C | 0.0065 | 0.5511 | 8496.C | 0.0042 |
| 3 | 21436.0 | 20164.0 | 0.1495 | 384. | 0.0047 | 0.1452 | 1296.C | 0.0046 |
| 4 | 21087.0 | 20848.0 | 0.4971 | 5952. | 0.0137 | 0.3761 | 528. | 0.0123 |
| 5 | 20544.0 | 21462.0 | 4.8871 | 648. | 0.0922 | 3.9922 | 7176. | 0.0804 |
| 6 | 20000.0 | 18200.0 | 1.6858 | 552. | 0.0213 | 1.4368 | 144. | 0.0239 |
| 7 | 22500.0 | 17000.0 | 1.4720 | 8496.C | 0.0160 | 1.0074 | 288.C | 0.0290 |
| 8 | 22480.3 | 22330.3 | 1.8034 | 4632. | 0.0610 | 1.8033 | 4680. | 0.0472 |
| 9 | 22293.0 | 22414.4 | 23.2053 | 6072. | 0.4887 | 22.1326 | 2592. | 0.6611 |

DATE AT END OF RUN: 01/17/02 TIME AT END OF RUN: 19:17:37.02
 ELAPSED TIME FOR THIS RUN: 0.14510E+04 SECONDS
 OR 0 HOURS 24 MINUTES 10.97 SECONDS

Handling of general Contaminated Soil-Cr6+

1

FDM - (DATED 93070)

IBM-PC VERSION (1.10)

(C) COPYRIGHT 1991-1995, TRINITY CONSULTANTS, INC.

DATE AT START OF RUN: 02/05/02 TIME AT START OF RUN: 11:56:32.87

RUN TITLE:

CLS - working hours 1.5m above ground

INPUT FILE NAME: Gd_u_cr.DAT
 OUTPUT FILE NAME: Gd_u_cr.LST

CONVERGENCE OPTION 1=OFF, 2=ON 1
 MET OPTION SWITCH, 1=CARDS, 2=PREPROCESSED 1
 PLOT FILE OUTPUT, 1=NO, 2=YES 1
 MET DATA PRINT SWITCH, 1=NO, 2=YES 1
 POST-PROCESSOR OUTPUT, 1=NO, 2=YES 1
 DEP. VEL./GRAV. SETTL. VEL., 1=DEFAULT, 2=USER 1
 PRINT 1-HOUR AVERAGE CONCEN, 1=NO, 2=YES 3
 PRINT 3-HOUR AVERAGE CONCEN, 1=NO, 2=YES 1
 PRINT 8-HOUR AVERAGE CONCEN, 1=NO, 2=YES 1
 PRINT 24-HOUR AVERAGE CONCEN, 1=NO, 2=YES 3
 PRINT LONG-TERM AVERAGE CONCEN, 1=NO, 2=YES 1
 BYPASS RAMMET CALMS RECOGNITION, 1=NO, 2=YES 1
 READ HOURLY EMISSION RATES, 1=NO, 2=YES 0
 NUMBER OF SOURCES PROCESSED 1
 NUMBER OF RECEPTORS PROCESSED 9
 NUMBER OF PARTICLE SIZE CLASSES 9
 NUMBER OF HOURS OF MET DATA PROCESSED 8760
 LENGTH IN MINUTES OF 1-HOUR OF MET DATA 60.
 ROUGHNESS LENGTH IN CM 100.00
 SCALING FACTOR FOR SOURCE AND RECEPTORS 1.0000
 PARTICLE DENSITY IN G/CM**3 2.50
 ANEMOMETER HEIGHT IN M 98.50

GENERAL PARTICLE SIZE CLASS INFORMATION

| PARTICLE SIZE CLASS | CHAR. DIA. (UM) | GRAV. | DEPOSITION | FRACTION |
|---------------------------|-----------------------|---------------------------------|---------------------|--------------------------|
| | | SETTLING VELOCITY (M/SEC) | VELOCITY (M/SEC) | IN EACH SIZE CLASS |
| 1 | 0.5000000 | ** | ** | 0.0400 |
| 2 | 1.5000000 | ** | ** | 0.0700 |
| 3 | 2.2500000 | ** | ** | 0.0400 |
| 4 | 2.7500000 | ** | ** | 0.0300 |
| 5 | 3.5000000 | ** | ** | 0.0700 |
| 6 | 4.5000000 | ** | ** | 0.0500 |
| 7 | 5.5000000 | ** | ** | 0.0400 |
| 8 | 8.0000000 | ** | ** | 0.1700 |
| 9 | 20.0000000 | ** | ** | 0.4900 |

** COMPUTED BY FDM

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RECEPTOR COORDINATES (X,Y,Z)

(22306., 20179., 5.) (21493., 19396.,140.) (21436., 20164.,180.)
 (21087., 20848.,120.) (20544., 21462., 15.) (20000., 18200., 5.)
 (22500., 17000., 5.) (22480., 22330., 48.) (22293., 22414., 7.)

1

SOURCE INFORMATION

| TYPE | ENTERED EMIS. | TOTAL | WIND SPEED FAC. | X1 (M) | Y1 (M) | X2 (M) | Y2 (M) | HEIGHT (M) | WIDTH (M) |
|------|---|-----------------------------|-----------------------|-----------|-----------|-----------|-----------|---------------|--------------|
| | RATE (G/SEC, G/SEC/M OR G/SEC/M**2) | EMISSION RATE (G/SEC) | | | | | | | |
| 1 | 0.000996000 | 0.00100 | 0.000 | 22440. | 22492. | 0. | 0. | 5.00 | 0.00 |

=====

TOTAL EMISSIONS 0.99600E-03 GRAMS/SEC

LONG DISTANCE (50,000 M) MASS CONSERVATION CORRECTION FACTORS USED

1

TOP 50 TABLE FOR 1 HOUR AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
| 1 | 9 | 22293.0 | 22414.4 | 6115 | 1.1068 | 0.0153 |
| 2 | 9 | 22293.0 | 22414.4 | 6385 | 1.1002 | 0.0151 |
| 3 | 9 | 22293.0 | 22414.4 | 1128 | 1.0742 | 0.0145 |
| 4 | 9 | 22293.0 | 22414.4 | 982 | 1.0737 | 0.0146 |
| 5 | 9 | 22293.0 | 22414.4 | 5858 | 1.0583 | 0.0146 |
| 6 | 9 | 22293.0 | 22414.4 | 2062 | 1.0151 | 0.0139 |
| 7 | 9 | 22293.0 | 22414.4 | 7875 | 0.9803 | 0.0141 |
| 8 | 9 | 22293.0 | 22414.4 | 1101 | 0.9402 | 0.0140 |
| 9 | 9 | 22293.0 | 22414.4 | 4398 | 0.9128 | 0.0126 |
| 10 | 9 | 22293.0 | 22414.4 | 8253 | 0.8818 | 0.0133 |
| 11 | 9 | 22293.0 | 22414.4 | 1324 | 0.8195 | 0.0111 |
| 12 | 9 | 22293.0 | 22414.4 | 649 | 0.8194 | 0.0111 |
| 13 | 9 | 22293.0 | 22414.4 | 1565 | 0.8192 | 0.0112 |
| 14 | 9 | 22293.0 | 22414.4 | 985 | 0.7171 | 0.0097 |
| 15 | 9 | 22293.0 | 22414.4 | 740 | 0.6419 | 0.0101 |
| 16 | 9 | 22293.0 | 22414.4 | 6581 | 0.6340 | 0.0105 |
| 17 | 9 | 22293.0 | 22414.4 | 7944 | 0.6305 | 0.0102 |
| 18 | 9 | 22293.0 | 22414.4 | 6916 | 0.6227 | 0.0103 |
| 19 | 9 | 22293.0 | 22414.4 | 3196 | 0.6175 | 0.0099 |
| 20 | 9 | 22293.0 | 22414.4 | 523 | 0.6123 | 0.0083 |
| 21 | 9 | 22293.0 | 22414.4 | 6054 | 0.6114 | 0.0084 |
| 22 | 9 | 22293.0 | 22414.4 | 3151 | 0.6040 | 0.0099 |
| 23 | 9 | 22293.0 | 22414.4 | 1350 | 0.5647 | 0.0095 |
| 24 | 9 | 22293.0 | 22414.4 | 1327 | 0.5610 | 0.0096 |
| 25 | 9 | 22293.0 | 22414.4 | 3310 | 0.5561 | 0.0089 |
| 26 | 9 | 22293.0 | 22414.4 | 7225 | 0.5474 | 0.0083 |
| 27 | 9 | 22293.0 | 22414.4 | 1328 | 0.5423 | 0.0094 |
| 28 | 9 | 22293.0 | 22414.4 | 1367 | 0.5376 | 0.0092 |
| 29 | 9 | 22293.0 | 22414.4 | 8331 | 0.5302 | 0.0089 |
| 30 | 9 | 22293.0 | 22414.4 | 7224 | 0.4882 | 0.0088 |
| 31 | 9 | 22293.0 | 22414.4 | 5095 | 0.4820 | 0.0082 |
| 32 | 9 | 22293.0 | 22414.4 | 453 | 0.4696 | 0.0082 |
| 33 | 9 | 22293.0 | 22414.4 | 8231 | 0.4632 | 0.0081 |
| 34 | 9 | 22293.0 | 22414.4 | 8736 | 0.4597 | 0.0082 |
| 35 | 9 | 22293.0 | 22414.4 | 896 | 0.4559 | 0.0083 |
| 36 | 9 | 22293.0 | 22414.4 | 1129 | 0.4524 | 0.0082 |
| 37 | 9 | 22293.0 | 22414.4 | 8623 | 0.4522 | 0.0077 |
| 38 | 9 | 22293.0 | 22414.4 | 1543 | 0.4477 | 0.0068 |
| 39 | 9 | 22293.0 | 22414.4 | 2373 | 0.4448 | 0.0076 |
| 40 | 9 | 22293.0 | 22414.4 | 2377 | 0.4342 | 0.0073 |
| 41 | 9 | 22293.0 | 22414.4 | 1368 | 0.4240 | 0.0074 |
| 42 | 9 | 22293.0 | 22414.4 | 918 | 0.4117 | 0.0079 |
| 43 | 9 | 22293.0 | 22414.4 | 3725 | 0.4103 | 0.0071 |
| 44 | 9 | 22293.0 | 22414.4 | 934 | 0.4099 | 0.0078 |
| 45 | 9 | 22293.0 | 22414.4 | 8234 | 0.4036 | 0.0078 |
| 46 | 9 | 22293.0 | 22414.4 | 894 | 0.4026 | 0.0077 |
| 47 | 9 | 22293.0 | 22414.4 | 8760 | 0.4002 | 0.0066 |

| | | | | | | |
|----|---|---------|---------|-----|--------|--------|
| 48 | 9 | 22293.0 | 22414.4 | 981 | 0.3966 | 0.0071 |
| 49 | 9 | 22293.0 | 22414.4 | 238 | 0.3774 | 0.0076 |
| 50 | 9 | 22293.0 | 22414.4 | 502 | 0.3734 | 0.0072 |

1

HIGHEST AND SECOND HIGHEST VALUES FOR 1 HOUR AVERAGES

| RECEPTOR | X-COORDINATE | Y-COORDINATE | HIGHEST VALUE | ENDING HOUR | DEPOSITION | SECOND HIGH | ENDING HOUR | DEPOSITION |
|----------|--------------|--------------|---------------|-------------|------------|-------------|-------------|------------|
| 1 | 22306.0 | 20179.0 | 0.0142 | 6029. | 0.0001 | 0.0136 | 4897. | 0.0001 |
| 2 | 21493.0 | 19396.0 | 0.0009 | 346. | 0.0000 | 0.0009 | 8577. | 0.0000 |
| 3 | 21436.0 | 20164.0 | 0.0006 | 423. | 0.0000 | 0.0005 | 8698. | 0.0000 |
| 4 | 21087.0 | 20848.0 | 0.0015 | 4424. | 0.0000 | 0.0013 | 425. | 0.0000 |
| 5 | 20544.0 | 21462.0 | 0.0155 | 6385. | 0.0001 | 0.0149 | 5858. | 0.0001 |
| 6 | 20000.0 | 18200.0 | 0.0042 | 630. | 0.0000 | 0.0042 | 2691. | 0.0000 |
| 7 | 22500.0 | 17000.0 | 0.0035 | 6053. | 0.0000 | 0.0035 | 6079. | 0.0000 |
| 8 | 22480.3 | 22330.3 | 0.0292 | 5529. | 0.0006 | 0.0216 | 8031. | 0.0005 |
| 9 | 22293.0 | 22414.4 | 1.1068 | 6115. | 0.0153 | 1.1002 | 6385. | 0.0151 |

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TOP 50 TABLE FOR 24 HOUR AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
| 1 | 9 | 22293.0 | 22414.4 | 936 | 0.1101 | 0.0024 |
| 2 | 9 | 22293.0 | 22414.4 | 8256 | 0.0948 | 0.0018 |
| 3 | 9 | 22293.0 | 22414.4 | 984 | 0.0897 | 0.0016 |
| 4 | 9 | 22293.0 | 22414.4 | 912 | 0.0847 | 0.0019 |
| 5 | 9 | 22293.0 | 22414.4 | 1344 | 0.0834 | 0.0013 |
| 6 | 9 | 22293.0 | 22414.4 | 1368 | 0.0772 | 0.0014 |
| 7 | 9 | 22293.0 | 22414.4 | 1152 | 0.0711 | 0.0016 |
| 8 | 9 | 22293.0 | 22414.4 | 7896C | 0.0692 | 0.0010 |
| 9 | 9 | 22293.0 | 22414.4 | 6408 | 0.0675 | 0.0014 |
| 10 | 9 | 22293.0 | 22414.4 | 6936 | 0.0673 | 0.0015 |
| 11 | 9 | 22293.0 | 22414.4 | 528 | 0.0652 | 0.0015 |
| 12 | 9 | 22293.0 | 22414.4 | 1104 | 0.0619 | 0.0012 |
| 13 | 9 | 22293.0 | 22414.4 | 960 | 0.0614 | 0.0016 |
| 14 | 9 | 22293.0 | 22414.4 | 3576 | 0.0587 | 0.0018 |
| 15 | 9 | 22293.0 | 22414.4 | 120 | 0.0583 | 0.0012 |
| 16 | 9 | 22293.0 | 22414.4 | 6120C | 0.0578 | 0.0008 |
| 17 | 9 | 22293.0 | 22414.4 | 888 | 0.0569 | 0.0015 |
| 18 | 9 | 22293.0 | 22414.4 | 3048 | 0.0564 | 0.0017 |
| 19 | 9 | 22293.0 | 22414.4 | 3168 | 0.0561 | 0.0011 |
| 20 | 9 | 22293.0 | 22414.4 | 1128 | 0.0551 | 0.0008 |
| 21 | 9 | 22293.0 | 22414.4 | 5880 | 0.0523 | 0.0008 |
| 22 | 9 | 22293.0 | 22414.4 | 6648 | 0.0503 | 0.0015 |
| 23 | 9 | 22293.0 | 22414.4 | 864 | 0.0498 | 0.0018 |
| 24 | 9 | 22293.0 | 22414.4 | 8664 | 0.0494 | 0.0017 |
| 25 | 9 | 22293.0 | 22414.4 | 3072 | 0.0493 | 0.0020 |
| 26 | 9 | 22293.0 | 22414.4 | 2064 | 0.0493 | 0.0009 |
| 27 | 9 | 22293.0 | 22414.4 | 672 | 0.0492 | 0.0009 |
| 28 | 9 | 22293.0 | 22414.4 | 2352 | 0.0485 | 0.0013 |
| 29 | 9 | 22293.0 | 22414.4 | 480C | 0.0483 | 0.0010 |
| 30 | 9 | 22293.0 | 22414.4 | 8736 | 0.0482 | 0.0009 |
| 31 | 9 | 22293.0 | 22414.4 | 744 | 0.0481 | 0.0010 |
| 32 | 9 | 22293.0 | 22414.4 | 1080 | 0.0467 | 0.0016 |
| 33 | 9 | 22293.0 | 22414.4 | 576 | 0.0465 | 0.0010 |
| 34 | 9 | 22293.0 | 22414.4 | 4968 | 0.0464 | 0.0024 |
| 35 | 9 | 22293.0 | 22414.4 | 600 | 0.0462 | 0.0011 |
| 36 | 9 | 22293.0 | 22414.4 | 8640 | 0.0453 | 0.0010 |
| 37 | 9 | 22293.0 | 22414.4 | 1800 | 0.0446 | 0.0012 |
| 38 | 9 | 22293.0 | 22414.4 | 7224 | 0.0438 | 0.0010 |
| 39 | 9 | 22293.0 | 22414.4 | 3216 | 0.0424 | 0.0007 |
| 40 | 9 | 22293.0 | 22414.4 | 1584 | 0.0423 | 0.0006 |
| 41 | 9 | 22293.0 | 22414.4 | 2376 | 0.0420 | 0.0009 |
| 42 | 9 | 22293.0 | 22414.4 | 1056 | 0.0415 | 0.0012 |
| 43 | 9 | 22293.0 | 22414.4 | 96 | 0.0410 | 0.0010 |
| 44 | 9 | 22293.0 | 22414.4 | 720 | 0.0407 | 0.0014 |
| 45 | 9 | 22293.0 | 22414.4 | 4416 | 0.0385 | 0.0005 |
| 46 | 9 | 22293.0 | 22414.4 | 2472 | 0.0382 | 0.0010 |
| 47 | 9 | 22293.0 | 22414.4 | 8232 | 0.0380 | 0.0008 |
| 48 | 9 | 22293.0 | 22414.4 | 8352 | 0.0374 | 0.0009 |
| 49 | 9 | 22293.0 | 22414.4 | 7584 | 0.0374 | 0.0011 |
| 50 | 9 | 22293.0 | 22414.4 | 3744 | 0.0364 | 0.0007 |

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HIGHEST AND SECOND HIGHEST VALUES FOR 24 HOUR AVERAGES

| RECEPTOR | X-COORDINATE | Y-COORDINATE | HIGHEST VALUE | ENDING HOUR | DEPOSITION | SECOND HIGH | ENDING HOUR | DEPOSITION |
|----------|--------------|--------------|---------------|-------------|------------|-------------|-------------|------------|
| 1 | 22306.0 | 20179.0 | 0.0037 | 8472.C | 0.0000 | 0.0027 | 8496.C | 0.0000 |
| 2 | 21493.0 | 19396.0 | 0.0007 | 8472.C | 0.0000 | 0.0004 | 8592. | 0.0000 |
| 3 | 21436.0 | 20164.0 | 0.0002 | 8472.C | 0.0000 | 0.0001 | 8592. | 0.0000 |
| 4 | 21087.0 | 20848.0 | 0.0003 | 7008. | 0.0000 | 0.0003 | 1728. | 0.0000 |
| 5 | 20544.0 | 21462.0 | 0.0014 | 936. | 0.0000 | 0.0012 | 8256. | 0.0000 |

```

6      20000.0    18200.0    0.0004    144.    0.0000    0.0003    648.    0.0000
7      22500.0    17000.0    0.0006    8472.C    0.0000    0.0006    8496.C    0.0000
8      22480.3    22330.3    0.0023    8040.    0.0001    0.0016    6168.    0.0001
9      22293.0    22414.4    0.1101    936.    0.0024    0.0948    8256.    0.0018
DATE AT END OF RUN: 02/05/02    TIME AT END OF RUN: 11:57:04.40
ELAPSED TIME FOR THIS RUN:    0.31530E+02 SECONDS
OR    0 HOURS    0 MINUTES    31.53 SECONDS

```

Excavation-Dioxin

1 FDM - (DATED 93070)

IBM-PC VERSION (1.10)
(C) COPYRIGHT 1991-1995, TRINITY CONSULTANTS, INC.

DATE AT START OF RUN: 01/18/02 TIME AT START OF RUN: 10:14:31.04
RUN TITLE:
Cheoy Lee Shipyard (27Dec01)

INPUT FILE NAME: DI-A10.DAT
OUTPUT FILE NAME: DI.LST

```

CONVERGENCE OPTION 1=OFF, 2=ON    1
MET OPTION SWITCH, 1=CARDS, 2=PREPROCESSED    1
PLOT FILE OUTPUT, 1=NO, 2=YES    1
MET DATA PRINT SWITCH, 1=NO, 2=YES    1
POST-PROCESSOR OUTPUT, 1=NO, 2=YES    1
DEP. VEL./GRAV. SETTL. VEL., 1=DEFAULT, 2=USER    1
PRINT 1-HOUR AVERAGE CONCEN, 1=NO, 2=YES    3
PRINT 3-HOUR AVERAGE CONCEN, 1=NO, 2=YES    1
PRINT 8-HOUR AVERAGE CONCEN, 1=NO, 2=YES    1
PRINT 24-HOUR AVERAGE CONCEN, 1=NO, 2=YES    1
PRINT LONG-TERM AVERAGE CONCEN, 1=NO, 2=YES    3
BYPASS RAMMET CALMS RECOGNITION, 1=NO, 2=YES    2
READ HOURLY EMISSION RATES, 1=NO, 2=YES    0
NUMBER OF SOURCES PROCESSED    1
NUMBER OF RECEPTORS PROCESSED    10
NUMBER OF PARTICLE SIZE CLASSES    9
NUMBER OF HOURS OF MET DATA PROCESSED    36
LENGTH IN MINUTES OF 1-HOUR OF MET DATA    60.
ROUGHNESS LENGTH IN CM    100.00
SCALING FACTOR FOR SOURCE AND RECEPTORS    1.0000
PARTICLE DENSITY IN G/CM**3    2.50
ANEMOMETER HEIGHT IN M    98.50

```

GENERAL PARTICLE SIZE CLASS INFORMATION

| PARTICLE SIZE CLASS | CHAR. DIA. (UM) | GRAV. SETTLING VELOCITY (M/SEC) | DEPOSITION VELOCITY (M/SEC) | FRACTION IN EACH SIZE CLASS |
|---------------------|-----------------|---------------------------------|-----------------------------|-----------------------------|
| 1 | 0.5000000 | ** | ** | 0.0400 |
| 2 | 1.5000000 | ** | ** | 0.0700 |
| 3 | 2.2500000 | ** | ** | 0.0400 |
| 4 | 2.7500000 | ** | ** | 0.0300 |
| 5 | 3.5000000 | ** | ** | 0.0700 |
| 6 | 4.5000000 | ** | ** | 0.0500 |
| 7 | 5.5000000 | ** | ** | 0.0400 |
| 8 | 8.0000000 | ** | ** | 0.1700 |
| 9 | 20.0000000 | ** | ** | 0.4900 |

** COMPUTED BY FDM

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RECEPTOR COORDINATES (X,Y,Z)

```

( 10., 0., 2.) ( 20., 0., 2.) ( 30., 0., 2.)
( 40., 0., 2.) ( 50., 0., 2.) ( 100., 0., 2.)
( 150., 0., 2.) ( 200., 0., 2.) ( 250., 0., 2.)
( 300., 0., 2.)

```

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SOURCE INFORMATION

| TYPE | ENTERED EMIS. RATE (G/SEC/M OR G/SEC/M**2) | TOTAL EMISSION RATE (G/SEC) | WIND SPEED FAC. | X1 (M) | Y1 (M) | X2 (M) | Y2 (M) | HEIGHT (M) | WIDTH (M) |
|-----------------|--|-----------------------------|-----------------|--------|--------|--------|--------|------------|-----------|
| 3 | 0.000000662 | 0.00007 | 0.000 | 0. | 0. | 10. | 10. | 0.50 | 0.00 |
| TOTAL EMISSIONS | | 0.66201E-04 | GRAMS/SEC | | | | | | |

SHORT DISTANCE (5,000 M) MASS CONSERVATION CORRECTION FACTORS USED

1

TOP 50 TABLE FOR 1 HOUR AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
| 1 | 2 | 20.0 | 0.0 | 27 | 1.5469 | 0.0225 |
| 2 | 3 | 30.0 | 0.0 | 27 | 1.3033 | 0.0192 |

| | | | | | | |
|----|----|-------|-----|----|--------|--------|
| 3 | 1 | 10.0 | 0.0 | 26 | 1.1954 | 0.0167 |
| 4 | 1 | 10.0 | 0.0 | 28 | 1.1954 | 0.0167 |
| 5 | 1 | 10.0 | 0.0 | 27 | 1.1543 | 0.0162 |
| 6 | 2 | 20.0 | 0.0 | 26 | 1.1542 | 0.0168 |
| 7 | 2 | 20.0 | 0.0 | 28 | 1.1542 | 0.0168 |
| 8 | 4 | 40.0 | 0.0 | 27 | 0.9916 | 0.0144 |
| 9 | 1 | 10.0 | 0.0 | 25 | 0.9152 | 0.0128 |
| 10 | 1 | 10.0 | 0.0 | 29 | 0.9152 | 0.0128 |
| 11 | 5 | 50.0 | 0.0 | 27 | 0.7463 | 0.0105 |
| 12 | 3 | 30.0 | 0.0 | 26 | 0.7434 | 0.0109 |
| 13 | 3 | 30.0 | 0.0 | 28 | 0.7434 | 0.0109 |
| 14 | 4 | 40.0 | 0.0 | 26 | 0.4825 | 0.0070 |
| 15 | 4 | 40.0 | 0.0 | 28 | 0.4825 | 0.0070 |
| 16 | 1 | 10.0 | 0.0 | 24 | 0.4789 | 0.0066 |
| 17 | 1 | 10.0 | 0.0 | 30 | 0.4789 | 0.0066 |
| 18 | 2 | 20.0 | 0.0 | 25 | 0.4022 | 0.0058 |
| 19 | 2 | 20.0 | 0.0 | 29 | 0.4022 | 0.0058 |
| 20 | 5 | 50.0 | 0.0 | 26 | 0.3286 | 0.0046 |
| 21 | 5 | 50.0 | 0.0 | 28 | 0.3286 | 0.0046 |
| 22 | 6 | 100.0 | 0.0 | 27 | 0.2492 | 0.0030 |
| 23 | 1 | 10.0 | 0.0 | 23 | 0.1634 | 0.0022 |
| 24 | 1 | 10.0 | 0.0 | 31 | 0.1634 | 0.0022 |
| 25 | 3 | 30.0 | 0.0 | 25 | 0.1282 | 0.0019 |
| 26 | 3 | 30.0 | 0.0 | 29 | 0.1282 | 0.0019 |
| 27 | 7 | 150.0 | 0.0 | 27 | 0.1218 | 0.0013 |
| 28 | 6 | 100.0 | 0.0 | 26 | 0.0880 | 0.0011 |
| 29 | 6 | 100.0 | 0.0 | 28 | 0.0880 | 0.0011 |
| 30 | 8 | 200.0 | 0.0 | 27 | 0.0719 | 0.0007 |
| 31 | 4 | 40.0 | 0.0 | 25 | 0.0527 | 0.0008 |
| 32 | 4 | 40.0 | 0.0 | 29 | 0.0527 | 0.0008 |
| 33 | 9 | 250.0 | 0.0 | 27 | 0.0479 | 0.0004 |
| 34 | 7 | 150.0 | 0.0 | 26 | 0.0390 | 0.0004 |
| 35 | 7 | 150.0 | 0.0 | 28 | 0.0390 | 0.0004 |
| 36 | 10 | 300.0 | 0.0 | 27 | 0.0344 | 0.0003 |
| 37 | 2 | 20.0 | 0.0 | 24 | 0.0266 | 0.0004 |
| 38 | 2 | 20.0 | 0.0 | 30 | 0.0266 | 0.0004 |
| 39 | 5 | 50.0 | 0.0 | 25 | 0.0261 | 0.0004 |
| 40 | 5 | 50.0 | 0.0 | 29 | 0.0261 | 0.0004 |
| 41 | 1 | 10.0 | 0.0 | 22 | 0.0232 | 0.0003 |
| 42 | 1 | 10.0 | 0.0 | 32 | 0.0232 | 0.0003 |
| 43 | 8 | 200.0 | 0.0 | 26 | 0.0216 | 0.0002 |
| 44 | 8 | 200.0 | 0.0 | 28 | 0.0216 | 0.0002 |
| 45 | 9 | 250.0 | 0.0 | 26 | 0.0137 | 0.0001 |
| 46 | 9 | 250.0 | 0.0 | 28 | 0.0137 | 0.0001 |
| 47 | 10 | 300.0 | 0.0 | 26 | 0.0094 | 0.0001 |
| 48 | 10 | 300.0 | 0.0 | 28 | 0.0094 | 0.0001 |
| 49 | 6 | 100.0 | 0.0 | 25 | 0.0033 | 0.0000 |
| 50 | 6 | 100.0 | 0.0 | 29 | 0.0033 | 0.0000 |

1

HIGHEST AND SECOND HIGHEST VALUES FOR 1 HOUR AVERAGES

| RECEPTOR | X-COORDINATE | Y-COORDINATE | HIGHEST VALUE | ENDING HOUR | DEPOSITION | SECOND HIGH | ENDING HOUR | DEPOSITION |
|----------|--------------|--------------|---------------|-------------|------------|-------------|-------------|------------|
| 1 | 10.0 | 0.0 | 1.1954 | 26. | 0.0167 | 1.1954 | 28. | 0.0167 |
| 2 | 20.0 | 0.0 | 1.5469 | 27. | 0.0225 | 1.1542 | 26. | 0.0168 |
| 3 | 30.0 | 0.0 | 1.3033 | 27. | 0.0192 | 0.7434 | 26. | 0.0109 |
| 4 | 40.0 | 0.0 | 0.9916 | 27. | 0.0144 | 0.4825 | 26. | 0.0070 |
| 5 | 50.0 | 0.0 | 0.7463 | 27. | 0.0105 | 0.3286 | 26. | 0.0046 |
| 6 | 100.0 | 0.0 | 0.2492 | 27. | 0.0030 | 0.0880 | 26. | 0.0011 |
| 7 | 150.0 | 0.0 | 0.1218 | 27. | 0.0013 | 0.0390 | 26. | 0.0004 |
| 8 | 200.0 | 0.0 | 0.0719 | 27. | 0.0007 | 0.0216 | 26. | 0.0002 |
| 9 | 250.0 | 0.0 | 0.0479 | 27. | 0.0004 | 0.0137 | 26. | 0.0001 |
| 10 | 300.0 | 0.0 | 0.0344 | 27. | 0.0003 | 0.0094 | 26. | 0.0001 |

1

TOP 50 TABLE FOR LONG TERM AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
| 1 | 1 | 10.0 | 0.0 | 36 | 0.1863 | 0.0026 |
| 2 | 2 | 20.0 | 0.0 | 36 | 0.1309 | 0.0019 |
| 3 | 3 | 30.0 | 0.0 | 36 | 0.0848 | 0.0012 |
| 4 | 4 | 40.0 | 0.0 | 36 | 0.0573 | 0.0008 |
| 5 | 5 | 50.0 | 0.0 | 36 | 0.0404 | 0.0006 |
| 6 | 6 | 100.0 | 0.0 | 36 | 0.0120 | 0.0001 |
| 7 | 7 | 150.0 | 0.0 | 36 | 0.0056 | 0.0001 |
| 8 | 8 | 200.0 | 0.0 | 36 | 0.0032 | 0.0000 |
| 9 | 9 | 250.0 | 0.0 | 36 | 0.0021 | 0.0000 |
| 10 | 10 | 300.0 | 0.0 | 36 | 0.0015 | 0.0000 |
| 11 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 12 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 13 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 14 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 15 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 16 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 17 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 18 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 19 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 20 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |

| | | | | | | |
|----|---|------|-----|---|--------|--------|
| 21 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 22 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 23 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 24 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 25 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 26 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 27 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 28 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 29 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 30 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 31 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 32 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 33 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 34 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 35 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 36 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 37 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 38 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 39 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 40 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 41 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 42 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 43 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 44 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 45 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 46 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 47 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 48 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 49 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 50 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |

DATE AT END OF RUN: 01/18/02 TIME AT END OF RUN: 10:14:31.42
ELAPSED TIME FOR THIS RUN: 0.38000E+00 SECONDS
OR 0 HOURS 0 MINUTES 0.38 SECONDS

Excavation-Cr6+

1

FDM - (DATED 93070)

IBM-PC VERSION (1.10)

(C) COPYRIGHT 1991-1995, TRINITY CONSULTANTS, INC.

DATE AT START OF RUN: 01/18/02 TIME AT START OF RUN: 10:14:31.70

RUN TITLE:

Cheoy Lee Shipyard (27Dec01 Cr6 emission)

INPUT FILE NAME: CR6-B.DAT

OUTPUT FILE NAME: CR6.LST

| | |
|--|--------|
| CONVERGENCE OPTION 1=OFF, 2=ON | 1 |
| MET OPTION SWITCH, 1=CARDS, 2=PREPROCESSED | 1 |
| PLOT FILE OUTPUT, 1=NO, 2=YES | 1 |
| MET DATA PRINT SWITCH, 1=NO, 2=YES | 1 |
| POST-PROCESSOR OUTPUT, 1=NO, 2=YES | 1 |
| DEP. VEL./GRAV. SETTL. VEL., 1=DEFAULT, 2=USER | 1 |
| PRINT 1-HOUR AVERAGE CONCEN, 1=NO, 2=YES | 3 |
| PRINT 3-HOUR AVERAGE CONCEN, 1=NO, 2=YES | 1 |
| PRINT 8-HOUR AVERAGE CONCEN, 1=NO, 2=YES | 1 |
| PRINT 24-HOUR AVERAGE CONCEN, 1=NO, 2=YES | 1 |
| PRINT LONG-TERM AVERAGE CONCEN, 1=NO, 2=YES | 3 |
| BYPASS RAMMET CALMS RECOGNITION, 1=NO, 2=YES | 2 |
| READ HOURLY EMISSION RATES, 1=NO, 2=YES | 0 |
| NUMBER OF SOURCES PROCESSED | 1 |
| NUMBER OF RECEPTORS PROCESSED | 12 |
| NUMBER OF PARTICLE SIZE CLASSES | 9 |
| NUMBER OF HOURS OF MET DATA PROCESSED | 36 |
| LENGTH IN MINUTES OF 1-HOUR OF MET DATA | 60. |
| ROUGHNESS LENGTH IN CM | 100.00 |
| SCALING FACTOR FOR SOURCE AND RECEPTORS | 1.0000 |
| PARTICLE DENSITY IN G/CM**3 | 2.50 |
| ANEMOMETER HEIGHT IN M | 98.50 |

GENERAL PARTICLE SIZE CLASS INFORMATION

| PARTICLE SIZE CLASS | CHAR. DIA. (UM) | GRAV. | | FRACTION IN EACH SIZE CLASS |
|---------------------------|-----------------------|---------------------------------|-----------------------------------|--------------------------------------|
| | | SETTLING VELOCITY (M/SEC) | DEPOSITION VELOCITY (M/SEC) | |
| 1 | 0.5000000 | ** | ** | 0.0400 |
| 2 | 1.5000000 | ** | ** | 0.0700 |
| 3 | 2.2500000 | ** | ** | 0.0400 |
| 4 | 2.7500000 | ** | ** | 0.0300 |
| 5 | 3.5000000 | ** | ** | 0.0700 |
| 6 | 4.5000000 | ** | ** | 0.0500 |
| 7 | 5.5000000 | ** | ** | 0.0400 |
| 8 | 8.0000000 | ** | ** | 0.1700 |
| 9 | 20.0000000 | ** | ** | 0.4900 |

 ** COMPUTED BY FDM

1

RECEPTOR COORDINATES (X,Y,Z)

(10., 0., 2.) (20., 0., 2.) (30., 0., 2.)
 (40., 0., 2.) (50., 0., 2.) (100., 0., 2.)
 (150., 0., 2.) (200., 0., 2.) (250., 0., 2.)
 (300., 0., 2.) (400., 0., 2.) (450., 0., 2.)

1

SOURCE INFORMATION

| TYPE | ENTERED EMIS. | TOTAL | WIND SPEED FAC. | X1 (M) | Y1 (M) | X2 (M) | Y2 (M) | HEIGHT (M) | WIDTH (M) |
|-----------------|---|-----------------------------|-----------------------|-----------|-----------|-----------|-----------|---------------|--------------|
| | RATE (G/SEC, G/SEC/M OR G/SEC/M**2) | EMISSION RATE (G/SEC) | | | | | | | |
| 3 | 0.000237248 | 0.02372 | 0.000 | 0. | 0. | 10. | 10. | 0.50 | 0.00 |
| TOTAL EMISSIONS | | 0.23725E-01 GRAMS/SEC | | | | | | | |

SHORT DISTANCE (5,000 M) MASS CONSERVATION CORRECTION FACTORS USED

1

TOP 50 TABLE FOR 1 HOUR AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
| 1 | 2 | 20.0 | 0.0 | 27 | 554.3582 | 8.0567 |
| 2 | 3 | 30.0 | 0.0 | 27 | 467.0744 | 6.8645 |
| 3 | 1 | 10.0 | 0.0 | 26 | 428.4135 | 6.0020 |
| 4 | 1 | 10.0 | 0.0 | 28 | 428.4135 | 6.0020 |
| 5 | 1 | 10.0 | 0.0 | 27 | 413.6571 | 5.7952 |
| 6 | 2 | 20.0 | 0.0 | 26 | 413.6331 | 6.0117 |
| 7 | 2 | 20.0 | 0.0 | 28 | 413.6329 | 6.0117 |
| 8 | 4 | 40.0 | 0.0 | 27 | 355.3459 | 5.1519 |
| 9 | 1 | 10.0 | 0.0 | 25 | 327.9883 | 4.5915 |
| 10 | 1 | 10.0 | 0.0 | 29 | 327.9883 | 4.5915 |
| 11 | 5 | 50.0 | 0.0 | 27 | 267.4424 | 3.7582 |
| 12 | 3 | 30.0 | 0.0 | 26 | 266.3972 | 3.9151 |
| 13 | 3 | 30.0 | 0.0 | 28 | 266.3971 | 3.9151 |
| 14 | 4 | 40.0 | 0.0 | 26 | 172.9191 | 2.5083 |
| 15 | 4 | 40.0 | 0.0 | 28 | 172.9191 | 2.5083 |
| 16 | 1 | 10.0 | 0.0 | 24 | 171.6172 | 2.3751 |
| 17 | 1 | 10.0 | 0.0 | 30 | 171.6171 | 2.3751 |
| 18 | 2 | 20.0 | 0.0 | 25 | 144.1501 | 2.0910 |
| 19 | 2 | 20.0 | 0.0 | 29 | 144.1500 | 2.0910 |
| 20 | 5 | 50.0 | 0.0 | 26 | 117.7585 | 1.6568 |
| 21 | 5 | 50.0 | 0.0 | 28 | 117.7583 | 1.6567 |
| 22 | 6 | 100.0 | 0.0 | 27 | 89.3191 | 1.0652 |
| 23 | 1 | 10.0 | 0.0 | 23 | 58.5494 | 0.8048 |
| 24 | 1 | 10.0 | 0.0 | 31 | 58.5494 | 0.8048 |
| 25 | 3 | 30.0 | 0.0 | 25 | 45.9536 | 0.6749 |
| 26 | 3 | 30.0 | 0.0 | 29 | 45.9536 | 0.6749 |
| 27 | 7 | 150.0 | 0.0 | 27 | 43.6340 | 0.4519 |
| 28 | 6 | 100.0 | 0.0 | 26 | 31.5489 | 0.3777 |
| 29 | 6 | 100.0 | 0.0 | 28 | 31.5489 | 0.3777 |
| 30 | 8 | 200.0 | 0.0 | 27 | 25.7711 | 0.2382 |
| 31 | 4 | 40.0 | 0.0 | 25 | 18.8741 | 0.2750 |
| 32 | 4 | 40.0 | 0.0 | 29 | 18.8741 | 0.2750 |
| 33 | 9 | 250.0 | 0.0 | 27 | 17.1590 | 0.1440 |
| 34 | 7 | 150.0 | 0.0 | 26 | 13.9878 | 0.1456 |
| 35 | 7 | 150.0 | 0.0 | 28 | 13.9878 | 0.1456 |
| 36 | 10 | 300.0 | 0.0 | 27 | 12.3176 | 0.0954 |
| 37 | 2 | 20.0 | 0.0 | 24 | 9.5499 | 0.1383 |
| 38 | 2 | 20.0 | 0.0 | 30 | 9.5499 | 0.1383 |
| 39 | 5 | 50.0 | 0.0 | 25 | 9.3670 | 0.1326 |
| 40 | 5 | 50.0 | 0.0 | 29 | 9.3670 | 0.1326 |
| 41 | 1 | 10.0 | 0.0 | 22 | 8.3189 | 0.1123 |
| 42 | 1 | 10.0 | 0.0 | 32 | 8.3189 | 0.1123 |
| 43 | 8 | 200.0 | 0.0 | 26 | 7.7494 | 0.0721 |
| 44 | 8 | 200.0 | 0.0 | 28 | 7.7494 | 0.0721 |
| 45 | 11 | 400.0 | 0.0 | 27 | 7.3254 | 0.0501 |
| 46 | 12 | 450.0 | 0.0 | 27 | 5.9309 | 0.0386 |
| 47 | 9 | 250.0 | 0.0 | 26 | 4.9091 | 0.0415 |
| 48 | 9 | 250.0 | 0.0 | 28 | 4.9091 | 0.0415 |
| 49 | 10 | 300.0 | 0.0 | 26 | 3.3825 | 0.0264 |
| 50 | 10 | 300.0 | 0.0 | 28 | 3.3825 | 0.0264 |

1

HIGHEST AND SECOND HIGHEST VALUES FOR 1 HOUR AVERAGES

| RECEPTOR | X-COORDINATE | Y-COORDINATE | HIGHEST VALUE | ENDING HOUR | DEPOSITION | SECOND HIGH | ENDING HOUR | DEPOSITION |
|----------|--------------|--------------|---------------|-------------|------------|-------------|-------------|------------|
| 1 | 10.0 | 0.0 | 428.4135 | 26. | 6.0020 | 428.4135 | 28. | 6.0020 |

| | | | | | | | | |
|----|-------|-----|----------|-----|--------|----------|-----|--------|
| 2 | 20.0 | 0.0 | 554.3582 | 27. | 8.0567 | 413.6331 | 26. | 6.0117 |
| 3 | 30.0 | 0.0 | 467.0744 | 27. | 6.8645 | 266.3972 | 26. | 3.9151 |
| 4 | 40.0 | 0.0 | 355.3459 | 27. | 5.1519 | 172.9191 | 26. | 2.5083 |
| 5 | 50.0 | 0.0 | 267.4424 | 27. | 3.7582 | 117.7585 | 26. | 1.6568 |
| 6 | 100.0 | 0.0 | 89.3191 | 27. | 1.0652 | 31.5489 | 26. | 0.3777 |
| 7 | 150.0 | 0.0 | 43.6340 | 27. | 0.4519 | 13.9878 | 26. | 0.1456 |
| 8 | 200.0 | 0.0 | 25.7711 | 27. | 0.2382 | 7.7494 | 26. | 0.0721 |
| 9 | 250.0 | 0.0 | 17.1590 | 27. | 0.1440 | 4.9091 | 26. | 0.0415 |
| 10 | 300.0 | 0.0 | 12.3176 | 27. | 0.0954 | 3.3825 | 26. | 0.0264 |
| 11 | 400.0 | 0.0 | 7.3254 | 27. | 0.0501 | 1.8821 | 26. | 0.0130 |
| 12 | 450.0 | 0.0 | 5.9309 | 27. | 0.0386 | 1.4816 | 26. | 0.0097 |

1

TOP 50 TABLE FOR LONG TERM AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
| 1 | 1 | 10.0 | 0.0 | 36 | 66.7666 | 0.9325 |
| 2 | 2 | 20.0 | 0.0 | 36 | 46.9274 | 0.6818 |
| 3 | 3 | 30.0 | 0.0 | 36 | 30.3820 | 0.4465 |
| 4 | 4 | 40.0 | 0.0 | 36 | 20.5371 | 0.2979 |
| 5 | 5 | 50.0 | 0.0 | 36 | 14.4949 | 0.2039 |
| 6 | 6 | 100.0 | 0.0 | 36 | 4.2989 | 0.0514 |
| 7 | 7 | 150.0 | 0.0 | 36 | 2.0096 | 0.0209 |
| 8 | 8 | 200.0 | 0.0 | 36 | 1.1555 | 0.0107 |
| 9 | 9 | 250.0 | 0.0 | 36 | 0.7542 | 0.0063 |
| 10 | 10 | 300.0 | 0.0 | 36 | 0.5330 | 0.0041 |
| 11 | 11 | 400.0 | 0.0 | 36 | 0.3094 | 0.0021 |
| 12 | 12 | 450.0 | 0.0 | 36 | 0.2480 | 0.0016 |
| 13 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 14 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 15 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 16 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 17 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 18 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 19 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 20 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 21 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 22 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 23 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 24 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 25 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 26 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 27 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 28 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 29 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 30 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 31 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 32 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 33 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 34 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 35 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 36 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 37 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 38 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 39 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 40 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 41 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 42 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 43 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 44 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 45 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 46 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 47 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 48 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 49 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 50 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |

DATE AT END OF RUN: 01/18/02 TIME AT END OF RUN: 10:14:32.03
ELAPSED TIME FOR THIS RUN: 0.33000E+00 SECONDS
OR 0 HOURS 0 MINUTES 0.33 SECONDS

Excavation-Styrene

1 FDM - (DATED 93070)

IBM-PC VERSION (1.10)
(C) COPYRIGHT 1991-1995, TRINITY CONSULTANTS, INC.

DATE AT START OF RUN: 01/18/02 TIME AT START OF RUN: 10:14:32.19

RUN TITLE:
Cheoy Lee Shipyard (28Dec01)

INPUT FILE NAME: STY-A10.DAT
OUTPUT FILE NAME: STY.LST

CONVERGENCE OPTION 1=OFF, 2=ON 1
MET OPTION SWITCH, 1=CARDS, 2=PREPROCESSED 1
PLOT FILE OUTPUT, 1=NO, 2=YES 1
MET DATA PRINT SWITCH, 1=NO, 2=YES 1

POST-PROCESSOR OUTPUT, 1=NO, 2=YES 1
 DEP. VEL./GRAV. SETTL. VEL., 1=DEFAULT, 2=USER 1
 PRINT 1-HOUR AVERAGE CONCEN, 1=NO, 2=YES 3
 PRINT 3-HOUR AVERAGE CONCEN, 1=NO, 2=YES 1
 PRINT 8-HOUR AVERAGE CONCEN, 1=NO, 2=YES 1
 PRINT 24-HOUR AVERAGE CONCEN, 1=NO, 2=YES 1
 PRINT LONG-TERM AVERAGE CONCEN, 1=NO, 2=YES 3
 BYPASS RAMMET CALMS RECOGNITION, 1=NO, 2=YES 2
 READ HOURLY EMISSION RATES, 1=NO, 2=YES 0
 NUMBER OF SOURCES PROCESSED 1
 NUMBER OF RECEPTORS PROCESSED 10
 NUMBER OF PARTICLE SIZE CLASSES 9
 NUMBER OF HOURS OF MET DATA PROCESSED 36
 LENGTH IN MINUTES OF 1-HOUR OF MET DATA 60.
 ROUGHNESS LENGTH IN CM 100.00
 SCALING FACTOR FOR SOURCE AND RECEPTORS 1.0000
 PARTICLE DENSITY IN G/CM**3 2.50
 ANEMOMETER HEIGHT IN M 98.50

GENERAL PARTICLE SIZE CLASS INFORMATION

| PARTICLE SIZE CLASS | CHAR. DIA. (UM) | SETTLING VELOCITY (M/SEC) | DEPOSITION VELOCITY (M/SEC) | FRACTION IN EACH SIZE CLASS |
|---------------------|-----------------|---------------------------|-----------------------------|-----------------------------|
| 1 | 0.5000000 | ** | ** | 0.0400 |
| 2 | 1.5000000 | ** | ** | 0.0700 |
| 3 | 2.2500000 | ** | ** | 0.0400 |
| 4 | 2.7500000 | ** | ** | 0.0300 |
| 5 | 3.5000000 | ** | ** | 0.0700 |
| 6 | 4.5000000 | ** | ** | 0.0500 |
| 7 | 5.5000000 | ** | ** | 0.0400 |
| 8 | 8.0000000 | ** | ** | 0.1700 |
| 9 | 20.0000000 | ** | ** | 0.4900 |

** COMPUTED BY FDM

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RECEPTOR COORDINATES (X,Y,Z)

(10., 0., 2.) (20., 0., 2.) (30., 0., 2.)
 (40., 0., 2.) (50., 0., 2.) (100., 0., 2.)
 (150., 0., 2.) (200., 0., 2.) (250., 0., 2.)
 (300., 0., 2.) (

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SOURCE INFORMATION

| TYPE | ENTERED EMIS. RATE (G/SEC OR G/SEC/M**2) | TOTAL EMISSION (G/SEC) | WIND SPEED FAC. | X1 (M) | Y1 (M) | X2 (M) | Y2 (M) | HEIGHT (M) | WIDTH (M) |
|------|--|------------------------|-----------------|--------|--------|--------|--------|------------|-----------|
| 3 | 0.000700000 | 0.07000 | 0.000 | 0. | 0. | 10. | 10. | 0.50 | 0.00 |

TOTAL EMISSIONS 0.70000E-01 GRAMS/SEC

SHORT DISTANCE (5,000 M) MASS CONSERVATION CORRECTION FACTORS USED

TOP 50 TABLE FOR 1 HOUR AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
| 1 | 2 | 20.0 | 0.0 | 27 | 1635.6333 | 23.7712 |
| 2 | 3 | 30.0 | 0.0 | 27 | 1378.1025 | 20.2538 |
| 3 | 1 | 10.0 | 0.0 | 26 | 1264.0338 | 17.7089 |
| 4 | 1 | 10.0 | 0.0 | 28 | 1264.0338 | 17.7089 |
| 5 | 1 | 10.0 | 0.0 | 27 | 1220.4945 | 17.0987 |
| 6 | 2 | 20.0 | 0.0 | 26 | 1220.4238 | 17.7377 |
| 7 | 2 | 20.0 | 0.0 | 28 | 1220.4232 | 17.7377 |
| 8 | 4 | 40.0 | 0.0 | 27 | 1048.4476 | 15.2007 |
| 9 | 1 | 10.0 | 0.0 | 25 | 967.7291 | 13.5471 |
| 10 | 1 | 10.0 | 0.0 | 29 | 967.7289 | 13.5471 |
| 11 | 5 | 50.0 | 0.0 | 27 | 789.0887 | 11.0885 |
| 12 | 3 | 30.0 | 0.0 | 26 | 786.0049 | 11.5514 |
| 13 | 3 | 30.0 | 0.0 | 28 | 786.0042 | 11.5514 |
| 14 | 4 | 40.0 | 0.0 | 26 | 510.1977 | 7.4009 |
| 15 | 4 | 40.0 | 0.0 | 28 | 510.1974 | 7.4009 |
| 16 | 1 | 10.0 | 0.0 | 24 | 506.3565 | 7.0077 |
| 17 | 1 | 10.0 | 0.0 | 30 | 506.3561 | 7.0076 |
| 18 | 2 | 20.0 | 0.0 | 25 | 425.3147 | 6.1696 |
| 19 | 2 | 20.0 | 0.0 | 29 | 425.3145 | 6.1696 |
| 20 | 5 | 50.0 | 0.0 | 26 | 347.4463 | 4.8882 |
| 21 | 5 | 50.0 | 0.0 | 28 | 347.4459 | 4.8882 |
| 22 | 6 | 100.0 | 0.0 | 27 | 263.5361 | 3.1428 |
| 23 | 1 | 10.0 | 0.0 | 31 | 172.7500 | 2.3745 |
| 24 | 1 | 10.0 | 0.0 | 23 | 172.7499 | 2.3745 |
| 25 | 3 | 30.0 | 0.0 | 25 | 135.5861 | 1.9912 |
| 26 | 3 | 30.0 | 0.0 | 29 | 135.5860 | 1.9912 |
| 27 | 7 | 150.0 | 0.0 | 27 | 128.7420 | 1.3334 |
| 28 | 6 | 100.0 | 0.0 | 26 | 93.0851 | 1.1145 |
| 29 | 6 | 100.0 | 0.0 | 28 | 93.0850 | 1.1145 |
| 30 | 8 | 200.0 | 0.0 | 27 | 76.0376 | 0.7028 |
| 31 | 4 | 40.0 | 0.0 | 25 | 55.6881 | 0.8114 |
| 32 | 4 | 40.0 | 0.0 | 29 | 55.6880 | 0.8114 |
| 33 | 9 | 250.0 | 0.0 | 27 | 50.6277 | 0.4249 |
| 34 | 7 | 150.0 | 0.0 | 26 | 41.2710 | 0.4297 |
| 35 | 7 | 150.0 | 0.0 | 28 | 41.2710 | 0.4297 |

| | | | | | | |
|----|----|-------|-----|----|---------|--------|
| 36 | 10 | 300.0 | 0.0 | 27 | 36.3430 | 0.2815 |
| 37 | 2 | 20.0 | 0.0 | 24 | 28.1769 | 0.4081 |
| 38 | 2 | 20.0 | 0.0 | 30 | 28.1769 | 0.4081 |
| 39 | 5 | 50.0 | 0.0 | 25 | 27.6375 | 0.3912 |
| 40 | 5 | 50.0 | 0.0 | 29 | 27.6374 | 0.3912 |
| 41 | 1 | 10.0 | 0.0 | 22 | 24.5450 | 0.3312 |
| 42 | 1 | 10.0 | 0.0 | 32 | 24.5450 | 0.3312 |
| 43 | 8 | 200.0 | 0.0 | 26 | 22.8646 | 0.2126 |
| 44 | 8 | 200.0 | 0.0 | 28 | 22.8646 | 0.2126 |
| 45 | 9 | 250.0 | 0.0 | 26 | 14.4843 | 0.1224 |
| 46 | 9 | 250.0 | 0.0 | 28 | 14.4843 | 0.1224 |
| 47 | 10 | 300.0 | 0.0 | 26 | 9.9800 | 0.0778 |
| 48 | 10 | 300.0 | 0.0 | 28 | 9.9800 | 0.0778 |
| 49 | 6 | 100.0 | 0.0 | 25 | 3.4489 | 0.0418 |
| 50 | 6 | 100.0 | 0.0 | 29 | 3.4489 | 0.0418 |

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HIGHEST AND SECOND HIGHEST VALUES FOR 1 HOUR AVERAGES

| RECEPTOR | X-COORDINATE | Y-COORDINATE | HIGHEST VALUE | ENDING HOUR | DEPOSITION | SECOND HIGH | ENDING HOUR | DEPOSITION |
|----------|--------------|--------------|---------------|-------------|------------|-------------|-------------|------------|
| 1 | 10.0 | 0.0 | 1264.0338 | 26. | 17.7089 | 1264.0338 | 28. | 17.7089 |
| 2 | 20.0 | 0.0 | 1635.6333 | 27. | 23.7712 | 1220.4238 | 26. | 17.7377 |
| 3 | 30.0 | 0.0 | 1378.1025 | 27. | 20.2538 | 786.0049 | 26. | 11.5514 |
| 4 | 40.0 | 0.0 | 1048.4476 | 27. | 15.2007 | 510.1977 | 26. | 7.4009 |
| 5 | 50.0 | 0.0 | 789.0887 | 27. | 11.0885 | 347.4463 | 26. | 4.8882 |
| 6 | 100.0 | 0.0 | 263.5361 | 27. | 3.1428 | 93.0851 | 26. | 1.1145 |
| 7 | 150.0 | 0.0 | 128.7420 | 27. | 1.3334 | 41.2710 | 26. | 0.4297 |
| 8 | 200.0 | 0.0 | 76.0376 | 27. | 0.7028 | 22.8646 | 26. | 0.2126 |
| 9 | 250.0 | 0.0 | 50.6277 | 27. | 0.4249 | 14.4843 | 26. | 0.1224 |
| 10 | 300.0 | 0.0 | 36.3430 | 27. | 0.2815 | 9.9800 | 26. | 0.0778 |

1

TOP 50 TABLE FOR LONG TERM AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
| 1 | 1 | 10.0 | 0.0 | 36 | 196.9948 | 2.7512 |
| 2 | 2 | 20.0 | 0.0 | 36 | 138.4593 | 2.0116 |
| 3 | 3 | 30.0 | 0.0 | 36 | 89.6420 | 1.3173 |
| 4 | 4 | 40.0 | 0.0 | 36 | 60.5947 | 0.8790 |
| 5 | 5 | 50.0 | 0.0 | 36 | 42.7671 | 0.6015 |
| 6 | 6 | 100.0 | 0.0 | 36 | 12.6838 | 0.1515 |
| 7 | 7 | 150.0 | 0.0 | 36 | 5.9294 | 0.0616 |
| 8 | 8 | 200.0 | 0.0 | 36 | 3.4093 | 0.0316 |
| 9 | 9 | 250.0 | 0.0 | 36 | 2.2254 | 0.0187 |
| 10 | 10 | 300.0 | 0.0 | 36 | 1.5726 | 0.0122 |
| 11 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 12 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 13 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 14 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 15 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 16 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 17 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 18 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 19 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 20 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 21 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 22 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 23 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 24 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 25 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 26 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 27 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 28 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 29 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 30 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 31 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 32 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 33 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 34 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 35 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 36 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 37 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 38 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 39 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 40 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 41 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 42 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 43 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 44 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 45 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 46 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 47 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 48 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 49 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 50 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |

DATE AT END OF RUN: 01/18/02 TIME AT END OF RUN: 10:14:32.52
 ELAPSED TIME FOR THIS RUN: 0.33000E+00 SECONDS
 OR 0 HOURS 0 MINUTES 0.33 SECONDS

Solidification- Cr6+

1 FDM - (DATED 93070)

DATE AT START OF RUN: 02/07/02 TIME AT START OF RUN: 16:22:37.79

RUN TITLE:
Cheoy Lee Shipyard (27Dec01 Cr6 emission)

INPUT FILE NAME: cr6-b.DAT
OUTPUT FILE NAME: cr6-b.LST

CONVERGENCE OPTION 1=OFF, 2=ON 1
MET OPTION SWITCH, 1=CARDS, 2=PREPROCESSED 1
PLOT FILE OUTPUT, 1=NO, 2=YES 1
MET DATA PRINT SWITCH, 1=NO, 2=YES 1
POST-PROCESSOR OUTPUT, 1=NO, 2=YES 1
DEP. VEL./GRAV. SETTL. VEL., 1=DEFAULT, 2=USER 1
PRINT 1-HOUR AVERAGE CONCEN, 1=NO, 2=YES 3
PRINT 3-HOUR AVERAGE CONCEN, 1=NO, 2=YES 1
PRINT 8-HOUR AVERAGE CONCEN, 1=NO, 2=YES 1
PRINT 24-HOUR AVERAGE CONCEN, 1=NO, 2=YES 1
PRINT LONG-TERM AVERAGE CONCEN, 1=NO, 2=YES 3
BYPASS RAMMET CALMS RECOGNITION, 1=NO, 2=YES 2
READ HOURLY EMISSION RATES, 1=NO, 2=YES 0
NUMBER OF SOURCES PROCESSED 1
NUMBER OF RECEPTORS PROCESSED 12
NUMBER OF PARTICLE SIZE CLASSES 9
NUMBER OF HOURS OF MET DATA PROCESSED 36
LENGTH IN MINUTES OF 1-HOUR OF MET DATA 60.
ROUGHNESS LENGTH IN CM 100.00
SCALING FACTOR FOR SOURCE AND RECEPTORS 1.0000
PARTICLE DENSITY IN G/CM**3 2.500
ANEMOMETER HEIGHT IN M 98.50

GENERAL PARTICLE SIZE CLASS INFORMATION

| PARTICLE SIZE CLASS | CHAR. DIA. (UM) | GRAV. SETTLING VELOCITY (M/SEC) | DEPOSITION VELOCITY (M/SEC) | FRACTION IN EACH SIZE CLASS |
|---------------------|-----------------|---------------------------------|-----------------------------|-----------------------------|
| 1 | 0.5000000 | ** | ** | 0.0400 |
| 2 | 1.5000000 | ** | ** | 0.0700 |
| 3 | 2.2500000 | ** | ** | 0.0400 |
| 4 | 2.7500000 | ** | ** | 0.0300 |
| 5 | 3.5000000 | ** | ** | 0.0700 |
| 6 | 4.5000000 | ** | ** | 0.0500 |
| 7 | 5.5000000 | ** | ** | 0.0400 |
| 8 | 8.0000000 | ** | ** | 0.1700 |
| 9 | 20.0000000 | ** | ** | 0.4900 |

** COMPUTED BY FDM

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RECEPTOR COORDINATES (X,Y,Z)

(10., 0., 2.) (20., 0., 2.) (30., 0., 2.)
(40., 0., 2.) (50., 0., 2.) (100., 0., 2.)
(150., 0., 2.) (200., 0., 2.) (250., 0., 2.)
(300., 0., 2.) (400., 0., 2.) (450., 0., 2.)

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SOURCE INFORMATION

| TYPE | ENTERED EMIS. RATE (G/SEC OR G/SEC/M**2) | TOTAL EMISSION RATE (G/SEC) | WIND SPEED FAC. | X1 (M) | Y1 (M) | X2 (M) | Y2 (M) | HEIGHT (M) | WIDTH (M) |
|-----------------|--|-----------------------------|-----------------|--------|--------|--------|--------|------------|-----------|
| 1 | 0.000177950 | 0.00018 | 0.000 | 0. | 0. | 0. | 0. | 0.50 | 0.00 |
| TOTAL EMISSIONS | | 0.17795E-03 | GRAMS/SEC | | | | | | |

SHORT DISTANCE (5,000 M) MASS CONSERVATION CORRECTION FACTORS USED

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TOP 50 TABLE FOR 1 HOUR AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
| 1 | 1 | 10.0 | 0.0 | 27 | 9.7972 | 0.1387 |
| 2 | 2 | 20.0 | 0.0 | 27 | 6.5829 | 0.0938 |
| 3 | 1 | 10.0 | 0.0 | 26 | 4.3023 | 0.0609 |
| 4 | 1 | 10.0 | 0.0 | 28 | 4.3023 | 0.0609 |
| 5 | 3 | 30.0 | 0.0 | 27 | 4.1944 | 0.0588 |
| 6 | 4 | 40.0 | 0.0 | 27 | 2.7989 | 0.0379 |
| 7 | 2 | 20.0 | 0.0 | 26 | 2.7103 | 0.0386 |

| | | | | | | |
|----|----|-------|-----|----|--------|--------|
| 8 | 2 | 20.0 | 0.0 | 28 | 2.7103 | 0.0386 |
| 9 | 5 | 50.0 | 0.0 | 27 | 1.9619 | 0.0253 |
| 10 | 3 | 30.0 | 0.0 | 26 | 1.6518 | 0.0232 |
| 11 | 3 | 30.0 | 0.0 | 28 | 1.6518 | 0.0232 |
| 12 | 4 | 40.0 | 0.0 | 26 | 1.0657 | 0.0145 |
| 13 | 4 | 40.0 | 0.0 | 28 | 1.0657 | 0.0145 |
| 14 | 5 | 50.0 | 0.0 | 26 | 0.7256 | 0.0094 |
| 15 | 5 | 50.0 | 0.0 | 28 | 0.7256 | 0.0094 |
| 16 | 6 | 100.0 | 0.0 | 27 | 0.5804 | 0.0060 |
| 17 | 1 | 10.0 | 0.0 | 25 | 0.2993 | 0.0042 |
| 18 | 1 | 10.0 | 0.0 | 29 | 0.2993 | 0.0042 |
| 19 | 7 | 150.0 | 0.0 | 27 | 0.2747 | 0.0024 |
| 20 | 6 | 100.0 | 0.0 | 26 | 0.1938 | 0.0020 |
| 21 | 6 | 100.0 | 0.0 | 28 | 0.1938 | 0.0020 |
| 22 | 8 | 200.0 | 0.0 | 27 | 0.1601 | 0.0012 |
| 23 | 2 | 20.0 | 0.0 | 25 | 0.1530 | 0.0022 |
| 24 | 2 | 20.0 | 0.0 | 29 | 0.1530 | 0.0022 |
| 25 | 9 | 250.0 | 0.0 | 27 | 0.1058 | 0.0007 |
| 26 | 7 | 150.0 | 0.0 | 26 | 0.0856 | 0.0008 |
| 27 | 7 | 150.0 | 0.0 | 28 | 0.0856 | 0.0008 |
| 28 | 3 | 30.0 | 0.0 | 25 | 0.0807 | 0.0011 |
| 29 | 3 | 30.0 | 0.0 | 29 | 0.0807 | 0.0011 |
| 30 | 10 | 300.0 | 0.0 | 27 | 0.0755 | 0.0005 |
| 31 | 8 | 200.0 | 0.0 | 26 | 0.0473 | 0.0004 |
| 32 | 8 | 200.0 | 0.0 | 28 | 0.0473 | 0.0004 |
| 33 | 4 | 40.0 | 0.0 | 25 | 0.0467 | 0.0006 |
| 34 | 4 | 40.0 | 0.0 | 29 | 0.0467 | 0.0006 |
| 35 | 11 | 400.0 | 0.0 | 27 | 0.0446 | 0.0003 |
| 36 | 12 | 450.0 | 0.0 | 27 | 0.0360 | 0.0002 |
| 37 | 9 | 250.0 | 0.0 | 26 | 0.0299 | 0.0002 |
| 38 | 9 | 250.0 | 0.0 | 28 | 0.0299 | 0.0002 |
| 39 | 5 | 50.0 | 0.0 | 25 | 0.0290 | 0.0004 |
| 40 | 5 | 50.0 | 0.0 | 29 | 0.0290 | 0.0004 |
| 41 | 10 | 300.0 | 0.0 | 26 | 0.0206 | 0.0001 |
| 42 | 10 | 300.0 | 0.0 | 28 | 0.0206 | 0.0001 |
| 43 | 11 | 400.0 | 0.0 | 26 | 0.0114 | 0.0001 |
| 44 | 11 | 400.0 | 0.0 | 28 | 0.0114 | 0.0001 |
| 45 | 12 | 450.0 | 0.0 | 26 | 0.0090 | 0.0000 |
| 46 | 12 | 450.0 | 0.0 | 28 | 0.0090 | 0.0000 |
| 47 | 6 | 100.0 | 0.0 | 25 | 0.0056 | 0.0001 |
| 48 | 6 | 100.0 | 0.0 | 29 | 0.0056 | 0.0001 |
| 49 | 7 | 150.0 | 0.0 | 25 | 0.0020 | 0.0000 |
| 50 | 7 | 150.0 | 0.0 | 29 | 0.0020 | 0.0000 |

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HIGHEST AND SECOND HIGHEST VALUES FOR 1 HOUR AVERAGES

| RECEPTOR | X-COORDINATE | Y-COORDINATE | HIGHEST VALUE | ENDING HOUR | DEPOSITION | SECOND HIGH | ENDING HOUR | DEPOSITION |
|----------|--------------|--------------|---------------|-------------|------------|-------------|-------------|------------|
| 1 | 10.0 | 0.0 | 9.7972 | 27. | 0.1387 | 4.3023 | 26. | 0.0609 |
| 2 | 20.0 | 0.0 | 6.5829 | 27. | 0.0938 | 2.7103 | 26. | 0.0386 |
| 3 | 30.0 | 0.0 | 4.1944 | 27. | 0.0588 | 1.6518 | 26. | 0.0232 |
| 4 | 40.0 | 0.0 | 2.7989 | 27. | 0.0379 | 1.0657 | 26. | 0.0145 |
| 5 | 50.0 | 0.0 | 1.9619 | 27. | 0.0253 | 0.7256 | 26. | 0.0094 |
| 6 | 100.0 | 0.0 | 0.5804 | 27. | 0.0060 | 0.1938 | 26. | 0.0020 |
| 7 | 150.0 | 0.0 | 0.2747 | 27. | 0.0024 | 0.0856 | 26. | 0.0008 |
| 8 | 200.0 | 0.0 | 0.1601 | 27. | 0.0012 | 0.0473 | 26. | 0.0004 |
| 9 | 250.0 | 0.0 | 0.1058 | 27. | 0.0007 | 0.0299 | 26. | 0.0002 |
| 10 | 300.0 | 0.0 | 0.0755 | 27. | 0.0005 | 0.0206 | 26. | 0.0001 |
| 11 | 400.0 | 0.0 | 0.0446 | 27. | 0.0003 | 0.0114 | 26. | 0.0001 |
| 12 | 450.0 | 0.0 | 0.0360 | 27. | 0.0002 | 0.0090 | 26. | 0.0000 |

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TOP 50 TABLE FOR LONG TERM AVERAGES

| RANK | RECEPTOR | X-COORDINATE | Y-COORDINATE | ENDING HOUR | CONCENTRATION | DEPOSITION |
|------|----------|--------------|--------------|-------------|---------------|------------|
| 1 | 1 | 10.0 | 0.0 | 36 | 0.5279 | 0.0075 |
| 2 | 2 | 20.0 | 0.0 | 36 | 0.3420 | 0.0049 |
| 3 | 3 | 30.0 | 0.0 | 36 | 0.2128 | 0.0030 |
| 4 | 4 | 40.0 | 0.0 | 36 | 0.1396 | 0.0019 |
| 5 | 5 | 50.0 | 0.0 | 36 | 0.0964 | 0.0012 |
| 6 | 6 | 100.0 | 0.0 | 36 | 0.0272 | 0.0003 |
| 7 | 7 | 150.0 | 0.0 | 36 | 0.0125 | 0.0001 |
| 8 | 8 | 200.0 | 0.0 | 36 | 0.0071 | 0.0001 |
| 9 | 9 | 250.0 | 0.0 | 36 | 0.0046 | 0.0000 |
| 10 | 10 | 300.0 | 0.0 | 36 | 0.0033 | 0.0000 |
| 11 | 11 | 400.0 | 0.0 | 36 | 0.0019 | 0.0000 |
| 12 | 12 | 450.0 | 0.0 | 36 | 0.0015 | 0.0000 |
| 13 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 14 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 15 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 16 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 17 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 18 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 19 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 20 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 21 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |

| | | | | | | |
|----|---|------|-----|---|--------|--------|
| 22 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 23 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 24 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 25 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 26 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 27 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 28 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 29 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 30 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 31 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 32 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 33 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 34 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 35 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 36 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 37 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 38 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 39 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 40 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 41 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 42 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 43 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 44 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 45 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 46 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 47 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 48 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 49 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |
| 50 | 0 | -0.1 | 0.0 | 0 | 0.0000 | 0.0000 |

DATE AT END OF RUN: 02/07/02 TIME AT END OF RUN: 16:22:38.17
 ELAPSED TIME FOR THIS RUN: 0.38000E+00 SECONDS
 OR 0 HOURS 0 MINUTES 0.38 SECONDS

Sample Computer Output of ISCST3 Calculations

Dioxin

**
** PROJECT Cheoy Lee Shipyard Excavation
**
CO STARTING
CO TITLEONE Cheoy Lee Shipyard Excavation
CO TITLETWO DIOXIN Assessment (Hourly)
CO MODELOPT GRDRIS CONC RURAL
CO AVERTIME 1 ANNUAL
CO TERRHGT5 ELEV
CO POLLUTID OTHER
CO RUNORNOT RUN
CO ERRORFIL ERRORS.LST
CO FLAGPOLE 0.0
CO FINISHED

SO STARTING
SO ELEVUNIT METERS
**** ID Srctyp Xs Ys Zs

SO LOCATION S2 POINT 22473.1 22540.5 5.7
**** ID Emiss Stkght Stktmp Stkvel Stkdia

SO SRCPARAM S2 0.1E-09 8.0 373.0 8.0 0.4
SO EMISUNIT 1.0E+12 GRAMS/SEC PICOGRAMS/M**3
SO SRCGROUP ALL
SO FINISHED

RE STARTING
RE ELEVUNIT METERS
** ASR
** Xcoord Ycoord Zelev Zflag
**
RE DISCCART 22480.3 22330.3 46.0 1.5
RE DISCCART 22480.3 22330.3 46.0 10.0
RE DISCCART 22480.3 22330.3 46.0 20.0
RE DISCCART 22480.3 22330.3 46.0 30.0
RE DISCCART 22480.3 22330.3 46.0 40.0
RE DISCCART 22293.0 22414.4 5.4 1.5
RE DISCCART 22293.0 22414.4 5.4 10.0
RE DISCCART 22293.0 22414.4 5.4 20.0
RE DISCCART 22293.0 22414.4 5.4 30.0
RE DISCCART 22293.0 22414.4 5.4 40.0
RE DISCCART 22656.1 24750.4 9.0 1.5
RE DISCCART 22656.1 24750.4 9.0 10.0
RE DISCCART 22656.1 24750.4 9.0 20.0
RE DISCCART 22656.1 24750.4 9.0 30.0
RE DISCCART 22656.1 24750.4 9.0 40.0
RE DISCCART 23791.9 23263.2 2.6 1.5
RE DISCCART 23791.9 23263.2 2.6 10.0
RE DISCCART 23791.9 23263.2 2.6 20.0
RE DISCCART 23791.9 23263.2 2.6 30.0
RE DISCCART 23791.9 23263.2 2.6 40.0
RE FINISHED

ME STARTING
ME INPUTFIL CCH99.met (4i2,2(1x,f8,4),1x,f5,1,1x,i1,2(1x,f6,1))
ME ANEMHGHT 98.5 METERS
ME SURFDATA 99999 1999
ME UAIRDATA 99999 1999
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU MAXTABLE ALLAVE 50
OU PLOTFILE 1 ALL first d_di1.out
OU PLOTFILE ANNUAL ALL d_di_a.out
OU FINISHED

*** SETUP Finishes Successfully ***

*** ISCST3 - VERSION 00101 *** ** Cheoy Lee Shipyard Excavation *** 01/16/02
*** DIOXIN Assessment (Hourly) *** 15:13:07
**MODELOPTs: PAGE 1
CONC RURAL ELEV FLGPOL GRDRIS

*** MODEL SETUP OPTIONS SUMMARY ***

****Intermediate Terrain Processing is Selected**
****Model Is Setup For Calculation of Average CONCentration Values.**
 -- SCAVENGING/DEPOSITION LOGIC --
****Model Uses NO DRY DEPLETION. DDPLETE = F**
****Model Uses NO WET DEPLETION. WDPLETE = F**
****NO WET SCAVENGING Data Provided.**
****NO GAS DRY DEPOSITION Data Provided.**
****Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations**
****Model Uses RURAL Dispersion.**
****Model Uses User-Specified Options:**
 1. Gradual Plume Rise.
 2. Stack-tip Downwash.
 3. Buoyancy-induced Dispersion.
 4. Calms Processing Routine.
 5. Not Use Missing Data Processing Routine.
 6. Default Wind Profile Exponents.
 7. Default Vertical Potential Temperature Gradients.
****Model Accepts Receptors on ELEV Terrain.**
****Model Accepts FLAGPOLE Receptor Heights.**
****Model Calculates 1 Short Term Average(s) of: 1-HR**
and Calculates ANNUAL Averages
****This Run Includes: 1 Source(s); 1 Source Group(s); and 20 Receptor(s)**
****The Model Assumes A Pollutant Type of: OTHER**
****Model Set To Continue RUNning After the Setup Testing.**
****Output Options Selected:**
 Model Outputs Tables of ANNUAL Averages by Receptor
 Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
 Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
 Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
****NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours**
m for Missing Hours
b for Both Calm and Missing Hours
****Misc. Inputs: Anem. Hgt. (m) = 98.50 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0**
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+13
Output Units = PICOGRAMS/M3**
****Approximate Storage Requirements of Model = 1.2 MB of RAM.**
****Input Runstream File: d-dioxin.inp**
****Output Print File: d-dioxin.lst**
****Detailed Error/Message File: ERRORS.LST**
***** ISCST3 - VERSION 00101 *** ** Cheoy Lee Shipyard Excavation *** 01/16/02**
***** DIOXIN Assessment (Hourly) *** 15:13:07**
****MODELOPTs: PAGE 2**
CONC RURAL ELEV FLGPOL GRDRIS

*** POINT SOURCE DATA ***

| NUMBER | EMISSION RATE | BASE | STACK | STACK | STACK | STACK | BUILDING | EMISSION RATE |
|---|---------------|--------------|------------|------------|----------------|----------------|---------------|----------------|
| SOURCE ID | PART. CATS. | (USER UNITS) | X (METERS) | Y (METERS) | ELEV. (METERS) | HEIGHT (DEG.K) | TEMP. (M/SEC) | SCALAR VARY BY |
| S2 | 0 | 0.10000E-09 | 22473.1 | 22540.5 | 5.7 | 8.00 | 373.00 | 8.00 0.40 NO |
| *** ISCST3 - VERSION 00101 *** ** Cheoy Lee Shipyard Excavation *** 01/16/02 *** DIOXIN Assessment (Hourly) *** 15:13:07 **MODELOPTs: PAGE 3 CONC RURAL ELEV FLGPOL GRDRIS | | | | | | | | |

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID SOURCE IDs

ALL S2 ,

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

| | | | | | | | | | | | | | | |
|----|----|----|----|-------|------|-------|---|--------|--------|--------|-----|--------|---|------|
| 99 | 01 | 01 | 01 | 281.0 | 7.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 02 | 278.0 | 8.90 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 03 | 274.0 | 7.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 04 | 233.0 | 7.40 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 05 | 253.0 | 7.20 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 06 | 252.0 | 7.60 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 07 | 255.0 | 6.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 08 | 283.0 | 5.70 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 09 | 267.0 | 4.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 10 | 251.0 | 4.30 | 291.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 11 | 294.0 | 3.70 | 293.1 | 2 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 12 | 306.0 | 5.60 | 294.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 13 | 313.0 | 9.00 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 14 | 299.0 | 6.40 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 15 | 312.0 | 7.90 | 294.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 16 | 314.0 | 7.60 | 293.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 17 | 311.0 | 6.10 | 291.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 18 | 297.0 | 4.60 | 290.1 | 5 | 1271.9 | 1252.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 19 | 304.0 | 3.80 | 289.1 | 5 | 1262.4 | 1155.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 20 | 277.0 | 3.00 | 289.1 | 5 | 1253.0 | 1057.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 21 | 280.0 | 3.50 | 289.1 | 5 | 1243.5 | 960.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 22 | 282.0 | 5.60 | 289.1 | 4 | 1234.1 | 1234.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 23 | 280.0 | 5.20 | 289.1 | 4 | 1224.6 | 1224.6 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 24 | 260.0 | 4.00 | 289.1 | 5 | 1215.1 | 669.7 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
 FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.
 *** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** DIOXIN Assessment (Hourly) *** 15:13:07
 **MODELOPTs: RURAL ELEV FLGPOL GRDRIS PAGE 7
 CONC

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN PICOGRAMS/M**3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|-------------|-------------|---------|-------------|-------------|---------|
| 22480.30 | 22330.30 | 0.00169 | 22480.30 | 22330.30 | 0.00172 |
| 22480.30 | 22330.30 | 0.00092 | 22480.30 | 22330.30 | 0.00020 |
| 22480.30 | 22330.30 | 0.00003 | 22293.00 | 22414.40 | 0.00040 |
| 22293.00 | 22414.40 | 0.00052 | 22293.00 | 22414.40 | 0.00065 |
| 22293.00 | 22414.40 | 0.00069 | 22293.00 | 22414.40 | 0.00036 |
| 22656.10 | 24750.40 | 0.00002 | 22656.10 | 24750.40 | 0.00002 |
| 22656.10 | 24750.40 | 0.00002 | 22656.10 | 24750.40 | 0.00002 |
| 22656.10 | 24750.40 | 0.00002 | 23791.90 | 23263.20 | 0.00002 |
| 23791.90 | 23263.20 | 0.00002 | 23791.90 | -23263.20 | 0.00002 |
| 23791.90 | 23263.20 | 0.00002 | 23791.90 | 23263.20 | 0.00002 |

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** DIOXIN Assessment (Hourly) *** 15:13:07
 **MODELOPTs: RURAL ELEV FLGPOL GRDRIS PAGE 8
 CONC

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN PICOGRAMS/M**3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|--------------------|-------------|-------------|--------------------|
| 22480.30 | 22330.30 | 0.05750 (99011902) | 22480.30 | 22330.30 | 0.06341 (99072401) |
| 22480.30 | 22330.30 | 0.03738 (99122107) | 22480.30 | 22330.30 | 0.01170 (99122107) |
| 22480.30 | 22330.30 | 0.00633 (99111813) | 22293.00 | 22414.40 | 0.02474 (99060407) |
| 22293.00 | 22414.40 | 0.03847 (99030701) | 22293.00 | 22414.40 | 0.09054 (99091006) |
| 22293.00 | 22414.40 | 0.20362 (99091006) | 22293.00 | 22414.40 | 0.08841 (99051822) |
| 22656.10 | 24750.40 | 0.00661 (99051820) | 22656.10 | 24750.40 | 0.00671 (99051820) |
| 22656.10 | 24750.40 | 0.00678 (99051820) | 22656.10 | 24750.40 | 0.00635 (99051820) |
| 22656.10 | 24750.40 | 0.00523 (99051820) | 23791.90 | 23263.20 | 0.00789 (99060201) |
| 23791.90 | 23263.20 | 0.00974 (99060201) | 23791.90 | 23263.20 | 0.01386 (99060201) |
| 23791.90 | 23263.20 | 0.01662 (99060201) | 23791.90 | 23263.20 | 0.01551 (99022421) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation 01/16/02
 *** DIOXIN Assessment (Hourly) *** 15:13:07

**MODELOPTs: PAGE 9
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN PICOGRAMS/M**3 **

| X-COORD (M) | Y-COORD (M) | CONC | (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC | (YYMMDDHH) |
|-------------|-------------|---------|------------|-------------|-------------|---------|------------|
| 22480.30 | 22330.30 | 0.05747 | (99012802) | 22480.30 | 22330.30 | 0.06341 | (99090905) |
| 22480.30 | 22330.30 | 0.03709 | (99011216) | 22480.30 | 22330.30 | 0.01134 | (99011213) |
| 22480.30 | 22330.30 | 0.00583 | (99092710) | 22293.00 | 22414.40 | 0.02396 | (99110904) |
| 22293.00 | 22414.40 | 0.03705 | (99060407) | 22293.00 | 22414.40 | 0.08372 | (99012219) |
| 22293.00 | 22414.40 | 0.19951 | (99012219) | 22293.00 | 22414.40 | 0.08480 | (99012219) |
| 22656.10 | 24750.40 | 0.00569 | (99070702) | 22656.10 | 24750.40 | 0.00563 | (99070702) |
| 22656.10 | 24750.40 | 0.00541 | (99070702) | 22656.10 | 24750.40 | 0.00503 | (99070702) |
| 22656.10 | 24750.40 | 0.00449 | (99070702) | 23791.90 | 23263.20 | 0.00768 | (99022421) |
| 23791.90 | 23263.20 | 0.00953 | (99022421) | 23791.90 | 23263.20 | 0.01368 | (99022421) |
| 23791.90 | 23263.20 | 0.01655 | (99022421) | 23791.90 | 23263.20 | 0.01543 | (99060201) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation 01/16/02
 *** DIOXIN Assessment (Hourly) *** 15:13:07

**MODELOPTs: PAGE 10
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2

** CONC OF OTHER IN PICOGRAMS/M**3 **

| RANK | CONC (YYMMDDHH) | AT | RECEPTOR (XR,YR) OF TYPE | RANK | CONC (YYMMDDHH) | AT | RECEPTOR (XR,YR) OF TYPE |
|------|-----------------|------------|-----------------------------|------|-----------------|------------|-----------------------------|
| 1. | 0.20362 | (99091006) | AT (22293.00, 22414.40) DC | 26. | 0.07311 | (99051404) | AT (22293.00, 22414.40) DC |
| 2. | 0.19951 | (99012219) | AT (22293.00, 22414.40) DC | 27. | 0.07305 | (99101602) | AT (22293.00, 22414.40) DC |
| 3. | 0.18761 | (99022624) | AT (22293.00, 22414.40) DC | 28. | 0.07270 | (99120923) | AT (22293.00, 22414.40) DC |
| 4. | 0.18663 | (99021101) | AT (22293.00, 22414.40) DC | 29. | 0.07188 | (99021804) | AT (22293.00, 22414.40) DC |
| 5. | 0.15342 | (99030705) | AT (22293.00, 22414.40) DC | 30. | 0.07131 | (99022223) | AT (22293.00, 22414.40) DC |
| 6. | 0.15305 | (99012801) | AT (22293.00, 22414.40) DC | 31. | 0.07077 | (99040804) | AT (22293.00, 22414.40) DC |
| 7. | 0.15267 | (99022504) | AT (22293.00, 22414.40) DC | 32. | 0.06999 | (99031323) | AT (22293.00, 22414.40) DC |
| 8. | 0.11058 | (99070306) | AT (22293.00, 22414.40) DC | 33. | 0.06998 | (99012002) | AT (22293.00, 22414.40) DC |
| 9. | 0.11013 | (99081906) | AT (22293.00, 22414.40) DC | 34. | 0.06990 | (99122607) | AT (22293.00, 22414.40) DC |
| 10. | 0.10963 | (99030801) | AT (22293.00, 22414.40) DC | 35. | 0.06988 | (99040921) | AT (22293.00, 22414.40) DC |
| 11. | 0.09596 | (99051822) | AT (22293.00, 22414.40) DC | 36. | 0.06951 | (99122601) | AT (22293.00, 22414.40) DC |
| 12. | 0.09062 | (99040921) | AT (22293.00, 22414.40) DC | 37. | 0.06856 | (99020722) | AT (22293.00, 22414.40) DC |
| 13. | 0.09054 | (99091006) | AT (22293.00, 22414.40) DC | 38. | 0.06827 | (99112504) | AT (22293.00, 22414.40) DC |
| 14. | 0.08863 | (99060505) | AT (22293.00, 22414.40) DC | 39. | 0.06735 | (99051404) | AT (22293.00, 22414.40) DC |
| 15. | 0.08841 | (99051822) | AT (22293.00, 22414.40) DC | 40. | 0.06646 | (99060505) | AT (22293.00, 22414.40) DC |
| 16. | 0.08480 | (99012219) | AT (22293.00, 22414.40) DC | 41. | 0.06537 | (99030705) | AT (22293.00, 22414.40) DC |
| 17. | 0.08372 | (99012219) | AT (22293.00, 22414.40) DC | 42. | 0.06509 | (99121403) | AT (22293.00, 22414.40) DC |
| 18. | 0.08267 | (99021021) | AT (22293.00, 22414.40) DC | 43. | 0.06488 | (99022504) | AT (22293.00, 22414.40) DC |
| 19. | 0.07995 | (99022624) | AT (22293.00, 22414.40) DC | 44. | 0.06470 | (99012801) | AT (22293.00, 22414.40) DC |
| 20. | 0.07932 | (99021101) | AT (22293.00, 22414.40) DC | 45. | 0.06457 | (99010508) | AT (22293.00, 22414.40) DC |
| 21. | 0.07831 | (99021101) | AT (22293.00, 22414.40) DC | 46. | 0.06410 | (99012801) | AT (22293.00, 22414.40) DC |
| 22. | 0.07765 | (99091006) | AT (22293.00, 22414.40) DC | 47. | 0.06405 | (99022504) | AT (22293.00, 22414.40) DC |
| 23. | 0.07744 | (99022624) | AT (22293.00, 22414.40) DC | 48. | 0.06347 | (99021702) | AT (22293.00, 22414.40) DC |
| 24. | 0.07661 | (99090607) | AT (22293.00, 22414.40) DC | 49. | 0.06341 | (99072401) | AT (22480.30, 22330.30) DC |
| 25. | 0.07468 | (99040107) | AT (22293.00, 22414.40) DC | 50. | 0.06341 | (99090905) | AT (22480.30, 22330.30) DC |

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

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation 01/16/02
 *** DIOXIN Assessment (Hourly) *** 15:13:07

**MODELOPTs: PAGE 11
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

** CONC OF OTHER IN PICOGRAMS/M**3 **

| GROUP ID | AVERAGE CONC | NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG) OF TYPE | GRID-ID |
|----------|------------------------------|---|---------|
| ALL | 1ST HIGHEST VALUE IS 0.00172 | AT (22480.30, 22330.30, 46.00, 10.00) | DC NA |
| | 2ND HIGHEST VALUE IS 0.00169 | AT (22480.30, 22330.30, 46.00, 1.50) | DC NA |
| | 3RD HIGHEST VALUE IS 0.00092 | AT (22480.30, 22330.30, 46.00, 20.00) | DC NA |
| | 4TH HIGHEST VALUE IS 0.00069 | AT (22293.00, 22414.40, 5.40, 30.00) | DC NA |
| | 5TH HIGHEST VALUE IS 0.00065 | AT (22293.00, 22414.40, 5.40, 20.00) | DC NA |

6TH HIGHEST VALUE IS 0.00052 AT (22293.00, 22414.40, 5.40, 10.00) DC NA
7TH HIGHEST VALUE IS 0.00040 AT (22293.00, 22414.40, 5.40, 1.50) DC NA
8TH HIGHEST VALUE IS 0.00036 AT (22293.00, 22414.40, 5.40, 40.00) DC NA
9TH HIGHEST VALUE IS 0.00020 AT (22480.30, 22330.30, 46.00, 30.00) DC NA
10TH HIGHEST VALUE IS 0.00003 AT (22480.30, 22330.30, 46.00, 40.00) DC NA

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** DIOXIN Assessment (Hourly) *** 15:13:07

**MODELOPTs: PAGE 12
CONC RURAL ELEV FLGPOL GRDRIS

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

** CONC OF OTHER IN PICOGRAMS/M**3 **

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

| | | | |
|----------------------------|--|-------|--|
| ALL HIGH 1ST HIGH VALUE IS | 0.20362 ON 99091006: AT (22293.00, 22414.40, 5.40, 30.00) | DC NA | |
| HIGH 2ND HIGH VALUE IS | 0.19951 ON 99012219: AT (22293.00, 22414.40, 5.40, 30.00) | DC NA | |

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** DIOXIN Assessment (Hourly) *** 15:13:07

**MODELOPTs: PAGE 13
CONC RURAL ELEV FLGPOL GRDRIS

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

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

A Total of 0 Fatal Error Message(s)
A Total of 10 Warning Message(s)
A Total of 817 Informational Message(s)
A Total of 817 Calm Hours Identified

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

***** WARNING MESSAGES *****
MX W420 797 METQA :Wind Speed Out-of-Range. KURDAT= 99020305
MX W420 1658 METQA :Wind Speed Out-of-Range. KURDAT= 99031102
MX W420 1659 METQA :Wind Speed Out-of-Range. KURDAT= 99031103
MX W420 6200 METQA :Wind Speed Out-of-Range. KURDAT= 99091608
MX W420 6207 METQA :Wind Speed Out-of-Range. KURDAT= 99091615
MX W420 6208 METQA :Wind Speed Out-of-Range. KURDAT= 99091616
MX W420 6209 METQA :Wind Speed Out-of-Range. KURDAT= 99091617
MX W420 6221 METQA :Wind Speed Out-of-Range. KURDAT= 99091705
MX W420 6222 METQA :Wind Speed Out-of-Range. KURDAT= 99091706
MX W420 6223 METQA :Wind Speed Out-of-Range. KURDAT= 99091707

*** ISCST3 Finishes Successfully ***

TOC

**
** PROJECT Cheoy Lee Shipyard Excavation
**
CO STARTING
CO TITLEONE Cheoy Lee Shipyard Excavation
CO TITLETWO TOC Assessment (Hourly)
CO MODELOPT GRDRIS CONC RURAL
CO AVERTIME 1 ANNUAL
CO TERRHGTS ELEV
CO POLLUTID TOC
CO RUNORNOT RUN
CO ERRORFIL ERRORS.LST

CO FLAGPOLE 0.0
CO FINISHED

SO STARTING

SO ELEVUNIT METERS

```
**** ID Srcryp Xs Ys Zs
****
SO LOCATION S1 POINT 22520.3 22559.7 5.7
SO LOCATION S3 POINT 22473.1 22540.5 5.7
**** ID Emiss Stkhgt Stktmp Stkvel Stkdia
****
SO SRCPARAM S1 0.0187 8.0 298.0 13.2 0.3
SO SRCPARAM S3 0.02 8.0 373.0 8.0 0.4
SO EMISUNIT 1.0E6 gram/sec microgram/m3
SO SRCGROUP ALL
SO FINISHED
```

RE STARTING

RE ELEVUNIT METERS

** ASR

```
** Xcoord Ycoord Zelev Zflag
**
RE DISCCART 22480.3 22330.3 46.0 1.5
RE DISCCART 22480.3 22330.3 46.0 10.0
RE DISCCART 22480.3 22330.3 46.0 20.0
RE DISCCART 22480.3 22330.3 46.0 30.0
RE DISCCART 22480.3 22330.3 46.0 40.0
RE DISCCART 22293.0 22414.4 5.4 1.5
RE DISCCART 22293.0 22414.4 5.4 10.0
RE DISCCART 22293.0 22414.4 5.4 20.0
RE DISCCART 22293.0 22414.4 5.4 30.0
RE DISCCART 22293.0 22414.4 5.4 40.0
RE DISCCART 22656.1 24750.4 9.0 1.5
RE DISCCART 22656.1 24750.4 9.0 10.0
RE DISCCART 22656.1 24750.4 9.0 20.0
RE DISCCART 22656.1 24750.4 9.0 30.0
RE DISCCART 22656.1 24750.4 9.0 40.0
RE DISCCART 23791.9 23263.2 2.6 1.5
RE DISCCART 23791.9 23263.2 2.6 10.0
RE DISCCART 23791.9 23263.2 2.6 20.0
RE DISCCART 23791.9 23263.2 2.6 30.0
RE DISCCART 23791.9 23263.2 2.6 40.0
RE FINISHED
```

ME STARTING

ME INPUTFIL CCH99.met (4i2,2(1x,f8.4),1x,f5.1,1x,il,2(1x,f6.1))

ME ANEMHGHT 98.5 METERS

ME SURFDATA 99999 1999

ME UAIRDATA 99999 1999

ME FINISHED

OU STARTING

OU RECTABLE ALLAVE FIRST SECOND

OU MAXTABLE ALLAVE 50

OU PLOTFILE 1 ALL first d_toc1.out

OU PLOTFILE ANNUAL ALL d_toc_a.out

OU FINISHED

*** SETUP Finishes Successfully ***

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02

*** TOC Assessment (Hourly)

*** 15:13:04

**MODELOPTs:

PAGE 1

CONC RURAL ELEV FLGPOL GRDRIS

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected

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

-- SCAVENGING/DEPOSITION LOGIC --

**Model Uses NO DRY DEPLETION. DDPLETE = F

**Model Uses NO WET DEPLETION. WDPLETE = F

**NO WET SCAVENGING Data Provided.

**NO GAS DRY DEPOSITION Data Provided.

**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses User-Specified Options:

1. Gradual Plume Rise.
2. Stack-tip Downwash.

3. Buoyancy-induced Dispersion.
4. Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

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

**This Run Includes: 2 Source(s); 1 Source Group(s); and 20 Receptor(s)

**The Model Assumes A Pollutant Type of: TOC

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

**Output Options Selected:

- Model Outputs Tables of ANNUAL Averages by Receptor
- Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
- Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
- Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 98.50 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAM/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MIRCOGRAM/M3

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

**Input Runstream File: D-TOC.INP

**Output Print File: D-TOC.LST

**Detailed Error/Message File: ERRORS.LST

*** ISCST3 - VERSION 00101 *** ** Cheoy Lee Shipyard Excavation *** 01/16/02
*** TOC Assessment (Hourly) *** 15:13:04

**MODELOPTs: PAGE 2

CONC RURAL ELEV FLGPOL GRDRIS

*** POINT SOURCE DATA ***

| NUMBER | EMISSION RATE | BASE | STACK | STACK | STACK | STACK | BUILDING | EMISSION RATE | | | |
|--------|-------------------|----------|----------|----------|----------|---------|-----------|---------------|--------|--------|------|
| SOURCE | PART.(USER UNITS) | X | Y | ELEV. | HEIGHT | TEMP. | EXIT VEL. | DIAMETER | EXISTS | SCALAR | VARY |
| ID | CATS. | (METERS) | (METERS) | (METERS) | (METERS) | (DEG.K) | (M/SEC) | (METERS) | BY | | |

| | | | | | | | | | | | |
|--------------------------------|---|-------------|---------|---------|-----|------|--------|-------|------|----|--------------|
| S1 | 0 | 0.18700E-01 | 22520.3 | 22559.7 | 5.7 | 8.00 | 298.00 | 13.20 | 0.30 | NO | |
| S3 | 0 | 0.20000E-01 | 22473.1 | 22540.5 | 5.7 | 8.00 | 373.00 | 8.00 | 0.40 | NO | |
| *** ISCST3 - VERSION 00101 *** | | | | | | | | | | | *** 01/16/02 |
| | | | | | | | | | | | *** 15:13:04 |

**MODELOPTs: PAGE 3

CONC RURAL ELEV FLGPOL GRDRIS

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID SOURCE IDs

ALL S1 , S3 ,
*** ISCST3 - VERSION 00101 *** ** Cheoy Lee Shipyard Excavation *** 01/16/02
*** TOC Assessment (Hourly) *** 15:13:04

**MODELOPTs: PAGE 4

CONC RURAL ELEV FLGPOL GRDRIS

*** DISCRETE CARTESIAN RECEPTORS ***

(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

| | |
|----------------------------------|----------------------------------|
| (22480.3, 22330.3, 46.0, 1.5); | (22480.3, 22330.3, 46.0, 10.0); |
| (22480.3, 22330.3, 46.0, 20.0); | (22480.3, 22330.3, 46.0, 30.0); |
| (22480.3, 22330.3, 46.0, 40.0); | (22293.0, 22414.4, 5.4, 1.5); |
| (22293.0, 22414.4, 5.4, 10.0); | (22293.0, 22414.4, 5.4, 20.0); |
| (22293.0, 22414.4, 5.4, 30.0); | (22293.0, 22414.4, 5.4, 40.0); |
| (22656.1, 24750.4, 9.0, 1.5); | (22656.1, 24750.4, 9.0, 10.0); |
| (22656.1, 24750.4, 9.0, 20.0); | (22656.1, 24750.4, 9.0, 30.0); |

| | | | | | | | | | | | |
|-------------|-------|------|-------|---|--------|--------|--------|-----|--------|---|------|
| 99 01 01 13 | 313.0 | 9.00 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 14 | 299.0 | 6.40 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 15 | 312.0 | 7.90 | 294.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 16 | 314.0 | 7.60 | 293.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 17 | 311.0 | 6.10 | 291.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 18 | 297.0 | 4.60 | 290.1 | 5 | 1271.9 | 1252.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 19 | 304.0 | 3.80 | 289.1 | 5 | 1262.4 | 1155.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 20 | 277.0 | 3.00 | 289.1 | 5 | 1253.0 | 1057.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 21 | 280.0 | 3.50 | 289.1 | 5 | 1243.5 | 960.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 22 | 282.0 | 5.60 | 289.1 | 4 | 1234.1 | 1234.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 23 | 280.0 | 5.20 | 289.1 | 4 | 1224.6 | 1224.6 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 24 | 260.0 | 4.00 | 289.1 | 5 | 1215.1 | 669.7 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.
*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** TOC Assessment (Hourly) *** 15:13:04
**MODELOPTs: PAGE 7
CONC RURAL ELEV FLGPOL GRDRIS

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): S1 , S3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TOC IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|-------------|-------------|---------|-------------|-------------|---------|
| 22480.30 | 22330.30 | 0.74846 | 22480.30 | 22330.30 | 0.77445 |
| 22480.30 | 22330.30 | 0.39159 | 22480.30 | 22330.30 | 0.08291 |
| 22480.30 | 22330.30 | 0.01208 | 22293.00 | 22414.40 | 0.16549 |
| 22293.00 | 22414.40 | 0.23392 | 22293.00 | 22414.40 | 0.28152 |
| 22293.00 | 22414.40 | 0.18893 | 22293.00 | 22414.40 | 0.08135 |
| 22656.10 | 24750.40 | 0.00794 | 22656.10 | 24750.40 | 0.00778 |
| 22656.10 | 24750.40 | 0.00732 | 22656.10 | 24750.40 | 0.00660 |
| 22656.10 | 24750.40 | 0.00572 | 23791.90 | 23263.20 | 0.01095 |
| 23791.90 | 23263.20 | 0.01096 | 23791.90 | 23263.20 | 0.01075 |
| 23791.90 | 23263.20 | 0.00986 | 23791.90 | 23263.20 | 0.00825 |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** TOC Assessment (Hourly) *** 15:13:04
**MODELOPTs: PAGE 8
CONC RURAL ELEV FLGPOL GRDRIS

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): S1 , S3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TOC IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|---------------------|-------------|-------------|---------------------|
| 22480.30 | 22330.30 | 19.15298 (99122009) | 22480.30 | 22330.30 | 27.39435 (99072401) |
| 22480.30 | 22330.30 | 12.53315 (99122107) | 22480.30 | 22330.30 | 4.07248 (99092710) |
| 22480.30 | 22330.30 | 2.28357 (99092710) | 22293.00 | 22414.40 | 10.01794 (99060407) |
| 22293.00 | 22414.40 | 30.61875 (99070306) | 22293.00 | 22414.40 | 57.72849 (99022504) |
| 22293.00 | 22414.40 | 43.69749 (99012219) | 22293.00 | 22414.40 | 18.22924 (99051822) |
| 22656.10 | 24750.40 | 4.44641 (99051820) | 22656.10 | 24750.40 | 4.26078 (99051820) |
| 22656.10 | 24750.40 | 3.71786 (99051820) | 22656.10 | 24750.40 | 2.91746 (99051820) |
| 22656.10 | 24750.40 | 2.02718 (99051820) | 23791.90 | 23263.20 | 5.68858 (99060201) |
| 23791.90 | 23263.20 | 6.06722 (99060201) | 23791.90 | 23263.20 | 6.60627 (99060201) |
| 23791.90 | 23263.20 | 6.41218 (99022421) | 23791.90 | 23263.20 | 5.05120 (99022421) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** TOC Assessment (Hourly) *** 15:13:04
**MODELOPTs: PAGE 9
CONC RURAL ELEV FLGPOL GRDRIS

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): S1 , S3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TOC IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|---------------------|-------------|-------------|---------------------|
| 22480.30 | 22330.30 | 19.15298 (99122010) | 22480.30 | 22330.30 | 27.39434 (99090905) |
| 22480.30 | 22330.30 | 12.47532 (99011216) | 22480.30 | 22330.30 | 3.53972 (99122107) |
| 22480.30 | 22330.30 | 1.62512 (99120214) | 22293.00 | 22414.40 | 9.78480 (99012523) |
| 22293.00 | 22414.40 | 22.87785 (99030705) | 22293.00 | 22414.40 | 57.22661 (99012801) |
| 22293.00 | 22414.40 | 42.87262 (99021101) | 22293.00 | 22414.40 | 16.99229 (99012219) |
| 22656.10 | 24750.40 | 2.71496 (99010519) | 22656.10 | 24750.40 | 2.62540 (99010519) |
| 22656.10 | 24750.40 | 2.36230 (99031823) | 22656.10 | 24750.40 | 2.08956 (99031823) |

22656.10 24750.40 1.75385 (99031823) 23791.90 23263.20 5.12663 (99022421)
 23791.90 23263.20 5.63381 (99022421) 23791.90 23263.20 6.48444 (99022421)
 23791.90 23263.20 6.24599 (99060201) 23791.90 23263.20 4.77996 (99060201)
 *** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** TOC Assessment (Hourly) *** 15:13:04

**MODELOPTs: PAGE 10
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S1 , S3 ,

** CONC OF TOC IN MIRCOGRAM/M3 **

RANK CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE RANK CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE

| | | | |
|-----|---|-----|---|
| 1. | 57.72849 (99022504) AT (22293.00, 22414.40) DC | 26. | 26.36126 (99021805) AT (22480.30, 22330.30) DC |
| 2. | 57.22661 (99012801) AT (22293.00, 22414.40) DC | 27. | 26.36126 (99022408) AT (22480.30, 22330.30) DC |
| 3. | 56.18148 (99030705) AT (22293.00, 22414.40) DC | 28. | 26.36126 (99021806) AT (22480.30, 22330.30) DC |
| 4. | 53.17105 (99021101) AT (22293.00, 22414.40) DC | 29. | 26.18970 (99022407) AT (22480.30, 22330.30) DC |
| 5. | 46.24982 (99070306) AT (22293.00, 22414.40) DC | 30. | 25.91269 (99051822) AT (22293.00, 22414.40) DC |
| 6. | 43.69749 (99012219) AT (22293.00, 22414.40) DC | 31. | 25.55102 (99112503) AT (22293.00, 22414.40) DC |
| 7. | 42.87262 (99021101) AT (22293.00, 22414.40) DC | 32. | 24.13832 (99013120) AT (22293.00, 22414.40) DC |
| 8. | 42.43932 (99012219) AT (22293.00, 22414.40) DC | 33. | 23.90156 (99122607) AT (22293.00, 22414.40) DC |
| 9. | 41.73440 (99091006) AT (22293.00, 22414.40) DC | 34. | 23.89822 (99070306) AT (22293.00, 22414.40) DC |
| 10. | 38.84990 (99022624) AT (22293.00, 22414.40) DC | 35. | 23.59175 (99121403) AT (22293.00, 22414.40) DC |
| 11. | 38.83717 (99091006) AT (22293.00, 22414.40) DC | 36. | 22.94664 (99120923) AT (22293.00, 22414.40) DC |
| 12. | 37.18238 (99022504) AT (22293.00, 22414.40) DC | 37. | 22.87785 (99030705) AT (22293.00, 22414.40) DC |
| 13. | 36.02795 (99012801) AT (22293.00, 22414.40) DC | 38. | 22.51323 (99120923) AT (22293.00, 22414.40) DC |
| 14. | 34.90892 (99030705) AT (22293.00, 22414.40) DC | 39. | 22.48760 (99051207) AT (22293.00, 22414.40) DC |
| 15. | 30.61875 (99070306) AT (22293.00, 22414.40) DC | 40. | 22.28209 (99040921) AT (22293.00, 22414.40) DC |
| 16. | 29.60395 (99022624) AT (22293.00, 22414.40) DC | 41. | 22.23096 (99090202) AT (22293.00, 22414.40) DC |
| 17. | 27.53853 (99051822) AT (22293.00, 22414.40) DC | 42. | 22.11527 (99081906) AT (22293.00, 22414.40) DC |
| 18. | 27.39435 (99072401) AT (22480.30, 22330.30) DC | 43. | 22.08369 (99030801) AT (22293.00, 22414.40) DC |
| 19. | 27.39434 (99090905) AT (22480.30, 22330.30) DC | 44. | 21.87001 (99051404) AT (22293.00, 22414.40) DC |
| 20. | 27.39434 (99091107) AT (22480.30, 22330.30) DC | 45. | 21.68416 (99121403) AT (22293.00, 22414.40) DC |
| 21. | 27.37471 (99091005) AT (22480.30, 22330.30) DC | 46. | 21.58566 (99040921) AT (22293.00, 22414.40) DC |
| 22. | 27.25924 (99051404) AT (22293.00, 22414.40) DC | 47. | 21.54327 (99021021) AT (22293.00, 22414.40) DC |
| 23. | 26.98311 (99051306) AT (22480.30, 22330.30) DC | 48. | 21.21524 (99122607) AT (22293.00, 22414.40) DC |
| 24. | 26.87962 (99121021) AT (22293.00, 22414.40) DC | 49. | 21.08564 (99013120) AT (22293.00, 22414.40) DC |
| 25. | 26.75368 (99112505) AT (22480.30, 22330.30) DC | 50. | 20.72576 (99122601) AT (22293.00, 22414.40) DC |

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

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** TOC Assessment (Hourly) *** 15:13:04

**MODELOPTs: PAGE 11
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

** CONC OF TOC IN MIRCOGRAM/M3 **

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

| | | | |
|-----|-----------------------|---|----|
| ALL | 1ST HIGHEST VALUE IS | 0.77445 AT (22480.30, 22330.30, 46.00, 10.00) DC | NA |
| | 2ND HIGHEST VALUE IS | 0.74846 AT (22480.30, 22330.30, 46.00, 1.50) DC | NA |
| | 3RD HIGHEST VALUE IS | 0.39159 AT (22480.30, 22330.30, 46.00, 20.00) DC | NA |
| | 4TH HIGHEST VALUE IS | 0.28152 AT (22293.00, 22414.40, 5.40, 20.00) DC | NA |
| | 5TH HIGHEST VALUE IS | 0.23392 AT (22293.00, 22414.40, 5.40, 10.00) DC | NA |
| | 6TH HIGHEST VALUE IS | 0.18893 AT (22293.00, 22414.40, 5.40, 30.00) DC | NA |
| | 7TH HIGHEST VALUE IS | 0.16549 AT (22293.00, 22414.40, 5.40, 1.50) DC | NA |
| | 8TH HIGHEST VALUE IS | 0.08291 AT (22480.30, 22330.30, 46.00, 30.00) DC | NA |
| | 9TH HIGHEST VALUE IS | 0.08135 AT (22293.00, 22414.40, 5.40, 40.00) DC | NA |
| | 10TH HIGHEST VALUE IS | 0.01208 AT (22480.30, 22330.30, 46.00, 40.00) DC | NA |

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

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** TOC Assessment (Hourly) *** 15:13:04

**MODELOPTs: PAGE 12
 CONC RURAL ELEV FLGPOL GRDRIS

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

** CONC OF TOC IN MIRCOGRAM/M3 **

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

ALL HIGH 1ST HIGH VALUE IS 57.72849 ON 99022504: AT (22293.00, 22414.40, 5.40, 20.00) DC NA
HIGH 2ND HIGH VALUE IS 57.22661 ON 99012801: AT (22293.00, 22414.40, 5.40, 20.00) DC NA

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

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** TOC Assessment (Hourly) *** 15:13:04
**MODELOPTs: PAGE 13

CONC RURAL ELEV FLGPOL GRDRIS

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

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

A Total of 0 Fatal Error Message(s)
A Total of 10 Warning Message(s)
A Total of 817 Informational Message(s)
A Total of 817 Calm Hours Identified

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

***** WARNING MESSAGES *****
MX W420 797 METQA :Wind Speed Out-of-Range. KURDAT= 99020305
MX W420 1658 METQA :Wind Speed Out-of-Range. KURDAT= 99031102
MX W420 1659 METQA :Wind Speed Out-of-Range. KURDAT= 99031103
MX W420 6200 METQA :Wind Speed Out-of-Range. KURDAT= 99091608
MX W420 6207 METQA :Wind Speed Out-of-Range. KURDAT= 99091615
MX W420 6208 METQA :Wind Speed Out-of-Range. KURDAT= 99091616
MX W420 6209 METQA :Wind Speed Out-of-Range. KURDAT= 99091617
MX W420 6221 METQA :Wind Speed Out-of-Range. KURDAT= 99091705
MX W420 6222 METQA :Wind Speed Out-of-Range. KURDAT= 99091706
MX W420 6223 METQA :Wind Speed Out-of-Range. KURDAT= 99091707

*** ISCST3 Finishes Successfully ***

Dibenz(a,h)anthracene

**
** PROJECT Cheoy Lee Shipyard Excavation
**
CO STARTING
CO TITLEONE Cheoy Lee Shipyard Excavation
CO TITLETWO Toxic(organic matter) Assessment (Hourly)
CO MODELOPT GRDRIS CONC RURAL
CO AVERTIME 1 ANNUAL
CO TERRHGTS ELEV
CO POLLUTID OTHER
CO RUNORNOT RUN
CO ERRORFIL ERRORS.LST
CO FLAGPOLE 0.0
CO FINISHED

SO STARTING
SO ELEVUNIT METERS
**** ID Sretyp Xs Ys Zs

SO LOCATION S12 POINT 22473.1 22540.5 5.7
**** ID Emiss Stkght Stktrmp Stkvel Stkdia

SO SRCPARAM S12 0.00365 8.0 373.0 8.0 0.4
SO EMISUNIT 1.0E6 gram/sec microgram/m3
SO SRCGROUP DIB S12
SO FINISHED

RE STARTING
RE ELEVUNIT METERS
** ASR
** Xcoord Ycoord Zelev Zflag

```

**
RE DISCCART 22480.3 22330.3 46.0 1.5
RE DISCCART 22480.3 22330.3 46.0 10.0
RE DISCCART 22480.3 22330.3 46.0 20.0
RE DISCCART 22480.3 22330.3 46.0 30.0
RE DISCCART 22480.3 22330.3 46.0 40.0
RE DISCCART 22293.0 22414.4 5.4 1.5
RE DISCCART 22293.0 22414.4 5.4 10.0
RE DISCCART 22293.0 22414.4 5.4 20.0
RE DISCCART 22293.0 22414.4 5.4 30.0
RE DISCCART 22293.0 22414.4 5.4 40.0
RE DISCCART 22656.1 24750.4 9.0 1.5
RE DISCCART 22656.1 24750.4 9.0 10.0
RE DISCCART 22656.1 24750.4 9.0 20.0
RE DISCCART 22656.1 24750.4 9.0 30.0
RE DISCCART 22656.1 24750.4 9.0 40.0
RE DISCCART 23791.9 23263.2 2.6 1.5
RE DISCCART 23791.9 23263.2 2.6 10.0
RE DISCCART 23791.9 23263.2 2.6 20.0
RE DISCCART 23791.9 23263.2 2.6 30.0
RE DISCCART 23791.9 23263.2 2.6 40.0
RE FINISHED

```

```

ME STARTING
ME INPUTFIL CCH99.met (4i2,2(1x,f8.4),1x,f5.1,1x,i1,2(1x,f6.1))
ME ANEMHGT 98.5 METERS
ME SURFDATA 99999 1999
ME UAIRDATA 99999 1999
ME FINISHED

```

```

OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU MAXTABLE ALLAVE 50
OU PLOTFILE 1 DIB first d_DIB1.out
OU PLOTFILE ANNUAL DIB d_DIB_a.out
OU FINISHED

```

```

*****
*** SETUP Finishes Successfully ***
*****

```

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*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** Toxic(organic matter) Assessment (Hourly) *** 15:13:15
**MODELOPTs: PAGE 1
CONC RURAL ELEV FLGPOL GRDRIS

```

*** MODEL SETUP OPTIONS SUMMARY ***

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-----
**Intermediate Terrain Processing is Selected

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

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

**Model Uses RURAL Dispersion.

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

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

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

**This Run Includes: 1 Source(s); 1 Source Group(s); and 20 Receptor(s)

**The Model Assumes A Pollutant Type of: OTHER

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

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor

```


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

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

| STABILITY CATEGORY | WIND SPEED CATEGORY | | | | | |
|--------------------|---------------------|------------|------------|------------|------------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| A | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 |
| B | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 |
| C | .10000E+00 | .10000E+00 | .10000E+00 | .10000E+00 | .10000E+00 | .10000E+00 |
| D | .15000E+00 | .15000E+00 | .15000E+00 | .15000E+00 | .15000E+00 | .15000E+00 |
| E | .35000E+00 | .35000E+00 | .35000E+00 | .35000E+00 | .35000E+00 | .35000E+00 |
| F | .55000E+00 | .55000E+00 | .55000E+00 | .55000E+00 | .55000E+00 | .55000E+00 |

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

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

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:15
 **MODELOPTs: PAGE 6
 CONC RURAL ELEV FLGPOL GRDRIS

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

FILE: CCH99.met
 FORMAT: (4I2,2(1X,F8.4),1X,F5.1,1X,I1,2(1X,F6.1))
 SURFACE STATION NO.: 99999 UPPER AIR STATION NO.: 99999
 NAME: UNKNOWN NAME: UNKNOWN
 YEAR: 1999 YEAR: 1999

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

| | | | | | | | | | | | |
|-------------|-------|------|-------|---|--------|--------|--------|-----|--------|---|------|
| 99 01 01 01 | 281.0 | 7.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 02 | 278.0 | 8.90 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 03 | 274.0 | 7.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 04 | 233.0 | 7.40 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 05 | 253.0 | 7.20 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 06 | 252.0 | 7.60 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 07 | 255.0 | 6.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 08 | 283.0 | 5.70 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 09 | 267.0 | 4.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 10 | 251.0 | 4.30 | 291.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 11 | 294.0 | 3.70 | 293.1 | 2 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 12 | 306.0 | 5.60 | 294.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 13 | 313.0 | 9.00 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 14 | 299.0 | 6.40 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 15 | 312.0 | 7.90 | 294.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 16 | 314.0 | 7.60 | 293.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 17 | 311.0 | 6.10 | 291.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 18 | 297.0 | 4.60 | 290.1 | 5 | 1271.9 | 1252.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 19 | 304.0 | 3.80 | 289.1 | 5 | 1262.4 | 1155.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 20 | 277.0 | 3.00 | 289.1 | 5 | 1253.0 | 1057.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 21 | 280.0 | 3.50 | 289.1 | 5 | 1243.5 | 960.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 22 | 282.0 | 5.60 | 289.1 | 4 | 1234.1 | 1234.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 23 | 280.0 | 5.20 | 289.1 | 4 | 1224.6 | 1224.6 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 01 01 24 | 260.0 | 4.00 | 289.1 | 5 | 1215.1 | 669.7 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
 FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.
 *** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:15
 **MODELOPTs: PAGE 7
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: DIB ***
 INCLUDING SOURCE(S): S12 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|-------------|-------------|---------|-------------|-------------|---------|
| 22480.30 | 22330.30 | 0.06170 | 22480.30 | 22330.30 | 0.06266 |
| 22480.30 | 22330.30 | 0.03348 | 22480.30 | 22330.30 | 0.00713 |
| 22480.30 | 22330.30 | 0.00110 | 22293.00 | 22414.40 | 0.01457 |
| 22293.00 | 22414.40 | 0.01899 | 22293.00 | 22414.40 | 0.02375 |
| 22293.00 | 22414.40 | 0.02535 | 22293.00 | 22414.40 | 0.01301 |
| 22656.10 | 24750.40 | 0.00070 | 22656.10 | 24750.40 | 0.00069 |
| 22656.10 | 24750.40 | 0.00066 | 22656.10 | 24750.40 | 0.00062 |
| 22656.10 | 24750.40 | 0.00055 | 23791.90 | 23263.20 | 0.00085 |
| 23791.90 | 23263.20 | 0.00087 | 23791.90 | 23263.20 | 0.00091 |
| 23791.90 | 23263.20 | 0.00090 | 23791.90 | 23263.20 | 0.00082 |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:15

**MODELOPTs: PAGE 8
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: DIB ***
 INCLUDING SOURCE(S): S12 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|--------------------|-------------|-------------|--------------------|
| 22480.30 | 22330.30 | 2.09890 (99011902) | 22480.30 | 22330.30 | 2.31455 (99072401) |
| 22480.30 | 22330.30 | 1.36445 (99122107) | 22480.30 | 22330.30 | 0.42712 (99122107) |
| 22480.30 | 22330.30 | 0.23089 (99111813) | 22293.00 | 22414.40 | 0.90297 (99060407) |
| 22293.00 | 22414.40 | 1.40400 (99030701) | 22293.00 | 22414.40 | 3.30471 (99091006) |
| 22293.00 | 22414.40 | 7.43195 (99091006) | 22293.00 | 22414.40 | 3.22688 (99051822) |
| 22656.10 | 24750.40 | 0.24118 (99051820) | 22656.10 | 24750.40 | 0.24485 (99051820) |
| 22656.10 | 24750.40 | 0.24737 (99051820) | 22656.10 | 24750.40 | 0.23176 (99051820) |
| 22656.10 | 24750.40 | 0.19085 (99051820) | 23791.90 | 23263.20 | 0.28785 (99060201) |
| 23791.90 | 23263.20 | 0.35556 (99060201) | 23791.90 | 23263.20 | 0.50592 (99060201) |
| 23791.90 | 23263.20 | 0.60672 (99060201) | 23791.90 | 23263.20 | 0.56611 (99022421) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:15

**MODELOPTs: PAGE 9
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: DIB ***
 INCLUDING SOURCE(S): S12 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|--------------------|-------------|-------------|--------------------|
| 22480.30 | 22330.30 | 2.09776 (99012802) | 22480.30 | 22330.30 | 2.31455 (99090905) |
| 22480.30 | 22330.30 | 1.35390 (99011216) | 22480.30 | 22330.30 | 0.41408 (99011216) |
| 22480.30 | 22330.30 | 0.21267 (99092710) | 22293.00 | 22414.40 | 0.87462 (99110904) |
| 22293.00 | 22414.40 | 1.35250 (99060407) | 22293.00 | 22414.40 | 3.05570 (99012219) |
| 22293.00 | 22414.40 | 7.28218 (99012219) | 22293.00 | 22414.40 | 3.09525 (99012219) |
| 22656.10 | 24750.40 | 0.20786 (99070702) | 22656.10 | 24750.40 | 0.20541 (99070702) |
| 22656.10 | 24750.40 | 0.19757 (99070702) | 22656.10 | 24750.40 | 0.18376 (99070702) |
| 22656.10 | 24750.40 | 0.16383 (99070702) | 23791.90 | 23263.20 | 0.28017 (99022421) |
| 23791.90 | 23263.20 | 0.34774 (99022421) | 23791.90 | 23263.20 | 0.49915 (99022421) |
| 23791.90 | 23263.20 | 0.60405 (99022421) | 23791.90 | 23263.20 | 0.56319 (99060201) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:15

**MODELOPTs: PAGE 10
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: DIB ***
 INCLUDING SOURCE(S): S12 ,

** CONC OF OTHER IN MIRCOGRAM/M3 **

| RANK | CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE | RANK | CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE |
|------|--|------|--|
| 1. | 7.43195 (99091006) AT (22293.00, 22414.40) DC | 26. | 2.66853 (99051404) AT (22293.00, 22414.40) DC |
| 2. | 7.28218 (99012219) AT (22293.00, 22414.40) DC | 27. | 2.66637 (99101602) AT (22293.00, 22414.40) DC |
| 3. | 6.84784 (99022624) AT (22293.00, 22414.40) DC | 28. | 2.65346 (99120923) AT (22293.00, 22414.40) DC |
| 4. | 6.81184 (99021101) AT (22293.00, 22414.40) DC | 29. | 2.62358 (99021804) AT (22293.00, 22414.40) DC |
| 5. | 5.59978 (99030705) AT (22293.00, 22414.40) DC | 30. | 2.60300 (99022223) AT (22293.00, 22414.40) DC |
| 6. | 5.58628 (99012801) AT (22293.00, 22414.40) DC | 31. | 2.58308 (99040804) AT (22293.00, 22414.40) DC |
| 7. | 5.57262 (99022504) AT (22293.00, 22414.40) DC | 32. | 2.55450 (99031323) AT (22293.00, 22414.40) DC |

8. 4.03625 (99070306) AT (22293.00, 22414.40) DC 33. 2.55439 (99012002) AT (22293.00, 22414.40) DC
9. 4.01992 (99081906) AT (22293.00, 22414.40) DC 34. 2.55131 (99122607) AT (22293.00, 22414.40) DC
10. 4.00142 (99030801) AT (22293.00, 22414.40) DC 35. 2.55075 (99040921) AT (22293.00, 22414.40) DC
11. 3.50272 (99051822) AT (22293.00, 22414.40) DC 36. 2.53721 (99122601) AT (22293.00, 22414.40) DC
12. 3.30772 (99040921) AT (22293.00, 22414.40) DC 37. 2.50254 (99020722) AT (22293.00, 22414.40) DC
13. 3.30471 (99091006) AT (22293.00, 22414.40) DC 38. 2.49183 (99112504) AT (22293.00, 22414.40) DC
14. 3.23486 (99060505) AT (22293.00, 22414.40) DC 39. 2.45820 (99051404) AT (22293.00, 22414.40) DC
15. 3.22688 (99051822) AT (22293.00, 22414.40) DC 40. 2.42574 (99060505) AT (22293.00, 22414.40) DC
16. 3.09525 (99012219) AT (22293.00, 22414.40) DC 41. 2.38590 (99030705) AT (22293.00, 22414.40) DC
17. 3.05570 (99012219) AT (22293.00, 22414.40) DC 42. 2.37590 (99121403) AT (22293.00, 22414.40) DC
18. 3.01735 (99021021) AT (22293.00, 22414.40) DC 43. 2.36796 (99022504) AT (22293.00, 22414.40) DC
19. 2.91826 (99022624) AT (22293.00, 22414.40) DC 44. 2.36149 (99012801) AT (22293.00, 22414.40) DC
20. 2.89514 (99021101) AT (22293.00, 22414.40) DC 45. 2.35664 (99010508) AT (22293.00, 22414.40) DC
21. 2.85815 (99021101) AT (22293.00, 22414.40) DC 46. 2.33969 (99012801) AT (22293.00, 22414.40) DC
22. 2.83422 (99091006) AT (22293.00, 22414.40) DC 47. 2.33770 (99022504) AT (22293.00, 22414.40) DC
23. 2.82657 (99022624) AT (22293.00, 22414.40) DC 48. 2.31664 (99021702) AT (22293.00, 22414.40) DC
24. 2.79628 (99090607) AT (22293.00, 22414.40) DC 49. 2.31455 (99072401) AT (22480.30, 22330.30) DC
25. 2.72584 (99040107) AT (22293.00, 22414.40) DC 50. 2.31455 (99090905) AT (22480.30, 22330.30) DC

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** Toxic(organic matter) Assessment (Hourly) *** 15:13:15

**MODELOPTs: PAGE 11

CONC RURAL ELEV FLGPOL GRDRIS

*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

** CONC OF OTHER IN MIRCOGRAM/M3 **

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

DIB 1ST HIGHEST VALUE IS 0.06266 AT (22480.30, 22330.30, 46.00, 10.00) DC NA
2ND HIGHEST VALUE IS 0.06170 AT (22480.30, 22330.30, 46.00, 1.50) DC NA
3RD HIGHEST VALUE IS 0.03348 AT (22480.30, 22330.30, 46.00, 20.00) DC NA
4TH HIGHEST VALUE IS 0.02535 AT (22293.00, 22414.40, 5.40, 30.00) DC NA
5TH HIGHEST VALUE IS 0.02375 AT (22293.00, 22414.40, 5.40, 20.00) DC NA
6TH HIGHEST VALUE IS 0.01899 AT (22293.00, 22414.40, 5.40, 10.00) DC NA
7TH HIGHEST VALUE IS 0.01457 AT (22293.00, 22414.40, 5.40, 1.50) DC NA
8TH HIGHEST VALUE IS 0.01301 AT (22293.00, 22414.40, 5.40, 40.00) DC NA
9TH HIGHEST VALUE IS 0.00713 AT (22480.30, 22330.30, 46.00, 30.00) DC NA
10TH HIGHEST VALUE IS 0.00110 AT (22480.30, 22330.30, 46.00, 40.00) DC NA

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** Toxic(organic matter) Assessment (Hourly) *** 15:13:15

**MODELOPTs: PAGE 12

CONC RURAL ELEV FLGPOL GRDRIS

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

** CONC OF OTHER IN MIRCOGRAM/M3 **

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

DIB HIGH 1ST HIGH VALUE IS 7.43195 ON 99091006: AT (22293.00, 22414.40, 5.40, 30.00) DC NA
HIGH 2ND HIGH VALUE IS 7.28218 ON 99012219: AT (22293.00, 22414.40, 5.40, 30.00) DC NA

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** Toxic(organic matter) Assessment (Hourly) *** 15:13:15

**MODELOPTs: PAGE 13

CONC RURAL ELEV FLGPOL GRDRIS

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

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

A Total of 0 Fatal Error Message(s)
A Total of 10 Warning Message(s)
A Total of 817 Informational Message(s)

A Total of 817 Calm Hours Identified

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

***** WARNING MESSAGES *****
MX W420 797 METQA :Wind Speed Out-of-Range. KURDAT= 99020305
MX W420 1658 METQA :Wind Speed Out-of-Range. KURDAT= 99031102
MX W420 1659 METQA :Wind Speed Out-of-Range. KURDAT= 99031103
MX W420 6200 METQA :Wind Speed Out-of-Range. KURDAT= 99091608
MX W420 6207 METQA :Wind Speed Out-of-Range. KURDAT= 99091615
MX W420 6208 METQA :Wind Speed Out-of-Range. KURDAT= 99091616
MX W420 6209 METQA :Wind Speed Out-of-Range. KURDAT= 99091617
MX W420 6221 METQA :Wind Speed Out-of-Range. KURDAT= 99091705
MX W420 6222 METQA :Wind Speed Out-of-Range. KURDAT= 99091706
MX W420 6223 METQA :Wind Speed Out-of-Range. KURDAT= 99091707

*** ISCST3 Finishes Successfully ***

PCB

**
** PROJECT Cheoy Lee Shipyard Excavation
**
CO STARTING
CO TITLEONE Cheoy Lee Shipyard Excavation
CO TITLETWO Toxic(organic matter) Assessment (Hourly)
CO MODELOPT GRDRIS CONC RURAL
CO AVERTIME 1 ANNUAL
CO TERRHGT5 ELEV
CO POLLUTID OTHER
CO RUNORNOT RUN
CO ERRORFIL ERRORS.LST
CO FLAGPOLE 0.0
CO FINISHED

SO STARTING
SO ELEVUNIT METERS
**** ID Srtyp Xs Ys Zs

SO LOCATION S2 POINT 22473.1 22540.5 5.7
**** ID Emiss Sthght Stktmp Stkvel Stkdia

SO SRCPARAM S2 0.185556 8.0 373.0 8.0 0.4
SO EMISUNIT 1.0E6 gram/sec microgram/m3
SO SRCGROUP ALL
SO FINISHED

RE STARTING
RE ELEVUNIT METERS
** ASR
** Xcoord Ycoord Zelev Zflag
**
RE DISCCART 22480.3 22330.3 46.0 1.5
RE DISCCART 22480.3 22330.3 46.0 10.0
RE DISCCART 22480.3 22330.3 46.0 20.0
RE DISCCART 22480.3 22330.3 46.0 30.0
RE DISCCART 22480.3 22330.3 46.0 40.0
RE DISCCART 22293.0 22414.4 5.4 1.5
RE DISCCART 22293.0 22414.4 5.4 10.0
RE DISCCART 22293.0 22414.4 5.4 20.0
RE DISCCART 22293.0 22414.4 5.4 30.0
RE DISCCART 22293.0 22414.4 5.4 40.0
RE DISCCART 22656.1 24750.4 9.0 1.5
RE DISCCART 22656.1 24750.4 9.0 10.0
RE DISCCART 22656.1 24750.4 9.0 20.0
RE DISCCART 22656.1 24750.4 9.0 30.0
RE DISCCART 22656.1 24750.4 9.0 40.0
RE DISCCART 23791.9 23263.2 2.6 1.5
RE DISCCART 23791.9 23263.2 2.6 10.0
RE DISCCART 23791.9 23263.2 2.6 20.0
RE DISCCART 23791.9 23263.2 2.6 30.0
RE DISCCART 23791.9 23263.2 2.6 40.0
RE FINISHED

ME STARTING
ME INPUTFIL CCH99.met (4i2,2(1x,f8.4),1x,f5.1,1x,i1,2(1x,f6.1))
ME ANEMHGHT 98.5 METERS
ME SURFDATA 99999 1999
ME UAIRDATA 99999 1999
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU MAXTABLE ALLAVE 50
OU PLOTFILE 1 ALL first d_pcb1.out
OU PLOTFILE ANNUAL all d_pcb_a.out
OU FINISHED

*** SETUP Finishes Successfully ***

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** Toxic(organic matter) Assessment (Hourly) *** 15:13:19
**MODELOPTs: PAGE 1
CONC RURAL ELEV FLGPOL GRDRIS

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected

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

-- SCAVENGING/DEPOSITION LOGIC --

**Model Uses NO DRY DEPLETION. DDPLETE = F

**Model Uses NO WET DEPLETION. WDPLETE = F

**NO WET SCAVENGING Data Provided.

**NO GAS DRY DEPOSITION Data Provided.

**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses User-Specified Options:

1. Gradual Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

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

**This Run Includes: 1 Source(s); 1 Source Group(s); and 20 Receptor(s)

**The Model Assumes A Pollutant Type of: OTHER

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

**Output Options Selected:

- Model Outputs Tables of ANNUAL Averages by Receptor
- Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
- Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
- Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 98.50 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAM/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MIRCOGRAM/M3

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

**Input Runstream File: d-pcb.inp

**Output Print File: d-pcb.lst

**Detailed Error/Message File: ERRORS.LST

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
*** Toxic(organic matter) Assessment (Hourly) *** 15:13:19

**MODELOPTs: PAGE 2
CONC RURAL ELEV FLGPOL GRDRIS

*** POINT SOURCE DATA ***

NUMBER EMISSION RATE BASE STACK STACK STACK STACK BUILDING EMISSION RATE
 SOURCE PART. (USER UNITS) X Y ELEV. HEIGHT TEMP. EXIT VEL. DIAMETER EXISTS SCALAR RATE
 ID CATS. (METERS) (METERS) (METERS) (METERS) (DEG.K) (M/SEC) (METERS) BY

S2 0 0.18556E+00 22473.1 22540.5 5.7 8.00 373.00 8.00 0.40 NO
 *** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:19
 **MODELOPTs: PAGE 3
 CONC RURAL ELEV FLGPOL GRDRIS

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID SOURCE IDs

ALL S2
 *** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:19
 **MODELOPTs: PAGE 4
 CONC RURAL ELEV FLGPOL GRDRIS

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

(22480.3, 22330.3, 46.0, 1.5); (22480.3, 22330.3, 46.0, 10.0);
 (22480.3, 22330.3, 46.0, 20.0); (22480.3, 22330.3, 46.0, 30.0);
 (22480.3, 22330.3, 46.0, 40.0); (22293.0, 22414.4, 5.4, 1.5);
 (22293.0, 22414.4, 5.4, 10.0); (22293.0, 22414.4, 5.4, 20.0);
 (22293.0, 22414.4, 5.4, 30.0); (22293.0, 22414.4, 5.4, 40.0);
 (22656.1, 24750.4, 9.0, 1.5); (22656.1, 24750.4, 9.0, 10.0);
 (22656.1, 24750.4, 9.0, 20.0); (22656.1, 24750.4, 9.0, 30.0);
 (22656.1, 24750.4, 9.0, 40.0); (23791.9, 23263.2, 2.6, 1.5);
 (23791.9, 23263.2, 2.6, 10.0); (23791.9, 23263.2, 2.6, 20.0);
 (23791.9, 23263.2, 2.6, 30.0); (23791.9, 23263.2, 2.6, 40.0);

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:19
 **MODELOPTs: PAGE 5
 CONC RURAL ELEV FLGPOL GRDRIS

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

1111111111 1111111111 1111111111 1111111111 1111111111
 1111111111 1111111111 1111111111 1111111111 1111111111
 1111111111 1111111111 1111111111 1111111111 1111111111
 1111111111 1111111111 1111111111 1111111111 1111111111
 1111111111 1111111111 1111111111 1111111111 1111111111
 1111111111 1111111111 1111111111 1111111111 1111111111
 1111111111 1111111111 1111111111 1111111111 1111111111
 1111111111 1111111111 1111111111 1111111111 1111111111
 1111111111 1111111111 1111111111 1111111111 1111111111

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

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

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

| STABILITY CATEGORY | WIND SPEED CATEGORY | | | | | |
|--------------------|---------------------|------------|------------|------------|------------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| A | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 |
| B | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 |
| C | .10000E+00 | .10000E+00 | .10000E+00 | .10000E+00 | .10000E+00 | .10000E+00 |
| D | .15000E+00 | .15000E+00 | .15000E+00 | .15000E+00 | .15000E+00 | .15000E+00 |
| E | .35000E+00 | .35000E+00 | .35000E+00 | .35000E+00 | .35000E+00 | .35000E+00 |
| F | .55000E+00 | .55000E+00 | .55000E+00 | .55000E+00 | .55000E+00 | .55000E+00 |

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***

(DEGREES KELVIN PER METER)

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

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02

*** Toxic(organic matter) Assessment (Hourly) *** 15:13:19

**MODELOPTs: PAGE 6

CONC RURAL ELEV FLGPOL GRDRIS

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

FILE: CCH99.met

FORMAT: (4I,2(1X,F8.4),1X,F5.1,1X,I1,2(1X,F6.1))

SURFACE STATION NO.: 99999

UPPER AIR STATION NO.: 99999

NAME: UNKNOWN

NAME: UNKNOWN

YEAR: 1999

YEAR: 1999

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

| | | | | | | | | | | | | | | |
|----|----|----|----|-------|------|-------|---|--------|--------|--------|-----|--------|---|------|
| 99 | 01 | 01 | 01 | 281.0 | 7.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 02 | 278.0 | 8.90 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 03 | 274.0 | 7.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 04 | 233.0 | 7.40 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 05 | 253.0 | 7.20 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 06 | 252.0 | 7.60 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 07 | 255.0 | 6.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 08 | 283.0 | 5.70 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 09 | 267.0 | 4.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 10 | 251.0 | 4.30 | 291.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 11 | 294.0 | 3.70 | 293.1 | 2 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 12 | 306.0 | 5.60 | 294.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 13 | 313.0 | 9.00 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 14 | 299.0 | 6.40 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 15 | 312.0 | 7.90 | 294.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 16 | 314.0 | 7.60 | 293.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 17 | 311.0 | 6.10 | 291.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 18 | 297.0 | 4.60 | 290.1 | 5 | 1271.9 | 1252.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 19 | 304.0 | 3.80 | 289.1 | 5 | 1262.4 | 1155.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 20 | 277.0 | 3.00 | 289.1 | 5 | 1253.0 | 1057.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 21 | 280.0 | 3.50 | 289.1 | 5 | 1243.5 | 960.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 22 | 282.0 | 5.60 | 289.1 | 4 | 1234.1 | 1234.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 23 | 280.0 | 5.20 | 289.1 | 4 | 1224.6 | 1224.6 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 24 | 260.0 | 4.00 | 289.1 | 5 | 1215.1 | 669.7 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.

FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02

*** Toxic(organic matter) Assessment (Hourly) *** 15:13:19

**MODELOPTs: PAGE 7

CONC RURAL ELEV FLGPOL GRDRIS

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): S2

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MIRCOCGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|-------------|-------------|---------|-------------|-------------|---------|
| 22480.30 | 22330.30 | 3.13649 | 22480.30 | 22330.30 | 3.18528 |
| 22480.30 | 22330.30 | 1.70222 | 22480.30 | 22330.30 | 0.36252 |
| 22480.30 | 22330.30 | 0.05575 | 22293.00 | 22414.40 | 0.74076 |
| 22293.00 | 22414.40 | 0.96535 | 22293.00 | 22414.40 | 1.20724 |
| 22293.00 | 22414.40 | 1.28860 | 22293.00 | 22414.40 | 0.66147 |
| 22656.10 | 24750.40 | 0.03562 | 22656.10 | 24750.40 | 0.03518 |
| 22656.10 | 24750.40 | 0.03378 | 22656.10 | 24750.40 | 0.03135 |
| 22656.10 | 24750.40 | 0.02796 | 23791.90 | 23263.20 | 0.04310 |
| 23791.90 | 23263.20 | 0.04415 | 23791.90 | 23263.20 | 0.04608 |
| 23791.90 | 23263.20 | 0.04595 | 23791.90 | 23263.20 | 0.04166 |

*** ISCST3 - VERSION 00101 *** ** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:19

**MODELOPTs: PAGE 8
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|----------------------|-------------|-------------|----------------------|
| 22480.30 | 22330.30 | 106.70246 (99011902) | 22480.30 | 22330.30 | 117.66543 (99072401) |
| 22480.30 | 22330.30 | 69.36502 (99122107) | 22480.30 | 22330.30 | 21.71340 (99122107) |
| 22480.30 | 22330.30 | 11.73793 (99111813) | 22293.00 | 22414.40 | 45.90438 (99060407) |
| 22293.00 | 22414.40 | 71.37553 (99030701) | 22293.00 | 22414.40 | 168.00220 (99091006) |
| 22293.00 | 22414.40 | 377.82004 (99091006) | 22293.00 | 22414.40 | 164.04555 (99051822) |
| 22656.10 | 24750.40 | 12.26089 (99051820) | 22656.10 | 24750.40 | 12.44753 (99051820) |
| 22656.10 | 24750.40 | 12.57578 (99051820) | 22656.10 | 24750.40 | 11.78203 (99051820) |
| 22656.10 | 24750.40 | 9.70250 (99051820) | 23791.90 | 23263.20 | 14.63374 (99060201) |
| 23791.90 | 23263.20 | 18.07579 (99060201) | 23791.90 | 23263.20 | 25.71944 (99060201) |
| 23791.90 | 23263.20 | 30.84389 (99060201) | 23791.90 | 23263.20 | 28.77956 (99022421) |

*** ISCST3 - VERSION 00101 *** ** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:19

**MODELOPTs: PAGE 9
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|----------------------|-------------|-------------|----------------------|
| 22480.30 | 22330.30 | 106.64434 (99012802) | 22480.30 | 22330.30 | 117.66541 (99090905) |
| 22480.30 | 22330.30 | 68.82839 (99011216) | 22480.30 | 22330.30 | 21.05093 (99011216) |
| 22480.30 | 22330.30 | 10.81142 (99092710) | 22293.00 | 22414.40 | 44.46313 (99110904) |
| 22293.00 | 22414.40 | 68.75750 (99060407) | 22293.00 | 22414.40 | 155.34360 (99012219) |
| 22293.00 | 22414.40 | 370.20609 (99012219) | 22293.00 | 22414.40 | 157.35387 (99012219) |
| 22656.10 | 24750.40 | 10.56711 (99070702) | 22656.10 | 24750.40 | 10.44258 (99070702) |
| 22656.10 | 24750.40 | 10.04391 (99070702) | 22656.10 | 24750.40 | 9.34184 (99070702) |
| 22656.10 | 24750.40 | 8.32882 (99070702) | 23791.90 | 23263.20 | 14.24304 (99022421) |
| 23791.90 | 23263.20 | 17.67827 (99022421) | 23791.90 | 23263.20 | 25.37564 (99022421) |
| 23791.90 | 23263.20 | 30.70841 (99022421) | 23791.90 | 23263.20 | 28.63113 (99060201) |

*** ISCST3 - VERSION 00101 *** ** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:19

**MODELOPTs: PAGE 10
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

** CONC OF OTHER IN MIRCOGRAM/M3 **

| RANK | CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE | RANK | CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE |
|------|--|------|--|
| 1. | 377.82004 (99091006) AT (22293.00, 22414.40) DC | 26. | 135.66089 (99051404) AT (22293.00, 22414.40) DC |
| 2. | 370.20609 (99012219) AT (22293.00, 22414.40) DC | 27. | 135.55115 (99101602) AT (22293.00, 22414.40) DC |
| 3. | 348.12524 (99022624) AT (22293.00, 22414.40) DC | 28. | 134.89488 (99120923) AT (22293.00, 22414.40) DC |
| 4. | 346.29544 (99021101) AT (22293.00, 22414.40) DC | 29. | 133.37564 (99021804) AT (22293.00, 22414.40) DC |
| 5. | 284.67734 (99030705) AT (22293.00, 22414.40) DC | 30. | 132.32918 (99022223) AT (22293.00, 22414.40) DC |
| 6. | 283.99121 (99012801) AT (22293.00, 22414.40) DC | 31. | 131.31671 (99040804) AT (22293.00, 22414.40) DC |
| 7. | 283.29697 (99022504) AT (22293.00, 22414.40) DC | 32. | 129.86356 (99031323) AT (22293.00, 22414.40) DC |
| 8. | 205.19188 (99070306) AT (22293.00, 22414.40) DC | 33. | 129.85835 (99012002) AT (22293.00, 22414.40) DC |
| 9. | 204.36182 (99081906) AT (22293.00, 22414.40) DC | 34. | 129.70135 (99122607) AT (22293.00, 22414.40) DC |
| 10. | 203.42120 (99030801) AT (22293.00, 22414.40) DC | 35. | 129.67322 (99040921) AT (22293.00, 22414.40) DC |
| 11. | 178.06848 (99051822) AT (22293.00, 22414.40) DC | 36. | 128.98494 (99122601) AT (22293.00, 22414.40) DC |
| 12. | 168.15530 (99040921) AT (22293.00, 22414.40) DC | 37. | 127.22212 (99020722) AT (22293.00, 22414.40) DC |
| 13. | 168.00220 (99091006) AT (22293.00, 22414.40) DC | 38. | 126.67789 (99112504) AT (22293.00, 22414.40) DC |
| 14. | 164.45151 (99060505) AT (22293.00, 22414.40) DC | 39. | 124.96826 (99051404) AT (22293.00, 22414.40) DC |
| 15. | 164.04555 (99051822) AT (22293.00, 22414.40) DC | 40. | 123.31798 (99060505) AT (22293.00, 22414.40) DC |
| 16. | 157.35387 (99012219) AT (22293.00, 22414.40) DC | 41. | 121.29266 (99030705) AT (22293.00, 22414.40) DC |
| 17. | 155.34360 (99012219) AT (22293.00, 22414.40) DC | 42. | 120.78429 (99121403) AT (22293.00, 22414.40) DC |
| 18. | 153.39403 (99021021) AT (22293.00, 22414.40) DC | 43. | 120.38074 (99022504) AT (22293.00, 22414.40) DC |
| 19. | 148.35649 (99022624) AT (22293.00, 22414.40) DC | 44. | 120.05182 (99012801) AT (22293.00, 22414.40) DC |
| 20. | 147.18076 (99021101) AT (22293.00, 22414.40) DC | 45. | 119.80504 (99010508) AT (22293.00, 22414.40) DC |
| 21. | 145.30032 (99021101) AT (22293.00, 22414.40) DC | 46. | 118.94370 (99012801) AT (22293.00, 22414.40) DC |
| 22. | 144.08408 (99091006) AT (22293.00, 22414.40) DC | 47. | 118.84235 (99022504) AT (22293.00, 22414.40) DC |
| 23. | 143.69519 (99022624) AT (22293.00, 22414.40) DC | 48. | 117.77168 (99021702) AT (22293.00, 22414.40) DC |
| 24. | 142.15511 (99090607) AT (22293.00, 22414.40) DC | 49. | 117.66543 (99072401) AT (22480.30, 22330.30) DC |
| 25. | 138.57439 (99040107) AT (22293.00, 22414.40) DC | 50. | 117.66541 (99090905) AT (22480.30, 22330.30) DC |

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

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:19

**MODELOPTs: PAGE 11
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

** CONC OF OTHER IN MIRCOGRAM/M3 **

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

 ALL 1ST HIGHEST VALUE IS 3.18528 AT (22480.30, 22330.30, 46.00, 10.00) DC NA
 2ND HIGHEST VALUE IS 3.13649 AT (22480.30, 22330.30, 46.00, 1.50) DC NA
 3RD HIGHEST VALUE IS 1.70222 AT (22480.30, 22330.30, 46.00, 20.00) DC NA
 4TH HIGHEST VALUE IS 1.28860 AT (22293.00, 22414.40, 5.40, 30.00) DC NA
 5TH HIGHEST VALUE IS 1.20724 AT (22293.00, 22414.40, 5.40, 20.00) DC NA
 6TH HIGHEST VALUE IS 0.96535 AT (22293.00, 22414.40, 5.40, 10.00) DC NA
 7TH HIGHEST VALUE IS 0.74076 AT (22293.00, 22414.40, 5.40, 1.50) DC NA
 8TH HIGHEST VALUE IS 0.66147 AT (22293.00, 22414.40, 5.40, 40.00) DC NA
 9TH HIGHEST VALUE IS 0.36252 AT (22480.30, 22330.30, 46.00, 30.00) DC NA
 10TH HIGHEST VALUE IS 0.05575 AT (22480.30, 22330.30, 46.00, 40.00) DC NA

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

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:19

**MODELOPTs: PAGE 12
 CONC RURAL ELEV FLGPOL GRDRIS

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

** CONC OF OTHER IN MIRCOGRAM/M3 **

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

 ALL HIGH 1ST HIGH VALUE IS 377.82004 ON 99091006: AT (22293.00, 22414.40, 5.40, 30.00) DC NA
 HIGH 2ND HIGH VALUE IS 370.20609 ON 99012219: AT (22293.00, 22414.40, 5.40, 30.00) DC NA

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

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:19

**MODELOPTs: PAGE 13
 CONC RURAL ELEV FLGPOL GRDRIS

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

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

A Total of 0 Fatal Error Message(s)
 A Total of 10 Warning Message(s)
 A Total of 817 Informational Message(s)
 A Total of 817 Calm Hours Identified

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

***** WARNING MESSAGES *****
 MX W420 797 METQA :Wind Speed Out-of-Range. KURDAT= 99020305
 MX W420 1658 METQA :Wind Speed Out-of-Range. KURDAT= 99031102
 MX W420 1659 METQA :Wind Speed Out-of-Range. KURDAT= 99031103
 MX W420 6200 METQA :Wind Speed Out-of-Range. KURDAT= 99091608
 MX W420 6207 METQA :Wind Speed Out-of-Range. KURDAT= 99091615

MX W420 6208 METQA :Wind Speed Out-of-Range. KURDAT= 99091616
 MX W420 6209 METQA :Wind Speed Out-of-Range. KURDAT= 99091617
 MX W420 6221 METQA :Wind Speed Out-of-Range. KURDAT= 99091705
 MX W420 6222 METQA :Wind Speed Out-of-Range. KURDAT= 99091706
 MX W420 6223 METQA :Wind Speed Out-of-Range. KURDAT= 99091707

 *** ISCST3 Finishes Successfully ***

Hexachlorobenzene

**
 ** PROJECT Cheoy Lee Shipyard Excavation
 **
 CO STARTING
 CO TITLEONE Cheoy Lee Shipyard Excavation
 CO TITLETWO Toxic(organic matter) Assessment (Hourly)
 CO MODELOPT GRDRIS CONC RURAL
 CO AVERTIME 1 ANNUAL
 CO TERRHGTS ELEV
 CO POLLUTID OTHER
 CO RUNORNOT RUN
 CO ERRORFIL ERRORS.LST
 CO FLAGPOLE 0.0
 CO FINISHED

SO STARTING
 SO ELEVUNIT METERS
 **** ID Src typ Xs Ys Zs

 SO LOCATION S2 POINT 22473.1 22540.5 5.7
 **** ID Emiss Stk hgt Stk tmp Stk vel Stk dia

 SO SRCPARAM S2 0.005556 8.0 373.0 8.0 0.4
 SO EMISUNIT 1.0E6 gram/sec microgram/m3
 SO SRCGROUP ALL
 SO FINISHED

RE STARTING
 RE ELEVUNIT METERS
 ** ASR
 ** Xcoord Ycoord Zelev Zflag
 **
 RE DISCCART 22480.3 22330.3 46.0 1.5
 RE DISCCART 22480.3 22330.3 46.0 10.0
 RE DISCCART 22480.3 22330.3 46.0 20.0
 RE DISCCART 22480.3 22330.3 46.0 30.0
 RE DISCCART 22480.3 22330.3 46.0 40.0
 RE DISCCART 22293.0 22414.4 5.4 1.5
 RE DISCCART 22293.0 22414.4 5.4 10.0
 RE DISCCART 22293.0 22414.4 5.4 20.0
 RE DISCCART 22293.0 22414.4 5.4 30.0
 RE DISCCART 22293.0 22414.4 5.4 40.0
 RE DISCCART 22656.1 24750.4 9.0 1.5
 RE DISCCART 22656.1 24750.4 9.0 10.0
 RE DISCCART 22656.1 24750.4 9.0 20.0
 RE DISCCART 22656.1 24750.4 9.0 30.0
 RE DISCCART 22656.1 24750.4 9.0 40.0
 RE DISCCART 23791.9 23263.2 2.6 1.5
 RE DISCCART 23791.9 23263.2 2.6 10.0
 RE DISCCART 23791.9 23263.2 2.6 20.0
 RE DISCCART 23791.9 23263.2 2.6 30.0
 RE DISCCART 23791.9 23263.2 2.6 40.0
 RE FINISHED

ME STARTING
 ME INPUTFIL CCH99.met (4i2,2(1x,f8.4),1x,f5.1,1x,i1,2(1x,f6.1))
 ME ANEMHGHT 98.5 METERS
 ME SURFDATA 99999 1999
 ME UAIRDATA 99999 1999
 ME FINISHED

OU STARTING
 OU RECTABLE ALLAVE FIRST SECOND
 OU MAXTABLE ALLAVE 50
 OU PLOTFILE 1 ALL first d_hex1.out
 OU PLOTFILE ANNUAL all d_hex_a.out
 OU FINISHED

 *** SETUP Finishes Successfully ***

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:17
 **MODELOPTs: PAGE 1
 CONC RURAL ELEV FLGPOL GRDRIS

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected
 **Model Is Setup For Calculation of Average CONCentration Values.
 -- SCAVENGING/DEPOSITION LOGIC --
 **Model Uses NO DRY DEPLETION. DDPLETE = F
 **Model Uses NO WET DEPLETION. WDPLETE = F
 **NO WET SCAVENGING Data Provided.
 **NO GAS DRY DEPOSITION Data Provided.
 **Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations
 **Model Uses RURAL Dispersion.
 **Model Uses User-Specified Options:
 1. Gradual Plume Rise.
 2. Stack-tip Downwash.
 3. Buoyancy-induced Dispersion.
 4. Calms Processing Routine.
 5. Not Use Missing Data Processing Routine.
 6. Default Wind Profile Exponents.
 7. Default Vertical Potential Temperature Gradients.
 **Model Accepts Receptors on ELEV Terrain.
 **Model Accepts FLAGPOLE Receptor Heights.
 **Model Calculates 1 Short Term Average(s) of: 1-HR
 and Calculates ANNUAL Averages
 **This Run Includes: 1 Source(s); 1 Source Group(s); and 20 Receptor(s)
 **The Model Assumes A Pollutant Type of: OTHER
 **Model Set To Continue RUNning After the Setup Testing.

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

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
 m for Missing Hours
 b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 98.50 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
 Emission Units = GRAM/SEC ; Emission Rate Unit Factor = 0.10000E+07
 Output Units = MIRCOGRAM/M3

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

**Input Runstream File: d-hex.inp
 **Output Print File: d-hex.lst
 **Detailed Error/Message File: ERRORS.LST
 *** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:17
 **MODELOPTs: PAGE 2
 CONC RURAL ELEV FLGPOL GRDRIS

*** POINT SOURCE DATA ***

| NUMBER | EMISSION RATE | BASE | STACK | STACK | STACK | STACK | BUILDING | EMISSION RATE | | | | |
|-----------|---------------|--------------|------------|------------|----------------|-----------------|---------------|-------------------|-------------------|--------|--------|---------|
| SOURCE ID | PART. CATS. | (USER UNITS) | X (METERS) | Y (METERS) | ELEV. (METERS) | HEIGHT (METERS) | TEMP. (DEG.K) | EXIT VEL. (M/SEC) | DIAMETER (METERS) | EXISTS | SCALAR | VARY BY |

| | | | | | | | | | | | | |
|----|---|-------------|---------|---------|-----|------|--------|------|------|----|--|--|
| S2 | 0 | 0.55560E-02 | 22473.1 | 22540.5 | 5.7 | 8.00 | 373.00 | 8.00 | 0.40 | NO | | |
|----|---|-------------|---------|---------|-----|------|--------|------|------|----|--|--|

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:17
 **MODELOPTs: PAGE 3
 CONC RURAL ELEV FLGPOL GRDRIS

*** SOURCE IDs DEFINING SOURCE GROUPS ***

FILE: CCH99.met
 FORMAT: (4I2,2(1X,F8.4),1X,F5.1,1X,I1,2(1X,F6.1))
 SURFACE STATION NO.: 99999 UPPER AIR STATION NO.: 99999
 NAME: UNKNOWN NAME: UNKNOWN
 YEAR: 1999 YEAR: 1999

| YR | MN | DY | HR | VECT | (M/S) | (K) | CLASS | RURAL | URBAN | (M/S) | (M) | (M) | (M) | Z-0 | IPCODE | PRATE | (mm/HR) |
|----|----|----|----|-------|-------|-------|-------|--------|--------|--------|-----|--------|-----|------|--------|-------|---------|
| 99 | 01 | 01 | 01 | 281.0 | 7.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 02 | 278.0 | 8.90 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 03 | 274.0 | 7.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 04 | 233.0 | 7.40 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 05 | 253.0 | 7.20 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 06 | 252.0 | 7.60 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 07 | 255.0 | 6.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 08 | 283.0 | 5.70 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 09 | 267.0 | 4.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 10 | 251.0 | 4.30 | 291.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 11 | 294.0 | 3.70 | 293.1 | 2 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 12 | 306.0 | 5.60 | 294.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 13 | 313.0 | 9.00 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 14 | 299.0 | 6.40 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 15 | 312.0 | 7.90 | 294.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 16 | 314.0 | 7.60 | 293.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 17 | 311.0 | 6.10 | 291.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 18 | 297.0 | 4.60 | 290.1 | 5 | 1271.9 | 1252.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 19 | 304.0 | 3.80 | 289.1 | 5 | 1262.4 | 1155.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 20 | 277.0 | 3.00 | 289.1 | 5 | 1253.0 | 1057.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 21 | 280.0 | 3.50 | 289.1 | 5 | 1243.5 | 960.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 22 | 282.0 | 5.60 | 289.1 | 4 | 1234.1 | 1234.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 23 | 280.0 | 5.20 | 289.1 | 4 | 1224.6 | 1224.6 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |
| 99 | 01 | 01 | 24 | 260.0 | 4.00 | 289.1 | 5 | 1215.1 | 669.7 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 | | | |

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
 FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.
 *** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:17
 **MODELOPTs: PAGE 7
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|-------------|-------------|---------|-------------|-------------|---------|
| 22480.30 | 22330.30 | 0.09391 | 22480.30 | 22330.30 | 0.09538 |
| 22480.30 | 22330.30 | 0.05097 | 22480.30 | 22330.30 | 0.01085 |
| 22480.30 | 22330.30 | 0.00167 | 22293.00 | 22414.40 | 0.02218 |
| 22293.00 | 22414.40 | 0.02890 | 22293.00 | 22414.40 | 0.03615 |
| 22293.00 | 22414.40 | 0.03858 | 22293.00 | 22414.40 | 0.01981 |
| 22656.10 | 24750.40 | 0.00107 | 22656.10 | 24750.40 | 0.00105 |
| 22656.10 | 24750.40 | 0.00101 | 22656.10 | 24750.40 | 0.00094 |
| 22656.10 | 24750.40 | 0.00084 | 23791.90 | 23263.20 | 0.00129 |
| 23791.90 | 23263.20 | 0.00132 | 23791.90 | 23263.20 | 0.00138 |
| 23791.90 | 23263.20 | 0.00138 | 23791.90 | 23263.20 | 0.00125 |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:17

**MODELOPTs: RURAL ELEV FLGPOL GRDRIS
 CONC PAGE 8

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC | (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC | (YYMMDDHH) |
|-------------|-------------|----------|------------|-------------|-------------|---------|------------|
| 22480.30 | 22330.30 | 3.19493 | (99011902) | 22480.30 | 22330.30 | 3.52319 | (99072401) |
| 22480.30 | 22330.30 | 2.07696 | (99122107) | 22480.30 | 22330.30 | 0.65015 | (99122107) |
| 22480.30 | 22330.30 | 0.35146 | (99111813) | 22293.00 | 22414.40 | 1.37449 | (99060407) |
| 22293.00 | 22414.40 | 2.13716 | (99030701) | 22293.00 | 22414.40 | 5.03040 | (99091006) |
| 22293.00 | 22414.40 | 11.31285 | (99091006) | 22293.00 | 22414.40 | 4.91192 | (99051822) |
| 22656.10 | 24750.40 | 0.36712 | (99051820) | 22656.10 | 24750.40 | 0.37271 | (99051820) |
| 22656.10 | 24750.40 | 0.37655 | (99051820) | 22656.10 | 24750.40 | 0.35278 | (99051820) |
| 22656.10 | 24750.40 | 0.29052 | (99051820) | 23791.90 | 23263.20 | 0.43817 | (99060201) |
| 23791.90 | 23263.20 | 0.54123 | (99060201) | 23791.90 | 23263.20 | 0.77010 | (99060201) |
| 23791.90 | 23263.20 | 0.92354 | (99060201) | 23791.90 | 23263.20 | 0.86173 | (99022421) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:17

**MODELOPTs: RURAL ELEV FLGPOL GRDRIS
 CONC PAGE 9

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC | (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC | (YYMMDDHH) |
|-------------|-------------|----------|------------|-------------|-------------|---------|------------|
| 22480.30 | 22330.30 | 3.19319 | (99012802) | 22480.30 | 22330.30 | 3.52319 | (99090905) |
| 22480.30 | 22330.30 | 2.06089 | (99011213) | 22480.30 | 22330.30 | 0.63032 | (99011216) |
| 22480.30 | 22330.30 | 0.32372 | (99092710) | 22293.00 | 22414.40 | 1.33133 | (99110904) |
| 22293.00 | 22414.40 | 2.05877 | (99060407) | 22293.00 | 22414.40 | 4.65137 | (99012219) |
| 22293.00 | 22414.40 | 11.08488 | (99012219) | 22293.00 | 22414.40 | 4.71156 | (99012219) |
| 22656.10 | 24750.40 | 0.31641 | (99070702) | 22656.10 | 24750.40 | 0.31268 | (99070702) |
| 22656.10 | 24750.40 | 0.30074 | (99070702) | 22656.10 | 24750.40 | 0.27972 | (99070702) |
| 22656.10 | 24750.40 | 0.24939 | (99070702) | 23791.90 | 23263.20 | 0.42647 | (99022421) |
| 23791.90 | 23263.20 | 0.52933 | (99022421) | 23791.90 | 23263.20 | 0.75981 | (99022421) |
| 23791.90 | 23263.20 | 0.91948 | (99022421) | 23791.90 | 23263.20 | 0.85729 | (99060201) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:17

**MODELOPTs: RURAL ELEV FLGPOL GRDRIS
 CONC PAGE 10

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2

** CONC OF OTHER IN MIRCOGRAM/M3 **

| RANK | CONC (YYMMDDHH) AT | RECEPTOR (XR,YR) OF TYPE | RANK | CONC (YYMMDDHH) AT | RECEPTOR (XR,YR) OF TYPE |
|------|--|--------------------------|------|---|--------------------------|
| 1. | 11.31285 (99091006) AT (22293.00, 22414.40) | DC | 26. | 4.06202 (99051404) AT (22293.00, 22414.40) | DC |
| 2. | 11.08488 (99012219) AT (22293.00, 22414.40) | DC | 27. | 4.05873 (99101602) AT (22293.00, 22414.40) | DC |
| 3. | 10.42372 (99022624) AT (22293.00, 22414.40) | DC | 28. | 4.03908 (99120923) AT (22293.00, 22414.40) | DC |
| 4. | 10.36893 (99021101) AT (22293.00, 22414.40) | DC | 29. | 3.99359 (99021804) AT (22293.00, 22414.40) | DC |
| 5. | 8.52394 (99030705) AT (22293.00, 22414.40) | DC | 30. | 3.96226 (99022223) AT (22293.00, 22414.40) | DC |
| 6. | 8.50339 (99012801) AT (22293.00, 22414.40) | DC | 31. | 3.93194 (99040804) AT (22293.00, 22414.40) | DC |
| 7. | 8.48260 (99022504) AT (22293.00, 22414.40) | DC | 32. | 3.88843 (99031323) AT (22293.00, 22414.40) | DC |
| 8. | 6.14395 (99070306) AT (22293.00, 22414.40) | DC | 33. | 3.88828 (99012002) AT (22293.00, 22414.40) | DC |
| 9. | 6.11909 (99081906) AT (22293.00, 22414.40) | DC | 34. | 3.88358 (99122607) AT (22293.00, 22414.40) | DC |
| 10. | 6.09093 (99030801) AT (22293.00, 22414.40) | DC | 35. | 3.88273 (99040921) AT (22293.00, 22414.40) | DC |
| 11. | 5.33181 (99051822) AT (22293.00, 22414.40) | DC | 36. | 3.86212 (99122601) AT (22293.00, 22414.40) | DC |
| 12. | 5.03498 (99040921) AT (22293.00, 22414.40) | DC | 37. | 3.80934 (99020722) AT (22293.00, 22414.40) | DC |
| 13. | 5.03040 (99091006) AT (22293.00, 22414.40) | DC | 38. | 3.79305 (99112504) AT (22293.00, 22414.40) | DC |
| 14. | 4.92408 (99060505) AT (22293.00, 22414.40) | DC | 39. | 3.74186 (99051404) AT (22293.00, 22414.40) | DC |
| 15. | 4.91192 (99051822) AT (22293.00, 22414.40) | DC | 40. | 3.69244 (99060505) AT (22293.00, 22414.40) | DC |
| 16. | 4.71156 (99012219) AT (22293.00, 22414.40) | DC | 41. | 3.63180 (99030705) AT (22293.00, 22414.40) | DC |
| 17. | 4.65137 (99012219) AT (22293.00, 22414.40) | DC | 42. | 3.61658 (99121403) AT (22293.00, 22414.40) | DC |
| 18. | 4.59299 (99021021) AT (22293.00, 22414.40) | DC | 43. | 3.60449 (99022504) AT (22293.00, 22414.40) | DC |
| 19. | 4.44216 (99022624) AT (22293.00, 22414.40) | DC | 44. | 3.59464 (99012801) AT (22293.00, 22414.40) | DC |
| 20. | 4.40695 (99021101) AT (22293.00, 22414.40) | DC | 45. | 3.58726 (99010508) AT (22293.00, 22414.40) | DC |
| 21. | 4.35065 (99021101) AT (22293.00, 22414.40) | DC | 46. | 3.56146 (99012801) AT (22293.00, 22414.40) | DC |
| 22. | 4.31423 (99091006) AT (22293.00, 22414.40) | DC | 47. | 3.55843 (99022504) AT (22293.00, 22414.40) | DC |
| 23. | 4.30259 (99022624) AT (22293.00, 22414.40) | DC | 48. | 3.52637 (99021702) AT (22293.00, 22414.40) | DC |
| 24. | 4.25647 (99090607) AT (22293.00, 22414.40) | DC | 49. | 3.52319 (99072401) AT (22480.30, 22330.30) | DC |
| 25. | 4.14926 (99040107) AT (22293.00, 22414.40) | DC | 50. | 3.52319 (99090905) AT (22480.30, 22330.30) | DC |

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY
 *** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:17
 **MODELOPTs: PAGE 11
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

** CONC OF OTHER IN MIRCOCGRAM/M3 **

| GROUP ID | AVERAGE CONC | NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG) | OF TYPE | GRID-ID |
|----------|-------------------------------|---|---------|---------|
| ALL | 1ST HIGHEST VALUE IS 0.09538 | AT (22480.30, 22330.30, 46.00, 10.00) | DC | NA |
| | 2ND HIGHEST VALUE IS 0.09391 | AT (22480.30, 22330.30, 46.00, 1.50) | DC | NA |
| | 3RD HIGHEST VALUE IS 0.05097 | AT (22480.30, 22330.30, 46.00, 20.00) | DC | NA |
| | 4TH HIGHEST VALUE IS 0.03858 | AT (22293.00, 22414.40, 5.40, 30.00) | DC | NA |
| | 5TH HIGHEST VALUE IS 0.03615 | AT (22293.00, 22414.40, 5.40, 20.00) | DC | NA |
| | 6TH HIGHEST VALUE IS 0.02890 | AT (22293.00, 22414.40, 5.40, 10.00) | DC | NA |
| | 7TH HIGHEST VALUE IS 0.02218 | AT (22293.00, 22414.40, 5.40, 1.50) | DC | NA |
| | 8TH HIGHEST VALUE IS 0.01981 | AT (22293.00, 22414.40, 5.40, 40.00) | DC | NA |
| | 9TH HIGHEST VALUE IS 0.01085 | AT (22480.30, 22330.30, 46.00, 30.00) | DC | NA |
| | 10TH HIGHEST VALUE IS 0.00167 | AT (22480.30, 22330.30, 46.00, 40.00) | DC | NA |

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY
 *** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:17
 **MODELOPTs: PAGE 12
 CONC RURAL ELEV FLGPOL GRDRIS

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

** CONC OF OTHER IN MIRCOCGRAM/M3 **

| GROUP ID | DATE | AVERAGE CONC (YYMMDDHH) | NETWORK RECEPTOR (XR, YR, ZELEV, ZFLAG) | OF TYPE | GRID-ID |
|----------|------------------------|-------------------------|---|---------|---------|
| ALL | HIGH 1ST HIGH VALUE IS | 11.31285 ON 99091006: | AT (22293.00, 22414.40, 5.40, 30.00) | DC | NA |
| | HIGH 2ND HIGH VALUE IS | 11.08488 ON 99012219: | AT (22293.00, 22414.40, 5.40, 30.00) | DC | NA |

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY
 *** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** Toxic(organic matter) Assessment (Hourly) *** 15:13:17
 **MODELOPTs: PAGE 13
 CONC RURAL ELEV FLGPOL GRDRIS

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

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

A Total of 0 Fatal Error Message(s)
 A Total of 10 Warning Message(s)
 A Total of 817 Informational Message(s)
 A Total of 817 Calm Hours Identified

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

***** WARNING MESSAGES *****
 MX W420 797 METQA :Wind Speed Out-of-Range. KURDAT= 99020305
 MX W420 1658 METQA :Wind Speed Out-of-Range. KURDAT= 99031102
 MX W420 1659 METQA :Wind Speed Out-of-Range. KURDAT= 99031103
 MX W420 6200 METQA :Wind Speed Out-of-Range. KURDAT= 99091608
 MX W420 6207 METQA :Wind Speed Out-of-Range. KURDAT= 99091615

MX W420 6208 METQA :Wind Speed Out-of-Range. KURDAT= 99091616
 MX W420 6209 METQA :Wind Speed Out-of-Range. KURDAT= 99091617
 MX W420 6221 METQA :Wind Speed Out-of-Range. KURDAT= 99091705
 MX W420 6222 METQA :Wind Speed Out-of-Range. KURDAT= 99091706
 MX W420 6223 METQA :Wind Speed Out-of-Range. KURDAT= 99091707

 *** ISCST3 Finishes Successfully ***

SO₂

**
 ** PROJECT Cheoy Lee Shipyard Excavation
 **
 CO STARTING
 CO TITLEONE Cheoy Lee Shipyard Excavation
 CO TITLETWO SO2 Assessment (Hourly)
 CO MODELOPT GRDRS CONC RURAL
 CO AVERTIME 1 24 ANNUAL
 CO TERRHGT5 ELEV
 CO POLLUTID SO2
 CO RUNORNOT RUN
 CO ERRORFIL ERRORS.LST
 CO FLAGPOLE 0.0
 CO FINISHED

 SO STARTING
 SO ELEVUNIT METERS
 **** ID Src typ Xs Ys Zs

 SO LOCATION S2 POINT 22473.1 22540.5 5.7
 **** ID Emiss Stkhgt Stktmp Stkvel Stkdia

 SO SRCPARAM S2 0.0037 8.0 373.0 8.0 0.4
 SO EMISUNIT 1.0E6 gram/sec microgram/m3
 SO SRCGROUP ALL
 SO FINISHED

RE STARTING
 RE ELEVUNIT METERS
 ** ASR
 ** Xcoord Ycoord Zelev Zflag
 **
 RE DISCCART 22480.3 22330.3 46.0 1.5
 RE DISCCART 22480.3 22330.3 46.0 10.0
 RE DISCCART 22480.3 22330.3 46.0 20.0
 RE DISCCART 22480.3 22330.3 46.0 30.0
 RE DISCCART 22480.3 22330.3 46.0 40.0
 RE DISCCART 22293.0 22414.4 5.4 1.5
 RE DISCCART 22293.0 22414.4 5.4 10.0
 RE DISCCART 22293.0 22414.4 5.4 20.0
 RE DISCCART 22293.0 22414.4 5.4 30.0
 RE DISCCART 22293.0 22414.4 5.4 40.0
 RE DISCCART 22656.1 24750.4 9.0 1.5
 RE DISCCART 22656.1 24750.4 9.0 10.0
 RE DISCCART 22656.1 24750.4 9.0 20.0
 RE DISCCART 22656.1 24750.4 9.0 30.0
 RE DISCCART 22656.1 24750.4 9.0 40.0
 RE DISCCART 23791.9 23263.2 2.6 1.5
 RE DISCCART 23791.9 23263.2 2.6 10.0
 RE DISCCART 23791.9 23263.2 2.6 20.0
 RE DISCCART 23791.9 23263.2 2.6 30.0
 RE DISCCART 23791.9 23263.2 2.6 40.0
 RE FINISHED

ME STARTING
 ME INPUTFIL CCH99.met (4i2,2(1x,f8.4),1x,f5.1,1x,il,2(1x,f6.1))
 ME ANEMHGHT 98.5 METERS
 ME SURFDATA 99999 1999
 ME UAIRDATA 99999 1999
 ME FINISHED

OU STARTING
 OU RECTABLE ALLAVE FIRST SECOND
 OU MAXTABLE ALLAVE 50
 OU PLOTFILE 1 ALL first d_so2_1.out
 OU PLOTFILE 24 ALL first d_so2_24.out
 OU PLOTFILE ANNUAL ALL d_so2_a.out
 OU FINISHED

 *** SETUP Finishes Successfully ***

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44
 **MODELOPTs: PAGE 1
 CONC RURAL ELEV FLGPOL GRDRIS

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.
 -- SCAVENGING/DEPOSITION LOGIC --

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

**Model Uses RURAL Dispersion.

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

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 2 Short Term Average(s) of: 1-HR 24-HR
 and Calculates ANNUAL Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 20 Receptor(s)

**The Model Assumes A Pollutant Type of: SO2

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

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

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
 m for Missing Hours
 b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 98.50 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
 Emission Units = GRAM/SEC ; Emission Rate Unit Factor = 0.10000E+07
 Output Units = MIRCOGRAM/M3

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

**Input Runstream File: d-so2.inp
 **Output Print File: d-so2.lst

**Detailed Error/Message File: ERRORS.LST

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44
 **MODELOPTs: PAGE 2
 CONC RURAL ELEV FLGPOL GRDRIS

*** POINT SOURCE DATA ***

| SOURCE ID | PART. CATS. | NUMBER (METERS) | EMISSION RATE (METERS) | RATE (METERS) | BASE X (METERS) | STACK Y (METERS) | STACK ELEV. (METERS) | STACK HEIGHT (METERS) | STACK TEMP. (DEG.K) | STACK EXIT VEL. (M/SEC) | STACK DIAMETER (METERS) | BUILDING EXISTS | EMISSION SCALAR | RATE VARY BY |
|-----------|-------------|-----------------|------------------------|---------------|-----------------|------------------|----------------------|-----------------------|---------------------|-------------------------|-------------------------|-----------------|-----------------|--------------|
|-----------|-------------|-----------------|------------------------|---------------|-----------------|------------------|----------------------|-----------------------|---------------------|-------------------------|-------------------------|-----------------|-----------------|--------------|

| | | | | | | | | | | | | | | |
|----|---|-------------|---------|---------|-----|------|--------|------|------|----|--|--|--|--|
| S2 | 0 | 0.37000E-02 | 22473.1 | 22540.5 | 5.7 | 8.00 | 373.00 | 8.00 | 0.40 | NO | | | | |
|----|---|-------------|---------|---------|-----|------|--------|------|------|----|--|--|--|--|

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44

**MODELOPTs: PAGE 3
 CONC RURAL ELEV FLGPOL GRDRIS

*** SOURCE IDs DEFINING SOURCE GROUPS ***

FILE: CCH99.met
 FORMAT: (4I2,2(1X,F8.4),1X,F5.1,1X,I1,2(1X,F6.1))
 SURFACE STATION NO.: 99999 UPPER AIR STATION NO.: 99999
 NAME: UNKNOWN NAME: UNKNOWN
 YEAR: 1999 YEAR: 1999

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

| YR | MN | DY | HR | VECTOR | (K) | CLASS | RURAL | URBAN | (M/S) | (M) | (M) | (mm/HR) | |
|----|----|----|----|--------|------|-------|-------|--------|--------|--------|-----|---------|--------|
| 99 | 01 | 01 | 01 | 281.0 | 7.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 02 | 278.0 | 8.90 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 03 | 274.0 | 7.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 04 | 233.0 | 7.40 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 05 | 253.0 | 7.20 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 06 | 252.0 | 7.60 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 07 | 255.0 | 6.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 08 | 283.0 | 5.70 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 09 | 267.0 | 4.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 10 | 251.0 | 4.30 | 291.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 11 | 294.0 | 3.70 | 293.1 | 2 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 12 | 306.0 | 5.60 | 294.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 13 | 313.0 | 9.00 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 14 | 299.0 | 6.40 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 15 | 312.0 | 7.90 | 294.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 16 | 314.0 | 7.60 | 293.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 17 | 311.0 | 6.10 | 291.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 18 | 297.0 | 4.60 | 290.1 | 5 | 1271.9 | 1252.1 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 19 | 304.0 | 3.80 | 289.1 | 5 | 1262.4 | 1155.0 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 20 | 277.0 | 3.00 | 289.1 | 5 | 1253.0 | 1057.9 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 21 | 280.0 | 3.50 | 289.1 | 5 | 1243.5 | 960.9 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 22 | 282.0 | 5.60 | 289.1 | 4 | 1234.1 | 1234.1 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 23 | 280.0 | 5.20 | 289.1 | 4 | 1224.6 | 1224.6 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |
| 99 | 01 | 01 | 24 | 260.0 | 4.00 | 289.1 | 5 | 1215.1 | 669.7 | 0.0000 | 0.0 | 0.0000 | 0 0.00 |

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
 FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.
 *** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44
 **MODELOPTS: PAGE 7
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|-------------|-------------|---------|-------------|-------------|---------|
| 22480.30 | 22330.30 | 0.06254 | 22480.30 | 22330.30 | 0.06351 |
| 22480.30 | 22330.30 | 0.03394 | 22480.30 | 22330.30 | 0.00723 |
| 22480.30 | 22330.30 | 0.00111 | 22293.00 | 22414.40 | 0.01477 |
| 22293.00 | 22414.40 | 0.01925 | 22293.00 | 22414.40 | 0.02407 |
| 22293.00 | 22414.40 | 0.02569 | 22293.00 | 22414.40 | 0.01319 |
| 22656.10 | 24750.40 | 0.00071 | 22656.10 | 24750.40 | 0.00070 |
| 22656.10 | 24750.40 | 0.00067 | 22656.10 | 24750.40 | 0.00063 |
| 22656.10 | 24750.40 | 0.00056 | 23791.90 | 23263.20 | 0.00086 |
| 23791.90 | 23263.20 | 0.00088 | 23791.90 | 23263.20 | 0.00092 |
| 23791.90 | 23263.20 | 0.00092 | 23791.90 | 23263.20 | 0.00083 |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44
 **MODELOPTS: PAGE 8
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|--------------------|-------------|-------------|--------------------|
| 22480.30 | 22330.30 | 2.12765 (99011902) | 22480.30 | 22330.30 | 2.34626 (99072401) |
| 22480.30 | 22330.30 | 1.38314 (99122107) | 22480.30 | 22330.30 | 0.43297 (99122107) |
| 22480.30 | 22330.30 | 0.23406 (99111813) | 22293.00 | 22414.40 | 0.91534 (99060407) |
| 22293.00 | 22414.40 | 1.42323 (99030701) | 22293.00 | 22414.40 | 3.34998 (99091006) |
| 22293.00 | 22414.40 | 7.53376 (99091006) | 22293.00 | 22414.40 | 3.27108 (99051822) |
| 22656.10 | 24750.40 | 0.24448 (99051820) | 22656.10 | 24750.40 | 0.24820 (99051820) |
| 22656.10 | 24750.40 | 0.25076 (99051820) | 22656.10 | 24750.40 | 0.23493 (99051820) |
| 22656.10 | 24750.40 | 0.19347 (99051820) | 23791.90 | 23263.20 | 0.29180 (99060201) |

23791.90 23263.20 0.36043 (99060201) 23791.90 23263.20 0.51285 (99060201)
 23791.90 23263.20 0.61503 (99060201) 23791.90 23263.20 0.57387 (99022421)
 *** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44

**MODELOPTs: PAGE 9
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|--------------------|-------------|-------------|--------------------|
| 22480.30 | 22330.30 | 2.12650 (99012802) | 22480.30 | 22330.30 | 2.34626 (99090905) |
| 22480.30 | 22330.30 | 1.37244 (99011216) | 22480.30 | 22330.30 | 0.41976 (99011216) |
| 22480.30 | 22330.30 | 0.21558 (99092710) | 22293.00 | 22414.40 | 0.88660 (99110904) |
| 22293.00 | 22414.40 | 1.37103 (99060407) | 22293.00 | 22414.40 | 3.09756 (99012219) |
| 22293.00 | 22414.40 | 7.38194 (99012219) | 22293.00 | 22414.40 | 3.13765 (99012219) |
| 22656.10 | 24750.40 | 0.21071 (99070702) | 22656.10 | 24750.40 | 0.20823 (99070702) |
| 22656.10 | 24750.40 | 0.20028 (99070702) | 22656.10 | 24750.40 | 0.18628 (99070702) |
| 22656.10 | 24750.40 | 0.16608 (99070702) | 23791.90 | 23263.20 | 0.28401 (99022421) |
| 23791.90 | 23263.20 | 0.35251 (99022421) | 23791.90 | 23263.20 | 0.50599 (99022421) |
| 23791.90 | 23263.20 | 0.61233 (99022421) | 23791.90 | 23263.20 | 0.57091 (99060201) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44

**MODELOPTs: PAGE 10
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|---------------------|-------------|-------------|---------------------|
| 22480.30 | 22330.30 | 1.13803c (99122024) | 22480.30 | 22330.30 | 1.26027c (99122024) |
| 22480.30 | 22330.30 | 0.88556c (99122024) | 22480.30 | 22330.30 | 0.24774c (99122024) |
| 22480.30 | 22330.30 | 0.02589c (99122024) | 22293.00 | 22414.40 | 0.11661 (99042924) |
| 22293.00 | 22414.40 | 0.15509 (99012224) | 22293.00 | 22414.40 | 0.25667 (99012224) |
| 22293.00 | 22414.40 | 0.36461 (99022624) | 22293.00 | 22414.40 | 0.18192 (99051424) |
| 22656.10 | 24750.40 | 0.01377c (99051824) | 22656.10 | 24750.40 | 0.01389c (99051824) |
| 22656.10 | 24750.40 | 0.01387c (99051824) | 22656.10 | 24750.40 | 0.01295c (99051824) |
| 22656.10 | 24750.40 | 0.01083c (99051824) | 23791.90 | 23263.20 | 0.01703 (99022424) |
| 23791.90 | 23263.20 | 0.02002c (99060224) | 23791.90 | 23263.20 | 0.02849c (99060224) |
| 23791.90 | 23263.20 | 0.03417c (99060224) | 23791.90 | 23263.20 | 0.03172c (99060224) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44

**MODELOPTs: PAGE 11
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 2ND HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF SO2 IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|--------------------|-------------|-------------|---------------------|
| 22480.30 | 22330.30 | 0.76990 (99121924) | 22480.30 | 22330.30 | 0.85946 (99121924) |
| 22480.30 | 22330.30 | 0.61473 (99121924) | 22480.30 | 22330.30 | 0.17636 (99121924) |
| 22480.30 | 22330.30 | 0.01906 (99121924) | 22293.00 | 22414.40 | 0.10998 (99120224) |
| 22293.00 | 22414.40 | 0.13566 (99110924) | 22293.00 | 22414.40 | 0.17159 (99022624) |
| 22293.00 | 22414.40 | 0.35207 (99012224) | 22293.00 | 22414.40 | 0.17586 (99022624) |
| 22656.10 | 24750.40 | 0.01256 (99031824) | 22656.10 | 24750.40 | 0.01240 (99031824) |
| 22656.10 | 24750.40 | 0.01191 (99031824) | 22656.10 | 24750.40 | 0.01107 (99031824) |
| 22656.10 | 24750.40 | 0.00989 (99031824) | 23791.90 | 23263.20 | 0.01621c (99060224) |
| 23791.90 | 23263.20 | 0.01994 (99022424) | 23791.90 | 23263.20 | 0.02643 (99022424) |
| 23791.90 | 23263.20 | 0.03078 (99022424) | 23791.90 | 23263.20 | 0.02878 (99022424) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44

**MODELOPTs: PAGE 12
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

** CONC OF SO2 IN MIRCOGRAM/M3 **

RANK CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE RANK CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE

| | | | |
|----|--|-----|--|
| 1. | 7.53376 (99091006) AT (22293.00, 22414.40) DC | 26. | 2.70509 (99051404) AT (22293.00, 22414.40) DC |
|----|--|-----|--|

| | | | |
|-----|--|-----|--|
| 2. | 7.38194 (99012219) AT (22293.00, 22414.40) DC | 27. | 2.70290 (99101602) AT (22293.00, 22414.40) DC |
| 3. | 6.94164 (99022624) AT (22293.00, 22414.40) DC | 28. | 2.68981 (99120923) AT (22293.00, 22414.40) DC |
| 4. | 6.90516 (99021101) AT (22293.00, 22414.40) DC | 29. | 2.65952 (99021804) AT (22293.00, 22414.40) DC |
| 5. | 5.67649 (99030705) AT (22293.00, 22414.40) DC | 30. | 2.63865 (99022223) AT (22293.00, 22414.40) DC |
| 6. | 5.66281 (99012801) AT (22293.00, 22414.40) DC | 31. | 2.61846 (99040804) AT (22293.00, 22414.40) DC |
| 7. | 5.64896 (99022504) AT (22293.00, 22414.40) DC | 32. | 2.58949 (99031323) AT (22293.00, 22414.40) DC |
| 8. | 4.09154 (99070306) AT (22293.00, 22414.40) DC | 33. | 2.58939 (99012002) AT (22293.00, 22414.40) DC |
| 9. | 4.07499 (99081906) AT (22293.00, 22414.40) DC | 34. | 2.58625 (99122607) AT (22293.00, 22414.40) DC |
| 10. | 4.05623 (99030801) AT (22293.00, 22414.40) DC | 35. | 2.58569 (99040921) AT (22293.00, 22414.40) DC |
| 11. | 3.55070 (99051822) AT (22293.00, 22414.40) DC | 36. | 2.57197 (99122601) AT (22293.00, 22414.40) DC |
| 12. | 3.35303 (99040921) AT (22293.00, 22414.40) DC | 37. | 2.53682 (99020722) AT (22293.00, 22414.40) DC |
| 13. | 3.34998 (99091006) AT (22293.00, 22414.40) DC | 38. | 2.52597 (99112504) AT (22293.00, 22414.40) DC |
| 14. | 3.27917 (99060505) AT (22293.00, 22414.40) DC | 39. | 2.49188 (99051404) AT (22293.00, 22414.40) DC |
| 15. | 3.27108 (99051822) AT (22293.00, 22414.40) DC | 40. | 2.45897 (99060505) AT (22293.00, 22414.40) DC |
| 16. | 3.13765 (99012219) AT (22293.00, 22414.40) DC | 41. | 2.41858 (99030705) AT (22293.00, 22414.40) DC |
| 17. | 3.09756 (99012219) AT (22293.00, 22414.40) DC | 42. | 2.40845 (99121403) AT (22293.00, 22414.40) DC |
| 18. | 3.05869 (99021021) AT (22293.00, 22414.40) DC | 43. | 2.40040 (99022504) AT (22293.00, 22414.40) DC |
| 19. | 2.95824 (99022624) AT (22293.00, 22414.40) DC | 44. | 2.39384 (99012801) AT (22293.00, 22414.40) DC |
| 20. | 2.93479 (99021101) AT (22293.00, 22414.40) DC | 45. | 2.38892 (99010508) AT (22293.00, 22414.40) DC |
| 21. | 2.89730 (99021101) AT (22293.00, 22414.40) DC | 46. | 2.37175 (99012801) AT (22293.00, 22414.40) DC |
| 22. | 2.87305 (99091006) AT (22293.00, 22414.40) DC | 47. | 2.36972 (99022504) AT (22293.00, 22414.40) DC |
| 23. | 2.86529 (99022624) AT (22293.00, 22414.40) DC | 48. | 2.34838 (99021702) AT (22293.00, 22414.40) DC |
| 24. | 2.83458 (99090607) AT (22293.00, 22414.40) DC | 49. | 2.34626 (99072401) AT (22480.30, 22330.30) DC |
| 25. | 2.76318 (99040107) AT (22293.00, 22414.40) DC | 50. | 2.34626 (99090905) AT (22480.30, 22330.30) DC |

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02

*** SO2 Assessment (Hourly) *** 10:18:44

**MODELOPTs: PAGE 13

CONC RURAL ELEV FLGPOL GRDRIS

*** THE MAXIMUM 50 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): S2

** CONC OF SO2 IN MIRCOGRAM/M3 **

| RANK | CONC (YYMMDDHH) AT | RECEPTOR (XR,YR) OF TYPE | RANK | CONC (YYMMDDHH) AT | RECEPTOR (XR,YR) OF TYPE |
|------|--|--------------------------|------|--|--------------------------|
| 1. | 1.26027c(99122024) AT (22480.30, 22330.30) DC | | 26. | 0.28736 (99010224) AT (22480.30, 22330.30) DC | |
| 2. | 1.13803c(99122024) AT (22480.30, 22330.30) DC | | 27. | 0.28656 (99011424) AT (22480.30, 22330.30) DC | |
| 3. | 0.88556c(99122024) AT (22480.30, 22330.30) DC | | 28. | 0.28462 (99011424) AT (22480.30, 22330.30) DC | |
| 4. | 0.85946 (99121924) AT (22480.30, 22330.30) DC | | 29. | 0.28388 (99121824) AT (22480.30, 22330.30) DC | |
| 5. | 0.76990 (99121924) AT (22480.30, 22330.30) DC | | 30. | 0.28302 (99050524) AT (22480.30, 22330.30) DC | |
| 6. | 0.69084 (99011224) AT (22480.30, 22330.30) DC | | 31. | 0.28223 (99050524) AT (22480.30, 22330.30) DC | |
| 7. | 0.63425 (99011224) AT (22480.30, 22330.30) DC | | 32. | 0.27334 (99022524) AT (22293.00, 22414.40) DC | |
| 8. | 0.61473 (99121924) AT (22480.30, 22330.30) DC | | 33. | 0.27299 (99021124) AT (22480.30, 22330.30) DC | |
| 9. | 0.45825 (99011224) AT (22480.30, 22330.30) DC | | 34. | 0.26775 (99040524) AT (22480.30, 22330.30) DC | |
| 10. | 0.38967 (99022124) AT (22480.30, 22330.30) DC | | 35. | 0.26576 (99121824) AT (22480.30, 22330.30) DC | |
| 11. | 0.38691 (99022124) AT (22480.30, 22330.30) DC | | 36. | 0.26519 (99040524) AT (22480.30, 22330.30) DC | |
| 12. | 0.36461 (99022624) AT (22293.00, 22414.40) DC | | 37. | 0.26397 (99050924) AT (22480.30, 22330.30) DC | |
| 13. | 0.35207 (99012224) AT (22293.00, 22414.40) DC | | 38. | 0.26281 (99021124) AT (22480.30, 22330.30) DC | |
| 14. | 0.33656 (99123024) AT (22480.30, 22330.30) DC | | 39. | 0.26245 (99050924) AT (22480.30, 22330.30) DC | |
| 15. | 0.32346 (99120524) AT (22480.30, 22330.30) DC | | 40. | 0.26164 (99021824) AT (22480.30, 22330.30) DC | |
| 16. | 0.32221 (99123024) AT (22480.30, 22330.30) DC | | 41. | 0.25896 (99030724) AT (22293.00, 22414.40) DC | |
| 17. | 0.31989 (99122124) AT (22480.30, 22330.30) DC | | 42. | 0.25667 (99012224) AT (22293.00, 22414.40) DC | |
| 18. | 0.31433 (99122124) AT (22480.30, 22330.30) DC | | 43. | 0.25576 (99011924) AT (22480.30, 22330.30) DC | |
| 19. | 0.31391 (99091024) AT (22293.00, 22414.40) DC | | 44. | 0.25233 (99092124) AT (22480.30, 22330.30) DC | |
| 20. | 0.31301 (99120524) AT (22480.30, 22330.30) DC | | 45. | 0.25009 (99051924) AT (22480.30, 22330.30) DC | |
| 21. | 0.29636c(99010324) AT (22480.30, 22330.30) DC | | 46. | 0.24935 (99100624) AT (22480.30, 22330.30) DC | |
| 22. | 0.29063 (99021824) AT (22480.30, 22330.30) DC | | 47. | 0.24878 (99100624) AT (22480.30, 22330.30) DC | |
| 23. | 0.28950c(99010324) AT (22480.30, 22330.30) DC | | 48. | 0.24809 (99092124) AT (22480.30, 22330.30) DC | |
| 24. | 0.28772 (99021124) AT (22293.00, 22414.40) DC | | 49. | 0.24774c(99122024) AT (22480.30, 22330.30) DC | |
| 25. | 0.28740 (99010224) AT (22480.30, 22330.30) DC | | 50. | 0.24725 (99120124) AT (22480.30, 22330.30) DC | |

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02

*** SO2 Assessment (Hourly) *** 10:18:44

**MODELOPTs: PAGE 14

CONC RURAL ELEV FLGPOL GRDRIS

*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

** CONC OF SO2 IN MIRCOGRAM/M3 **

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

ALL 1ST HIGHEST VALUE IS 0.06351 AT (22480.30, 22330.30, 46.00, 10.00) DC NA
 2ND HIGHEST VALUE IS 0.06254 AT (22480.30, 22330.30, 46.00, 1.50) DC NA
 3RD HIGHEST VALUE IS 0.03394 AT (22480.30, 22330.30, 46.00, 20.00) DC NA
 4TH HIGHEST VALUE IS 0.02569 AT (22293.00, 22414.40, 5.40, 30.00) DC NA
 5TH HIGHEST VALUE IS 0.02407 AT (22293.00, 22414.40, 5.40, 20.00) DC NA
 6TH HIGHEST VALUE IS 0.01925 AT (22293.00, 22414.40, 5.40, 10.00) DC NA
 7TH HIGHEST VALUE IS 0.01477 AT (22293.00, 22414.40, 5.40, 1.50) DC NA
 8TH HIGHEST VALUE IS 0.01319 AT (22293.00, 22414.40, 5.40, 40.00) DC NA
 9TH HIGHEST VALUE IS 0.00723 AT (22480.30, 22330.30, 46.00, 30.00) DC NA
 10TH HIGHEST VALUE IS 0.00111 AT (22480.30, 22330.30, 46.00, 40.00) DC NA

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

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44

**MODELOPTs: PAGE 15
 CONC RURAL ELEV FLGPOL GRDRIS

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

** CONC OF SO2 IN MIRCOGRAM/M3 **

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

| | | | | |
|----------------------------|--|-------|--|--|
| ALL HIGH 1ST HIGH VALUE IS | 7.53376 ON 99091006: AT (22293.00, 22414.40, 5.40, 30.00) | DC NA | | |
| HIGH 2ND HIGH VALUE IS | 7.38194 ON 99012219: AT (22293.00, 22414.40, 5.40, 30.00) | DC NA | | |

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

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44

**MODELOPTs: PAGE 16
 CONC RURAL ELEV FLGPOL GRDRIS

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

** CONC OF SO2 IN MIRCOGRAM/M3 **

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

| | | | | |
|----------------------------|--|-------|--|--|
| ALL HIGH 1ST HIGH VALUE IS | 1.26027c ON 99122024: AT (22480.30, 22330.30, 46.00, 10.00) | DC NA | | |
| HIGH 2ND HIGH VALUE IS | 0.85946 ON 99121924: AT (22480.30, 22330.30, 46.00, 10.00) | DC NA | | |

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

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** SO2 Assessment (Hourly) *** 10:18:44

**MODELOPTs: PAGE 17
 CONC RURAL ELEV FLGPOL GRDRIS

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

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

A Total of 0 Fatal Error Message(s)
 A Total of 10 Warning Message(s)
 A Total of 817 Informational Message(s)
 A Total of 817 Calm Hours Identified

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

***** WARNING MESSAGES *****

MX W420 797 METQA :Wind Speed Out-of-Range. KURDAT= 99020305
 MX W420 1658 METQA :Wind Speed Out-of-Range. KURDAT= 99031102
 MX W420 1659 METQA :Wind Speed Out-of-Range. KURDAT= 99031103
 MX W420 6200 METQA :Wind Speed Out-of-Range. KURDAT= 99091608
 MX W420 6207 METQA :Wind Speed Out-of-Range. KURDAT= 99091615
 MX W420 6208 METQA :Wind Speed Out-of-Range. KURDAT= 99091616
 MX W420 6209 METQA :Wind Speed Out-of-Range. KURDAT= 99091617
 MX W420 6221 METQA :Wind Speed Out-of-Range. KURDAT= 99091705
 MX W420 6222 METQA :Wind Speed Out-of-Range. KURDAT= 99091706
 MX W420 6223 METQA :Wind Speed Out-of-Range. KURDAT= 99091707

 *** IS CST3 Finishes Successfully *** *****

NO₂

**
 ** PROJECT Cheoy Lee Shipyard Excavation
 **

CO STARTING
 CO TITLEONE Cheoy Lee Shipyard Excavation
 CO TITLETWO NOX Assessment (Hourly)
 CO MODELOPT GRDRIS CONC RURAL
 CO AVERTIME 1 24 ANNUAL
 CO TERRHGTS ELEV
 CO POLLUTID NOX
 CO RUNORNOT RUN
 CO ERRORFIL ERRORS.LST
 CO FLAGPOLE 0.0
 CO FINISHED

SO STARTING
 SO ELEVUNIT METERS
 **** ID Src typ Xs Ys Zs

 SO LOCATION S2 POINT 22473.1 22540.5 5.7
 **** ID Emiss Stk hgt Stktmp Stkvel Stkdia

 SO SRCPARAM S2 0.1235 8.0 373.0 8.0 0.4
 SO EMISUNIT 1.0E6 gram/sec microgram/m3
 SO SRCGROUP ALL
 SO FINISHED

RE STARTING
 RE ELEVUNIT METERS
 ** ASR
 ** Xcoord Ycoord Zelev Zflag
 **
 RE DISCCART 22480.3 22330.3 46.0 1.5
 RE DISCCART 22480.3 22330.3 46.0 10.0
 RE DISCCART 22480.3 22330.3 46.0 20.0
 RE DISCCART 22480.3 22330.3 46.0 30.0
 RE DISCCART 22480.3 22330.3 46.0 40.0
 RE DISCCART 22293.0 22414.4 5.4 1.5
 RE DISCCART 22293.0 22414.4 5.4 10.0
 RE DISCCART 22293.0 22414.4 5.4 20.0
 RE DISCCART 22293.0 22414.4 5.4 30.0
 RE DISCCART 22293.0 22414.4 5.4 40.0
 RE DISCCART 22656.1 24750.4 9.0 1.5
 RE DISCCART 22656.1 24750.4 9.0 10.0
 RE DISCCART 22656.1 24750.4 9.0 20.0
 RE DISCCART 22656.1 24750.4 9.0 30.0
 RE DISCCART 22656.1 24750.4 9.0 40.0
 RE DISCCART 23791.9 23263.2 2.6 1.5
 RE DISCCART 23791.9 23263.2 2.6 10.0
 RE DISCCART 23791.9 23263.2 2.6 20.0
 RE DISCCART 23791.9 23263.2 2.6 30.0
 RE DISCCART 23791.9 23263.2 2.6 40.0
 RE FINISHED

ME STARTING
 ME INPUTFIL CCH99.met (4i2,2(1x,f8.4),1x,f5.1,1x,i1,2(1x,f6.1))
 ME ANEMHGHT 98.5 METERS
 ME SURFDATA 99999 1999
 ME UAIRDATA 99999 1999
 ME FINISHED

OU STARTING
 OU RECTABLE ALLAVE FIRST SECOND
 OU MAXTABLE ALLAVE 50
 OU PLOTFILE 1 ALL first d_nox_1.out
 OU PLOTFILE 24 ALL first d_nox_24.out
 OU PLOTFILE ANNUAL ALL d_nox_a.out
 OU FINISHED

*** SETUP Finishes Successfully ***

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
*** NOX Assessment (Hourly) *** 10:18:42
**MODELOPTs: PAGE 1
CONC RURAL ELEV FLGPOL GRDRIS

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected

**Model Is Setup For Calculation of Average CONCentration Values.
-- SCAVENGING/DEPOSITION LOGIC --**Model Uses NO DRY DEPLETION. DDPLETE = F**Model Uses NO WET DEPLETION. WDPLETE = F**NO
WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

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

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates 2 Short Term Average(s) of: 1-HR 24-HR
and Calculates ANNUAL Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 20 Receptor(s)

**The Model Assumes A Pollutant Type of: NOX

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

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

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 98.50 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAM/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MIRCOGRAM/M3

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

**Input Runstream File: d-nox.inp
**Output Print File: d-nox.lst
**Detailed Error/Message File: ERRORS.LST
*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
*** NOX Assessment (Hourly) *** 10:18:42
**MODELOPTs: PAGE 2
CONC RURAL ELEV FLGPOL GRDRIS

*** POINT SOURCE DATA ***

NUMBER EMISSION RATE BASE STACK STACK STACK STACK BUILDING EMISSION RATE
SOURCE PART. (USER UNITS) X Y ELEV. HEIGHT TEMP. EXIT VEL. DIAMETER EXISTS SCALAR VARY
ID CATS. (METERS) (METERS) (METERS) (METERS) (DEG.K) (M/SEC) (METERS) BY

S2 0 0.12350E+00 22473.1 22540.5 5.7 8.00 373.00 8.00 0.40 NO
*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
*** NOX Assessment (Hourly) *** 10:18:42
**MODELOPTs: PAGE 3
CONC RURAL ELEV FLGPOL GRDRIS

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

ALL S2
 *** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** NOX Assessment (Hourly) *** 10:18:42
 **MODELOPTs: PAGE 4
 CONC RURAL ELEV FLGPOL GRDRIS

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

(22480.3, 22330.3, 46.0, 1.5); (22480.3, 22330.3, 46.0, 10.0);
 (22480.3, 22330.3, 46.0, 20.0); (22480.3, 22330.3, 46.0, 30.0);
 (22480.3, 22330.3, 46.0, 40.0); (22293.0, 22414.4, 5.4, 1.5);
 (22293.0, 22414.4, 5.4, 10.0); (22293.0, 22414.4, 5.4, 20.0);
 (22293.0, 22414.4, 5.4, 30.0); (22293.0, 22414.4, 5.4, 40.0);
 (22656.1, 24750.4, 9.0, 1.5); (22656.1, 24750.4, 9.0, 10.0);
 (22656.1, 24750.4, 9.0, 20.0); (22656.1, 24750.4, 9.0, 30.0);
 (22656.1, 24750.4, 9.0, 40.0); (23791.9, 23263.2, 2.6, 1.5);
 (23791.9, 23263.2, 2.6, 10.0); (23791.9, 23263.2, 2.6, 20.0);
 (23791.9, 23263.2, 2.6, 30.0); (23791.9, 23263.2, 2.6, 40.0);
 *** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** NOX Assessment (Hourly) *** 10:18:42
 **MODELOPTs: PAGE 5
 CONC RURAL ELEV FLGPOL GRDRIS

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

1111111111 1111111111 1111111111 1111111111 1111111111
 1111111111 1111111111 1111111111 1111111111 1111111111
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 1111111111 1111111111 1111111111 1111111111 1111111111
 1111111111 1111111111 1111111111 1111111111 1111111111
 1111111111 1111111111 1111111111 1111111111 1111111111

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

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

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

| STABILITY CATEGORY | WIND SPEED CATEGORY | | | | | | D | .15000E+00 | .15000E+00 | .15000E+00 |
|--------------------|---------------------|------------|------------|------------|------------|------------|---|------------|------------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | | | | |
| A | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | | | | |
| B | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | .70000E-01 | | | | |
| C | .10000E+00 | .10000E+00 | .10000E+00 | .10000E+00 | .10000E+00 | .10000E+00 | | | | |
| D | .15000E+00 | .15000E+00 | .15000E+00 | .15000E+00 | .15000E+00 | .15000E+00 | | | | |
| E | .35000E+00 | .35000E+00 | .35000E+00 | .35000E+00 | .35000E+00 | .35000E+00 | | | | |
| F | .55000E+00 | .55000E+00 | .55000E+00 | .55000E+00 | .55000E+00 | .55000E+00 | | | | |

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

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

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** NOX Assessment (Hourly) *** 10:18:42
 **MODELOPTs: PAGE 6
 CONC RURAL ELEV FLGPOL GRDRIS

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

FILE: CCH99.met
 FORMAT: (4I2,2(1X,F8.4),1X,F5.1,1X,I1,2(1X,F6.1))
 SURFACE STATION NO.: 99999 UPPER AIR STATION NO.: 99999
 NAME: UNKNOWN NAME: UNKNOWN
 YEAR: 1999 YEAR: 1999

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

| | | | | | | | | | | | | | | |
|----|----|----|----|-------|------|-------|---|--------|--------|--------|-----|--------|---|------|
| 99 | 01 | 01 | 01 | 281.0 | 7.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 02 | 278.0 | 8.90 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 03 | 274.0 | 7.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 04 | 233.0 | 7.40 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 05 | 253.0 | 7.20 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 06 | 252.0 | 7.60 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 07 | 255.0 | 6.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 08 | 283.0 | 5.70 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 09 | 267.0 | 4.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 10 | 251.0 | 4.30 | 291.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 11 | 294.0 | 3.70 | 293.1 | 2 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 12 | 306.0 | 5.60 | 294.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 13 | 313.0 | 9.00 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 14 | 299.0 | 6.40 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 15 | 312.0 | 7.90 | 294.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 16 | 314.0 | 7.60 | 293.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 17 | 311.0 | 6.10 | 291.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 18 | 297.0 | 4.60 | 290.1 | 5 | 1271.9 | 1252.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 19 | 304.0 | 3.80 | 289.1 | 5 | 1262.4 | 1155.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 20 | 277.0 | 3.00 | 289.1 | 5 | 1253.0 | 1057.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 21 | 280.0 | 3.50 | 289.1 | 5 | 1243.5 | 960.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 22 | 282.0 | 5.60 | 289.1 | 4 | 1234.1 | 1234.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 23 | 280.0 | 5.20 | 289.1 | 4 | 1224.6 | 1224.6 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 24 | 260.0 | 4.00 | 289.1 | 5 | 1215.1 | 669.7 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |

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

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** NOX Assessment (Hourly) *** 10:18:42

**MODELOPTs: PAGE 7

CONC RURAL ELEV FLGPOL GRDRIS

*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF NOX IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|-------------|-------------|---------|-------------|-------------|---------|
| 22480.30 | 22330.30 | 2.08754 | 22480.30 | 22330.30 | 2.12002 |
| 22480.30 | 22330.30 | 1.13294 | 22480.30 | 22330.30 | 0.24128 |
| 22480.30 | 22330.30 | 0.03711 | 22293.00 | 22414.40 | 0.49303 |
| 22293.00 | 22414.40 | 0.64250 | 22293.00 | 22414.40 | 0.80350 |
| 22293.00 | 22414.40 | 0.85765 | 22293.00 | 22414.40 | 0.44026 |
| 22656.10 | 24750.40 | 0.02371 | 22656.10 | 24750.40 | 0.02342 |
| 22656.10 | 24750.40 | 0.02248 | 22656.10 | 24750.40 | 0.02086 |
| 23791.90 | 23263.20 | 0.02869 | | | |
| 23791.90 | 23263.20 | 0.02938 | 23791.90 | 23263.20 | 0.03067 |
| 23791.90 | 23263.20 | 0.03058 | 23791.90 | 23263.20 | 0.02773 |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
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**MODELOPTs: PAGE 8

CONC RURAL ELEV FLGPOL GRDRIS

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF NOX IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|----------------------|-------------|-------------|----------------------|
| 22480.30 | 22330.30 | 71.01766 (99011902) | 22480.30 | 22330.30 | 78.31426 (99072401) |
| 22480.30 | 22330.30 | 46.16709 (99122107) | 22480.30 | 22330.30 | 14.45173 (99122107) |
| 22480.30 | 22330.30 | 7.81238 (99111813) | 22293.00 | 22414.40 | 30.55245 (99060407) |
| 22293.00 | 22414.40 | 47.50522 (99030701) | 22293.00 | 22414.40 | 111.81676 (99091006) |
| 22293.00 | 22414.40 | 251.46465 (99091006) | 22293.00 | 22414.40 | 109.18335 (99051822) |
| 22656.10 | 24750.40 | 8.16045 (99051820) | 22656.10 | 24750.40 | 8.28467 (99051820) |
| 22656.10 | 24750.40 | 8.37003 (99051820) | 22656.10 | 24750.40 | 7.84173 (99051820) |

22656.10 24750.40 6.45767 (99051820) 23791.90 23263.20 9.73974 (99060201)
 23791.90 23263.20 12.03066 (99060201) 23791.90 23263.20 17.11802 (99060201)
 23791.90 23263.20 20.52868 (99060201) 23791.90 23263.20 19.15473 (99022421)
 *** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** NOX Assessment (Hourly) *** 10:18:42

**MODELOPTs: PAGE 9
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF NOX IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|----------------------|-------------|-------------|----------------------|
| 22480.30 | 22330.30 | 70.97898 (99012802) | 22480.30 | 22330.30 | 78.31425 (99090905) |
| 22480.30 | 22330.30 | 45.80993 (99011216) | 22480.30 | 22330.30 | 14.01081 (99011216) |
| 22480.30 | 22330.30 | 7.19573 (99092710) | 22293.00 | 22414.40 | 29.59320 (99110904) |
| 22293.00 | 22414.40 | 45.76274 (99060407) | 22293.00 | 22414.40 | 103.39162 (99012219) |
| 22293.00 | 22414.40 | 246.39705 (99012219) | 22293.00 | 22414.40 | 104.72958 (99012219) |
| 22656.10 | 24750.40 | 7.03312 (99070702) | 22656.10 | 24750.40 | 6.95024 (99070702) |
| 22656.10 | 24750.40 | 6.68490 (99070702) | 22656.10 | 24750.40 | 6.21762 (99070702) |
| 22656.10 | 24750.40 | 5.54339 (99070702) | 23791.90 | 23263.20 | 9.47970 (99022421) |
| 23791.90 | 23263.20 | 11.76608 (99022421) | 23791.90 | 23263.20 | 16.88919 (99022421) |
| 23791.90 | 23263.20 | 20.43851 (99022421) | 23791.90 | 23263.20 | 19.05594 (99060201) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** NOX Assessment (Hourly) *** 10:18:42

**MODELOPTs: PAGE 10
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF NOX IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|----------------------|-------------|-------------|----------------------|
| 22480.30 | 22330.30 | 37.98565c (99122024) | 22480.30 | 22330.30 | 42.06573c (99122024) |
| 22480.30 | 22330.30 | 29.55864c (99122024) | 22480.30 | 22330.30 | 8.26908c (99122024) |
| 22480.30 | 22330.30 | 0.86431c (99122024) | 22293.00 | 22414.40 | 3.89232 (99042924) |
| 22293.00 | 22414.40 | 5.17658 (99012224) | 22293.00 | 22414.40 | 8.56728 (99012224) |
| 22293.00 | 22414.40 | 12.17008 (99022624) | 22293.00 | 22414.40 | 6.07225 (99051424) |
| 22656.10 | 24750.40 | 0.45968c (99051824) | 22656.10 | 24750.40 | 0.46366c (99051824) |
| 22656.10 | 24750.40 | 0.46289c (99051824) | 22656.10 | 24750.40 | 0.43226c (99051824) |
| 22656.10 | 24750.40 | 0.36138c (99051824) | 23791.90 | 23263.20 | 0.56844 (99022424) |
| 23791.90 | 23263.20 | 0.66837c (99060224) | 23791.90 | 23263.20 | 0.95100c (99060224) |
| 23791.90 | 23263.20 | 1.14048c (99060224) | 23791.90 | 23263.20 | 1.05866c (99060224) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
 *** NOX Assessment (Hourly) *** 10:18:42

**MODELOPTs: PAGE 11
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE 2ND HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF NOX IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|---------------------|-------------|-------------|---------------------|
| 22480.30 | 22330.30 | 25.69785 (99121924) | 22480.30 | 22330.30 | 28.68737 (99121924) |
| 22480.30 | 22330.30 | 20.51858 (99121924) | 22480.30 | 22330.30 | 5.88669 (99121924) |
| 22480.30 | 22330.30 | 0.63604 (99121924) | 22293.00 | 22414.40 | 3.67098 (99120224) |
| 22293.00 | 22414.40 | 4.52816 (99110924) | 22293.00 | 22414.40 | 5.72729 (99022624) |
| 22293.00 | 22414.40 | 11.75160 (99012224) | 22293.00 | 22414.40 | 5.86987 (99022624) |
| 22656.10 | 24750.40 | 0.41934 (99031824) | 22656.10 | 24750.40 | 0.41406 (99031824) |
| 22656.10 | 24750.40 | 0.39751 (99031824) | 22656.10 | 24750.40 | 0.36935 (99031824) |
| 22656.10 | 24750.40 | 0.33001 (99031824) | 23791.90 | 23263.20 | 0.54110c (99060224) |
| 23791.90 | 23263.20 | 0.66561 (99022424) | 23791.90 | 23263.20 | 0.88203 (99022424) |
| 23791.90 | 23263.20 | 1.02732 (99022424) | 23791.90 | 23263.20 | 0.96054 (99022424) |

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/29/02
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**MODELOPTs: PAGE 12
 CONC RURAL ELEV FLGPOL GRDRIS

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

** CONC OF NOX IN MIRCOGRAM/M3 **

RANK CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE RANK CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE

| | | | |
|-----|--|-----|---|
| 1. | 251.46465 (99091006) AT (22293.00, 22414.40) DC | 26. | 90.29144 (99051404) AT (22293.00, 22414.40) DC |
| 2. | 246.39705 (99012219) AT (22293.00, 22414.40) DC | 27. | 90.21841 (99101602) AT (22293.00, 22414.40) DC |
| 3. | 231.70076 (99022624) AT (22293.00, 22414.40) DC | 28. | 89.78162 (99120923) AT (22293.00, 22414.40) DC |
| 4. | 230.48291 (99021101) AT (22293.00, 22414.40) DC | 29. | 88.77045 (99021804) AT (22293.00, 22414.40) DC |
| 5. | 189.47191 (99030705) AT (22293.00, 22414.40) DC | 30. | 88.07397 (99022223) AT (22293.00, 22414.40) DC |
| 6. | 189.01524 (99012801) AT (22293.00, 22414.40) DC | 31. | 87.40010 (99040804) AT (22293.00, 22414.40) DC |
| 7. | 188.55319 (99022504) AT (22293.00, 22414.40) DC | 32. | 86.43292 (99031323) AT (22293.00, 22414.40) DC |
| 8. | 136.56900 (99070306) AT (22293.00, 22414.40) DC | 33. | 86.42947 (99012002) AT (22293.00, 22414.40) DC |
| 9. | 136.01653 (99081906) AT (22293.00, 22414.40) DC | 34. | 86.32498 (99122607) AT (22293.00, 22414.40) DC |
| 10. | 135.39049 (99030801) AT (22293.00, 22414.40) DC | 35. | 86.30625 (99040921) AT (22293.00, 22414.40) DC |
| 11. | 118.51655 (99051822) AT (22293.00, 22414.40) DC | 36. | 85.84815 (99122601) AT (22293.00, 22414.40) DC |
| 12. | 111.91866 (99040921) AT (22293.00, 22414.40) DC | 37. | 84.67488 (99020722) AT (22293.00, 22414.40) DC |
| 13. | 111.81676 (99091006) AT (22293.00, 22414.40) DC | 38. | 84.31266 (99112504) AT (22293.00, 22414.40) DC |
| 14. | 109.45354 (99060505) AT (22293.00, 22414.40) DC | 39. | 83.17478 (99051404) AT (22293.00, 22414.40) DC |
| 15. | 109.18335 (99051822) AT (22293.00, 22414.40) DC | 40. | 82.07641 (99060505) AT (22293.00, 22414.40) DC |
| 16. | 104.72958 (99012219) AT (22293.00, 22414.40) DC | 41. | 80.72842 (99030705) AT (22293.00, 22414.40) DC |
| 17. | 103.39162 (99012219) AT (22293.00, 22414.40) DC | 42. | 80.39007 (99121403) AT (22293.00, 22414.40) DC |
| 18. | 102.09404 (99021021) AT (22293.00, 22414.40) DC | 43. | 80.12148 (99022504) AT (22293.00, 22414.40) DC |
| 19. | 98.74122 (99022624) AT (22293.00, 22414.40) DC | 44. | 79.90256 (99012801) AT (22293.00, 22414.40) DC |
| 20. | 97.95869 (99021101) AT (22293.00, 22414.40) DC | 45. | 79.73831 (99010508) AT (22293.00, 22414.40) DC |
| 21. | 96.70714 (99021101) AT (22293.00, 22414.40) DC | 46. | 79.16502 (99012801) AT (22293.00, 22414.40) DC |
| 22. | 95.89764 (99091006) AT (22293.00, 22414.40) DC | 47. | 79.09757 (99022504) AT (22293.00, 22414.40) DC |
| 23. | 95.63882 (99022624) AT (22293.00, 22414.40) DC | 48. | 78.38498 (99021702) AT (22293.00, 22414.40) DC |
| 24. | 94.61378 (99090607) AT (22293.00, 22414.40) DC | 49. | 78.31426 (99072401) AT (22480.30, 22330.30) DC |
| 25. | 92.23058 (99040107) AT (22293.00, 22414.40) DC | 50. | 78.31425 (99090905) AT (22480.30, 22330.30) DC |

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation

*** NOX Assessment (Hourly)

*** 10:18:42

*** 01/29/02

**MODELOPTs:

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CONC RURAL ELEV FLGPOL GRDRIS

*** THE MAXIMUM 50 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): S2

** CONC OF NOX IN MIRCOCGRAM/M3 **

RANK CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE RANK CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE

| | | | |
|-----|---|-----|--|
| 1. | 42.06573c(99122024) AT (22480.30, 22330.30) DC | 26. | 9.59156 (99010224) AT (22480.30, 22330.30) DC |
| 2. | 37.98565c(99122024) AT (22480.30, 22330.30) DC | 27. | 9.56488 (99011424) AT (22480.30, 22330.30) DC |
| 3. | 29.55864c(99122024) AT (22480.30, 22330.30) DC | 28. | 9.50014 (99011424) AT (22480.30, 22330.30) DC |
| 4. | 28.68737 (99121924) AT (22480.30, 22330.30) DC | 29. | 9.47550 (99121824) AT (22480.30, 22330.30) DC |
| 5. | 25.69785 (99121924) AT (22480.30, 22330.30) DC | 30. | 9.44678 (99050524) AT (22480.30, 22330.30) DC |
| 6. | 23.05918 (99011224) AT (22480.30, 22330.30) DC | 31. | 9.42051 (99050524) AT (22480.30, 22330.30) DC |
| 7. | 21.17015 (99011224) AT (22480.30, 22330.30) DC | 32. | 9.12356 (99022524) AT (22293.00, 22414.40) DC |
| 8. | 20.51858 (99121924) AT (22480.30, 22330.30) DC | 33. | 9.11209 (99021124) AT (22480.30, 22330.30) DC |
| 9. | 15.29570 (99011224) AT (22480.30, 22330.30) DC | 34. | 8.93707 (99040524) AT (22480.30, 22330.30) DC |
| 10. | 13.00654 (99022124) AT (22480.30, 22330.30) DC | 35. | 8.87050 (99121824) AT (22480.30, 22330.30) DC |
| 11. | 12.91445 (99022124) AT (22480.30, 22330.30) DC | 36. | 8.85154 (99040524) AT (22480.30, 22330.30) DC |
| 12. | 12.17008 (99022624) AT (22293.00, 22414.40) DC | 37. | 8.81081 (99050924) AT (22480.30, 22330.30) DC |
| 13. | 11.75160 (99012224) AT (22293.00, 22414.40) DC | 38. | 8.77208 (99021124) AT (22480.30, 22330.30) DC |
| 14. | 11.23393 (99123024) AT (22480.30, 22330.30) DC | 39. | 8.76002 (99050924) AT (22480.30, 22330.30) DC |
| 15. | 10.79662 (99120524) AT (22480.30, 22330.30) DC | 40. | 8.73310 (99021824) AT (22480.30, 22330.30) DC |
| 16. | 10.75488 (99123024) AT (22480.30, 22330.30) DC | 41. | 8.64355 (99030724) AT (22293.00, 22414.40) DC |
| 17. | 10.67739 (99122124) AT (22480.30, 22330.30) DC | 42. | 8.56728 (99012224) AT (22293.00, 22414.40) DC |
| 18. | 10.49189 (99122124) AT (22480.30, 22330.30) DC | 43. | 8.53685 (99011924) AT (22480.30, 22330.30) DC |
| 19. | 10.47769 (99091024) AT (22293.00, 22414.40) DC | 44. | 8.42250 (99092124) AT (22480.30, 22330.30) DC |
| 20. | 10.44776 (99120524) AT (22480.30, 22330.30) DC | 45. | 8.34744 (99051924) AT (22480.30, 22330.30) DC |
| 21. | 9.89190c(99010324) AT (22480.30, 22330.30) DC | 46. | 8.32276 (99100624) AT (22480.30, 22330.30) DC |
| 22. | 9.70080 (99021824) AT (22480.30, 22330.30) DC | 47. | 8.30385 (99100624) AT (22480.30, 22330.30) DC |
| 23. | 9.66296c(99010324) AT (22480.30, 22330.30) DC | 48. | 8.28098 (99092124) AT (22480.30, 22330.30) DC |
| 24. | 9.60347 (99021124) AT (22293.00, 22414.40) DC | 49. | 8.26908c(99122024) AT (22480.30, 22330.30) DC |
| 25. | 9.59305 (99010224) AT (22480.30, 22330.30) DC | 50. | 8.25297 (99120124) AT (22480.30, 22330.30) DC |

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation

*** NOX Assessment (Hourly)

*** 10:18:42

*** 01/29/02

**MODELOPTs:

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CONC RURAL ELEV FLGPOL GRDRIS

*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

** CONC OF NOX IN MIRCOCGRAM/M3 **

NETWORK

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

ALL 1ST HIGHEST VALUE IS 2.12002 AT (22480.30, 22330.30, 46.00, 10.00) DC NA
2ND HIGHEST VALUE IS 2.08754 AT (22480.30, 22330.30, 46.00, 1.50) DC NA
3RD HIGHEST VALUE IS 1.13294 AT (22480.30, 22330.30, 46.00, 20.00) DC NA
4TH HIGHEST VALUE IS 0.85765 AT (22293.00, 22414.40, 5.40, 30.00) DC NA
5TH HIGHEST VALUE IS 0.80350 AT (22293.00, 22414.40, 5.40, 20.00) DC NA
6TH HIGHEST VALUE IS 0.64250 AT (22293.00, 22414.40, 5.40, 10.00) DC NA
7TH HIGHEST VALUE IS 0.49303 AT (22293.00, 22414.40, 5.40, 1.50) DC NA
8TH HIGHEST VALUE IS 0.44026 AT (22293.00, 22414.40, 5.40, 40.00) DC NA
9TH HIGHEST VALUE IS 0.24128 AT (22480.30, 22330.30, 46.00, 30.00) DC NA
10TH HIGHEST VALUE IS 0.03711 AT (22480.30, 22330.30, 46.00, 40.00) DC NA

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** Chey Lee Shipyard Excavation *** 01/29/02
*** NOX Assessment (Hourly) *** 10:18:42

**MODELOPTs: PAGE 15
CONC RURAL ELEV FLGPOL GRDRIS

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

** CONC OF NOX IN MIRCOGRAM/M3 **

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

ALL HIGH 1ST HIGH VALUE IS 251.46465 ON 99091006: AT (22293.00, 22414.40, 5.40, 30.00) DC NA
HIGH 2ND HIGH VALUE IS 246.39705 ON 99012219: AT (22293.00, 22414.40, 5.40, 30.00) DC NA

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** Chey Lee Shipyard Excavation *** 01/29/02
*** NOX Assessment (Hourly) *** 10:18:42

**MODELOPTs: PAGE 16
CONC RURAL ELEV FLGPOL GRDRIS

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

** CONC OF NOX IN MIRCOGRAM/M3 **

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

ALL HIGH 1ST HIGH VALUE IS 42.06573c ON 99122024: AT (22480.30, 22330.30, 46.00, 10.00) DC NA
HIGH 2ND HIGH VALUE IS 28.68737 ON 99121924: AT (22480.30, 22330.30, 46.00, 10.00) DC NA

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** Chey Lee Shipyard Excavation *** 01/29/02
*** NOX Assessment (Hourly) *** 10:18:42

**MODELOPTs: PAGE 17
CONC RURAL ELEV FLGPOL GRDRIS

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

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

A Total of 0 Fatal Error Message(s)
A Total of 10 Warning Message(s)
A Total of 817 Informational Message(s)
A Total of 817 Calm Hours Identified

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

```

***** WARNING MESSAGES *****
MX W420 797 METQA :Wind Speed Out-of-Range. KURDAT= 99020305
MX W420 1658 METQA :Wind Speed Out-of-Range. KURDAT= 99031102
MX W420 1659 METQA :Wind Speed Out-of-Range. KURDAT= 99031103
MX W420 6200 METQA :Wind Speed Out-of-Range. KURDAT= 99091608
MX W420 6207 METQA :Wind Speed Out-of-Range. KURDAT= 99091615
MX W420 6208 METQA :Wind Speed Out-of-Range. KURDAT= 99091616
MX W420 6209 METQA :Wind Speed Out-of-Range. KURDAT= 99091617
MX W420 6221 METQA :Wind Speed Out-of-Range. KURDAT= 99091705
MX W420 6222 METQA :Wind Speed Out-of-Range. KURDAT= 99091706
MX W420 6223 METQA :Wind Speed Out-of-Range. KURDAT= 99091707

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

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CO

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**
** PROJECT Cheoy Lee Shipyard Excavation
**

```

```

CO STARTING
CO TITLEONE Cheoy Lee Shipyard Excavation
CO TITLETWO CO Assessment (Hourly)
CO MODELOPT GRDRIS CONC RURAL
CO AVERTIME 1 ANNUAL
CO TERRHGTS ELEV
CO POLLUTID CO
CO RUNORNOT RUN
CO ERRORFIL ERRORS.LST
CO FLAGPOLE 0.0
CO FINISHED

```

```

SO STARTING
SO ELEVUNIT METERS
**** ID Src typ Xs Ys Zs
**** -----
SO LOCATION S2 POINT 22473.1 22540.5 5.7
**** ID Emiss Stk hgt Stktmp Stkvel Stkdia
**** -----
SO SRCPARAM S2 0.5188 8.0 373.0 8.0 0.4
SO EMISUNIT 1.0E6 gram/sec microgram/m3
SO SRCGROUP ALL
SO FINISHED

```

```

RE STARTING
RE ELEVUNIT METERS
** ASR
** Xcoord Ycoord Zelev Zflag
** -----
RE DISCCART 22480.3 22330.3 46.0 1.5
RE DISCCART 22480.3 22330.3 46.0 10.0
RE DISCCART 22480.3 22330.3 46.0 20.0
RE DISCCART 22480.3 22330.3 46.0 30.0
RE DISCCART 22480.3 22330.3 46.0 40.0
RE DISCCART 22293.0 22414.4 5.4 1.5
RE DISCCART 22293.0 22414.4 5.4 10.0
RE DISCCART 22293.0 22414.4 5.4 20.0
RE DISCCART 22293.0 22414.4 5.4 30.0
RE DISCCART 22293.0 22414.4 5.4 40.0
RE DISCCART 22656.1 24750.4 9.0 1.5
RE DISCCART 22656.1 24750.4 9.0 10.0
RE DISCCART 22656.1 24750.4 9.0 20.0
RE DISCCART 22656.1 24750.4 9.0 30.0
RE DISCCART 22656.1 24750.4 9.0 40.0
RE DISCCART 23791.9 23263.2 2.6 1.5
RE DISCCART 23791.9 23263.2 2.6 10.0
RE DISCCART 23791.9 23263.2 2.6 20.0
RE DISCCART 23791.9 23263.2 2.6 30.0
RE DISCCART 23791.9 23263.2 2.6 40.0
RE FINISHED

```

```

ME STARTING
ME INPUTFIL CCH99.met (4i2,2(1x,f8.4),1x,f5.1,1x,i1,2(1x,f6.1))
ME ANEMHGHT 98.5 METERS
ME SURFDATA 99999 1999
ME UAIRDATA 99999 1999
ME FINISHED

```

```

OU STARTING
OU RECTABLE ALLAVE FIRST SECOND
OU MAXTABLE ALLAVE 50
OU PLOTFILE 1 ALL first d_co_1.out
OU PLOTFILE ANNUAL ALL d_co_a.out
OU FINISHED

```

*** SETUP Finishes Successfully ***

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02

*** CO Assessment (Hourly) *** 15:13:13

**MODELOPTs: PAGE 1

CONC RURAL ELEV FLGPOL GRDRIS

*** MODEL SETUP OPTIONS SUMMARY ***

**Intermediate Terrain Processing is Selected

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

-- SCAVENGING/DEPOSITION LOGIC --

**Model Uses NO DRY DEPLETION. DDPLETE = F

**Model Uses NO WET DEPLETION. WDPLETE = F

**NO WET SCAVENGING Data Provided.

**NO GAS DRY DEPOSITION Data Provided.

**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses User-Specified Options:

1. Gradual Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.

**Model Accepts Receptors on ELEV Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

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

**This Run Includes: 1 Source(s); 1 Source Group(s); and 20 Receptor(s)

**The Model Assumes A Pollutant Type of: CO

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

**Output Options Selected:

- Model Outputs Tables of ANNUAL Averages by Receptor
- Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
- Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
- Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 98.50 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAM/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MIRCOGRAM/M3

**Approximate Storage Requirements of Model = 1.2 MB of RAM.

**Input Runstream File: d-co.inp

**Output Print File: d-co.lst

**Detailed Error/Message File: ERRORS.LST

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02

*** CO Assessment (Hourly) *** 15:13:13

**MODELOPTs: PAGE 2

CONC RURAL ELEV FLGPOL GRDRIS

*** POINT SOURCE DATA ***

| NUMBER | EMISSION RATE | BASE | STACK | STACK | STACK | STACK | BUILDING | EMISSION RATE |
|-----------|---------------|--------------|----------|----------|----------|---------|----------|---------------|
| SOURCE ID | PART. CATS. | (USER UNITS) | X | Y | ELEV. | HEIGHT | TEMP. | SCALAR VARY |
| ID | CATS. | (METERS) | (METERS) | (METERS) | (METERS) | (DEG.K) | (M/SEC) | (METERS) BY |

S2 0 0.51880E+00 22473.1 22540.5 5.7 8.00 373.00 8.00 0.40 NO

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02

*** CO Assessment (Hourly) *** 15:13:13

**MODELOPTs: PAGE 3

CONC RURAL ELEV FLGPOL GRDRIS

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID SOURCE IDs

ALL S2
*** ISCST3 - VERSION 00101 *** Chey Lee Shipyard Excavation
*** CO Assessment (Hourly) *** 15:13:13 01/16/02
**MODELOPTs: PAGE 4
CONC RURAL ELEV FLGPOL GRDRIS

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

(22480.3, 22330.3, 46.0, 1.5); (22480.3, 22330.3, 46.0, 10.0);
(22480.3, 22330.3, 46.0, 20.0); (22480.3, 22330.3, 46.0, 30.0);
(22480.3, 22330.3, 46.0, 40.0); (22293.0, 22414.4, 5.4, 1.5);
(22293.0, 22414.4, 5.4, 10.0); (22293.0, 22414.4, 5.4, 20.0);
(22293.0, 22414.4, 5.4, 30.0); (22293.0, 22414.4, 5.4, 40.0);
(22656.1, 24750.4, 9.0, 1.5); (22656.1, 24750.4, 9.0, 10.0);
(22656.1, 24750.4, 9.0, 20.0); (22656.1, 24750.4, 9.0, 30.0);
(22656.1, 24750.4, 9.0, 40.0); (23791.9, 23263.2, 2.6, 1.5);
(23791.9, 23263.2, 2.6, 10.0); (23791.9, 23263.2, 2.6, 20.0);
(23791.9, 23263.2, 2.6, 30.0); (23791.9, 23263.2, 2.6, 40.0);
*** ISCST3 - VERSION 00101 *** Chey Lee Shipyard Excavation
*** CO Assessment (Hourly) *** 15:13:13 01/16/02
**MODELOPTs: PAGE 5
CONC RURAL ELEV FLGPOL GRDRIS

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

1111111111 1111111111 1111111111 1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111 1111111111 1111111111 1111111111
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1111111111 1111111111 1111111111 1111111111 1111111111 1111111111 1111111111 1111111111
1111111111 1111111111 1111111111 1111111111 1111111111 1111111111 1111111111 1111111111

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

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

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

Table with 7 columns: STABILITY CATEGORY, WIND SPEED CATEGORY 1, 2, 3, 4, 5, 6. Rows A-F show exponent values for each stability category across wind speed categories.

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

Table with 7 columns: STABILITY CATEGORY, WIND SPEED CATEGORY 1, 2, 3, 4, 5, 6. Rows A-F show vertical potential temperature gradient values for each stability category across wind speed categories.

*** ISCST3 - VERSION 00101 *** *** Cheoy Lee Shipyard Excavation *** 01/16/02
 *** CO Assessment (Hourly) *** 15:13:13
 **MODELOPTs: PAGE 6
 CONC RURAL ELEV FLGPOL GRDRIS

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

FILE: CCH99.met
 FORMAT: (4I2,2(1X,F8.4),1X,F5.1,1X,I1,2(1X,F6.1))
 SURFACE STATION NO.: 99999 UPPER AIR STATION NO.: 99999
 NAME: UNKNOWN NAME: UNKNOWN
 YEAR: 1999 YEAR: 1999

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

| | | | | | | | | | | | | | | |
|----|----|----|----|-------|------|-------|---|--------|--------|--------|-----|--------|---|------|
| 99 | 01 | 01 | 01 | 281.0 | 7.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 02 | 278.0 | 8.90 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 03 | 274.0 | 7.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 04 | 233.0 | 7.40 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 05 | 253.0 | 7.20 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 06 | 252.0 | 7.60 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 07 | 255.0 | 6.50 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 08 | 283.0 | 5.70 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 09 | 267.0 | 4.80 | 290.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 10 | 251.0 | 4.30 | 291.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 11 | 294.0 | 3.70 | 293.1 | 2 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 12 | 306.0 | 5.60 | 294.1 | 3 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 13 | 313.0 | 9.00 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 14 | 299.0 | 6.40 | 295.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 15 | 312.0 | 7.90 | 294.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 16 | 314.0 | 7.60 | 293.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 17 | 311.0 | 6.10 | 291.1 | 4 | 1274.0 | 1274.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 18 | 297.0 | 4.60 | 290.1 | 5 | 1271.9 | 1252.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 19 | 304.0 | 3.80 | 289.1 | 5 | 1262.4 | 1155.0 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 20 | 277.0 | 3.00 | 289.1 | 5 | 1253.0 | 1057.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 21 | 280.0 | 3.50 | 289.1 | 5 | 1234.1 | 960.9 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 22 | 282.0 | 5.60 | 289.1 | 4 | 1234.1 | 1234.1 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 23 | 280.0 | 5.20 | 289.1 | 4 | 1224.6 | 1224.6 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |
| 99 | 01 | 01 | 24 | 260.0 | 4.00 | 289.1 | 5 | 1215.1 | 669.7 | 0.0000 | 0.0 | 0.0000 | 0 | 0.00 |

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

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*** THE ANNUAL (1 YRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC | X-COORD (M) | Y-COORD (M) | CONC |
|-------------|-------------|---------|-------------|-------------|---------|
| 22480.30 | 22330.30 | 8.76936 | 22480.30 | 22330.30 | 8.90581 |
| 22480.30 | 22330.30 | 4.75927 | 22480.30 | 22330.30 | 1.01357 |
| 22480.30 | 22330.30 | 0.15588 | 22293.00 | 22414.40 | 2.07110 |
| 22293.00 | 22414.40 | 2.69903 | 22293.00 | 22414.40 | 3.37535 |
| 22293.00 | 22414.40 | 3.60283 | 22293.00 | 22414.40 | 1.84943 |
| 22656.10 | 24750.40 | 0.09958 | 22656.10 | 24750.40 | 0.09837 |
| 22656.10 | 24750.40 | 0.09445 | 22656.10 | 24750.40 | 0.08764 |
| 22656.10 | 24750.40 | 0.07817 | 23791.90 | 23263.20 | 0.12051 |
| 23791.90 | 23263.20 | 0.12344 | 23791.90 | 23263.20 | 0.12883 |
| 23791.90 | 23263.20 | 0.12848 | 23791.90 | 23263.20 | 0.11647 |

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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|----------------------|-------------|-------------|----------------------|
| 22480.30 | 22330.30 | 298.33170 (99011902) | 22480.30 | 22330.30 | 328.98331 (99072401) |

| | | | | | |
|----------|----------|-----------------------|----------|----------|----------------------|
| 22480.30 | 22330.30 | 193.93915 (99122107) | 22480.30 | 22330.30 | 60.70895 (99122107) |
| 22480.30 | 22330.30 | 32.81834 (99111813) | 22293.00 | 22414.40 | 128.34505 (99060407) |
| 22293.00 | 22414.40 | 199.56038 (99030701) | 22293.00 | 22414.40 | 469.72092 (99091006) |
| 22293.00 | 22414.40 | 1056.35510 (99091006) | 22293.00 | 22414.40 | 458.65848 (99051822) |
| 22656.10 | 24750.40 | 34.28048 (99051820) | 22656.10 | 24750.40 | 34.80231 (99051820) |
| 22656.10 | 24750.40 | 35.16090 (99051820) | 22656.10 | 24750.40 | 32.94164 (99051820) |
| 22656.10 | 24750.40 | 27.12744 (99051820) | 23791.90 | 23263.20 | 40.91479 (99060201) |
| 23791.90 | 23263.20 | 50.53850 (99060201) | 23791.90 | 23263.20 | 71.90953 (99060201) |
| 23791.90 | 23263.20 | 86.23708 (99060201) | 23791.90 | 23263.20 | 80.46538 (99022421) |

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*** THE 2ND HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF CO IN MIRCOGRAM/M3 **

| X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) | X-COORD (M) | Y-COORD (M) | CONC (YYMMDDHH) |
|-------------|-------------|-----------------------|-------------|-------------|----------------------|
| 22480.30 | 22330.30 | 298.16919 (99012802) | 22480.30 | 22330.30 | 328.98325 (99090905) |
| 22480.30 | 22330.30 | 192.43877 (99011213) | 22480.30 | 22330.30 | 58.85673 (99011216) |
| 22480.30 | 22330.30 | 30.22787 (99092710) | 22293.00 | 22414.40 | 124.31541 (99110904) |
| 22293.00 | 22414.40 | 192.24055 (99060407) | 22293.00 | 22414.40 | 434.32852 (99012219) |
| 22293.00 | 22414.40 | 1035.06714 (99012219) | 22293.00 | 22414.40 | 439.94904 (99012219) |
| 22656.10 | 24750.40 | 29.54482 (99070702) | 22656.10 | 24750.40 | 29.19662 (99070702) |
| 22656.10 | 24750.40 | 28.08199 (99070702) | 22656.10 | 24750.40 | 26.11904 (99070702) |
| 22656.10 | 24750.40 | 23.28674 (99070702) | 23791.90 | 23263.20 | 39.82242 (99022421) |
| 23791.90 | 23263.20 | 49.42707 (99022421) | 23791.90 | 23263.20 | 70.94829 (99022421) |
| 23791.90 | 23263.20 | 85.85830 (99022421) | 23791.90 | 23263.20 | 80.05038 (99060201) |

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*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): S2 ,

** CONC OF CO IN MIRCOGRAM/M3 **

| RANK | CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE | RANK | CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE |
|------|---|------|--|
| 1. | 1056.35510 (99091006) AT (22293.00, 22414.40) DC | 26. | 379.29718 (99051404) AT (22293.00, 22414.40) DC |
| 2. | 1035.06714 (99012219) AT (22293.00, 22414.40) DC | 27. | 378.99039 (99101602) AT (22293.00, 22414.40) DC |
| 3. | 973.33081 (99022624) AT (22293.00, 22414.40) DC | 28. | 377.15549 (99120923) AT (22293.00, 22414.40) DC |
| 4. | 968.21484 (99021101) AT (22293.00, 22414.40) DC | 29. | 372.90781 (99021804) AT (22293.00, 22414.40) DC |
| 5. | 795.93542 (99030705) AT (22293.00, 22414.40) DC | 30. | 369.98196 (99022223) AT (22293.00, 22414.40) DC |
| 6. | 794.01709 (99012801) AT (22293.00, 22414.40) DC | 31. | 367.15118 (99040804) AT (22293.00, 22414.40) DC |
| 7. | 792.07605 (99022504) AT (22293.00, 22414.40) DC | 32. | 363.08829 (99031323) AT (22293.00, 22414.40) DC |
| 8. | 573.70038 (99070306) AT (22293.00, 22414.40) DC | 33. | 363.07376 (99012002) AT (22293.00, 22414.40) DC |
| 9. | 571.37958 (99081906) AT (22293.00, 22414.40) DC | 34. | 362.63480 (99122607) AT (22293.00, 22414.40) DC |
| 10. | 568.74969 (99030801) AT (22293.00, 22414.40) DC | 35. | 362.55612 (99040921) AT (22293.00, 22414.40) DC |
| 11. | 497.86548 (99051822) AT (22293.00, 22414.40) DC | 36. | 360.63174 (99122601) AT (22293.00, 22414.40) DC |
| 12. | 470.14899 (99040921) AT (22293.00, 22414.40) DC | 37. | 355.70306 (99020722) AT (22293.00, 22414.40) DC |
| 13. | 469.72092 (99091006) AT (22293.00, 22414.40) DC | 38. | 354.18143 (99112504) AT (22293.00, 22414.40) DC |
| 14. | 459.79349 (99060505) AT (22293.00, 22414.40) DC | 39. | 349.40143 (99051404) AT (22293.00, 22414.40) DC |
| 15. | 458.65848 (99051822) AT (22293.00, 22414.40) DC | 40. | 344.78735 (99060505) AT (22293.00, 22414.40) DC |
| 16. | 439.94904 (99012219) AT (22293.00, 22414.40) DC | 41. | 339.12473 (99030705) AT (22293.00, 22414.40) DC |
| 17. | 434.32852 (99012219) AT (22293.00, 22414.40) DC | 42. | 337.70337 (99121403) AT (22293.00, 22414.40) DC |
| 18. | 428.87762 (99021021) AT (22293.00, 22414.40) DC | 43. | 336.57510 (99022504) AT (22293.00, 22414.40) DC |
| 19. | 414.79309 (99022624) AT (22293.00, 22414.40) DC | 44. | 335.65546 (99012801) AT (22293.00, 22414.40) DC |
| 20. | 411.50580 (99021101) AT (22293.00, 22414.40) DC | 45. | 334.96548 (99010508) AT (22293.00, 22414.40) DC |
| 21. | 406.24826 (99021101) AT (22293.00, 22414.40) DC | 46. | 332.55722 (99012801) AT (22293.00, 22414.40) DC |
| 22. | 402.84778 (99091006) AT (22293.00, 22414.40) DC | 47. | 332.27386 (99022504) AT (22293.00, 22414.40) DC |
| 23. | 401.76047 (99022624) AT (22293.00, 22414.40) DC | 48. | 329.28036 (99021702) AT (22293.00, 22414.40) DC |
| 24. | 397.45450 (99090607) AT (22293.00, 22414.40) DC | 49. | 328.98331 (99072401) AT (22480.30, 22330.30) DC |
| 25. | 387.44312 (99040107) AT (22293.00, 22414.40) DC | 50. | 328.98325 (99090905) AT (22480.30, 22330.30) DC |

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

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*** THE SUMMARY OF MAXIMUM ANNUAL (1 YRS) RESULTS ***

** CONC OF CO IN MIRCOGRAM/M3 **

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

 ALL 1ST HIGHEST VALUE IS 8.90581 AT (22480.30, 22330.30, 46.00, 10.00) DC NA
 2ND HIGHEST VALUE IS 8.76936 AT (22480.30, 22330.30, 46.00, 1.50) DC NA
 3RD HIGHEST VALUE IS 4.75927 AT (22480.30, 22330.30, 46.00, 20.00) DC NA
 4TH HIGHEST VALUE IS 3.60283 AT (22293.00, 22414.40, 5.40, 30.00) DC NA
 5TH HIGHEST VALUE IS 3.37535 AT (22293.00, 22414.40, 5.40, 20.00) DC NA
 6TH HIGHEST VALUE IS 2.69903 AT (22293.00, 22414.40, 5.40, 10.00) DC NA
 7TH HIGHEST VALUE IS 2.07110 AT (22293.00, 22414.40, 5.40, 1.50) DC NA
 8TH HIGHEST VALUE IS 1.84943 AT (22293.00, 22414.40, 5.40, 40.00) DC NA
 9TH HIGHEST VALUE IS 1.01357 AT (22480.30, 22330.30, 46.00, 30.00) DC NA
 10TH HIGHEST VALUE IS 0.15588 AT (22480.30, 22330.30, 46.00, 40.00) DC NA

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

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CONC RURAL ELEV FLGPOL GRDRIS

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

** CONC OF CO IN MIRCOGRAM/M3 **

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

 ALL HIGH 1ST HIGH VALUE IS 1056.35510 ON 99091006: AT (22293.00, 22414.40, 5.40, 30.00) DC NA
 HIGH 2ND HIGH VALUE IS 1035.06714 ON 99012219: AT (22293.00, 22414.40, 5.40, 30.00) DC NA

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR
 BD = BOUNDARY

*** ISCST3 - VERSION 00101 *** Cheoy Lee Shipyard Excavation *** 01/16/02

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CONC RURAL ELEV FLGPOL GRDRIS

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

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

A Total of 0 Fatal Error Message(s)
 A Total of 10 Warning Message(s)
 A Total of 817 Informational Message(s)
 A Total of 817 Calm Hours Identified

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

MX W420 797 METQA :Wind Speed Out-of-Range. KURDAT= 99020305
 MX W420 1658 METQA :Wind Speed Out-of-Range. KURDAT= 99031102
 MX W420 1659 METQA :Wind Speed Out-of-Range. KURDAT= 99031103
 MX W420 6200 METQA :Wind Speed Out-of-Range. KURDAT= 99091608
 MX W420 6207 METQA :Wind Speed Out-of-Range. KURDAT= 99091615
 MX W420 6208 METQA :Wind Speed Out-of-Range. KURDAT= 99091616
 MX W420 6209 METQA :Wind Speed Out-of-Range. KURDAT= 99091617
 MX W420 6221 METQA :Wind Speed Out-of-Range. KURDAT= 99091705
 MX W420 6222 METQA :Wind Speed Out-of-Range. KURDAT= 99091706
 MX W420 6223 METQA :Wind Speed Out-of-Range. KURDAT= 99091707

*** ISCST3 Finishes Successfully ***
