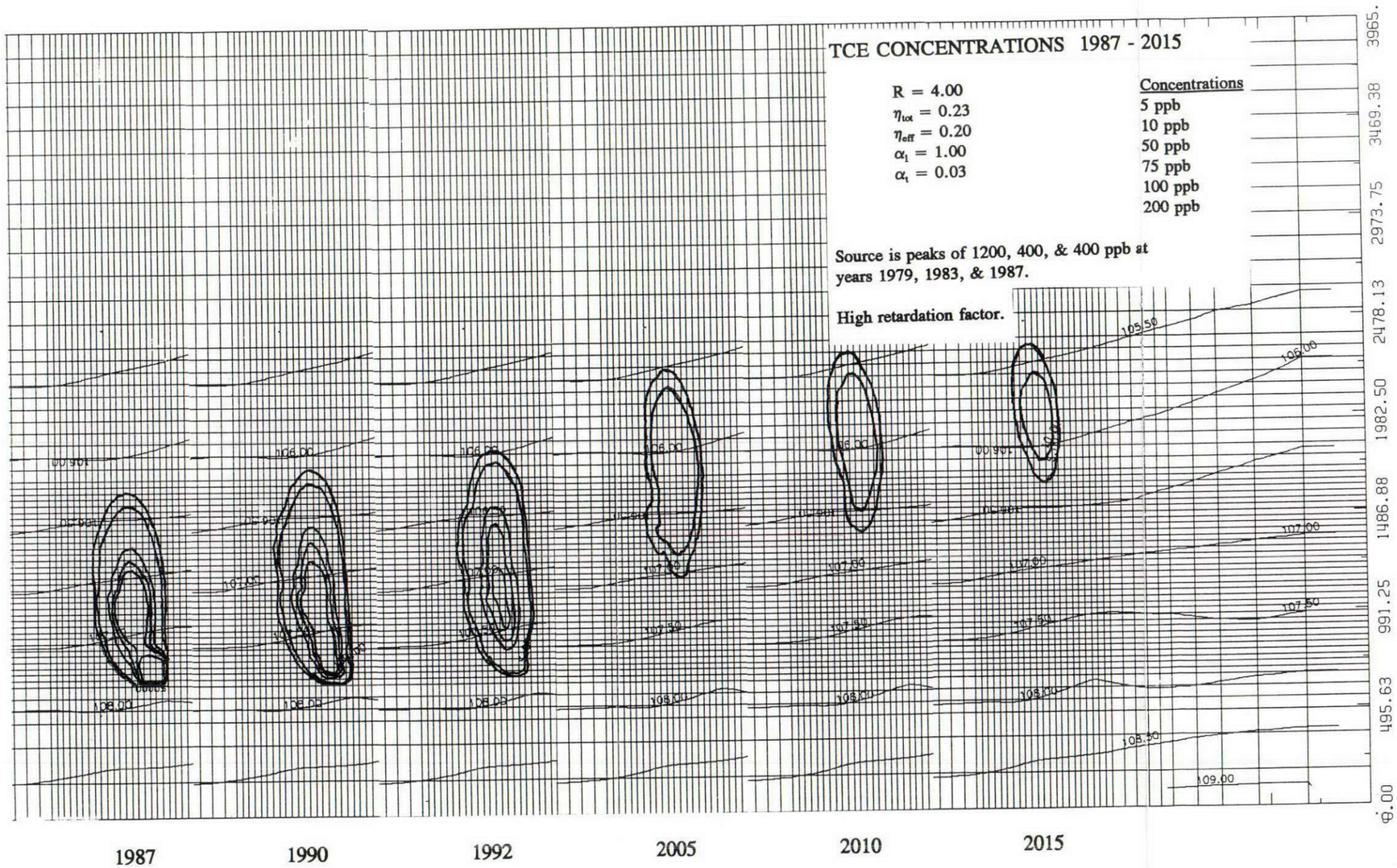
# AR TARGET SHEET

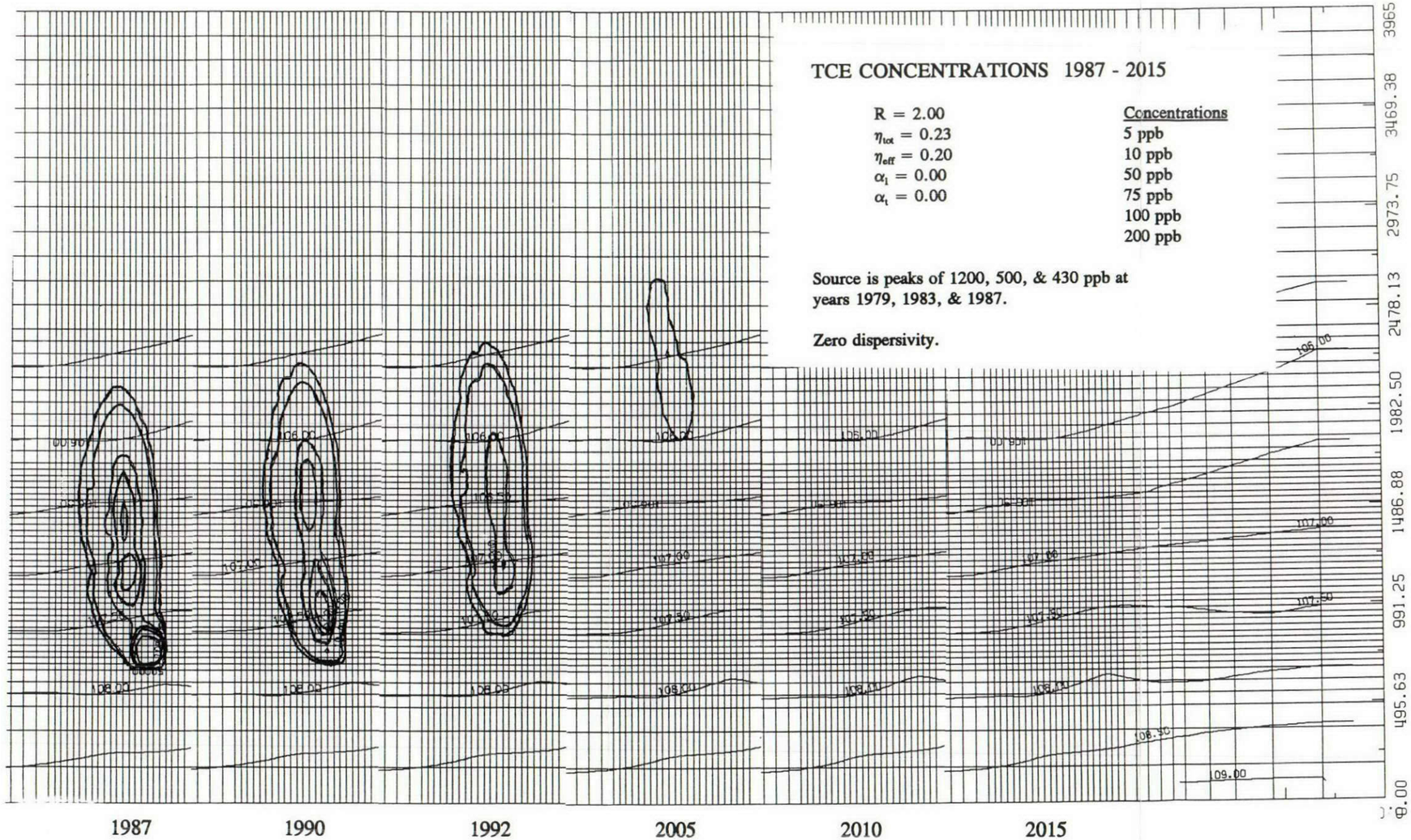
The following document was too large to scan as one unit, therefore, it has been broken down into sections.

| | |
|---|---|
| EDMC#: | 0027912 |
| SECTION: | 4 of 8 |
| DOCUMENT #: | DOE/RL-92-67, DRAFT C |
| TITLE: | Draft RI/FS Report for 1100-EM-1 OU, Hanford |



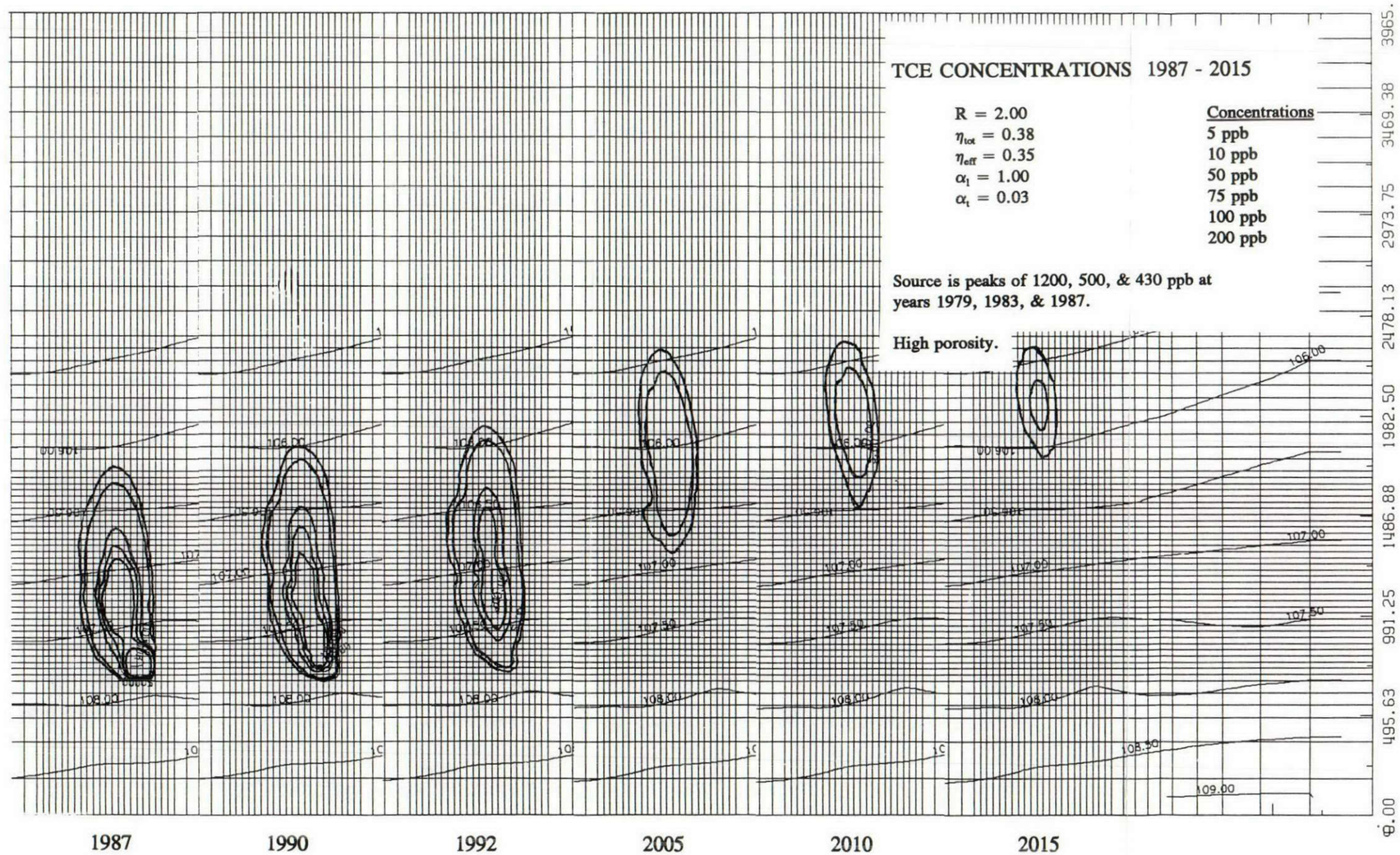

Computed TCE Plumes with Retardation Factor of 4.0.

Figure H-16




Computed TCE Plumes with No Dispersion.

Figure H-17




Computed TCE Plumes with Total Porosity of 0.38 and Effective Porosity of 0.35.

Figure H-18

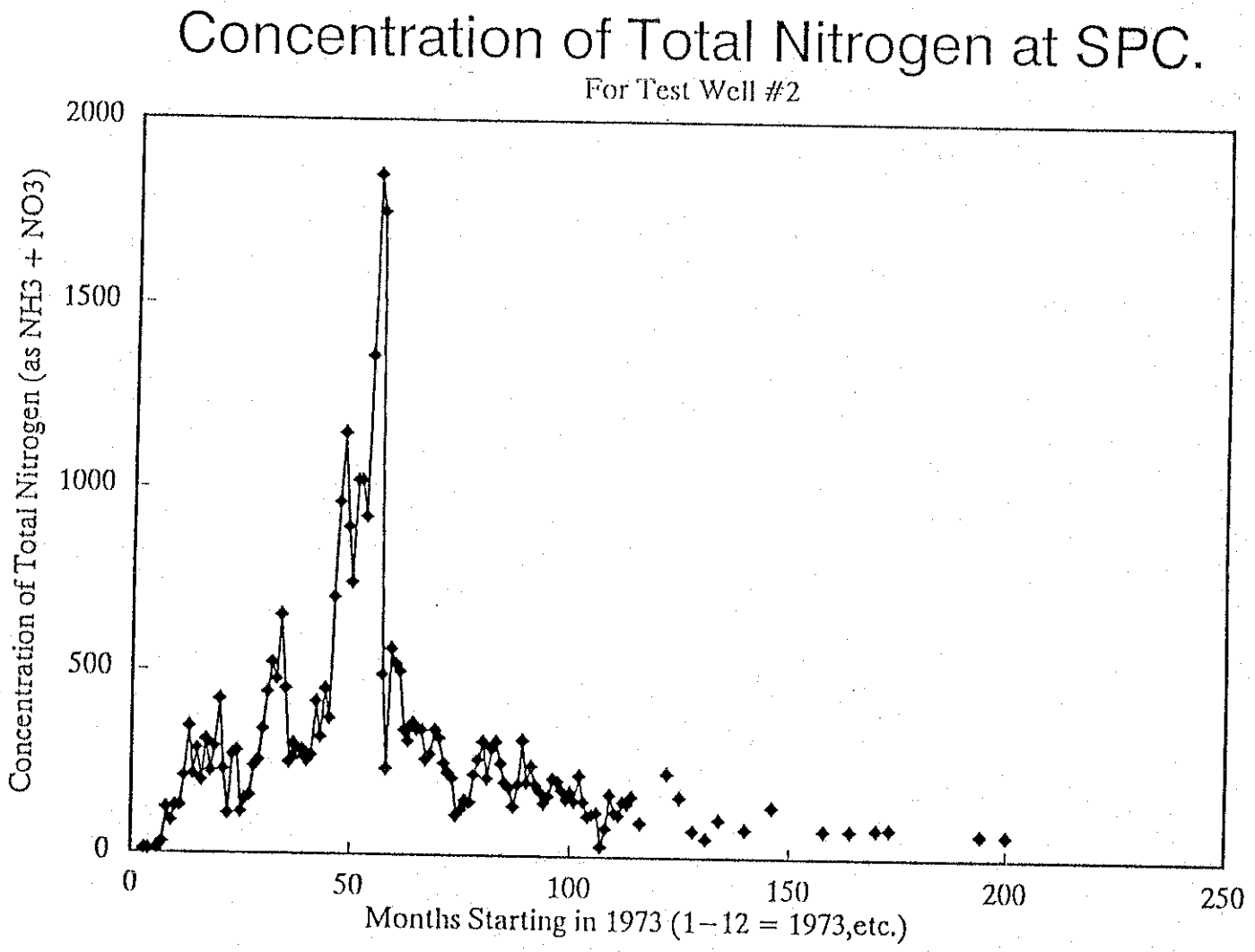



**Figure H-19 Total Nitrogen Concentrations for Well TW-2.**

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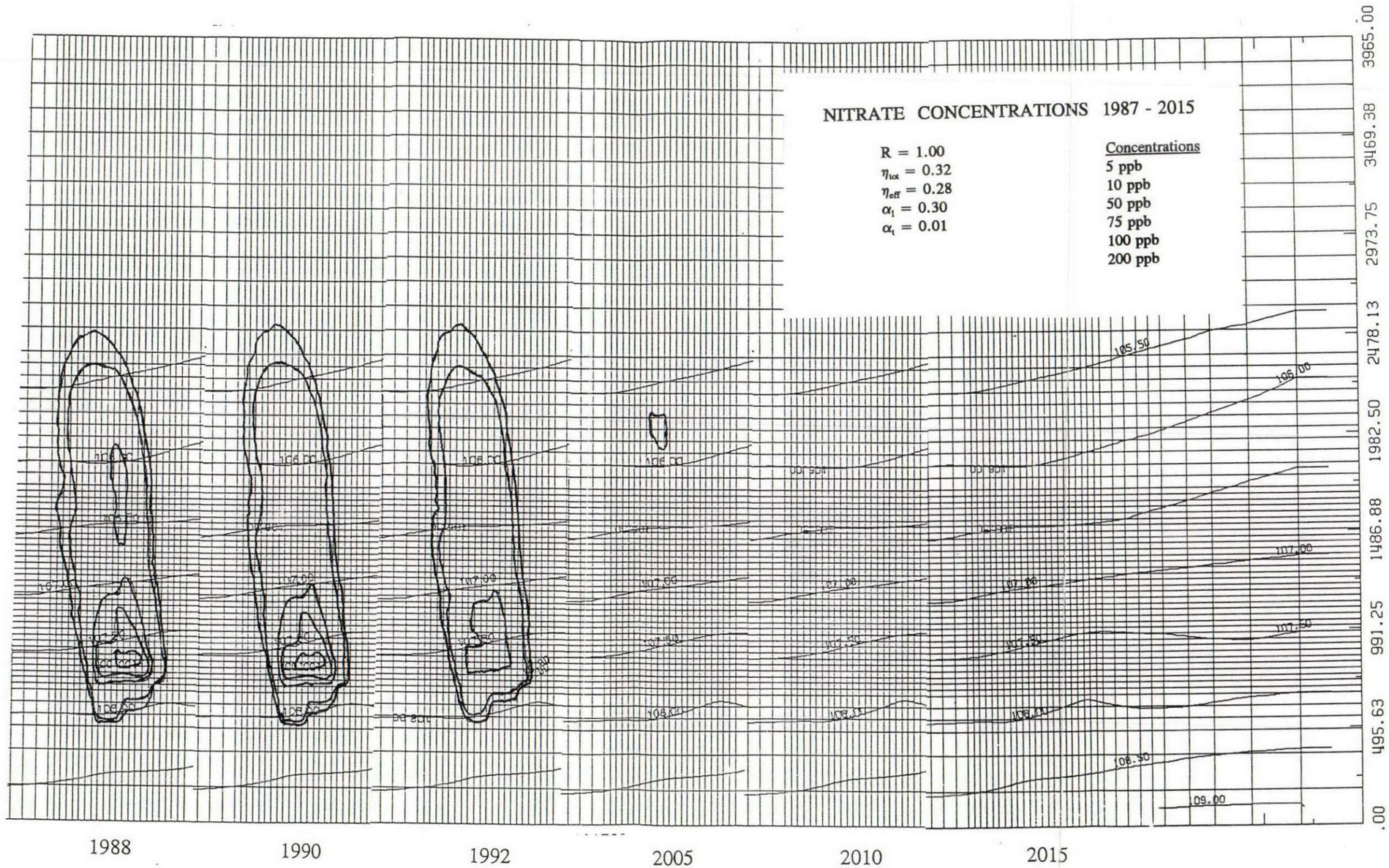


Computed Nitrate Plumes with Conservative Transport Parameters and No Retardation.

Figure H-20

93129730837

# SATURATED ZONE CONTAMINANT TRANSPORT MODEL INPUT FILE

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93129330839

```
/
/        The following is a PORFLOW v-2.4 input file for modeling
/        saturated zone, TCE contaminant transport at the
/        1100-EM-1 Operable Unit, Hanford, WA.
/
/        The files 'xval.dat', 'yval.dat', 'zval.dat', and
/        'hedstrt.dat' must be in the same dir for operation
/
/
/
TITLe 1100-EM-1 Groundwater Model
USER USACE Walla Walla Dist, Environmental Engineering Br.
/Mat Johansen - (509)522-6645
/
/**************************************************GridDimensions
/
GRID is 65 x 42 x 15
/
COORdinate X values read from 'xval.dat'
COORdinate Y values read from 'yval.dat'
COORdinate Z values read from 'zval.dat'
/
/**************************************************GETINITIAL P's
/
READ # 4 from 'hedstrt.arc'
/
/**************************************************ZONEDESIGNATION
/layer 1
ZONE 1  from (1,1,1) to (65,42,1)
/layer 2
ZONE 1  from (1,1,2) to (65,42,2)
/layer 3
ZONE 1  from (1,1,3) to (65,42,3)
ZONE 5  from (23,40,3) to (50,42,3)
ZONE 5  from (27,38,3) to (48,40,3)
ZONE 5  from (28,36,3) to (48,38,3)
ZONE 5  from (30,33,3) to (46,36,3)
ZONE 5  from (33,30,3) to (46,37,3)
ZONE 5  from (33,28,3) to (44,30,3)
ZONE 5  from (35,25,3) to (44,28,3)
ZONE 5  from (35,18,3) to (42,25,3)
/layer 4
ZONE 5  from (1,1,4) to (65,42,4)
ZONE 1  from (34,1,4) to (58,3,4)
ZONE 1  from (37,3,4) to (58,4,4)
ZONE 1  from (40,4,4) to (56,7,4)
ZONE 1  from (44,7,4) to (56,10,4)
ZONE 1  from (44,10,4) to (54,15,4)
ZONE 1  from (47,15,4) to (54,24,4)
ZONE 1  from (49,24,4) to (54,31,4)
ZONE 1  from (50,31,4) to (54,34,4)
ZONE 1  from (52,34,4) to (53,40,4)
ZONE 1  from (52,1,4) to (65,42,4)
ZONE 7  from (62,32,4) to (65,36,4)
```

```
/layer 5
ZONE 5  from (1,1,5) to (65,42,5)
ZONE 1  from (40,1,5) to (58,2,5)
ZONE 1  from (43,2,5) to (58,4,5)
ZONE 1  from (45,4,5) to (56,7,5)
ZONE 1  from (49,7,5) to (56,10,5)
ZONE 1  from (49,10,5) to (54,15,5)
ZONE 1  from (52,15,5) to (54,24,5)
ZONE 1  from (53,24,5) to (54,34,5)
ZONE 1  from (52,40,5) to (65,42,5)
ZONE 1  from (53,1,5) to (65,42,5)
ZONE 7  from (61,35,5) to (65,38,5)
ZONE 7  from (62,30,5) to (65,35,5)
ZONE 9  from (29,19,5) to (42,35,5)
ZONE 9  from (33,21,5) to (44,31,5)
ZONE 9  from (35,18,5) to (45,27,5)
ZONE 9  from (40,11,5) to (46,22,5)
ZONE 9  from (43,9,5) to (47,18,5)
/layer 6
ZONE 5  from (1,1,6) to (65,42,6)
ZONE 4  from (48,41,6) to (65,42,6)
ZONE 4  from (50,40,6) to (65,42,6)
ZONE 4  from (52,38,6) to (65,42,6)
ZONE 4  from (53,34,6) to (65,42,6)
ZONE 4  from (54,29,6) to (65,42,6)
ZONE 4  from (55,24,6) to (65,42,6)
ZONE 4  from (56,1,6) to (65,42,6)
ZONE 4  from (51,1,6) to (65,2,6)
ZONE 4  from (53,2,6) to (65,4,6)
ZONE 4  from (54,4,6) to (65,12,6)
ZONE 5  from (57,31,6) to (58,34,6)
ZONE 5  from (57,31,6) to (59,33,6)
ZONE 5  from (56,19,6) to (58,21,6)
ZONE 7  from (59,37,6) to (65,39,6)
ZONE 7  from (60,34,6) to (65,39,6)
ZONE 7  from (61,31,6) to (65,39,6)
ZONE 7  from (62,1,6) to (65,39,6)
ZONE 9  from (26,26,6) to (29,34,6)
ZONE 9  from (29,19,6) to (42,35,6)
ZONE 9  from (32,15,6) to (44,28,6)
ZONE 9  from (35,11,6) to (46,24,6)
ZONE 9  from (39,9,6) to (47,19,6)
ZONE 9  from (41,8,6) to (48,16,6)
/layer 7
ZONE 4  from (1,1,7) to (65,42,7)
ZONE 9  from (28,10,7) to (33,33,7)
ZONE 9  from (28,10,7) to (36,26,7)
ZONE 9  from (28,10,7) to (38,16,7)
ZONE 5  from (1,1,7) to (19,2,7)
ZONE 5  from (1,2,7) to (25,3,7)
ZONE 5  from (1,3,7) to (35,4,7)
ZONE 5  from (1,4,7) to (40,8,7)
ZONE 5  from (1,8,7) to (38,10,7)
ZONE 5  from (1,8,7) to (36,13,7)
```

```
ZONE 5  from (1,8,7) to (34,16,7)
ZONE 5  from (1,8,7) to (32,18,7)
ZONE 5  from (1,8,7) to (30,22,7)
ZONE 5  from (1,8,7) to (28,33,7)
ZONE 5  from (1,33,7) to (52,38,7)
ZONE 5  from (1,33,7) to (51,39,7)
ZONE 5  from (1,33,7) to (50,40,7)
ZONE 5  from (1,33,7) to (48,42,7)
ZONE 5  from (44,32,7) to (52,38,7)
ZONE 5  from (48,25,7) to (53,34,7)
ZONE 5  from (49,20,7) to (54,30,7)
ZONE 5  from (51,13,7) to (55,21,7)
ZONE 7  from (60,1,7) to (65,16,7)
ZONE 7  from (59,5,7) to (60,8,7)
ZONE 7  from (61,16,7) to (65,34,7)
ZONE 7  from (60,34,7) to (65,39,7)
ZONE 7  from (59,36,7) to (65,39,7)
ZONE 7  from (58,38,7) to (65,40,7)
/layer 8
ZONE 4  from (1,1,8) to (65,42,8)
ZONE 5  from (1,4,8) to (10,5,8)
ZONE 5  from (1,5,8) to (25,6,8)
ZONE 5  from (1,6,8) to (33,12,8)
ZONE 5  from (1,12,8) to (30,16,8)
ZONE 5  from (1,16,8) to (26,20,8)
ZONE 5  from (1,20,8) to (25,23,8)
ZONE 5  from (1,22,8) to (21,28,8)
ZONE 5  from (1,22,8) to (19,36,8)
ZONE 5  from (1,36,8) to (21,37,8)
ZONE 5  from (1,37,8) to (23,38,8)
ZONE 5  from (1,38,8) to (29,39,8)
ZONE 5  from (1,39,8) to (46,41,8)
ZONE 5  from (1,40,8) to (45,42,8)
ZONE 5  from (41,38,8) to (48,40,8)
ZONE 5  from (50,23,8) to (52,28,8)
ZONE 5  from (51,19,8) to (53,27,8)
/
ZONE 5  from (44,33,8) to (50,38,8)
ZONE 5  from (47,25,8) to (52,35,8)
ZONE 5  from (49,23,8) to (53,30,8)
/
ZONE 7  from (59,1,8) to (65,8,8)
ZONE 7  from (60,8,8) to (65,40,8)
ZONE 7  from (59,36,8) to (65,40,8)
ZONE 7  from (58,38,8) to (65,40,8)
ZONE 7  from (57,39,8) to (65,41,8)
/layer 9
ZONE 4  from (1,1,9) to (65,42,9)
ZONE 5  from (1,5,9) to (7,7,9)
ZONE 5  from (1,7,9) to (28,16,9)
ZONE 5  from (1,16,9) to (25,20,9)
ZONE 5  from (1,20,9) to (22,25,9)
ZONE 5  from (1,25,9) to (20,29,9)
ZONE 5  from (1,29,9) to (19,38,9)
```

```
ZONE 5  from (1,38,9) to (24,40,9)
ZONE 5  from (1,40,9) to (46,41,9)
ZONE 5  from (1,41,9) to (44,42,9)
ZONE 5  from (41,39,9) to (46,42,9)
ZONE 5  from (50,25,9) to (52,30,9)
ZONE 5  from (51,22,9) to (53,27,9)
/
ZONE 5  from (42,36,9) to (47,39,9)
ZONE 5  from (45,32,9) to (49,37,9)
ZONE 5  from (48,28,9) to (51,34,9)
/
ZONE 7  from (56,40,9) to (65,41,9)
ZONE 7  from (57,38,9) to (65,41,9)
ZONE 7  from (58,35,9) to (65,41,9)
ZONE 7  from (59,1,9) to (65,40,9)
ZONE 7  from (58,1,9) to (65,9,9)
ZONE 10 FROM (60,20,10) TO (65,40,10)
/layer 10
ZONE 4  from (1,1,10) to (65,42,10)
ZONE 7  from (57,40,10) to (65,42,10)
ZONE 7  from (57,39,10) to (65,42,10)
ZONE 7  from (57,38,10) to (65,42,10)
ZONE 7  from (57,36,10) to (65,42,10)
ZONE 7  from (58,1,10) to (65,42,10)
ZONE 10 FROM (59,37,10) TO (65,42,10)
ZONE 10 FROM (61,10,10) TO (65,40,10)
/
/layer 11
/
ZONE 4  from (1,1,11) to (65,42,11)
ZONE 7  from (55,25,11) to (65,42,11)
/
ZONE 7  from (56,15,11) to (65,42,11)
ZONE 7  from (57,12,11) to (65,42,11)
ZONE 7  from (58,1,11) to (65,42,11)
ZONE 8  from (4,9,11) to (7,13,11)
ZONE 8  from (6,8,11) to (8,10,11)
ZONE 8  from (4,13,11) to (6,21,11)
ZONE 10 FROM (57,26,11) TO (65,42,11)
ZONE 10 FROM (58,18,11) TO (65,39,11)
ZONE 10 FROM (59,10,11) TO (65,35,11)
ZONE 10 FROM (60,4,11) TO (65,30,11)
/
/layer 12
ZONE 4  from (1,1,12) to (65,42,12)
ZONE 8  from (26,1,12) to (58,2,12)
ZONE 8  from (22,2,12) to (58,3,12)
ZONE 8  from (18,3,12) to (24,4,12)
ZONE 8  from (14,4,12) to (21,5,12)
ZONE 8  from (10,5,12) to (17,6,12)
ZONE 8  from (6,6,12) to (14,7,12)
ZONE 8  from (5,7,12) to (13,8,12)
ZONE 8  from (5,9,12) to (12,9,12)
ZONE 8  from (5,9,12) to (10,10,12)
```

```
ZONE 8  from (5,11,12) to (7,18,12)
ZONE 8  from (5,19,12) to (10,21,12)
ZONE 8  from (6,22,12) to (15,24,12)
ZONE 8  from (8,25,12) to (23,28,12)
ZONE 8  from (20,29,12) to (37,31,12)
ZONE 8  from (28,32,12) to (39,33,12)
ZONE 8  from (35,34,12) to (45,35,12)
ZONE 8  from (41,36,12) to (47,39,12)
ZONE 8  from (41,40,12) to (45,42,12)
ZONE 8  from (44,3,12) to (65,5,12)!!!
ZONE 8  from (45,5,12) to (65,7,12)!!!
ZONE 8  from (47,7,12) to (55,13,12)!!!
ZONE 8  from (49,14,12) to (55,35,12)!!!
ZONE 8  from (51,36,12) to (55,40,12)!!!
ZONE 8  from (54,40,12) to (65,42,12)!!!
ZONE 4  from (46,40,12) to (53,42,12)
ZONE 4  from (52,1,12) to (57,2,12)!!!!
ZONE 7  from (59,1,12) to (65,42,12)
ZONE 7  from (57,6,12) to (65,42,12)
ZONE 7  from (56,8,12) to (65,42,12)
ZONE 7  from (54,18,12) to (65,42,12)
ZONE 7  from (53,25,12) to (65,40,12)
ZONE 10 FROM (56,35,12) TO (65,42,12)
ZONE 10 FROM (57,28,12) TO (65,39,12)
ZONE 10 FROM (59,20,12) TO (65,35,12)
ZONE 10 FROM (60,8,12) TO (65,30,12)
/
/layer 13
/
ZONE 8  from (1,1,13) to (65,42,13)
ZONE 4  from (1,1,13) to (24,1,13)
ZONE 4  from (1,2,13) to (20,2,13)
ZONE 4  from (1,3,13) to (15,3,13)
ZONE 4  from (1,4,13) to (10,4,13)
ZONE 4  from (1,5,13) to (6,5,13)
ZONE 4  from (1,6,13) to (3,10,13)
ZONE 4  from (1,11,13) to (2,22,13)
ZONE 4  from (1,21,13) to (3,30,13)
ZONE 4  from (1,25,13) to (4,30,13)
ZONE 4  from (1,29,13) to (7,35,13)
ZONE 4  from (1,31,13) to (14,40,13)
ZONE 4  from (1,33,13) to (20,40,13)
ZONE 4  from (1,36,13) to (26,42,13)
ZONE 4  from (1,38,13) to (31,42,13)
ZONE 4  from (1,41,13) to (35,42,13)
ZONE 4  from (47,40,13) to (49,42,13)
ZONE 4  from (46,41,13) to (52,42,13)!!!!
ZONE 4  from (26,8,13) to (32,10,13)
ZONE 4  from (23,9,13) to (35,10,13)
ZONE 4  from (21,10,13) to (37,11,13)
ZONE 4  from (14,12,13) to (39,14,13)
ZONE 4  from (12,15,13) to (41,19,13)
ZONE 4  from (14,20,13) to (41,21,13)
ZONE 4  from (23,22,13) to (42,22,13)
```

```
ZONE 4  from (28,23,13) to (42,23,13)
ZONE 4  from (34,24,13) to (42,24,13)
ZONE 4  from (37,25,13) to (42,26,13)
ZONE 4  from (32,27,13) to (42,28,13)
ZONE 4  from (36,28,13) to (43,30,13)
ZONE 4  from (41,31,13) to (43,31,13)
ZONE 4  from (42,32,13) to (43,33,13)
ZONE 8  from (41,41,13) to (44,42,13)
ZONE 7  from (57,1,13) to (65,42,13)
ZONE 7  from (55,6,13) to (65,42,13)
ZONE 7  from (54,8,13) to (65,35,13)
ZONE 7  from (53,10,13) to (65,35,13)
ZONE 7  from (52,13,13) to (65,35,13)
ZONE 7  from (51,25,13) to (65,40,13)
ZONE 7  from (51,29,13) to (65,37,13)
ZONE 7  from (53,41,13) to (65,42,13)
ZONE 10 FROM (55,23,13) TO (65,41,13)
ZONE 10 FROM (53,35,13) TO (65,39,13)
ZONE 10 FROM (54,28,13) TO (65,40,13)
ZONE 10 FROM (56,18,13) TO (65,40,13)
ZONE 10 FROM (57,14,13) TO (65,40,13)
ZONE 10 FROM (59,8,13) TO (65,40,13)
/
/layer 14
/
ZONE 8  from (1,1,14) to (65,42,14)
/ZONE 4  from (1,1,14) to (2,42,14)
/ZONE 4  from (1,1,14) to (3,42,14)
/ZONE 4  from (1,28,14) to (5,33,14)
/ZONE 4  from (1,34,14) to (13,34,14)
/ZONE 4  from (1,35,14) to (19,36,14)
/ZONE 4  from (1,37,14) to (23,38,14)
/ZONE 4  from (1,39,14) to (27,39,14)
/ZONE 4  from (1,40,14) to (33,42,14)
/ZONE 4  from (18,14,14) to (25,18,14)
/ZONE 4  from (23,15,14) to (35,19,14)
ZONE 7  from (57,1,14) to (65,42,14)
ZONE 7  from (42,6,14) to (65,42,14)
ZONE 7  from (38,38,14) to (65,42,14)
ZONE 10 FROM (57,5,14) TO (65,42,14)
ZONE 10 FROM (54,7,14) TO (65,42,14)
ZONE 10 FROM (51,10,14) TO (65,38,14)
ZONE 10 FROM (55,35,14) TO (65,42,14)
/
/
/layer 15
/
ZONE 8  from (1,1,15) to (65,42,15)
/ONE 4  from (1,1,15) to (4,3,15)
/ONE 4  from (1,1,15) to (3,42,15)
/ONE 4  from (1,28,15) to (5,33,15)
/ONE 4  from (1,34,15) to (13,34,15)
/ONE 4  from (1,35,15) to (19,36,15)
/ONE 4  from (1,37,15) to (23,38,15)
```

```
/ONE 4  from (1,39,15) to (27,39,15)
/ONE 4  from (1,40,15) to (33,42,15)
/ONE 4  from (18,14,15) to (25,18,15)
/ONE 4  from (23,15,15) to (35,19,15)
ZONE 7  from (48,1,15) to (65,42,15)
ZONE 7  from (45,6,15) to (65,42,15)
ZONE 7  from (38,38,15) to (65,42,15)
/ZONE 10 FROM (57,1,15) TO (65,42,15)!@
/ZONE 10 FROM (54,6,15) TO (65,42,15)!@
/ZONE 10 FROM (42,10,15) TO (65,38,15)!@
/ZONE 10 FROM (45,35,15) TO (65,42,15)!@
/
/ global
zone 10 from (59,11,6) to (65,42,15)
zone 10 from (58,37,6) to (65,42,15)
/
/*************************************************SOILPROPERTIES
/
PROP EFFE C
/
for zone 1
HYDRualic properties; ss= 0.2, Kx= 20., Ky= 20., Kz= 1.2
SOIL density = 1850, eff porosities = .28, tot pors = .32 iffpors = .28
TRAN R=2.5500, Dm=1.E-10, Disp(l)=.300 , Disp(t)=0.010
/
for zone 4
HYDRualic properties; ss= 0.2, Kx=  60., Ky=  60., Kz= 3.9
SOIL density = 1850, eff porosities = .28, tot pors = .32 iffpors = .28
TRAN R=2.5500, Dm=1.E-10, Disp(l)=.300 , Disp(t)=0.010
/
for zone 5
HYDRualic properties; ss= 0.2, Kx= .01, Ky= .01, Kz= .001
SOIL density = 1850, eff porosities = .24, tot pors = .27 diffpors = .24
TRAN R=20., Dm=1.E-20, Disp(l)=0.00, Disp(t)=0.00
/
for zone 7
HYDRualic properties; ss= 0.2, Kx= 1000., Ky= 1000., Kz=  64.
SOIL density = 1850, eff porosities = .28, tot pors = .32 iffpors = .28
TRAN R=2.5500, Dm=1.E-10, Disp(l)=.300 , Disp(t)=0.010
/
for zone 8
HYDRualic properties; ss= 0.2, Kx= 500., Ky= 500., Kz= 13.7
SOIL density = 1850, eff porosities = .28, tot pors = .32 iffpors = .28
TRAN R=2.5500, Dm=1.E-10, Disp(l)=.300 , Disp(t)=0.010
/
for zone 9
HYDRualic properties; ss= 0.2, Kx= .05, Ky= .05, Kz= .005
SOIL density = 1850, eff porosities = .24, tot pors = .27 diffpors = .24
TRAN R=20., Dm=1.E-20, Disp(l)=0.00, Disp(t)=0.00
/
for zone 10
HYDRualic properties; ss= 0.2, Kx= 5000., Ky= 5000., Kz= 50.
SOIL density = 1850, eff porosities = .28, tot pors = .32 iffpors = .28
TRAN R=2.5500, Dm=1.E-10, Disp(l)=.300 , Disp(t)=0.010
```

```
/
/*************************************************BOUNDARYCONDITIONS
/
/        constant heads for upgradient boundary
/
BOUNdary for P: -1; = 109.00     for (1,1,4) to (1,42,15)
BOUNdary for P: -1; = 108.70     for (1,26,4) to (1,42,15)
BOUNdary for P: -1; = 109.20     for (1,1,4) to (1,10,15)
BOUNdary for P: -1; = 110.70     for (1,1,1) to (1,42,3)
/
/ assign constant hydraulic flux for north and south boundaries
/
BOUNdary for P: +2; FLUX = 0.0  !!! for (2,42,1) to (64,42,15)
BOUNdary for P: +2; = 104.70 for (59,42,4) to (62,42,15)
BOUNdary for P: +2; = 104.70 for (63,42,4) to (64,42,15)
BOUNdary for P: +2; = 104.99 for (59,42,1) to (64,42,3)
BOUNdary for P: -2; FLUX = 0.0 !!! for (2,1,1) to (64,1,15)
BOUNdary for P: -2; FLUX = 0.05 for (12,1,5) to (42,1,10)
BOUNdary for P: -2; FLUX = 0.12 for (42,1,5) to (53,1,10)
BOUNdary for P: -2; FLUX = 0.45 for (53,1,5) to (57,1,10)
/
/ assign constant hydraulic flux for upper and lower boundaries
/
BOUNdary for P: +3; FLUX =-1.0E-5 all
BOUNdary for P: -3; FLUX = 0.0005    all
/
/*************************************************INITIALCONDITIONS
/
/        river boundary
/
FIXEd P from (57,1,1) to (65,1,15)
FIXEd P from (57,2,1) to (65,2,15)
FIXEd P from (59,3,1) to (65,3,15)
FIXEd P from (60,4,1) to (65,4,15)
FIXEd P from (61,5,1) to (65,6,15)
FIXEd P from (61,7,1) to (65,9,15)
FIXEd P from (61,10,1) to (65,12,15)
FIXEd P from (61,13,1) to (65,15,15)
FIXEd P from (62,16,1) to (65,18,15)
FIXEd P from (62,19,1) to (65,21,15)
FIXEd P from (62,22,1) to (65,24,15)
FIXEd P from (62,25,1) to (65,27,15)
FIXEd P from (62,28,1) to (65,31,15)
FIXEd P from (63,32,1) to (65,33,15)
FIXEd P from (64,34,1) to (65,35,15)
FIXEd P  from (65,36,1) to (65,42,15)
/
/*************************************************SOURCE
/ see initial C commands below
/*************************************************OUTPUT& SOLUTION
/
OUTput c in XY plane every 5000 steps
/
TIME = 0 at start of simulation
```

```
FLUX Bala C for 2 2 2 to 64 41 15 every 10
HIST C 'c:\pf\3z40.his'(10,17,10)(24,19,10)(36,21,10)(10,17,11) 1
/
convergence epsilon to 1.e-5
/
SOLVE for 1000 days in steps of 250 1.08 max of 1000
INITial C = 1100 from (8,15,10) to (11,20,12)
SOLVE for 1500 days in steps of 250 1.08 max of 1000
/save P,C on file 'c:\pfo\3z402500.arc' NOW
INITial C =  380 from (8,15,10) to (11,20,12)
/
SOLVE for 1650 days in steps of 215 1.08 max of 1000!!!4150
/save P,C on file 'c:\pfo\3z404150.arc' NOW
INITial C =  400 from (8,15,10) to (11,18,12)
/
SOLVE for 150  days in steps of 25 1.08 max of 1000!!!4300
save P,C on file 'c:\pfo\3z401987.arc' NOW
/
SOLVE for 813 days in steps of  55 1.08 max of 1000!!!5113
save P,C on file 'c:\pfo\3z401990.arc' NOW
/
SOLVE for 365 days in steps of 55 1.08 max of 1000!!!5478
/save P,C on file 'c:\pfo\3z401991.arc' NOW
/
SOLVE for 522 days in steps of 225 1.08 max of 1000!!!6000
save P,C on file 'c:\pfo\3z401992.arc' NOW
/
SOLVE for 2190 days in steps of 225 1.08 max of 1000!!!8190
save P,C on file 'c:\pfo\3z401998.arc' NOW
/
SOLVE for 2555 days in steps of 225 1.08 max of 1000!!!10745
save P,C on file 'c:\pfo\3z402005.arc' NOW
/
SOLVE for 1826 days in steps of 225 1.08 max of 1000!!!12571
save P,C on file 'c:\pfo\3z402010.arc' NOW
/
SOLVE for 1826 days in steps of  225 1.08 max of 1000!!!14397
save P,C on file 'c:\pfo\3z402015.arc' NOW
/
SOLVE for 1826 days in steps of  225 1.08 max of 1000!!!16223
save P,C on file 'c:\pfo\3z402020.arc' NOW
end
quit
/*****************************************************END
```

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9 3 1 2 9 3 3 0 8 4 9

# SATURATED ZONE CONTAMINANT TRANSPORT MODEL OUTPUT FILE

9312933 0950

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93129330851

```
1*****************************************************************************

        THIS OUTPUT IS PRODUCED BY THE COMPUTATIONAL MODEL

        ----------P O R F L O W - 3 D ----------

          FOR TRANSIENT OR STEADY STATE ANALYSIS OF
         FLOW, HEAT AND MULTI-COMPONENT MASS TRANSPORT
        IN VARIABLY SATURATED POROUS OR FRACTURED MEDIA

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        FOR ENQIRIES AND ASSISTANCE: CALL 310-471-3023 USA

            VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
        DATE OF RUN: 10/20/92 -  TIME OF RUN: 12:37:28.1

        ---------------------------------------
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*****************************************************************************

      ---------------------------------------
      RECORD OF INPUT DATA STREAM
      ---------------------------------------
      ** RECORD NO.  1 COMMENT ******* /
      ** RECORD NO.  2 COMMENT ******* /   The following is a PORFLOW v-2.4 input file for modeling
      ** RECORD NO.  3 COMMENT ******* /   saturated zone, TCE contaminant transport at the
      ** RECORD NO.  4 COMMENT ******* /   1100-EM-1 Operable Unit, Hanford, WA.
      ** RECORD NO.  5 COMMENT ******* /
      ** RECORD NO.  6 COMMENT ******* /   The files 'xval.dat', 'yval.dat', 'zval.dat', and
      ** RECORD NO.  7 COMMENT ******* /   'hedstrt.dat' must be in the same dir for operation
      ** RECORD NO.  8 COMMENT ******* /
      ** RECORD NO.  9 COMMENT ******* /
      ** RECORD NO. 10 COMMENT ******* /
      ** RECORD NO. 11 KEYWORD ******* TITLe 1100-EM-1 Groundwater Model


      ==================================================================================
      ****WARNING:  INVALID STRUCTURE FOR NUMERIC DATA.  DATA STRING BELOW IGNORED.
              1100-EM-1

      ==================================================================================


      ** RECORD NO. 12 KEYWORD ******* USER USACE Walla Walla Dist, Environmental Engineering Br.
      ** RECORD NO. 13 COMMENT ******* /Mat Johansen - (509)522-6645
      ** RECORD NO. 14 COMMENT ******* /
      ** RECORD NO. 15 COMMENT ******* /*************************************************GriDimensions
      ** RECORD NO. 16 COMMENT ******* /
      ** RECORD NO. 17 KEYWORD ******* GRID is 65 x 42 x 15
      ** RECORD NO. 18 COMMENT ******* /
      ** RECORD NO. 19 KEYWORD ******* COORdinate X values read from 'xval.dat'
```

```
======> UNIT 10 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: xval.dat

** RECORD NO. 20 KEYWORD ******* COORdinate Y values read from 'yval.dat'

======> UNIT 10 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: yval.dat

** RECORD NO. 21 KEYWORD ******* COORdinate Z values read from 'zval.dat'
** RECORD NO. 22 COMMENT ******* /
** RECORD NO. 23 COMMENT ******* /**************************************************GENITIAL P's
** RECORD NO. 24 COMMENT ******* /

======> UNIT 10 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: zval.dat

** RECORD NO. 25 KEYWORD ******* READ # 4 from 'hedstrt.arc'
** RECORD NO. 26 COMMENT ******* /
** RECORD NO. 27 COMMENT ******* /**************************************************ZONEDESIGNATION
** RECORD NO. 28 COMMENT ******* /layer 1

======> UNIT 11 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: hedstrt.arc

      <--- START OF FILE READ/WRITE OPERATIONS ON UNIT#: 11--->

ARCHIVED BY ACRi PROGRAM : PORFLOW-3D - VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
ACRi LICENSE NUMBER .... : 3240AWW034
DATA GENERATED BY USER . : USACE Walla Walla Dist, Environmental Engineering Br.
DATE OF GENERATION ..... : 07/04/92
TIME OF GENERATION ..... : 18:52:19.1
TITLE OF DATA SET ..... : 1100-EM-1 Groundwater Model
GRID DIMENSIONS ..... :    65 BY  42 BY  15

      ---> SIMULATION TIME OF STORED DATA:    1.000E+30
      ---> STEP NUMBER AT WHICH GENERATED:  6520

      ---> READING VARIABLE: P   - PRESSURE OR PRESSURE HEAD

==================================================================================
    END-OF-FILE REACHED ON FILE UNIT # 11; LAST RECORD READ AFTER REWINDING.

==================================================================================

      <--- START OF FILE READ/WRITE OPERATIONS ON UNIT#: 11--->

ARCHIVED BY ACRi PROGRAM : PORFLOW-3D - VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
ACRi LICENSE NUMBER .... : 3240AWW034
DATA GENERATED BY USER . : USACE Walla Walla Dist, Environmental Engineering Br.
DATE OF GENERATION ..... : 07/04/92
TIME OF GENERATION ..... : 18:52:19.1
TITLE OF DATA SET ..... : 1100-EM-1 Groundwater Model
GRID DIMENSIONS ..... :    65 BY  42 BY  15

      ---> SIMULATION TIME OF STORED DATA:    1.000E+30
      ---> STEP NUMBER AT WHICH GENERATED:  6520

      ---> READING VARIABLE: P   - PRESSURE OR PRESSURE HEAD

      ====> DATA SET NUMBER:   1 READ FROM  hedstrt.arc

** RECORD NO. 29 KEYWORD ******* ZONE 1  from (1,1,1) to (65,42,1)
** RECORD NO. 30 COMMENT ******* /layer 2
** RECORD NO. 31 KEYWORD ******* ZONE 1  from (1,1,2) to (65,42,2)
** RECORD NO. 32 COMMENT ******* /layer 3
** RECORD NO. 33 KEYWORD ******* ZONE 1  from (1,1,3) to (65,42,3)
** RECORD NO. 34 KEYWORD ******* ZONE 5  from (23,40,3) to (50,42,3)
** RECORD NO. 35 KEYWORD ******* ZONE 5  from (27,38,3) to (48,40,3)
** RECORD NO. 36 KEYWORD ******* ZONE 5  from (28,36,3) to (48,38,3)
** RECORD NO. 37 KEYWORD ******* ZONE 5  from (30,33,3) to (46,36,3)
** RECORD NO. 38 KEYWORD ******* ZONE 5  from (33,30,3) to (46,37,3)
** RECORD NO. 39 KEYWORD ******* ZONE 5  from (33,28,3) to (44,30,3)
** RECORD NO. 40 KEYWORD ******* ZONE 5  from (35,25,3) to (44,28,3)
** RECORD NO. 41 KEYWORD ******* ZONE 5  from (35,18,3) to (42,25,3)
** RECORD NO. 42 COMMENT ******* /layer 4
** RECORD NO. 43 KEYWORD ******* ZONE 5  from (1,1,4) to (65,42,4)
** RECORD NO. 44 KEYWORD ******* ZONE 1  from (34,1,4) to (58,3,4)
** RECORD NO. 45 KEYWORD ******* ZONE 1  from (37,3,4) to (58,4,4)
** RECORD NO. 46 KEYWORD ******* ZONE 1  from (40,4,4) to (56,7,4)
** RECORD NO. 47 KEYWORD ******* ZONE 1  from (44,7,4) to (56,10,4)
** RECORD NO. 48 KEYWORD ******* ZONE 1  from (44,10,4) to (54,15,4)
** RECORD NO. 49 KEYWORD ******* ZONE 1  from (47,15,4) to (54,24,4)
** RECORD NO. 50 KEYWORD ******* ZONE 1  from (49,24,4) to (54,31,4)
** RECORD NO. 51 KEYWORD ******* ZONE 1  from (50,31,4) to (54,34,4)
** RECORD NO. 52 KEYWORD ******* ZONE 1  from (52,34,4) to (53,40,4)
```

```
** RECORD NO. 53 KEYWORD ******* ZONE 1  from (52,1,4) to (65,42,4)
** RECORD NO. 54 KEYWORD ******* ZONE 7  from (62,32,4) to (65,36,4)
** RECORD NO. 55 COMMENT ******* /layer 5
** RECORD NO. 56 KEYWORD ******* ZONE 5  from (1,1,5) to (65,42,5)
** RECORD NO. 57 KEYWORD ******* ZONE 1  from (40,1,5) to (58,2,5)
** RECORD NO. 58 KEYWORD ******* ZONE 1  from (43,2,5) to (58,4,5)
** RECORD NO. 59 KEYWORD ******* ZONE 1  from (45,4,5) to (56,7,5)
** RECORD NO. 60 KEYWORD ******* ZONE 1  from (49,7,5) to (56,10,5)
** RECORD NO. 61 KEYWORD ******* ZONE 1  from (49,10,5) to (54,15,5)
** RECORD NO. 62 KEYWORD ******* ZONE 1  from (52,15,5) to (54,24,5)
** RECORD NO. 63 KEYWORD ******* ZONE 1  from (53,24,5) to (54,34,5)
** RECORD NO. 64 KEYWORD ******* ZONE 1  from (52,40,5) to (65,42,5)
** RECORD NO. 65 KEYWORD ******* ZONE 1  from (53,1,5) to (65,42,5)
** RECORD NO. 66 KEYWORD ******* ZONE 7  from (61,35,5) to (65,38,5)
** RECORD NO. 67 KEYWORD ******* ZONE 7  from (62,30,5) to (65,35,5)
** RECORD NO. 68 KEYWORD ******* ZONE 9  from (29,19,5) to (42,35,5)
** RECORD NO. 69 KEYWORD ******* ZONE 9  from (33,21,5) to (44,31,5)
** RECORD NO. 70 KEYWORD ******* ZONE 9  from (35,18,5) to (45,27,5)
** RECORD NO. 71 KEYWORD ******* ZONE 9  from (40,11,5) to (46,22,5)
** RECORD NO. 72 KEYWORD ******* ZONE 9  from (43,9,5) to (47,18,5)
** RECORD NO. 73 COMMENT ******* /layer 6
** RECORD NO. 74 KEYWORD ******* ZONE 5  from (1,1,6) to (65,42,6)
** RECORD NO. 75 KEYWORD ******* ZONE 4  from (48,41,6) to (65,42,6)
** RECORD NO. 76 KEYWORD ******* ZONE 4  from (50,40,6) to (65,42,6)
** RECORD NO. 77 KEYWORD ******* ZONE 4  from (52,38,6) to (65,42,6)
** RECORD NO. 78 KEYWORD ******* ZONE 4  from (53,34,6) to (65,42,6)
** RECORD NO. 79 KEYWORD ******* ZONE 4  from (54,29,6) to (65,42,6)
** RECORD NO. 80 KEYWORD ******* ZONE 4  from (55,24,6) to (65,42,6)
** RECORD NO. 81 KEYWORD ******* ZONE 4  from (56,1,6) to (65,42,6)
** RECORD NO. 82 KEYWORD ******* ZONE 4  from (51,1,6) to (65,2,6)
** RECORD NO. 83 KEYWORD ******* ZONE 4  from (53,2,6) to (65,4,6)
** RECORD NO. 84 KEYWORD ******* ZONE 4  from (54,4,6) to (65,12,6)
** RECORD NO. 85 KEYWORD ******* ZONE 5  from (57,31,6) to (58,34,6)
** RECORD NO. 86 KEYWORD ******* ZONE 5  from (57,31,6) to (59,33,6)
** RECORD NO. 87 KEYWORD ******* ZONE 5  from (56,19,6) to (58,21,6)
** RECORD NO. 88 KEYWORD ******* ZONE 7  from (59,37,6) to (65,39,6)
** RECORD NO. 89 KEYWORD ******* ZONE 7  from (60,34,6) to (65,39,6)
** RECORD NO. 90 KEYWORD ******* ZONE 7  from (61,31,6) to (65,39,6)
** RECORD NO. 91 KEYWORD ******* ZONE 7  from (62,1,6) to (65,39,6)
** RECORD NO. 92 KEYWORD ******* ZONE 9  from (26,26,6) to (29,34,6)
** RECORD NO. 93 KEYWORD ******* ZONE 9  from (29,19,6) to (42,35,6)
** RECORD NO. 94 KEYWORD ******* ZONE 9  from (32,15,6) to (44,28,6)
** RECORD NO. 95 KEYWORD ******* ZONE 9  from (35,11,6) to (46,24,6)
** RECORD NO. 96 KEYWORD ******* ZONE 9  from (39,9,6) to (47,19,6)
** RECORD NO. 97 KEYWORD ******* ZONE 9  from (41,8,6) to (48,16,6)
** RECORD NO. 98 COMMENT ******* /layer 7
** RECORD NO. 99 KEYWORD ******* ZONE 4  from (1,1,7) to (65,42,7)
** RECORD NO.100 KEYWORD ******* ZONE 9  from (28,10,7) to (33,33,7)
** RECORD NO.101 KEYWORD ******* ZONE 9  from (28,10,7) to (36,26,7)
** RECORD NO.102 KEYWORD ******* ZONE 9  from (28,10,7) to (38,16,7)
** RECORD NO.103 KEYWORD ******* ZONE 5  from (1,1,7) to (19,2,7)
** RECORD NO.104 KEYWORD ******* ZONE 5  from (1,2,7) to (25,3,7)
** RECORD NO.105 KEYWORD ******* ZONE 5  from (1,3,7) to (35,4,7)
** RECORD NO.106 KEYWORD ******* ZONE 5  from (1,4,7) to (40,8,7)
** RECORD NO.107 KEYWORD ******* ZONE 5  from (1,8,7) to (38,10,7)
** RECORD NO.108 KEYWORD ******* ZONE 5  from (1,8,7) to (36,13,7)
** RECORD NO.109 KEYWORD ******* ZONE 5  from (1,8,7) to (34,16,7)
** RECORD NO.110 KEYWORD ******* ZONE 5  from (1,8,7) to (32,18,7)
** RECORD NO.111 KEYWORD ******* ZONE 5  from (1,8,7) to (30,22,7)
** RECORD NO.112 KEYWORD ******* ZONE 5  from (1,8,7) to (28,33,7)
** RECORD NO.113 KEYWORD ******* ZONE 5  from (1,33,7) to (52,38,7)
** RECORD NO.114 KEYWORD ******* ZONE 5  from (1,33,7) to (51,39,7)
** RECORD NO.115 KEYWORD ******* ZONE 5  from (1,33,7) to (50,40,7)
** RECORD NO.116 KEYWORD ******* ZONE 5  from (1,33,7) to (48,42,7)
** RECORD NO.117 KEYWORD ******* ZONE 5  from (44,32,7) to (52,38,7)
** RECORD NO.118 KEYWORD ******* ZONE 5  from (48,25,7) to (53,34,7)
** RECORD NO.119 KEYWORD ******* ZONE 5  from (49,20,7) to (54,30,7)
** RECORD NO.120 KEYWORD ******* ZONE 5  from (51,13,7) to (55,21,7)
** RECORD NO.121 KEYWORD ******* ZONE 7  from (60,1,7) to (65,16,7)
** RECORD NO.122 KEYWORD ******* ZONE 7  from (59,5,7) to (60,8,7)
** RECORD NO.123 KEYWORD ******* ZONE 7  from (61,16,7) to (65,34,7)
** RECORD NO.124 KEYWORD ******* ZONE 7  from (60,34,7) to (65,39,7)
** RECORD NO.125 KEYWORD ******* ZONE 7  from (59,36,7) to (65,39,7)
** RECORD NO.126 KEYWORD ******* ZONE 7  from (58,38,7) to (65,40,7)
** RECORD NO.127 COMMENT ******* /layer 8
** RECORD NO.128 KEYWORD ******* ZONE 4  from (1,1,8) to (65,42,8)
** RECORD NO.129 KEYWORD ******* ZONE 5  from (1,4,8) to (10,5,8)
** RECORD NO.130 KEYWORD ******* ZONE 5  from (1,5,8) to (25,6,8)
** RECORD NO.131 KEYWORD ******* ZONE 5  from (1,6,8) to (33,12,8)
** RECORD NO.132 KEYWORD ******* ZONE 5  from (1,12,8) to (30,16,8)
** RECORD NO.133 KEYWORD ******* ZONE 5  from (1,16,8) to (26,20,8)
** RECORD NO.134 KEYWORD ******* ZONE 5  from (1,20,8) to (25,23,8)
** RECORD NO.135 KEYWORD ******* ZONE 5  from (1,22,8) to (21,28,8)
** RECORD NO.136 KEYWORD ******* ZONE 5  from (1,22,8) to (19,36,8)
** RECORD NO.137 KEYWORD ******* ZONE 5  from (1,36,8) to (21,37,8)
** RECORD NO.138 KEYWORD ******* ZONE 5  from (1,37,8) to (23,38,8)
** RECORD NO.139 KEYWORD ******* ZONE 5  from (1,38,8) to (29,39,8)
** RECORD NO.140 KEYWORD ******* ZONE 5  from (1,39,8) to (46,41,8)
** RECORD NO.141 KEYWORD ******* ZONE 5  from (1,40,8) to (45,42,8)
** RECORD NO.142 KEYWORD ******* ZONE 5  from (41,38,8) to (48,40,8)
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** RECORD NO.143 KEYWORD ******* ZONE 5  from (50,23,8) to (52,28,8)
** RECORD NO.144 KEYWORD ******* ZONE 5  from (51,19,8) to (53,27,8)
** RECORD NO.145 COMMENT ******* /
** RECORD NO.146 KEYWORD ******* ZONE 5  from (44,33,8) to (50,38,8)
** RECORD NO.147 KEYWORD ******* ZONE 5  from (47,25,8) to (52,35,8)
** RECORD NO.148 KEYWORD ******* ZONE 5  from (49,23,8) to (53,30,8)
** RECORD NO.149 COMMENT ******* /
** RECORD NO.150 KEYWORD ******* ZONE 7  from (59,1,8) to (65,8,8)
** RECORD NO.151 KEYWORD ******* ZONE 7  from (60,8,8) to (65,40,8)
** RECORD NO.152 KEYWORD ******* ZONE 7  from (59,36,8) to (65,40,8)
** RECORD NO.153 KEYWORD ******* ZONE 7  from (58,38,8) to (65,40,8)
** RECORD NO.154 KEYWORD ******* ZONE 7  from (57,39,8) to (65,41,8)
** RECORD NO.155 COMMENT ******* /layer 9
** RECORD NO.156 KEYWORD ******* ZONE 4  from (1,1,9) to (65,42,9)
** RECORD NO.157 KEYWORD ******* ZONE 5  from (1,5,9) to (7,7,9)
** RECORD NO.158 KEYWORD ******* ZONE 5  from (1,7,9) to (28,16,9)
** RECORD NO.159 KEYWORD ******* ZONE 5  from (1,16,9) to (25,20,9)
** RECORD NO.160 KEYWORD ******* ZONE 5  from (1,20,9) to (22,25,9)
** RECORD NO.161 KEYWORD ******* ZONE 5  from (1,25,9) to (20,29,9)
** RECORD NO.162 KEYWORD ******* ZONE 5  from (1,29,9) to (19,38,9)
** RECORD NO.163 KEYWORD ******* ZONE 5  from (1,38,9) to (24,40,9)
** RECORD NO.164 KEYWORD ******* ZONE 5  from (1,40,9) to (46,41,9)
** RECORD NO.165 KEYWORD ******* ZONE 5  from (1,41,9) to (44,42,9)
** RECORD NO.166 KEYWORD ******* ZONE 5  from (41,39,9) to (46,42,9)
** RECORD NO.167 KEYWORD ******* ZONE 5  from (50,25,9) to (52,30,9)
** RECORD NO.168 KEYWORD ******* ZONE 5  from (51,22,9) to (53,27,9)
** RECORD NO.169 COMMENT ******* /
** RECORD NO.170 KEYWORD ******* ZONE 5  from (42,36,9) to (47,39,9)
** RECORD NO.171 KEYWORD ******* ZONE 5  from (45,32,9) to (49,37,9)
** RECORD NO.172 KEYWORD ******* ZONE 5  from (48,28,9) to (51,34,9)
** RECORD NO.173 COMMENT ******* /
** RECORD NO.174 KEYWORD ******* ZONE 7  from (56,40,9) to (65,41,9)
** RECORD NO.175 KEYWORD ******* ZONE 7  from (57,38,9) to (65,41,9)
** RECORD NO.176 KEYWORD ******* ZONE 7  from (58,35,9) to (65,41,9)
** RECORD NO.177 KEYWORD ******* ZONE 7  from (59,1,9) to (65,40,9)
** RECORD NO.178 KEYWORD ******* ZONE 7  from (58,1,9) to (65,9,9)
** RECORD NO.179 KEYWORD ******* ZONE 10 FROM (60,20,10) TO (65,40,10)
** RECORD NO.180 COMMENT ******* /layer 10
** RECORD NO.181 KEYWORD ******* ZONE 4  from (1,1,10) to (65,42,10)
** RECORD NO.182 KEYWORD ******* ZONE 7  from (57,40,10) to (65,42,10)
** RECORD NO.183 KEYWORD ******* ZONE 7  from (57,39,10) to (65,42,10)
** RECORD NO.184 KEYWORD ******* ZONE 7  from (57,38,10) to (65,42,10)
** RECORD NO.185 KEYWORD ******* ZONE 7  from (57,36,10) to (65,42,10)
** RECORD NO.186 KEYWORD ******* ZONE 7  from (58,1,10) to (65,42,10)
** RECORD NO.187 KEYWORD ******* ZONE 10 FROM (59,37,10) TO (65,42,10)
** RECORD NO.188 KEYWORD ******* ZONE 10 FROM (61,10,10) TO (65,40,10)
** RECORD NO.189 COMMENT ******* /
** RECORD NO.190 COMMENT ******* /layer 11
** RECORD NO.191 COMMENT ******* /
** RECORD NO.192 KEYWORD ******* ZONE 4  from (1,1,11) to (65,42,11)
** RECORD NO.193 KEYWORD ******* ZONE 7  from (55,25,11) to (65,42,11)
** RECORD NO.194 COMMENT ******* /
** RECORD NO.195 KEYWORD ******* ZONE 7  from (56,15,11) to (65,42,11)
** RECORD NO.196 KEYWORD ******* ZONE 7  from (57,12,11) to (65,42,11)
** RECORD NO.197 KEYWORD ******* ZONE 7  from (58,1,11) to (65,42,11)
** RECORD NO.198 KEYWORD ******* ZONE 8  from (4,9,11) to (7,13,11)
** RECORD NO.199 KEYWORD ******* ZONE 8  from (6,8,11) to (8,10,11)
** RECORD NO.200 KEYWORD ******* ZONE 8  from (4,13,11) to (6,21,11)
** RECORD NO.201 KEYWORD ******* ZONE 10 FROM (57,26,11) TO (65,42,11)
** RECORD NO.202 KEYWORD ******* ZONE 10 FROM (58,18,11) TO (65,39,11)
** RECORD NO.203 KEYWORD ******* ZONE 10 FROM (59,10,11) TO (65,35,11)
** RECORD NO.204 KEYWORD ******* ZONE 10 FROM (60,4,11) TO (65,30,11)
** RECORD NO.205 COMMENT ******* /
** RECORD NO.206 COMMENT ******* /layer 12
** RECORD NO.207 KEYWORD ******* ZONE 4  from (1,1,12) to (65,42,12)
** RECORD NO.208 KEYWORD ******* ZONE 8  from (26,1,12) to (58,2,12)
** RECORD NO.209 KEYWORD ******* ZONE 8  from (22,2,12) to (58,3,12)
** RECORD NO.210 KEYWORD ******* ZONE 8  from (18,3,12) to (24,4,12)
** RECORD NO.211 KEYWORD ******* ZONE 8  from (14,4,12) to (21,5,12)
** RECORD NO.212 KEYWORD ******* ZONE 8  from (10,5,12) to (17,6,12)
** RECORD NO.213 KEYWORD ******* ZONE 8  from (6,6,12) to (14,7,12)
** RECORD NO.214 KEYWORD ******* ZONE 8  from (5,7,12) to (13,8,12)
** RECORD NO.215 KEYWORD ******* ZONE 8  from (5,9,12) to (12,9,12)
** RECORD NO.216 KEYWORD ******* ZONE 8  from (5,9,12) to (10,10,12)
** RECORD NO.217 KEYWORD ******* ZONE 8  from (5,11,12) to (7,18,12)
** RECORD NO.218 KEYWORD ******* ZONE 8  from (5,19,12) to (10,21,12)
** RECORD NO.219 KEYWORD ******* ZONE 8  from (6,22,12) to (15,24,12)
** RECORD NO.220 KEYWORD ******* ZONE 8  from (8,25,12) to (23,28,12)
** RECORD NO.221 KEYWORD ******* ZONE 8  from (20,29,12) to (37,31,12)
** RECORD NO.222 KEYWORD ******* ZONE 8  from (28,32,12) to (39,33,12)
** RECORD NO.223 KEYWORD ******* ZONE 8  from (35,34,12) to (45,35,12)
** RECORD NO.224 KEYWORD ******* ZONE 8  from (41,36,12) to (47,39,12)
** RECORD NO.225 KEYWORD ******* ZONE 8  from (41,40,12) to (45,42,12)
** RECORD NO.226 KEYWORD ******* ZONE 8  from (44,3,12) to (65,5,12)!!!
** RECORD NO.227 KEYWORD ******* ZONE 8  from (45,5,12) to (65,7,12)!!!
** RECORD NO.228 KEYWORD ******* ZONE 8  from (47,7,12) to (55,13,12)!!!
** RECORD NO.229 KEYWORD ******* ZONE 8  from (49,14,12) to (55,35,12)!!!
** RECORD NO.230 KEYWORD ******* ZONE 8  from (51,36,12) to (55,40,12)!!!
** RECORD NO.231 KEYWORD ******* ZONE 8  from (54,40,12) to (65,42,12)!!!
** RECORD NO.232 KEYWORD ******* ZONE 4  from (46,40,12) to (53,42,12)
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** RECORD NO.233 KEYWORD ******* ZONE 4  from (52,1,12) to (57,2,12)!!!!
** RECORD NO.234 KEYWORD ******* ZONE 7  from (59,1,12) to (65,42,12)
** RECORD NO.235 KEYWORD ******* ZONE 7  from (57,6,12) to (65,42,12)
** RECORD NO.236 KEYWORD ******* ZONE 7  from (56,8,12) to (65,42,12)
** RECORD NO.237 KEYWORD ******* ZONE 7  from (54,18,12) to (65,42,12)
** RECORD NO.238 KEYWORD ******* ZONE 7  from (53,25,12) to (65,40,12)
** RECORD NO.239 KEYWORD ******* ZONE 10 FROM (56,35,12) TO (65,42,12)
** RECORD NO.240 KEYWORD ******* ZONE 10 FROM (57,28,12) TO (65,39,12)
** RECORD NO.241 KEYWORD ******* ZONE 10 FROM (59,20,12) TO (65,35,12)
** RECORD NO.242 KEYWORD ******* ZONE 10 FROM (60,8,12) TO (65,30,12)
** RECORD NO.243 COMMENT ******* /
** RECORD NO.244 COMMENT ******* /layer 13
** RECORD NO.245 COMMENT ******* /
** RECORD NO.246 KEYWORD ******* ZONE 8  from (1,1,13) to (65,42,13)
** RECORD NO.247 KEYWORD ******* ZONE 4  from (1,1,13) to (24,1,13)
** RECORD NO.248 KEYWORD ******* ZONE 4  from (1,2,13) to (20,2,13)
** RECORD NO.249 KEYWORD ******* ZONE 4  from (1,3,13) to (15,3,13)
** RECORD NO.250 KEYWORD ******* ZONE 4  from (1,4,13) to (10,4,13)
** RECORD NO.251 KEYWORD ******* ZONE 4  from (1,5,13) to (6,5,13)
** RECORD NO.252 KEYWORD ******* ZONE 4  from (1,6,13) to (3,10,13)
** RECORD NO.253 KEYWORD ******* ZONE 4  from (1,11,13) to (2,22,13)
** RECORD NO.254 KEYWORD ******* ZONE 4  from (1,21,13) to (3,30,13)
** RECORD NO.255 KEYWORD ******* ZONE 4  from (1,25,13) to (4,30,13)
** RECORD NO.256 KEYWORD ******* ZONE 4  from (1,29,13) to (7,35,13)
** RECORD NO.257 KEYWORD ******* ZONE 4  from (1,31,13) to (14,40,13)
** RECORD NO.258 KEYWORD ******* ZONE 4  from (1,33,13) to (20,40,13)
** RECORD NO.259 KEYWORD ******* ZONE 4  from (1,36,13) to (26,42,13)
** RECORD NO.260 KEYWORD ******* ZONE 4  from (1,38,13) to (31,42,13)
** RECORD NO.261 KEYWORD ******* ZONE 4  from (1,41,13) to (35,42,13)
** RECORD NO.262 KEYWORD ******* ZONE 4  from (47,40,13) to (49,42,13)
** RECORD NO.263 KEYWORD ******* ZONE 4  from (46,41,13) to (52,42,13)!!!!
** RECORD NO.264 KEYWORD ******* ZONE 4  from (26,8,13) to (32,10,13)
** RECORD NO.265 KEYWORD ******* ZONE 4  from (23,9,13) to (35,10,13)
** RECORD NO.266 KEYWORD ******* ZONE 4  from (21,10,13) to (37,11,13)
** RECORD NO.267 KEYWORD ******* ZONE 4  from (14,12,13) to (39,14,13)
** RECORD NO.268 KEYWORD ******* ZONE 4  from (12,15,13) to (41,19,13)
** RECORD NO.269 KEYWORD ******* ZONE 4  from (14,20,13) to (41,21,13)
** RECORD NO.270 KEYWORD ******* ZONE 4  from (23,22,13) to (42,22,13)
** RECORD NO.271 KEYWORD ******* ZONE 4  from (28,23,13) to (42,23,13)
** RECORD NO.272 KEYWORD ******* ZONE 4  from (34,24,13) to (42,24,13)
** RECORD NO.273 KEYWORD ******* ZONE 4  from (37,25,13) to (42,26,13)
** RECORD NO.274 KEYWORD ******* ZONE 4  from (32,27,13) to (42,28,13)
** RECORD NO.275 KEYWORD ******* ZONE 4  from (36,28,13) to (43,30,13)
** RECORD NO.276 KEYWORD ******* ZONE 4  from (41,31,13) to (43,31,13)
** RECORD NO.277 KEYWORD ******* ZONE 4  from (42,32,13) to (43,33,13)
** RECORD NO.278 KEYWORD ******* ZONE 8  from (41,41,13) to (44,42,13)
** RECORD NO.279 KEYWORD ******* ZONE 7  from (57,1,13) to (65,42,13)
** RECORD NO.280 KEYWORD ******* ZONE 7  from (55,6,13) to (65,42,13)
** RECORD NO.281 KEYWORD ******* ZONE 7  from (54,8,13) to (65,35,13)
** RECORD NO.282 KEYWORD ******* ZONE 7  from (53,10,13) to (65,35,13)
** RECORD NO.283 KEYWORD ******* ZONE 7  from (52,13,13) to (65,35,13)
** RECORD NO.284 KEYWORD ******* ZONE 7  from (51,25,13) to (65,40,13)
** RECORD NO.285 KEYWORD ******* ZONE 7  from (51,29,13) to (65,37,13)
** RECORD NO.286 KEYWORD ******* ZONE 7  from (53,41,13) to (65,42,13)
** RECORD NO.287 KEYWORD ******* ZONE 10 FROM (55,23,13) TO (65,41,13)
** RECORD NO.288 KEYWORD ******* ZONE 10 FROM (53,35,13) TO (65,39,13)
** RECORD NO.289 KEYWORD ******* ZONE 10 FROM (54,28,13) TO (65,40,13)
** RECORD NO.290 KEYWORD ******* ZONE 10 FROM (56,18,13) TO (65,40,13)
** RECORD NO.291 KEYWORD ******* ZONE 10 FROM (57,14,13) TO (65,40,13)
** RECORD NO.292 KEYWORD ******* ZONE 10 FROM (59,8,13) TO (65,40,13)
** RECORD NO.293 COMMENT ******* /
** RECORD NO.294 COMMENT ******* /layer 14
** RECORD NO.295 COMMENT ******* /
** RECORD NO.296 KEYWORD ******* ZONE 8  from (1,1,14) to (65,42,14)
** RECORD NO.297 COMMENT ******* /ZONE 4  from (1,1,14) to (2,42,14)
** RECORD NO.298 COMMENT ******* /ZONE 4  from (1,1,14) to (3,42,14)
** RECORD NO.299 COMMENT ******* /ZONE 4  from (1,28,14) to (5,33,14)
** RECORD NO.300 COMMENT ******* /ZONE 4  from (1,34,14) to (13,34,14)
** RECORD NO.301 COMMENT ******* /ZONE 4  from (1,35,14) to (19,36,14)
** RECORD NO.302 COMMENT ******* /ZONE 4  from (1,37,14) to (23,38,14)
** RECORD NO.303 COMMENT ******* /ZONE 4  from (1,39,14) to (27,39,14)
** RECORD NO.304 COMMENT ******* /ZONE 4  from (1,40,14) to (33,42,14)
** RECORD NO.305 COMMENT ******* /ZONE 4  from (18,14,14) to (25,18,14)
** RECORD NO.306 COMMENT ******* /ZONE 4  from (23,15,14) to (35,19,14)
** RECORD NO.307 KEYWORD ******* ZONE 7  from (57,1,14) to (65,42,14)
** RECORD NO.308 KEYWORD ******* ZONE 7  from (42,6,14) to (65,42,14)
** RECORD NO.309 KEYWORD ******* ZONE 7  from (38,38,14) to (65,42,14)
** RECORD NO.310 KEYWORD ******* ZONE 10 FROM (57,5,14) TO (65,42,14)
** RECORD NO.311 KEYWORD ******* ZONE 10 FROM (54,7,14) TO (65,42,14)
** RECORD NO.312 KEYWORD ******* ZONE 10 FROM (51,10,14) TO (65,38,14)
** RECORD NO.313 KEYWORD ******* ZONE 10 FROM (55,35,14) TO (65,42,14)
** RECORD NO.314 COMMENT ******* /
** RECORD NO.315 COMMENT ******* /
** RECORD NO.316 COMMENT ******* /layer 15
** RECORD NO.317 COMMENT ******* /
** RECORD NO.318 KEYWORD ******* ZONE 8  from (1,1,15) to (65,42,15)
** RECORD NO.319 COMMENT ******* /ONE 4  from (1,1,15) to (4,3,15)
** RECORD NO.320 COMMENT ******* /ONE 4  from (1,1,15) to (3,42,15)
** RECORD NO.321 COMMENT ******* /ONE 4  from (1,28,15) to (5,33,15)
** RECORD NO.322 COMMENT ******* /ONE 4  from (1,34,15) to (13,34,15)
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** RECORD NO.323 COMMENT ******* /ONE 4  from (1,35,15) to (19,36,15)
** RECORD NO.324 COMMENT ******* /ONE 4  from (1,37,15) to (23,38,15)
** RECORD NO.325 COMMENT ******* /ONE 4  from (1,39,15) to (27,39,15)
** RECORD NO.326 COMMENT ******* /ONE 4  from (1,40,15) to (33,42,15)
** RECORD NO.327 COMMENT ******* /ONE 4  from (18,14,15) to (25,18,15)
** RECORD NO.328 COMMENT ******* /ONE 4  from (23,15,15) to (35,19,15)
** RECORD NO.329 KEYWORD ******* ZONE 7  from (48,1,15) to (65,42,15)
** RECORD NO.330 KEYWORD ******* ZONE 7  from (45,6,15) to (65,42,15)
** RECORD NO.331 KEYWORD ******* ZONE 7  from (38,38,15) to (65,42,15)
** RECORD NO.332 COMMENT ******* /ZONE 10 FROM (57,1,15) TO (65,42,15)!@
** RECORD NO.333 COMMENT ******* /ZONE 10 FROM (54,6,15) TO (65,42,15)!@
** RECORD NO.334 COMMENT ******* /ZONE 10 FROM (42,10,15) TO (65,38,15)!@
** RECORD NO.335 COMMENT ******* /ZONE 10 FROM (45,35,15) TO (65,42,15)!@
** RECORD NO.336 COMMENT ******* /
** RECORD NO.337 COMMENT ******* / global
** RECORD NO.338 KEYWORD ******* zone 10 from (59,11,6) to (65,42,15)
** RECORD NO.339 KEYWORD ******* zone 10 from (58,37,6) to (65,42,15)
** RECORD NO.340 COMMENT ******* /
** RECORD NO.341 COMMENT ******* /**************************************************SOIPROPERTIES
** RECORD NO.342 COMMENT ******* /
** RECORD NO.343 KEYWORD ******* PROP EFFE C
** RECORD NO.344 COMMENT ******* /
** RECORD NO.345 KEYWORD ******* for zone 1
** RECORD NO.346 KEYWORD ******* HYDRualic properties; ss= 0.2, Kx= 20., Ky= 20., Kz= 1.2
** RECORD NO.347 KEYWORD ******* SOIL density = 1850, eff porosities = .28, tot pors = .32 iffpors = .28
** RECORD NO.348 KEYWORD ******* TRAN R=2.5500, Dm=1.E-10, Disp(l)=.300 , Disp(t)=0.010
** RECORD NO.349 COMMENT ******* /
** RECORD NO.350 KEYWORD ******* for zone 4
** RECORD NO.351 KEYWORD ******* HYDRualic properties; ss= 0.2, Kx=  60., Ky=  60., Kz= 3.9
** RECORD NO.352 KEYWORD ******* SOIL density = 1850, eff porosities = .28, tot pors = .32 iffpors = .28
** RECORD NO.353 KEYWORD ******* TRAN R=2.5500, Dm=1.E-10, Disp(l)=.300 , Disp(t)=0.010
** RECORD NO.354 COMMENT ******* /
** RECORD NO.355 KEYWORD ******* for zone 5
** RECORD NO.356 KEYWORD ******* HYDRualic properties; ss= 0.2, Kx= .01, Ky= .01, Kz= .001
** RECORD NO.357 KEYWORD ******* SOIL density = 1850, eff porosities = .24, tot pors = .27 diffpors = .24
** RECORD NO.358 KEYWORD ******* TRAN R=20., Dm=1.E-20, Disp(l)=0.00, Disp(t)=0.00
** RECORD NO.359 COMMENT ******* /
** RECORD NO.360 KEYWORD ******* for zone 7
** RECORD NO.361 KEYWORD ******* HYDRualic properties; ss= 0.2, Kx= 1000., Ky= 1000., Kz=  64.
** RECORD NO.362 KEYWORD ******* SOIL density = 1850, eff porosities = .28, tot pors = .32 iffpors = .28
** RECORD NO.363 KEYWORD ******* TRAN R=2.5500, Dm=1.E-10, Disp(l)=.300 , Disp(t)=0.010
** RECORD NO.364 COMMENT ******* /
** RECORD NO.365 KEYWORD ******* for zone 8
** RECORD NO.366 KEYWORD ******* HYDRualic properties; ss= 0.2, Kx= 500., Ky= 500., Kz= 13.7
** RECORD NO.367 KEYWORD ******* SOIL density = 1850, eff porosities = .28, tot pors = .32 iffpors = .28
** RECORD NO.368 KEYWORD ******* TRAN R=2.5500, Dm=1.E-10, Disp(l)=.300 , Disp(t)=0.010
** RECORD NO.369 COMMENT ******* /
** RECORD NO.370 KEYWORD ******* for zone 9
** RECORD NO.371 KEYWORD ******* HYDRualic properties; ss= 0.2, Kx= .05, Ky= .05, Kz= .005
** RECORD NO.372 KEYWORD ******* SOIL density = 1850, eff porosities = .24, tot pors = .27 diffpors = .24
** RECORD NO.373 KEYWORD ******* TRAN R=20., Dm=1.E-20, Disp(l)=0.00, Disp(t)=0.00
** RECORD NO.374 COMMENT ******* /
** RECORD NO.375 KEYWORD ******* for zone 10
** RECORD NO.376 KEYWORD ******* HYDRualic properties; ss= 0.2, Kx= 5000., Ky= 5000., Kz= 50.
** RECORD NO.377 KEYWORD ******* SOIL density = 1850, eff porosities = .28, tot pors = .32 iffpors = .28
** RECORD NO.378 KEYWORD ******* TRAN R=2.5500, Dm=1.E-10, Disp(l)=.300 , Disp(t)=0.010
** RECORD NO.379 COMMENT ******* /
** RECORD NO.380 COMMENT ******* /**************************************************BOUNDARCONDITIONS
** RECORD NO.381 COMMENT ******* /
** RECORD NO.382 COMMENT ******* /    constant heads for upgradient boundary
** RECORD NO.383 COMMENT ******* /
** RECORD NO.384 KEYWORD ******* BOUNdary for P: -1; = 109.00     for (1,1,4) to (1,42,15)
** RECORD NO.385 KEYWORD ******* BOUNdary for P: -1; = 108.70     for (1,26,4) to (1,42,15)
** RECORD NO.386 KEYWORD ******* BOUNdary for P: -1; = 109.20     for (1,1,4) to (1,10,15)
** RECORD NO.387 KEYWORD ******* BOUNdary for P: -1; = 110.70     for (1,1,1) to (1,42,3)
** RECORD NO.388 COMMENT ******* /
** RECORD NO.389 COMMENT ******* / assign constant hydraulic flux for north and south boundaries
** RECORD NO.390 COMMENT ******* /
** RECORD NO.391 KEYWORD ******* BOUNdary for P: +2; FLUX = 0.0  !!! for (2,42,1) to (64,42,15)
** RECORD NO.392 KEYWORD ******* BOUNdary for P: +2; = 104.70 for (59,42,4) to (62,42,15)
** RECORD NO.393 KEYWORD ******* BOUNdary for P: +2; = 104.70 for (63,42,4) to (64,42,15)
** RECORD NO.394 KEYWORD ******* BOUNdary for P: +2; = 104.99 for (59,42,1) to (64,42,3)
** RECORD NO.395 KEYWORD ******* BOUNdary for P: -2; FLUX = 0.0 !!! for (2,1,1) to (64,1,15)
** RECORD NO.396 KEYWORD ******* BOUNdary for P: -2; FLUX = 0.05 for (12,1,5) to (42,1,10)
** RECORD NO.397 KEYWORD ******* BOUNdary for P: -2; FLUX = 0.12 for (42,1,5) to (53,1,10)
** RECORD NO.398 KEYWORD ******* BOUNdary for P: -2; FLUX = 0.45 for (53,1,5) to (57,1,10)
** RECORD NO.399 COMMENT ******* /
** RECORD NO.400 COMMENT ******* / assign constant hydraulic flux for upper and lower boundaries
** RECORD NO.401 COMMENT ******* /
** RECORD NO.402 KEYWORD ******* BOUNdary for P: +3; FLUX =-1.0E-5 all
** RECORD NO.403 KEYWORD ******* BOUNdary for P: -3; FLUX = 0.0005   all
** RECORD NO.404 COMMENT ******* /
** RECORD NO.405 COMMENT ******* /**************************************************INITIACONDITIONS
** RECORD NO.406 COMMENT ******* /
** RECORD NO.407 COMMENT ******* /    river boundary
** RECORD NO.408 COMMENT ******* /
** RECORD NO.409 KEYWORD ******* FIXEd P from (57,1,1) to (65,1,15)
** RECORD NO.410 KEYWORD ******* FIXEd P from (57,2,1) to (65,2,15)
** RECORD NO.411 KEYWORD ******* FIXEd P from (59,3,1) to (65,3,15)
** RECORD NO.412 KEYWORD ******* FIXEd P from (60,4,1) to (65,4,15)
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** RECORD NO.413 KEYWORD ******* FIXEd P from (61,5,1) to (65,6,15)
** RECORD NO.414 KEYWORD ******* FIXEd P from (61,7,1) to (65,9,15)
** RECORD NO.415 KEYWORD ******* FIXEd P from (61,10,1) to (65,12,15)
** RECORD NO.416 KEYWORD ******* FIXEd P from (61,13,1) to (65,15,15)
** RECORD NO.417 KEYWORD ******* FIXEd P from (62,16,1) to (65,18,15)
** RECORD NO.418 KEYWORD ******* FIXEd P from (62,19,1) to (65,21,15)
** RECORD NO.419 KEYWORD ******* FIXEd P from (62,22,1) to (65,24,15)
** RECORD NO.420 KEYWORD ******* FIXEd P from (62,25,1) to (65,27,15)
** RECORD NO.421 KEYWORD ******* FIXEd P from (62,28,1) to (65,31,15)
** RECORD NO.422 KEYWORD ******* FIXEd P from (63,32,1) to (65,33,15)
** RECORD NO.423 KEYWORD ******* FIXEd P from (64,34,1) to (65,35,15)
** RECORD NO.424 KEYWORD ******* FIXEd P  from (65,36,1) to (65,42,15)
** RECORD NO.425 COMMENT ******* /
** RECORD NO.426 COMMENT ******* /*************************************************SOURCE
** RECORD NO.427 COMMENT ******* / see initial C commands below
** RECORD NO.428 COMMENT ******* /*************************************************OUTPUT SOLUTION
** RECORD NO.429 COMMENT ******* /
** RECORD NO.430 KEYWORD ******* OUTput c in XY plane every 5000 steps
** RECORD NO.431 COMMENT ******* /
** RECORD NO.432 KEYWORD ******* TIME = 0 at start of simulation
** RECORD NO.433 KEYWORD ******* FLUX Bala C for 2 2 2 to 64 41 15 every 10

======> UNIT 14 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: FLUXBAL

** RECORD NO.434 KEYWORD ******* HIST C 'c:\pf\3z40.his'(10,17,10)(24,19,10)(36,21,10)(10,17,11) 1
** RECORD NO.435 COMMENT ******* /

======> UNIT 13 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: c:\pf\3z40.his

** RECORD NO.436 KEYWORD ******* convergence epsilon to 1.e-5
** RECORD NO.437 COMMENT ******* /
** RECORD NO.438 KEYWORD ******* SOLVE for 1000 days in steps of 250 1.08 max of 1000

1-----------------------------------------------
1100-EM-1 Groundwater Model
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   GRID DIMENSIONS.........(IMAX,JMAX,KMAX) = 65 BY 42 BY 15
   MAXIMUM NUMBER OF NODES IN EACH 3-D ARRAY. = 50000
   NUMBER OF THREE DIMENSIONAL FIELD ARRAYS.. =    40
   FIELD LENGTH ALLOCATED FOR 3-D ARRAYS..... =7812.5 Kbyte
   FIELD LENGTH ACTUALLY USED FOR 3-D ARRAYS. =6398.4 Kbyte

X COORDINATE VALUES
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    0.00   183.00   366.00   488.00   549.00   610.00   671.00   701.50

  732.00   762.50   793.00   823.50   854.00   884.50   915.00   945.50

  976.00  1006.50  1037.00  1067.50  1098.00  1128.50  1159.00  1189.50

 1220.00  1250.50  1281.00  1311.50  1342.00  1372.50  1403.00  1433.50

 1464.00  1494.50  1525.00  1555.50  1586.00  1616.50  1647.00  1677.50

 1708.00  1769.00  1830.00  1891.00  1952.00  2013.00  2074.00  2135.00

 2196.00  2257.00  2318.00  2379.00  2501.00  2623.00  2745.00  2867.00

 2989.00  3111.00  3233.00  3355.00  3477.00  3599.00  3721.00  3843.00

 3965.00

Y COORDINATE VALUES
===================

    0.00   305.00   549.00   732.00   854.00   976.00  1037.00  1098.00

 1159.00  1220.00  1281.00  1311.50  1342.00  1372.50  1403.00  1433.50

 1464.00  1494.50  1525.00  1555.50  1586.00  1616.50  1647.00  1677.50

 1708.00  1738.50  1769.00  1799.50  1830.00  1860.50  1891.00  1921.50

 1952.00  2013.00  2074.00  2135.00  2196.00  2257.00  2379.00  2501.00

 2684.00  2928.00

Z COORDINATE VALUES
===================

   57.00    89.00    92.00    95.00    97.00    99.00   100.00   101.00

  102.00   103.50   105.00   106.00   107.00   109.00   111.00
```

ZONE IDENTIFIERS AT PLANE K = 1

```
J
42 111111111111111111111111111111111111111111111111111111111111111111111111
41 111111111111111111111111111111111111111111111111111111111111111111111111
40 111111111111111111111111111111111111111111111111111111111111111111111111
39 111111111111111111111111111111111111111111111111111111111111111111111111
38 111111111111111111111111111111111111111111111111111111111111111111111111
37 111111111111111111111111111111111111111111111111111111111111111111111111
36 111111111111111111111111111111111111111111111111111111111111111111111111
35 111111111111111111111111111111111111111111111111111111111111111111111111
34 111111111111111111111111111111111111111111111111111111111111111111111111
33 111111111111111111111111111111111111111111111111111111111111111111111111
32 111111111111111111111111111111111111111111111111111111111111111111111111
31 111111111111111111111111111111111111111111111111111111111111111111111111
30 111111111111111111111111111111111111111111111111111111111111111111111111
29 111111111111111111111111111111111111111111111111111111111111111111111111
28 111111111111111111111111111111111111111111111111111111111111111111111111
27 111111111111111111111111111111111111111111111111111111111111111111111111
26 111111111111111111111111111111111111111111111111111111111111111111111111
25 111111111111111111111111111111111111111111111111111111111111111111111111
24 111111111111111111111111111111111111111111111111111111111111111111111111
23 111111111111111111111111111111111111111111111111111111111111111111111111
22 111111111111111111111111111111111111111111111111111111111111111111111111
21 111111111111111111111111111111111111111111111111111111111111111111111111
20 111111111111111111111111111111111111111111111111111111111111111111111111
19 111111111111111111111111111111111111111111111111111111111111111111111111
18 111111111111111111111111111111111111111111111111111111111111111111111111
17 111111111111111111111111111111111111111111111111111111111111111111111111
16 111111111111111111111111111111111111111111111111111111111111111111111111
15 111111111111111111111111111111111111111111111111111111111111111111111111
14 111111111111111111111111111111111111111111111111111111111111111111111111
13 111111111111111111111111111111111111111111111111111111111111111111111111
12 111111111111111111111111111111111111111111111111111111111111111111111111
11 111111111111111111111111111111111111111111111111111111111111111111111111
10 111111111111111111111111111111111111111111111111111111111111111111111111
 9 111111111111111111111111111111111111111111111111111111111111111111111111
 8 111111111111111111111111111111111111111111111111111111111111111111111111
 7 111111111111111111111111111111111111111111111111111111111111111111111111
 6 111111111111111111111111111111111111111111111111111111111111111111111111
 5 111111111111111111111111111111111111111111111111111111111111111111111111
 4 111111111111111111111111111111111111111111111111111111111111111111111111
 3 111111111111111111111111111111111111111111111111111111111111111111111111
 2 111111111111111111111111111111111111111111111111111111111111111111111111
 1 111111111111111111111111111111111111111111111111111111111111111111111111

I = 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 20 1 2 3 4 5 6 7 8 9 30 1 2 3 4 5 6 7 8 9 40 1 2 3 4 5 6 7 8 9 50 1 2 3 4 5 6 7 8 9 60

42 11111
41 11111
40 11111
39 11111
38 11111
37 11111
36 11111
35 11111
34 11111
33 11111
32 11111
31 11111
30 11111
29 11111
28 11111
27 11111
26 11111
25 11111
24 11111
23 11111
22 11111
21 11111
20 11111
19 11111
18 11111
17 11111
16 11111
15 11111
14 11111
13 11111
12 11111
11 11111
10 11111
 9 11111
 8 11111
 7 11111
 6 11111
 5 11111
 4 11111
 3 11111
 2 11111
```

```
1  11111

I = 12345

ZONE IDENTIFIERS AT PLANE K =  2
================================
 J
42  111111111111111111111111111111111111111111111111111111111111111111111111
41  111111111111111111111111111111111111111111111111111111111111111111111111
40  111111111111111111111111111111111111111111111111111111111111111111111111
39  111111111111111111111111111111111111111111111111111111111111111111111111
38  111111111111111111111111111111111111111111111111111111111111111111111111
37  111111111111111111111111111111111111111111111111111111111111111111111111
36  111111111111111111111111111111111111111111111111111111111111111111111111
35  111111111111111111111111111111111111111111111111111111111111111111111111
34  111111111111111111111111111111111111111111111111111111111111111111111111
33  111111111111111111111111111111111111111111111111111111111111111111111111
32  111111111111111111111111111111111111111111111111111111111111111111111111
31  111111111111111111111111111111111111111111111111111111111111111111111111
30  111111111111111111111111111111111111111111111111111111111111111111111111
29  111111111111111111111111111111111111111111111111111111111111111111111111
28  111111111111111111111111111111111111111111111111111111111111111111111111
27  111111111111111111111111111111111111111111111111111111111111111111111111
26  111111111111111111111111111111111111111111111111111111111111111111111111
25  111111111111111111111111111111111111111111111111111111111111111111111111
24  111111111111111111111111111111111111111111111111111111111111111111111111
23  111111111111111111111111111111111111111111111111111111111111111111111111
22  111111111111111111111111111111111111111111111111111111111111111111111111
21  111111111111111111111111111111111111111111111111111111111111111111111111
20  111111111111111111111111111111111111111111111111111111111111111111111111
19  111111111111111111111111111111111111111111111111111111111111111111111111
18  111111111111111111111111111111111111111111111111111111111111111111111111
17  111111111111111111111111111111111111111111111111111111111111111111111111
16  111111111111111111111111111111111111111111111111111111111111111111111111
15  111111111111111111111111111111111111111111111111111111111111111111111111
14  111111111111111111111111111111111111111111111111111111111111111111111111
13  111111111111111111111111111111111111111111111111111111111111111111111111
12  111111111111111111111111111111111111111111111111111111111111111111111111
11  111111111111111111111111111111111111111111111111111111111111111111111111
10  111111111111111111111111111111111111111111111111111111111111111111111111
 9  111111111111111111111111111111111111111111111111111111111111111111111111
 8  111111111111111111111111111111111111111111111111111111111111111111111111
 7  111111111111111111111111111111111111111111111111111111111111111111111111
 6  111111111111111111111111111111111111111111111111111111111111111111111111
 5  111111111111111111111111111111111111111111111111111111111111111111111111
 4  111111111111111111111111111111111111111111111111111111111111111111111111
 3  111111111111111111111111111111111111111111111111111111111111111111111111
 2  111111111111111111111111111111111111111111111111111111111111111111111111
 1  111111111111111111111111111111111111111111111111111111111111111111111111

I = 1234567891012345678920123456789301234567891940123456789501234567891960

42  11111
41  11111
40  11111
39  11111
38  11111
37  11111
36  11111
35  11111
34  11111
33  11111
32  11111
31  11111
30  11111
29  11111
28  11111
27  11111
26  11111
25  11111
24  11111
23  11111
22  11111
21  11111
20  11111
19  11111
18  11111
17  11111
16  11111
15  11111
14  11111
13  11111
12  11111
11  11111
10  11111
 9  11111
 8  11111
 7  11111
```

```
 6  11111
 5  11111
 4  11111
 3  11111
 2  11111
 1  11111

 I = 12345
```

ZONE IDENTIFIERS AT PLANE K = 3

```
 J
42  1111111111111111111111155555555555555555555555555555111111111
41  1111111111111111111111155555555555555555555555555555111111111
40  1111111111111111111111155555555555555555555555555555111111111
39  1111111111111111111111155555555555555555555555555555111111111
38  1111111111111111111111155555555555555555555555555555111111111
37  1111111111111111111111155555555555555555555555555555111111111
36  1111111111111111111111155555555555555555555555555555111111111
35  1111111111111111111111155555555555555555555555555555111111111
34  1111111111111111111111155555555555555555555555555555111111111
33  1111111111111111111111155555555555555555555555555555111111111
32  1111111111111111111111155555555555555555555555555555111111111
31  1111111111111111111111155555555555555555555555555555111111111
30  1111111111111111111111155555555555555555555555555555111111111
29  1111111111111111111111155555555555555555555555555555111111111
28  1111111111111111111111155555555555555555555555555555111111111
27  1111111111111111111111155555555555555555555555555555111111111
26  1111111111111111111111155555555555555555555555555555111111111
25  1111111111111111111111155555555555555555555555555555111111111
24  1111111111111111111111155555555555555555555555555555111111111
23  1111111111111111111111155555555555555555555555555555111111111
22  1111111111111111111111155555555555555555555555555555111111111
21  1111111111111111111111155555555555555555555555555555111111111
20  1111111111111111111111155555555555555555555555555555111111111
19  1111111111111111111111155555555555555555555555555555111111111
18  1111111111111111111111155555555555555555555555555555111111111
17  1111111111111111111111155555555555555555555555555555111111111
16  1111111111111111111111155555555555555555555555555555111111111
15  1111111111111111111111155555555555555555555555555555111111111
14  1111111111111111111111155555555555555555555555555555111111111
13  1111111111111111111111155555555555555555555555555555111111111
12  1111111111111111111111155555555555555555555555555555111111111
11  1111111111111111111111155555555555555555555555555555111111111
10  1111111111111111111111155555555555555555555555555555111111111
 9  1111111111111111111111155555555555555555555555555555111111111
 8  1111111111111111111111155555555555555555555555555555111111111
 7  1111111111111111111111155555555555555555555555555555111111111
 6  1111111111111111111111155555555555555555555555555555111111111
 5  1111111111111111111111155555555555555555555555555555111111111
 4  1111111111111111111111155555555555555555555555555555111111111
 3  1111111111111111111111155555555555555555555555555555111111111
 2  1111111111111111111111155555555555555555555555555555111111111
 1  1111111111111111111111155555555555555555555555555555111111111

 I = 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 20 1 2 3 4 5 6 7 8 9 30 1 2 3 4 5 6 7 8 9 40 1 2 3 4 5 6 7 8 9 50 1 2 3 4 5 6 7 8 9 60

42  11111
41  11111
40  11111
39  11111
38  11111
37  11111
36  11111
35  11111
34  11111
33  11111
32  11111
31  11111
30  11111
29  11111
28  11111
27  11111
26  11111
25  11111
24  11111
23  11111
22  11111
21  11111
20  11111
19  11111
18  11111
17  11111
16  11111
15  11111
14  11111
13  11111
12  11111
```

```
11  11111
10  11111
 9  11111
 8  11111
 7  11111
 6  11111
 5  11111
 4  11111
 3  11111
 2  11111
 1  11111

I = 12345
```

ZONE IDENTIFIERS AT PLANE K = 4

```
==================================
 J
42  555555555555555555555555555555555555555555555555555555555111111111
41  555555555555555555555555555555555555555555555555555555555111111111
40  555555555555555555555555555555555555555555555555555555555111111111
39  555555555555555555555555555555555555555555555555555555555111111111
38  555555555555555555555555555555555555555555555555555555555111111111
37  555555555555555555555555555555555555555555555555555555555111111111
36  555555555555555555555555555555555555555555555555555555555111111111
35  555555555555555555555555555555555555555555555555555555555111111111
34  555555555555555555555555555555555555555555555555555555555111111111
33  555555555555555555555555555555555555555555555555555555555111111111
32  555555555555555555555555555555555555555555555555555555555111111111
31  555555555555555555555555555555555555555555555555555555555111111111
30  555555555555555555555555555555555555555555555555555555555111111111
29  555555555555555555555555555555555555555555555555555555555111111111
28  555555555555555555555555555555555555555555555555555555555111111111
27  555555555555555555555555555555555555555555555555555555555111111111
26  555555555555555555555555555555555555555555555555555555555111111111
25  555555555555555555555555555555555555555555555555555555555111111111
24  555555555555555555555555555555555555555555555555555555555111111111
23  555555555555555555555555555555555555555555555555555555555111111111
22  555555555555555555555555555555555555555555555555555555555111111111
21  555555555555555555555555555555555555555555555555555555555111111111
20  555555555555555555555555555555555555555555555555555555555111111111
19  555555555555555555555555555555555555555555555555555555555111111111
18  555555555555555555555555555555555555555555555555555555555111111111
17  555555555555555555555555555555555555555555555555555555555111111111
16  555555555555555555555555555555555555555555555555555555555111111111
15  555555555555555555555555555555555555555555555555555555555111111111
14  555555555555555555555555555555555555555555555555555555555111111111
13  555555555555555555555555555555555555555555555555555555555111111111
12  555555555555555555555555555555555555555555555555555555555111111111
11  555555555555555555555555555555555555555555555555555555555111111111
10  555555555555555555555555555555555555555555555555555555555111111111
 9  555555555555555555555555555555555555555555555555555555555111111111
 8  555555555555555555555555555555555555555555555555555555555111111111
 7  555555555555555555555555555555555555555555555555555555555111111111
 6  555555555555555555555555555555555555555555555555555555555111111111
 5  555555555555555555555555555555555555555555555555555555555111111111
 4  555555555555555555555555555555555555555555555555555555555111111111
 3  555555555555555555555555555555555555555555555555555555555111111111
 2  555555555555555555555555555555555555555555555555555555555111111111
 1  555555555555555555555555555555555555555555555555555555555111111111

I = 123456789101234567892012345678930123456789401234567895012345678960
```

```
42  11111
41  11111
40  11111
39  11111
38  11111
37  11111
36  17777
35  17777
34  17777
33  17777
32  17777
31  11111
30  11111
29  11111
28  11111
27  11111
26  11111
25  11111
24  11111
23  11111
22  11111
21  11111
20  11111
19  11111
18  11111
17  11111
```

```
16  11111
15  11111
14  11111
13  11111
12  11111
11  11111
10  11111
 9  11111
 8  11111
 7  11111
 6  11111
 5  11111
 4  11111
 3  11111
 2  11111
 1  11111

I = 12345

ZONE IDENTIFIERS AT PLANE K =  5
=================================
 J
42  5555555555555555555555555555555555555555555555555555555555555111111111
41  5555555555555555555555555555555555555555555555555555555555555111111111
40  5555555555555555555555555555555555555555555555555555555555555111111111
39  5555555555555555555555555555555555555555555555555555555555555111111111
38  5555555555555555555555555555555555555555555555555555555555555111111111
37  5555555555555555555555555555555555555555555555555555555555555111111111
36  5555555555555555555555555555555555555555555555555555555555555111111111
35  5555555555555555555555555555555555555555555555555555555555555111111111
34  5555555555555555555555555555555555555555555555555555555555555111111111
33  5555555555555555555555555555555555555555555555555555555555555111111111
32  5555555555555555555555555555555555555555555555555555555555555111111111
31  5555555555555555555555555555555555555555555555555555555555555111111111
30  5555555555555555555555555555555555555555555555555555555555555111111111
29  5555555555555555555555555555555555555555555555555555555555555111111111
28  5555555555555555555555555555555555555555555555555555555555555111111111
27  5555555555555555555555555555555555555555555555555555555555555111111111
26  5555555555555555555555555555555555555555555555555555555555555111111111
25  5555555555555555555555555555555555555555555555555555555555555111111111
24  5555555555555555555555555555555555555555555555555555555555555111111111
23  5555555555555555555555555555555555555555555555555555555555555111111111
22  5555555555555555555555555555555555555555555555555555555555555111111111
21  5555555555555555555555555555555555555555555555555555555555555111111111
20  5555555555555555555555555555555555555555555555555555555555555111111111
19  5555555555555555555555555555555555555555555555555555555555555111111111
18  5555555555555555555555555555555555555555555555555555555555555111111111
17  5555555555555555555555555555555555555555555555555555555555555111111111
16  5555555555555555555555555555555555555555555555555555555555555111111111
15  5555555555555555555555555555555555555555555555555555555555555111111111
14  5555555555555555555555555555555555555555555555555555555555555111111111
13  5555555555555555555555555555555555555555555555555555555555555111111111
12  5555555555555555555555555555555555555555555555555555555555555111111111
11  5555555555555555555555555555555555555555555555555555555555555111111111
10  5555555555555555555555555555555555555555555555555555555555555111111111
 9  5555555555555555555555555555555555555555555555555555555555555111111111
 8  5555555555555555555555555555555555555555555555555555555555555111111111
 7  5555555555555555555555555555555555555555555555555555555555555111111111
 6  5555555555555555555555555555555555555555555555555555555555555111111111
 5  5555555555555555555555555555555555555555555555555555555555555111111111
 4  5555555555555555555555555555555555555555555555555555555555555111111111
 3  5555555555555555555555555555555555555555555555555555555555555111111111
 2  5555555555555555555555555555555555555555555555555555555555555111111111
 1  5555555555555555555555555555555555555555555555555555555555555111111111

I = 1234567891012345678920123456789301234567894012345678950123456789 60

42  11111
41  11111
40  11111
39  11111
38  77777
37  77777
36  77777
35  77777
34  17777
33  17777
32  17777
31  17777
30  17777
29  11111
28  11111
27  11111
26  11111
25  11111
24  11111
23  11111
22  11111
```

```
21  1 1 1 1 1
20  1 1 1 1 1
19  1 1 1 1 1
18  1 1 1 1 1
17  1 1 1 1 1
16  1 1 1 1 1
15  1 1 1 1 1
14  1 1 1 1 1
13  1 1 1 1 1
12  1 1 1 1 1
11  1 1 1 1 1
10  1 1 1 1 1
 9  1 1 1 1 1
 8  1 1 1 1 1
 7  1 1 1 1 1
 6  1 1 1 1 1
 5  1 1 1 1 1
 4  1 1 1 1 1
 3  1 1 1 1 1
 2  1 1 1 1 1
 1  1 1 1 1 1

I = 1 2 3 4 5
```

ZONE IDENTIFIERS AT PLANE K = 6

```
==================================
 J
42  5555555555555555555555555555555555555555555555555555444444444 4101010
41  5555555555555555555555555555555555555555555555555555444444444 4101010
40  5555555555555555555555555555555555555555555555555555444444444 4101010
39  5555555555555555555555555555555555555555555555555555555555555 4444444101010
38  5555555555555555555555555555555555555555555555555555555555555 4444444101010
37  5555555555555555555555555555555555555555555555555555555555555 4444444101010
36  5555555555555555555555555555555555555555555555555555555555555 4444444 41010
35  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
34  5555555555555555555555555555555555555999999999999999999555555 5555555 44445 51010
33  5555555555555555555555555555555555555999999999999999999555555 5555555 44445 51010
32  5555555555555555555555555555555555555999999999999999999555555 5555555 44445 51010
31  5555555555555555555555555555555555555999999999999999999555555 5555555 44445 51010
30  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
29  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
28  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
27  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
26  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
25  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
24  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
23  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
22  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
21  5555555555555555555555555555555555555999999999999999999555555 5555555 55555 51010
20  5555555555555555555555555555555555555999999999999999999555555 5555555 55555 51010
19  5555555555555555555555555555555555555999999999999999999555555 5555555 55555 51010
18  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
17  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
16  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
15  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
14  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
13  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
12  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
11  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 41010
10  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 44
 9  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 44
 8  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 44
 7  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 44
 6  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 44
 5  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 44
 4  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 44
 3  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 44
 2  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 44
 1  5555555555555555555555555555555555555999999999999999999555555 5555555 44444 44

I = 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 20 1 2 3 4 5 6 7 8 9 30 1 2 3 4 5 6 7 8 9 40 1 2 3 4 5 6 7 8 9 50 1 2 3 4 5 6 7 8 9 60

42  1010101010
41  1010101010
40  1010101010
39  1010101010
38  1010101010
37  1010101010
36  1010101010
35  1010101010
34  1010101010
33  1010101010
32  1010101010
31  1010101010
30  1010101010
29  1010101010
28  1010101010
27  1010101010
```

```
26 1010101010
25 1010101010
24 1010101010
23 1010101010
22 1010101010
21 1010101010
20 1010101010
19 1010101010
18 1010101010
17 1010101010
16 1010101010
15 1010101010
14 1010101010
13 1010101010
12 1010101010
11 1010101010
10  47777
 9  47777
 8  47777
 7  47777
 6  47777
 5  47777
 4  47777
 3  47777
 2  47777
 1  47777

 I = 1 2 3 4 5
```

ZONE IDENTIFIERS AT PLANE K = 7

```
==================================
 J
42 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
41 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
40 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
39 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
38 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
37 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
36 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
35 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
34 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
33 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
32 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
31 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
30 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
29 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
28 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
27 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
26 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
25 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
24 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
23 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
22 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
21 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
20 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
19 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
18 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
17 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
16 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
15 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
14 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
13 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
12 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
11 5555555555555555555555555555555555555555555555555555555555555555555444444444101010
10 5555555555555555555555555555555555555555555555555555555555555555555444444444447
 9 5555555555555555555555555555555555555555555555555555555555555555555444444444447
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 1 5555555555555555555555555555555555555555555555555555555555555555555444444444447

 I = 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 20 1 2 3 4 5 6 7 8 9 30 1 2 3 4 5 6 7 8 9 40 1 2 3 4 5 6 7 8 9 50 1 2 3 4 5 6 7 8 9 60

42 1010101010
41 1010101010
40 1010101010
39 1010101010
38 1010101010
37 1010101010
36 1010101010
35 1010101010
34 1010101010
33 1010101010
32 1010101010
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31 1010101010
30 1010101010
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11 1010101010
10  77777
 9  77777
 8  77777
 7  77777
 6  77777
 5  77777
 4  77777
 3  77777
 2  77777
 1  77777

I = 1 2 3 4 5

ZONE IDENTIFIERS AT PLANE K =  8
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41  5555555555555555555555555555555555555555555555444444444444 7101010
40  5555555555555555555555555555555555555555555555555555444444444 7101010
39  5555555555555555555555555555555555555555555555555555444444444 7101010
38  5555555555555555555555555555444444444444555555555555444444 4101010
37  5555555555555555555555555444444444444444444444555555555444444 4101010
36  5555555555555555555555555444444444444444444444555555555444444 41010
35  5555555555555555555555444444444444444444444444555555555444444 41010
34  5555555555555555555555444444444444444444444444555555555444444 41010
33  5555555555555555555555444444444444444444444444555555555444444 41010
32  5555555555555555555555444444444444444444444444555555555444444 41010
31  5555555555555555555555444444444444444444444444555555555444444 41010
30  5555555555555555555555444444444444444444444444555555555444444 41010
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25  5555555555555555555555444444444444444444444444555555555444444 41010
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19  5555555555555555555555555555444444444444444444444444555555444444 41010
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16  5555555555555555555555555555444444444444444444444444444444444444 41010
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14  5555555555555555555555555555444444444444444444444444444444444444 41010
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12  5555555555555555555555555555444444444444444444444444444444444444 41010
11  5555555555555555555555555555444444444444444444444444444444444444 41010
10  5555555555555555555555555555444444444444444444444444444444444 447
 9  5555555555555555555555555555444444444444444444444444444444444 447
 8  5555555555555555555555555555444444444444444444444444444444444 477
 7  5555555555555555555555555555444444444444444444444444444444444 477
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 1  4444444444444444444444444444444444444444444444444444444444444 477

I = 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 20 1 2 3 4 5 6 7 8 9 30 1 2 3 4 5 6 7 8 9 40 1 2 3 4 5 6 7 8 9 50 1 2 3 4 5 6 7 8 9 60

42 1010101010
41 1010101010
40 1010101010
39 1010101010
38 1010101010
37 1010101010
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36 1010101010
35 1010101010
34 1010101010
33 1010101010
32 1010101010
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18 1010101010
17 1010101010
16 1010101010
15 1010101010
14 1010101010
13 1010101010
12 1010101010
11 1010101010
10  77777
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 3  77777
 2  77777
 1  77777

I = 1 2 3 4 5
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ZONE IDENTIFIERS AT PLANE K = 9

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42  5555555555555555555555555555555555555555555555555555444444444444101010
41  5555555555555555555555555555555555555555555555555555444444444447 7101010
40  5555555555555555555555555555555555555555555555555555444444444447 7101010
39  5555555555555555555555555444444444444444444555555554444444444447 7101010
38  5555555555555555555555555444444444444444444555555554444444444447 7101010
37  5555555555555555555444444444444444444444444555555555444444444444101010
36  5555555555555555555444444444444444444444444555555555444444444444 71010
35  5555555555555555555444444444444444444444444555555555444444444444 71010
34  5555555555555555555444444444444444444444444555555555444444444444 41010
33  5555555555555555555444444444444444444444444555555555444444444444 41010
32  5555555555555555555444444444444444444444444555555555444444444444 41010
31  5555555555555555555444444444444444444444444555555555444444444444 41010
30  5555555555555555555444444444444444444444444555555555444444444444 41010
29  5555555555555555555444444444444444444444444555555555444444444444 41010
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27  5555555555555555555444444444444444444444444555555555444444444444 41010
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25  5555555555555555555444444444444444444444444555555555444444444444 41010
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18  5555555555555555555444444444444444444444444555555555444444444444 41010
17  5555555555555555555444444444444444444444444555555555444444444444 41010
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13  5555555555555555555444444444444444444444444555555555444444444444 41010
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 9  5555555555555555555444444444444444444444444555555555444444444444 777
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I = 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 20 1 2 3 4 5 6 7 8 9 30 1 2 3 4 5 6 7 8 9 40 1 2 3 4 5 6 7 8 9 50 1 2 3 4 5 6 7 8 9 60

42 1010101010
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41 1010101010
40 1010101010
39 1010101010
38 1010101010
37 1010101010
36 1010101010
35 1010101010
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33 1010101010
32 1010101010
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14 1010101010
13 1010101010
12 1010101010
11 1010101010
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I = 12345
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ZONE IDENTIFIERS AT PLANE K = 10

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42 4444444444444444444444444444444444444444444444444444444444444 7101010
41 4444444444444444444444444444444444444444444444444444444444444 7101010
40 4444444444444444444444444444444444444444444444444444444444444 7101010
39 4444444444444444444444444444444444444444444444444444444444444 7101010
38 4444444444444444444444444444444444444444444444444444444444444 7101010
37 4444444444444444444444444444444444444444444444444444444444444 7101010
36 4444444444444444444444444444444444444444444444444444444444444 7 71010
35 4444444444444444444444444444444444444444444444444444444444444 71010
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```

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I = 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 20 1 2 3 4 5 6 7 8 9 30 1 2 3 4 5 6 7 8 9 40 1 2 3 4 5 6 7 8 9 50 1 2 3 4 5 6 7 8 9 60

42 1010101010
41 1010101010
40 1010101010
39 1010101010
38 1010101010
37 1010101010
36 1010101010
35 1010101010
34 1010101010
33 1010101010
32 1010101010
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14 1010101010
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12 1010101010
11 1010101010
10 1010101010
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 8 77777
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 3 77777
 2 77777
 1 77777

I = 12345
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ZONE IDENTIFIERS AT PLANE K = 11

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 J
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41 4444444444444444444444444444444444444444444444444444444 7 710101010
40 4444444444444444444444444444444444444444444444444444444 7 710101010
39 4444444444444444444444444444444444444444444444444444444 7 710101010
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37 4444444444444444444444444444444444444444444444444444444 7 710101010
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33 4444444444444444444444444444444444444444444444444444444 7 710101010
32 4444444444444444444444444444444444444444444444444444444 7 710101010
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30 4444444444444444444444444444444444444444444444444444444 7 710101010
29 4444444444444444444444444444444444444444444444444444444 7 710101010
28 4444444444444444444444444444444444444444444444444444444 7 710101010
27 4444444444444444444444444444444444444444444444444444444 7 710101010
26 4444444444444444444444444444444444444444444444444444444 7 710101010
25 4444444444444444444444444444444444444444444444444444444 7 7 7101010
24 4444444444444444444444444444444444444444444444444444444 7 7101010
23 4444444444444444444444444444444444444444444444444444444 7 7101010
22 4444444444444444444444444444444444444444444444444444444 7 7101010
21 4448888444444444444444444444444444444444444444444444444 7 7101010
20 4448888444444444444444444444444444444444444444444444444 7 7101010
19 4448888444444444444444444444444444444444444444444444444 7 7101010
18 4448888444444444444444444444444444444444444444444444444 7 7101010
17 4448888444444444444444444444444444444444444444444444444 7 7 71010
16 4448888444444444444444444444444444444444444444444444444 7 7 71010
15 4448888444444444444444444444444444444444444444444444444 7 7 71010
14 4448888444444444444444444444444444444444444444444444444 7 71010
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 8 4444488844444444444444444444444444444444444444444444444 7 710
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 6 4444444444444444444444444444444444444444444444444444444 7 710
 5 4444444444444444444444444444444444444444444444444444444 7 710
```

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 4  4444444444444444444444444444444444444444444444444444444444444447710
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I = 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 20 1 2 3 4 5 6 7 8 9 30 1 2 3 4 5 6 7 8 9 40 1 2 3 4 5 6 7 8 9 50 1 2 3 4 5 6 7 8 9 60

42 1010101010
41 1010101010
40 1010101010
39 1010101010
38 1010101010
37 1010101010
36 1010101010
35 1010101010
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33 1010101010
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 4 1010101010
 3 77777
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 1 77777

I = 1 2 3 4 5
```

ZONE IDENTIFIERS AT PLANE K = 12
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```
 J
42 4444444444444444444444444444444444444444444888884444444447 71010101010
41 4444444444444444444444444444444444444444444888884444444447 71010101010
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39 4444444444444444444444444444444444444444444888888888448877 71010101010
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35 4444444444444444444444444444444444444444444888888888448877 71010101010
34 4444444444444444444444444444444444444444888888888888448888777 710101010
33 4444444444444444444444444444444444888888888888444444444488887777 710101010
32 4444444444444444444444444444444444888888888888444444444488887777 710101010
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BOUNDING INDICES FOR ACTIVE ZONES
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 7    ( 38, 1,  4) ( 65, 42, 15)
 8    ( 1,  1, 11) ( 58, 42, 15)
 9    ( 26, 8,  5) ( 48, 35,  7)
10    ( 51, 4,  6) ( 65, 42, 15)

TIME HISTORY OUTPUT AT NODES
============================
   I     J     K
  10    17    10
  24    19    10
```

```
  36     21     10
  10     17     11

1-----------------------------------------------------
1100-EM-1 Groundwater Model
-----------------------------------------------------

PROGRAM CONSTANTS, PARAMETERS AND REFERENCE VALUES
=====================================================
CARTESIAN/RADIAL GEOMETRY INDEX  =        1
CYCLICAL BOUNDARY INDEX ........ =        0
DENSITY OPTION INDEX........... =        0
HYDRAULIC CONDUCTIVITY INDEX ... =        0

START TIME ....................= 0.000E+00
CURRENT VALUE OF MAX. TIME ..... = 1.000E+03
STARTING TIME STEP ............. = 2.315E+02
TIME STEP INCREMENT FACTOR ..... = 1.080E+00
MAXIMUM TIME STEP .............. = 1.000E+03
TOTAL VOLUME OF FLUID IN FIELD.. = 1.029E+08
REFERENCE TEMPERATURE .......... = 0.000E+00

HYDRAULIC PROPERTIES OF POROUS MEDIA
=====================================

ACTIVE   SPECIFIC      X-DIR.       Y-DIR.       Z-DIR.
ZONE #  STORATIVITY  HYDRAULIC K  HYDRAULIC K  HYDRAULIC K
  1     2.000E-01    2.000E+01    2.000E+01    1.200E+00
  4     2.000E-01    6.000E+01    6.000E+01    3.900E+00
  5     2.000E-01    1.000E-02    1.000E-02    1.000E-03
  7     2.000E-01    1.000E+03    1.000E+03    6.400E+01
  8     2.000E-01    5.000E+02    5.000E+02    1.370E+01
  9     2.000E-01    5.000E-02    5.000E-02    5.000E-03
 10     2.000E-01    5.000E+03    5.000E+03    5.000E+01

VALUES AT DIAGNOSTIC GRID NODE ( 33, 21,  8)
=============================================
U  - X-DIR. VELOCITY COMPONENT  =  0.000E+00
V  - Y-DIR. VELOCITY COMPONENT  =  0.000E+00
W  - Z-DIR. VELOCITY COMPONENT  =  0.000E+00
P  - PRESSURE OR PRESSURE HEAD  =  1.066E+02

FIXED P   NODES WITHIN THE FLOW FIELD
=====================================
 #       FROM          TO
 1   ( 57,  2,  2)  ( 64,  2, 14)
 2   ( 57,  2,  2)  ( 64,  2, 14)
 3   ( 59,  3,  2)  ( 64,  3, 14)
 4   ( 60,  4,  2)  ( 64,  4, 14)
 5   ( 61,  5,  2)  ( 64,  6, 14)
 6   ( 61,  7,  2)  ( 64,  9, 14)
 7   ( 61, 10,  2)  ( 64, 12, 14)
 8   ( 61, 13,  2)  ( 64, 15, 14)
 9   ( 62, 16,  2)  ( 64, 18, 14)
10   ( 62, 19,  2)  ( 64, 21, 14)
11   ( 62, 22,  2)  ( 64, 24, 14)
12   ( 62, 25,  2)  ( 64, 27, 14)
13   ( 62, 28,  2)  ( 64, 31, 14)
14   ( 63, 32,  2)  ( 64, 33, 14)
15   ( 64, 34,  2)  ( 64, 35, 14)
16   ( 64, 36,  2)  ( 64, 41, 14)

DEPENDENT VARIABLE SPECIFICATIONS
=================================
VARIABLE  SYMBOL  SOLVE OPTION  INTEG. PROFILE  # OF SWEEPS  RELAX FACTOR
  4       P        1             1               1          1.00

 MATRIX SWEEP DIRECTIONS: X + Y + Z


1
            <------- VALUES AT NODE -------> <-- MATRIX RESIDUE OR -->
            <------- ( 33, 21,  8) -------> <-- RELATIVE CHANGE --> CONVERGENCE
 STEP   TIME      U        V        W        P        MASS    ENERGY  REF VALU  INDEX   #ITER
 6520  0.00E+00  1.14E-01 1.57E-02 7.09E-04 1.07E+02 0.00E+00 0.00E+00 0.00E+00     0.0   1
 6521  2.50E+02  1.13E-01 1.57E-02 7.06E-04 1.07E+02 1.17E-02 0.00E+00 1.17E-02    11.7   1
 6522  5.20E+02  1.12E-01 1.56E-02 7.06E-04 1.07E+02 9.92E-03 0.00E+00 9.92E-03     9.9   1
 6523  8.12E+02  1.11E-01 1.56E-02 7.04E-04 1.07E+02 8.28E-03 0.00E+00 8.28E-03     8.3   1
 6524  1.00E+03  1.10E-01 1.56E-02 7.02E-04 1.07E+02 4.50E-03 0.00E+00 4.50E-03     4.5   1
** RECORD NO.439 KEYWORD ******* INITial C = 1100 from (8,15,10) to (11,20,12)
** RECORD NO.440 KEYWORD ******* SOLVE for 1500 days in steps of 250 1.08 max of 1000
** RECORD NO.441 COMMENT ******* /save P,C on file 'c:\pfo\3z402500.arc'NOW
```

```
 6525  1.25E+03  1.09E-01 1.56E-02 7.01E-04 1.07E+02 4.80E-03 0.00E+00 4.80E-03     4.8  1
 6526  1.52E+03  1.08E-01 1.55E-02 7.00E-04 1.07E+02 4.12E-03 0.00E+00 4.12E-03     4.1  1
 6527  1.81E+03  1.07E-01 1.55E-02 6.98E-04 1.07E+02 3.49E-03 0.00E+00 3.49E-03     3.5  1
 6528  2.13E+03  1.06E-01 1.55E-02 6.98E-04 1.07E+02 2.92E-03 0.00E+00 2.92E-03     2.9  1
 6529  2.47E+03  1.06E-01 1.54E-02 6.97E-04 1.07E+02 2.40E-03 0.00E+00 2.40E-03     2.4  1

+-+-+-+-+-+-+-+-+ FLUX SUMMARY FOR C +-+-+-+-+-+-+-+-+-+
ACTIVE SUBDOMAIN: ( 2, 2, 2) ( 64, 41, 14)
TIME.........................= 2.5000E+03
TOTAL PROPERTY IN THE REGION... = 5.2275E+07
CHANGE FROM LAST TIME STEP..... = -2.6940E+05
CUMULATIVE CONVECTIVE INFLUX... = 4.7076E-16
CUMULATIVE DIFFUSIVE INFLUX.... = -1.1868E+07
NET INFLUX FOR THE REGION...... = -1.1868E+07
NET ACCUMULATED IN THE REGION.. = -1.1707E+07

    PLANE OF          INSTANTANEOUS FLUX
  CALCULATIONS      CONVECTIVE  DIFFUSIVE   TOTAL

X- PLANE AT I =  2    0.000E+00 0.000E+00 0.000E+00
X+ PLANE AT I = 64    0.000E+00 4.859E-06 4.859E-06
Y- PLANE AT J =  2    1.254E-18 -4.457E-09 -4.457E-09
Y+ PLANE AT J = 41    0.000E+00 5.222E-05 5.222E-05
Z- PLANE AT K =  2    0.000E+00 0.000E+00 0.000E+00
Z+ PLANE AT K = 14    0.000E+00 8.218E+03 8.218E+03
+-+-+-+-+-+-+-+-+ END OF FLUX SUMMARY +-+-+-+-+-+-+-+-+-+

 6530  2.50E+03  1.05E-01 1.54E-02 6.92E-04 1.07E+02 2.29E-04 0.00E+00 2.29E-04     0.2  1
** RECORD NO.442 KEYWORD ******* INITial C =  380 from (8,15,10) to (11,20,12)
** RECORD NO.443 COMMENT ******* /
** RECORD NO.444 KEYWORD ******* SOLVE for 1650 days in steps of 215 1.08 max of 1000!!!4150
** RECORD NO.445 COMMENT ******* /save P,C on file 'c:\pfo\3z404150.arc'NOW
 6531  2.71E+03  1.05E-01 1.54E-02 6.94E-04 1.07E+02 1.24E-03 0.00E+00 1.24E-03     1.2  1
 6532  2.95E+03  1.05E-01 1.53E-02 6.93E-04 1.07E+02 1.11E-03 0.00E+00 1.11E-03     1.1  1
 6533  3.20E+03  1.05E-01 1.53E-02 6.93E-04 1.07E+02 9.84E-04 0.00E+00 9.84E-04     1.0  1
 6534  3.47E+03  1.04E-01 1.53E-02 6.92E-04 1.07E+02 8.61E-04 0.00E+00 8.61E-04     0.9  1
 6535  3.76E+03  1.04E-01 1.52E-02 6.92E-04 1.07E+02 7.44E-04 0.00E+00 7.44E-04     0.7  1
 6536  4.08E+03  1.04E-01 1.52E-02 6.91E-04 1.07E+02 6.35E-04 0.00E+00 6.35E-04     0.6  1
 6537  4.15E+03  1.04E-01 1.51E-02 6.89E-04 1.07E+02 1.38E-04 0.00E+00 1.38E-04     0.1  1
** RECORD NO.446 KEYWORD ******* INITial C =  400 from (8,15,10) to (11,18,12)
** RECORD NO.447 COMMENT ******* /
** RECORD NO.448 KEYWORD ******* SOLVE for 150  days in steps of 25 1.08 max of 1000!!!4300
 6538  4.17E+03  1.04E-01 1.51E-02 6.86E-04 1.07E+02 7.27E-05 0.00E+00 7.27E-05     0.1  1
 6539  4.20E+03  1.04E-01 1.51E-02 6.85E-04 1.07E+02 7.02E-05 0.00E+00 7.02E-05     0.1  1

+-+-+-+-+-+-+-+-+ FLUX SUMMARY FOR C +-+-+-+-+-+-+-+-+-+
ACTIVE SUBDOMAIN: ( 2, 2, 2) ( 64, 41, 14)
TIME.........................= 4.2312E+03
TOTAL PROPERTY IN THE REGION... = 6.8346E+07
CHANGE FROM LAST TIME STEP..... = -2.5590E+05
CUMULATIVE CONVECTIVE INFLUX... = 2.2684E-13
CUMULATIVE DIFFUSIVE INFLUX.... = -3.0160E+07
NET INFLUX FOR THE REGION...... = -3.0160E+07
NET ACCUMULATED IN THE REGION.. = 4.3641E+06

    PLANE OF          INSTANTANEOUS FLUX
  CALCULATIONS      CONVECTIVE  DIFFUSIVE   TOTAL

X- PLANE AT I =  2    0.000E+00 0.000E+00 0.000E+00
X+ PLANE AT I = 64    0.000E+00 2.510E-04 2.510E-04
Y- PLANE AT J =  2    4.195E-16 -1.065E-06 -1.065E-06
Y+ PLANE AT J = 41    0.000E+00 1.160E-04 1.160E-04
Z- PLANE AT K =  2    0.000E+00 0.000E+00 0.000E+00
Z+ PLANE AT K = 14    0.000E+00 1.073E+04 1.073E+04
+-+-+-+-+-+-+-+-+ END OF FLUX SUMMARY +-+-+-+-+-+-+-+-+-+

 6540  4.23E+03  1.04E-01 1.50E-02 6.84E-04 1.07E+02 6.72E-05 0.00E+00 6.72E-05     0.1  1
 6541  4.26E+03  1.04E-01 1.50E-02 6.83E-04 1.07E+02 6.76E-05 0.00E+00 6.76E-05     0.1  1
 6542  4.30E+03  1.04E-01 1.50E-02 6.83E-04 1.07E+02 6.74E-05 0.00E+00 6.74E-05     0.1  1
 6543  4.30E+03  1.05E-01 1.49E-02 6.81E-04 1.07E+02 5.65E-05 0.00E+00 5.65E-05     0.1  1
** RECORD NO.449 KEYWORD ******* save P,C on file 'c:\pfo\3z401987.arc'NOW
** RECORD NO.450 COMMENT ******* /

======> UNIT 12 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: c:\pfo\3z401987.arc

      <--- START OF FILE READ/WRITE OPERATIONS ON UNIT#: 12--->

ARCHIVED BY ACRi PROGRAM : PORFLOW-3D - VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
ACRi LICENSE NUMBER .... : 3240AWW034
DATA GENERATED BY USER . : USACE Walla Walla Dist, Environmental Engineering Br.
DATE OF GENERATION ..... : 10/20/92
TIME OF GENERATION ..... : 12:37:28.1
TITLE OF DATA SET ..... : 1100-EM-1 Groundwater Model
GRID DIMENSIONS ..... :   65 BY  42 BY  15

    --> SIMULATION TIME OF STORED DATA:   4.300E+03
    --> STEP NUMBER AT WHICH GENERATED:  6543
```

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     ---> WRITING VARIABLE: P   - PRESSURE OR PRESSURE HEAD
     ---> WRITING VARIABLE: C   - SPECIES CONCENTRATION.....

     ====> DATA SET NUMBER:   1 WRITTEN TO c:\pfo\3z401987.arc

** RECORD NO.451 KEYWORD ******* SOLVE for 813 days in steps of  55 1.08 max of 1000!!!5113
 6544  4.35E+03  1.05E-01 1.49E-02 6.83E-04 1.07E+02 9.17E-05 0.00E+00 9.17E-05     0.1  1
 6545  4.41E+03  1.05E-01 1.48E-02 6.84E-04 1.07E+02 9.59E-05 0.00E+00 9.59E-05     0.1  1
 6546  4.48E+03  1.05E-01 1.48E-02 6.84E-04 1.07E+02 1.00E-04 0.00E+00 1.00E-04     0.1  1
 6547  4.55E+03  1.05E-01 1.48E-02 6.84E-04 1.07E+02 1.04E-04 0.00E+00 1.04E-04     0.1  1
 6548  4.62E+03  1.05E-01 1.47E-02 6.84E-04 1.07E+02 1.08E-04 0.00E+00 1.08E-04     0.1  1
 6549  4.70E+03  1.05E-01 1.47E-02 6.84E-04 1.07E+02 1.12E-04 0.00E+00 1.12E-04     0.1  1

+-+-+-+-+-+-+-+-+-+ FLUX SUMMARY FOR C  +-+-+-+-+-+-+-+-+-+
ACTIVE SUBDOMAIN: (  2,  2,  2) ( 64, 41, 14)
TIME.........................= 4.7908E+03
TOTAL PROPERTY IN THE REGION... =  6.2983E+07
CHANGE FROM LAST TIME STEP..... = -8.3245E+05
CUMULATIVE CONVECTIVE INFLUX... =  1.1015E-12
CUMULATIVE DIFFUSIVE INFLUX.... = -3.6808E+07
NET INFLUX FOR THE REGION...... = -3.6808E+07
NET ACCUMULATED IN THE REGION.. = -9.9905E+05

    PLANE OF            INSTANTANEOUS FLUX
  CALCULATIONS        CONVECTIVE  DIFFUSIVE    TOTAL

X- PLANE AT I =   2    0.000E+00 0.000E+00 0.000E+00
X+ PLANE AT I =  64     0.000E+00 6.465E-04 6.465E-04
Y- PLANE AT J =   2    3.615E-15 -3.247E-06 -3.247E-06
Y+ PLANE AT J =  41     0.000E+00 4.153E-05 4.153E-05
Z- PLANE AT K =   2    7.469E-19 -7.469E-19 0.000E+00
Z+ PLANE AT K =  14     0.000E+00 1.209E+04 1.209E+04
+-+-+-+-+-+-+-+-+-+ END OF FLUX SUMMARY +-+-+-+-+-+-+-+-+-+

 6550  4.79E+03  1.05E-01 1.47E-02 6.84E-04 1.07E+02 1.15E-04 0.00E+00 1.15E-04     0.1  1
 6551  4.89E+03  1.06E-01 1.46E-02 6.84E-04 1.07E+02 1.19E-04 0.00E+00 1.19E-04     0.1  1
 6552  4.99E+03  1.06E-01 1.46E-02 6.83E-04 1.07E+02 1.22E-04 0.00E+00 1.22E-04     0.1  1
 6553  5.10E+03  1.06E-01 1.46E-02 6.82E-04 1.07E+02 1.25E-04 0.00E+00 1.25E-04     0.1  1
 6554  5.11E+03  1.06E-01 1.46E-02 6.82E-04 1.07E+02 4.86E-05 0.00E+00 4.86E-05     0.0  1
** RECORD NO.452 KEYWORD ******* save P,C on file 'c:\pfo\3z401990.arc'NOW
** RECORD NO.453 COMMENT ******* /

======> UNIT 12 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: c:\pfo\3z401990.arc

     <--- START OF FILE READ/WRITE OPERATIONS ON UNIT#: 12--->

ARCHIVED BY ACRi PROGRAM : PORFLOW-3D - VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
ACRi LICENSE NUMBER .... : 3240AWW034
DATA GENERATED BY USER . : USACE Walla Walla Dist, Environmental Engineering Br.
DATE OF GENERATION ..... : 10/20/92
TIME OF GENERATION ..... : 12:37:28.1
TITLE OF DATA SET ..... : 1100-EM-1 Groundwater Model
GRID DIMENSIONS ........ :    65 BY  42 BY  15

     ---> SIMULATION TIME OF STORED DATA:   5.113E+03
     ---> STEP NUMBER AT WHICH GENERATED:  6554

     ---> WRITING VARIABLE: P   - PRESSURE OR PRESSURE HEAD
     ---> WRITING VARIABLE: C   - SPECIES CONCENTRATION.....

     ====> DATA SET NUMBER:   1 WRITTEN TO c:\pfo\3z401990.arc

** RECORD NO.454 KEYWORD ******* SOLVE for 365 days in steps of 55 1.08 max of 1000!!!5478
** RECORD NO.455 COMMENT ******* /save P,C on file 'c:\pfo\3z401991.arc'NOW
** RECORD NO.456 COMMENT ******* /
 6555  5.17E+03  1.06E-01 1.45E-02 6.82E-04 1.07E+02 6.82E-05 0.00E+00 6.82E-05     0.1  1
 6556  5.23E+03  1.06E-01 1.45E-02 6.81E-04 1.07E+02 6.78E-05 0.00E+00 6.78E-05     0.1  1
 6557  5.29E+03  1.06E-01 1.44E-02 6.81E-04 1.07E+02 6.87E-05 0.00E+00 6.87E-05     0.1  1
 6558  5.36E+03  1.07E-01 1.44E-02 6.81E-04 1.07E+02 7.29E-05 0.00E+00 7.29E-05     0.1  1
 6559  5.44E+03  1.07E-01 1.44E-02 6.81E-04 1.07E+02 7.69E-05 0.00E+00 7.69E-05     0.1  1

+-+-+-+-+-+-+-+-+-+ FLUX SUMMARY FOR C  +-+-+-+-+-+-+-+-+-+
ACTIVE SUBDOMAIN: (  2,  2,  2) ( 64, 41, 14)
TIME.........................= 5.4780E+03
TOTAL PROPERTY IN THE REGION... =  5.7236E+07
CHANGE FROM LAST TIME STEP..... = -2.8240E+05
CUMULATIVE CONVECTIVE INFLUX... =  1.5094E-11
CUMULATIVE DIFFUSIVE INFLUX.... = -4.5078E+07
NET INFLUX FOR THE REGION...... = -4.5078E+07
NET ACCUMULATED IN THE REGION.. = -6.7457E+06

    PLANE OF            INSTANTANEOUS FLUX
  CALCULATIONS        CONVECTIVE  DIFFUSIVE    TOTAL

X- PLANE AT I =   2    0.000E+00 0.000E+00 0.000E+00
X+ PLANE AT I =  64     0.000E+00 7.819E-04 7.819E-04
Y- PLANE AT J =   2    4.548E-14 -1.073E-05 -1.073E-05
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```
Y+ PLANE AT J =  41     0.000E+00  1.323E-05  1.323E-05
Z- PLANE AT K =   2     7.187E-19 -7.187E-19  0.000E+00
Z+ PLANE AT K =  14     0.000E+00  1.226E+04  1.226E+04
+-+-+-+-+-+-+-+-+-+ END OF FLUX SUMMARY +-+-+-+-+-+-+-+-+-+

 6560  5.48E+03  1.07E-01  1.44E-02  6.80E-04  1.07E+02  6.13E-05 0.00E+00 6.13E-05     0.1  1
** RECORD NO.457 KEYWORD ******* SOLVE for 522 days in steps of 225 1.08 max of 1000!!!6000
 6561  5.70E+03  1.07E-01  1.43E-02  6.78E-04  1.07E+02  2.02E-04 0.00E+00 2.02E-04     0.2  1
 6562  5.95E+03  1.07E-01  1.43E-02  6.76E-04  1.07E+02  1.93E-04 0.00E+00 1.93E-04     0.2  1
 6563  6.00E+03  1.07E-01  1.43E-02  6.76E-04  1.07E+02  6.61E-05 0.00E+00 6.61E-05     0.1  1
** RECORD NO.458 KEYWORD ******* save P,C on file 'c:\pfo\3z401992.arc'NOW
** RECORD NO.459 COMMENT ******* /

======> UNIT 12 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: c:\pfo\3z401992.arc

      <— START OF FILE READ/WRITE OPERATIONS ON UNIT#: 12—>

ARCHIVED BY ACRi PROGRAM : PORFLOW-3D - VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
ACRi LICENSE NUMBER .... : 3240AWW034
DATA GENERATED BY USER . : USACE Walla Walla Dist, Environmental Engineering Br.
DATE OF GENERATION ..... : 10/20/92
TIME OF GENERATION ..... : 12:37:28.1
TITLE OF DATA SET ..... : 1100-EM-1 Groundwater Model
GRID DIMENSIONS ..... :    65 BY  42 BY  15

      —> SIMULATION TIME OF STORED DATA:    6.000E+03
      —> STEP NUMBER AT WHICH GENERATED:  6563

      —> WRITING VARIABLE: P   - PRESSURE OR PRESSURE HEAD
      —> WRITING VARIABLE: C   - SPECIES CONCENTRATION.....

      ====> DATA SET NUMBER:   1 WRITTEN TO c:\pfo\3z401992.arc

** RECORD NO.460 KEYWORD ******* SOLVE for 2190 days in steps of 225 1.08 max of 1000!!!8190
 6564  6.22E+03  1.08E-01  1.43E-02  6.75E-04  1.07E+02  1.56E-04 0.00E+00 1.56E-04     0.2  1
 6565  6.47E+03  1.08E-01  1.43E-02  6.73E-04  1.07E+02  1.49E-04 0.00E+00 1.49E-04     0.1  1
 6566  6.73E+03  1.08E-01  1.42E-02  6.72E-04  1.07E+02  1.40E-04 0.00E+00 1.40E-04     0.1  1
 6567  7.01E+03  1.08E-01  1.42E-02  6.71E-04  1.07E+02  1.31E-04 0.00E+00 1.31E-04     0.1  1
 6568  7.32E+03  1.08E-01  1.42E-02  6.70E-04  1.07E+02  1.21E-04 0.00E+00 1.21E-04     0.1  1
 6569  7.65E+03  1.08E-01  1.42E-02  6.69E-04  1.07E+02  1.11E-04 0.00E+00 1.11E-04     0.1  1

+-+-+-+-+-+-+-+-+-+ FLUX SUMMARY FOR C  +-+-+-+-+-+-+-+-+-+
ACTIVE SUBDOMAIN: (  2,  2,  2) ( 64, 41, 14)
TIME.........................= 8.0076E+03
TOTAL PROPERTY IN THE REGION... =  4.0900E+07
CHANGE FROM LAST TIME STEP..... = -2.1662E+06
CUMULATIVE CONVECTIVE INFLUX... =  1.8358E-09
CUMULATIVE DIFFUSIVE INFLUX.... = -8.3514E+07
NET INFLUX FOR THE REGION...... = -8.3514E+07
NET ACCUMULATED IN THE REGION.. = -2.3082E+07

    PLANE OF            INSTANTANEOUS FLUX
  CALCULATIONS        CONVECTIVE  DIFFUSIVE    TOTAL

X- PLANE AT I =   2    0.000E+00  0.000E+00  0.000E+00
X+ PLANE AT I =  64    0.000E+00  7.563E-04  7.563E-04
Y- PLANE AT J =   2    1.659E-12 -1.056E-04 -1.056E-04
Y+ PLANE AT J =  41    0.000E+00  1.722E-06  1.722E-06
Z- PLANE AT K =   2    6.422E-19 -6.422E-19  0.000E+00
Z+ PLANE AT K =  14    0.000E+00  1.796E+04  1.796E+04
+-+-+-+-+-+-+-+-+-+ END OF FLUX SUMMARY +-+-+-+-+-+-+-+-+-+

 6570  8.01E+03  1.08E-01  1.42E-02  6.68E-04  1.07E+02  1.02E-04 0.00E+00 1.02E-04     0.1  1
 6571  8.19E+03  1.09E-01  1.42E-02  6.67E-04  1.07E+02  7.26E-05 0.00E+00 7.26E-05     0.1  1
** RECORD NO.461 KEYWORD ******* save P,C on file 'c:\pfo\3z401998.arc'NOW
** RECORD NO.462 COMMENT ******* /

======> UNIT 12 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: c:\pfo\3z401998.arc

      <— START OF FILE READ/WRITE OPERATIONS ON UNIT#: 12—>

ARCHIVED BY ACRi PROGRAM : PORFLOW-3D - VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
ACRi LICENSE NUMBER .... : 3240AWW034
DATA GENERATED BY USER . : USACE Walla Walla Dist, Environmental Engineering Br.
DATE OF GENERATION ..... : 10/20/92
TIME OF GENERATION ..... : 12:37:28.1
TITLE OF DATA SET ..... : 1100-EM-1 Groundwater Model
GRID DIMENSIONS ..... :    65 BY  42 BY  15

      —> SIMULATION TIME OF STORED DATA:    8.190E+03
      —> STEP NUMBER AT WHICH GENERATED:  6571

      —> WRITING VARIABLE: P   - PRESSURE OR PRESSURE HEAD
      —> WRITING VARIABLE: C   - SPECIES CONCENTRATION.....
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====> DATA SET NUMBER:   1 WRITTEN TO c:\pfo\3z401998.arc

** RECORD NO.463 KEYWORD ******* SOLVE for 2555 days in steps of 225 1.08 max of 1000!!!10745
 6572  8.41E+03  1.09E-01  1.42E-02  6.67E-04  1.07E+02  7.21E-05 0.00E+00 7.21E-05     0.1  1
 6573  8.66E+03  1.09E-01  1.41E-02  6.66E-04  1.07E+02  7.15E-05 0.00E+00 7.15E-05     0.1  1
 6574  8.92E+03  1.09E-01  1.41E-02  6.65E-04  1.07E+02  7.13E-05 0.00E+00 7.13E-05     0.1  1
 6575  9.20E+03  1.09E-01  1.41E-02  6.64E-04  1.07E+02  7.10E-05 0.00E+00 7.10E-05     0.1  1
 6576  9.51E+03  1.10E-01  1.41E-02  6.63E-04  1.07E+02  7.07E-05 0.00E+00 7.07E-05     0.1  1
 6577  9.84E+03  1.10E-01  1.41E-02  6.62E-04  1.07E+02  7.03E-05 0.00E+00 7.03E-05     0.1  1
 6578  1.02E+04  1.10E-01  1.40E-02  6.61E-04  1.07E+02  6.98E-05 0.00E+00 6.98E-05     0.1  1
 6579  1.06E+04  1.10E-01  1.40E-02  6.60E-04  1.07E+02  6.97E-05 0.00E+00 6.97E-05     0.1  1

+-+-+-+-+-+-+-+-+-+ FLUX SUMMARY FOR C  +-+-+-+-+-+-+-+-+-+
ACTIVE SUBDOMAIN: (  2,  2,  2) ( 64, 41, 14)
TIME.............................= 1.0745E+04
TOTAL PROPERTY IN THE REGION... = 2.4428E+07
CHANGE FROM LAST TIME STEP..... = -9.9931E+05
CUMULATIVE CONVECTIVE INFLUX... = 1.7962E-08
CUMULATIVE DIFFUSIVE INFLUX.... = -1.3414E+08
NET INFLUX FOR THE REGION...... = -1.3414E+08
NET ACCUMULATED IN THE REGION.. = -3.9554E+07

    PLANE OF            INSTANTANEOUS FLUX
  CALCULATIONS       CONVECTIVE  DIFFUSIVE    TOTAL

X- PLANE AT I =   2    0.000E+00  0.000E+00  0.000E+00
X+ PLANE AT I =  64    0.000E+00  8.086E-04  8.086E-04
Y- PLANE AT J =   2    1.040E-11 -4.459E-04 -4.459E-04
Y+ PLANE AT J =  41    0.000E+00  2.354E-07  2.354E-07
Z- PLANE AT K =   2    5.613E-19 -5.613E-19  0.000E+00
Z+ PLANE AT K =  14    0.000E+00  1.683E+04  1.683E+04
+-+-+-+-+-+-+-+-+-+ END OF FLUX SUMMARY +-+-+-+-+-+-+-+-+-+

 6580  1.07E+04  1.10E-01  1.40E-02  6.60E-04  1.07E+02  6.62E-05 0.00E+00 6.62E-05     0.1  1
** RECORD NO.464 KEYWORD ******* save P,C on file 'c:\pfo\3z402005.arc'NOW
** RECORD NO.465 COMMENT ******* /

======> UNIT 12 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: c:\pfo\3z402005.arc


      <--- START OF FILE READ/WRITE OPERATIONS ON UNIT#: 12--->


ARCHIVED BY ACRi PROGRAM : PORFLOW-3D - VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
ACRi LICENSE NUMBER .... : 3240AWW034
DATA GENERATED BY USER . : USACE Walla Walla Dist, Environmental Engineering Br.
DATE OF GENERATION ..... : 10/20/92
TIME OF GENERATION ..... : 12:37:28.1
TITLE OF DATA SET ..... : 1100-EM-1 Groundwater Model
GRID DIMENSIONS ........ :    65 BY  42 BY  15


      ---> SIMULATION TIME OF STORED DATA:    1.074E+04
      ---> STEP NUMBER AT WHICH GENERATED:  6580

      ---> WRITING VARIABLE: P   - PRESSURE OR PRESSURE HEAD
      ---> WRITING VARIABLE: C   - SPECIES CONCENTRATION.....

      ====> DATA SET NUMBER:   1 WRITTEN TO c:\pfo\3z402005.arc

** RECORD NO.466 KEYWORD ******* SOLVE for 1826 days in steps of 225 1.08 max of 1000!!!12571
 6581  1.10E+04  1.10E-01  1.40E-02  6.60E-04  1.07E+02  6.68E-05 0.00E+00 6.68E-05     0.1  1
 6582  1.12E+04  1.11E-01  1.40E-02  6.59E-04  1.07E+02  6.62E-05 0.00E+00 6.62E-05     0.1  1
 6583  1.15E+04  1.11E-01  1.40E-02  6.58E-04  1.07E+02  6.60E-05 0.00E+00 6.60E-05     0.1  1
 6584  1.18E+04  1.11E-01  1.40E-02  6.57E-04  1.07E+02  6.58E-05 0.00E+00 6.58E-05     0.1  1
 6585  1.21E+04  1.11E-01  1.40E-02  6.56E-04  1.07E+02  6.57E-05 0.00E+00 6.57E-05     0.1  1
 6586  1.24E+04  1.11E-01  1.40E-02  6.55E-04  1.07E+02  6.51E-05 0.00E+00 6.51E-05     0.1  1
 6587  1.26E+04  1.11E-01  1.40E-02  6.56E-04  1.07E+02  6.23E-05 0.00E+00 6.23E-05     0.1  1
** RECORD NO.467 KEYWORD ******* save P,C on file 'c:\pfo\3z402010.arc'NOW
** RECORD NO.468 COMMENT ******* /

======> UNIT 12 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: c:\pfo\3z402010.arc


      <--- START OF FILE READ/WRITE OPERATIONS ON UNIT#: 12--->


ARCHIVED BY ACRi PROGRAM : PORFLOW-3D - VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
ACRi LICENSE NUMBER .... : 3240AWW034
DATA GENERATED BY USER . : USACE Walla Walla Dist, Environmental Engineering Br.
DATE OF GENERATION ..... : 10/20/92
TIME OF GENERATION ..... : 12:37:28.1
TITLE OF DATA SET ..... : 1100-EM-1 Groundwater Model
GRID DIMENSIONS ........ :    65 BY  42 BY  15


      ---> SIMULATION TIME OF STORED DATA:    1.257E+04
      ---> STEP NUMBER AT WHICH GENERATED:  6587

      ---> WRITING VARIABLE: P   - PRESSURE OR PRESSURE HEAD
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    ---> WRITING VARIABLE: C   - SPECIES CONCENTRATION.....

    ====> DATA SET NUMBER:   1 WRITTEN TO c:\pfo\3z402010.arc

** RECORD NO.469 KEYWORD ******* SOLVE for 1826 days in steps of  225 1.08 max of 1000!!!14397
 6588  1.28E+04  1.12E-01 1.39E-02 6.55E-04 1.07E+02 6.31E-05 0.00E+00 6.31E-05     0.1  1
 6589  1.30E+04  1.12E-01 1.39E-02 6.54E-04 1.07E+02 6.25E-05 0.00E+00 6.25E-05     0.1  1

+-+-+-+-+-+-+-+-+-+ FLUX SUMMARY FOR C  +-+-+-+-+-+-+-+-+-+
ACTIVE SUBDOMAIN: (  2,  2,  2) ( 64, 41, 14)
TIME.............................= 1.3301E+04
TOTAL PROPERTY IN THE REGION... =  1.1012E+07
CHANGE FROM LAST TIME STEP..... = -1.1055E+06
CUMULATIVE CONVECTIVE INFLUX... =  6.2242E-08
CUMULATIVE DIFFUSIVE INFLUX.... = -1.6462E+08
NET INFLUX FOR THE REGION...... = -1.6462E+08
NET ACCUMULATED IN THE REGION.. = -5.2970E+07

    PLANE OF            INSTANTANEOUS FLUX
  CALCULATIONS       CONVECTIVE  DIFFUSIVE    TOTAL

X- PLANE AT I =   2    0.000E+00  0.000E+00  0.000E+00
X+ PLANE AT I =  64    0.000E+00  4.998E-04  4.998E-04
Y- PLANE AT J =   2    2.240E-11 -1.002E-03 -1.002E-03
Y+ PLANE AT J =  41    0.000E+00  9.801E-08  9.801E-08
Z- PLANE AT K =   2    4.926E-19 -4.926E-19  0.000E+00
Z+ PLANE AT K =  14    0.000E+00  7.854E+03  7.854E+03
+-+-+-+-+-+-+-+-+-+ END OF FLUX SUMMARY +-+-+-+-+-+-+-+-+-+

 6590  1.33E+04  1.12E-01 1.39E-02 6.53E-04 1.07E+02 6.25E-05 0.00E+00 6.25E-05     0.1  1
 6591  1.36E+04  1.12E-01 1.39E-02 6.52E-04 1.07E+02 6.23E-05 0.00E+00 6.23E-05     0.1  1
 6592  1.39E+04  1.12E-01 1.39E-02 6.51E-04 1.07E+02 6.21E-05 0.00E+00 6.21E-05     0.1  1
 6593  1.42E+04  1.13E-01 1.39E-02 6.50E-04 1.07E+02 6.18E-05 0.00E+00 6.18E-05     0.1  1
 6594  1.44E+04  1.13E-01 1.39E-02 6.50E-04 1.07E+02 5.90E-05 0.00E+00 5.90E-05     0.1  1
** RECORD NO.470 KEYWORD ******* save P,C on file 'c:\pfo\3z402015.arc'NOW
** RECORD NO.471 COMMENT ******* /

======> UNIT 12 OPEN FOR I/O IN FORMATTED   MODE; FILE NAME: c:\pfo\3z402015.arc

    <---- START OF FILE READ/WRITE OPERATIONS ON UNIT#: 12----->

ARCHIVED BY ACRi PROGRAM : PORFLOW-3D - VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
ACRi LICENSE NUMBER .... : 3240AWW034
DATA GENERATED BY USER . : USACE Walla Walla Dist, Environmental Engineering Br.
DATE OF GENERATION ..... : 10/20/92
TIME OF GENERATION ..... : 12:37:28.1
TITLE OF DATA SET ..... : 1100-EM-1 Groundwater Model
GRID DIMENSIONS ........ :   65 BY  42 BY  15

    ---> SIMULATION TIME OF STORED DATA:   1.440E+04
    ---> STEP NUMBER AT WHICH GENERATED:  6594

    ---> WRITING VARIABLE: P   - PRESSURE OR PRESSURE HEAD
    ---> WRITING VARIABLE: C   - SPECIES CONCENTRATION.....

    ====> DATA SET NUMBER:   1 WRITTEN TO c:\pfo\3z402015.arc

** RECORD NO.472 KEYWORD ******* SOLVE for 1826 days in steps of  225 1.08 max of 1000!!!16223
 6595  1.46E+04  1.13E-01 1.39E-02 6.50E-04 1.07E+02 5.97E-05 0.00E+00 5.97E-05     0.1  1
 6596  1.49E+04  1.13E-01 1.39E-02 6.49E-04 1.07E+02 5.92E-05 0.00E+00 5.92E-05     0.1  1
 6597  1.51E+04  1.13E-01 1.38E-02 6.48E-04 1.07E+02 5.92E-05 0.00E+00 5.92E-05     0.1  1
 6598  1.54E+04  1.13E-01 1.38E-02 6.47E-04 1.07E+02 5.89E-05 0.00E+00 5.89E-05     0.1  1
 6599  1.57E+04  1.14E-01 1.38E-02 6.46E-04 1.07E+02 5.90E-05 0.00E+00 5.90E-05     0.1  1

+-+-+-+-+-+-+-+-+-+ FLUX SUMMARY FOR C  +-+-+-+-+-+-+-+-+-+
ACTIVE SUBDOMAIN: (  2,  2,  2) ( 64, 41, 14)
TIME.............................= 1.6048E+04
TOTAL PROPERTY IN THE REGION... =  3.5597E+06
CHANGE FROM LAST TIME STEP..... = -5.3664E+05
CUMULATIVE CONVECTIVE INFLUX... =  1.2776E-07
CUMULATIVE DIFFUSIVE INFLUX.... = -1.7602E+08
NET INFLUX FOR THE REGION...... = -1.7602E+08
NET ACCUMULATED IN THE REGION.. = -6.0422E+07

    PLANE OF            INSTANTANEOUS FLUX
  CALCULATIONS       CONVECTIVE  DIFFUSIVE    TOTAL

X- PLANE AT I =   2    0.000E+00  0.000E+00  0.000E+00
X+ PLANE AT I =  64    0.000E+00  1.798E-04  1.798E-04
Y- PLANE AT J =   2    2.282E-11 -1.311E-03 -1.311E-03
Y+ PLANE AT J =  41    0.000E+00  5.007E-08  5.007E-08
Z- PLANE AT K =   2    4.253E-19 -4.253E-19  0.000E+00
Z+ PLANE AT K =  14    0.000E+00  2.001E+03  2.001E+03
+-+-+-+-+-+-+-+-+-+ END OF FLUX SUMMARY +-+-+-+-+-+-+-+-+-+

 6600  1.60E+04  1.14E-01 1.38E-02 6.45E-04 1.07E+02 5.86E-05 0.00E+00 5.86E-05     0.1  1
 6601  1.62E+04  1.14E-01 1.38E-02 6.45E-04 1.07E+02 5.61E-05 0.00E+00 5.61E-05     0.1  1
```

** RECORD NO.473 KEYWORD ******* save P,C on file 'c:\pfo\3z402020.arc'NOW

======> UNIT 12 OPEN FOR I/O IN FORMATTED MODE; FILE NAME: c:\pfo\3z402020.arc

<--- START OF FILE READ/WRITE OPERATIONS ON UNIT#: 12--->

ARCHIVED BY ACRi PROGRAM : PORFLOW-3D - VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
ACRi LICENSE NUMBER .... : 3240AWW034
DATA GENERATED BY USER . : USACE Walla Walla Dist, Environmental Engineering Br.
DATE OF GENERATION ..... : 10/20/92
TIME OF GENERATION ..... : 12:37:28.1
TITLE OF DATA SET ..... : 1100-EM-1 Groundwater Model
GRID DIMENSIONS ..... : 65 BY 42 BY 15

---> SIMULATION TIME OF STORED DATA: 1.622E+04
---> STEP NUMBER AT WHICH GENERATED: 6601

---> WRITING VARIABLE: P - PRESSURE OR PRESSURE HEAD
---> WRITING VARIABLE: C - SPECIES CONCENTRATION.....

====> DATA SET NUMBER: 1 WRITTEN TO c:\pfo\3z402020.arc

** RECORD NO.474 KEYWORD ******* end

**********

*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 1 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 2 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.60E-24 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.62E-19 | 2.88E-19 | 1.20E-19 | 4.32E-20 | 1.26E-20 | 1.34E-24 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.01E-18 | 8.76E-19 | 4.36E-19 | 1.66E-19 | 4.12E-20 | 1.92E-25 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.12E-18 | 1.14E-18 | 6.10E-19 | 2.33E-19 | 5.01E-20 | 3.13E-26 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.93E-19 | 1.03E-18 | 5.74E-19 | 2.21E-19 | 3.87E-20 | 5.28E-30 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.31E-19 | 6.86E-19 | 3.89E-19 | 1.47E-19 | 1.94E-20 | 6.40E-31 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.40E-19 | 3.48E-19 | 2.00E-19 | 7.34E-20 | 1.25E-21 | 7.35E-35 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.05E-19 | 1.67E-19 | 9.47E-20 | 1.79E-20 | 3.36E-41 | 9.50E-36 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.11E-20 | 8.54E-20 | 4.46E-20 | 1.04E-21 | 2.65E-43 | 1.31E-38 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.24E-20 | 3.87E-20 | 1.65E-20 | 0.00E+00 | 1.33E-43 | 5.73E-39 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.87E-21 | 1.56E-20 | 5.62E-21 | 0.00E+00 | 0.00E+00 | 5.04E-44 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.17E-21 | 5.63E-21 | 1.74E-21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.02E-21 | 1.82E-21 | 4.93E-22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.97E-22 | 5.32E-22 | 1.32E-22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.86E-23 | 1.41E-22 | 3.13E-23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.90E-23 | 3.42E-23 | 6.83E-24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.20E-24 | 7.66E-24 | 1.43E-24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.54E-25 | 1.59E-24 | 2.72E-25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.61E-25 | 3.09E-25 | 4.81E-26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.84E-26 | 5.67E-26 | 8.23E-27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.77E-27 | 9.80E-27 | 1.24E-27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.75E-28 | 1.60E-27 | 1.58E-28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.22E-28 | 2.43E-28 | 1.39E-29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.84E-29 | 3.37E-29 | 1.88E-31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.66E-30 | 4.17E-30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.69E-31 | 4.58E-31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.95E-32 | 5.47E-32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.51E-33 | 7.01E-33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.58E-34 | 1.02E-33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.26E-35 | 1.10E-34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.38E-36 | 1.16E-35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.27E-37 | 1.81E-36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.02E-37 | 2.34E-37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.35E-38 | 3.25E-38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.39E-39 | 4.33E-39 | 4.13E-41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.17E-40 | 3.46E-40 | 9.81E-45 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.07E-41 | 3.48E-41 | 1.40E-45 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.98E-43 | 4.60E-43 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.80E-45 | 2.80E-45 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 3 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 3.91E-20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 1.10E-20 | 2.21E-21 | 7.02E-18 | 2.78E-18 | 8.52E-19 | 1.81E-19 | 1.47E-20 | 2.30E-22 | 0.00E+00 | |
| 2.379E+03 | 39 | 0.00E+00 | 2.40E-21 | 1.04E-21 | 9.39E-15 | 6.52E-15 | 2.71E-15 | 7.38E-16 | 6.99E-17 | 1.14E-23 | 0.00E+00 | |
| 2.257E+03 | 38 | 0.00E+00 | 4.77E-22 | 3.33E-22 | 2.12E-14 | 2.29E-14 | 9.38E-15 | 2.69E-15 | 2.09E-16 | 3.19E-25 | 0.00E+00 | |
| 2.196E+03 | 37 | 0.00E+00 | 1.05E-22 | 8.45E-16 | 2.11E-14 | 2.99E-14 | 1.69E-14 | 6.09E-15 | 4.57E-16 | 1.00E-26 | 0.00E+00 | |
| 2.135E+03 | 36 | 0.00E+00 | 1.88E-23 | 8.94E-16 | 1.05E-14 | 2.49E-14 | 1.83E-14 | 5.23E-15 | 2.83E-16 | 2.51E-31 | 0.00E+00 | |
| 2.074E+03 | 35 | 0.00E+00 | 2.51E-24 | 4.11E-16 | 3.81E-15 | 1.49E-14 | 1.41E-14 | 3.64E-15 | 1.34E-16 | 4.73E-33 | 0.00E+00 | |
| 2.013E+03 | 34 | 0.00E+00 | 3.09E-25 | 2.86E-16 | 1.10E-15 | 6.77E-15 | 6.87E-15 | 1.08E-15 | 1.24E-17 | 2.91E-37 | 0.00E+00 | |
| 1.952E+03 | 33 | 0.00E+00 | 7.08E-26 | 1.64E-16 | 3.40E-16 | 2.85E-15 | 2.37E-15 | 1.37E-16 | 1.95E-43 | 1.34E-38 | 0.00E+00 | |
| 1.922E+03 | 32 | 0.00E+00 | 2.24E-26 | 9.38E-17 | 1.29E-16 | 1.30E-15 | 7.68E-16 | 1.03E-17 | 0.00E+00 | 3.22E-41 | 0.00E+00 | |
| 1.891E+03 | 31 | 0.00E+00 | 6.37E-27 | 4.35E-17 | 4.59E-17 | 5.16E-16 | 1.84E-16 | 0.00E+00 | 0.00E+00 | 2.69E-41 | 0.00E+00 | |
| 1.861E+03 | 30 | 0.00E+00 | 1.44E-27 | 1.50E-17 | 1.50E-17 | 1.82E-16 | 4.10E-17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.830E+03 | 29 | 0.00E+00 | 2.28E-28 | 4.18E-18 | 4.39E-18 | 5.71E-17 | 8.77E-18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.800E+03 | 28 | 0.00E+00 | 2.96E-29 | 1.05E-18 | 1.16E-18 | 1.61E-17 | 1.85E-18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.769E+03 | 27 | 0.00E+00 | 3.30E-30 | 2.38E-19 | 2.78E-19 | 4.13E-18 | 3.92E-19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.739E+03 | 26 | 0.00E+00 | 3.24E-31 | 4.83E-20 | 6.02E-20 | 9.64E-19 | 7.75E-20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.708E+03 | 25 | 0.00E+00 | 2.81E-32 | 8.61E-21 | 1.18E-20 | 2.06E-19 | 1.46E-20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.678E+03 | 24 | 0.00E+00 | 2.14E-33 | 1.32E-21 | 2.11E-21 | 4.08E-20 | 2.67E-21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.647E+03 | 23 | 0.00E+00 | 1.33E-34 | 1.69E-22 | 3.42E-22 | 7.51E-21 | 4.49E-22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.617E+03 | 22 | 0.00E+00 | 5.53E-36 | 1.72E-23 | 5.09E-23 | 1.29E-21 | 7.09E-23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 1.13E-24 | 6.95E-24 | 2.09E-22 | 1.07E-23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 1.36E-25 | 9.07E-25 | 3.17E-23 | 1.44E-24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 2.10E-26 | 1.15E-25 | 4.47E-24 | 1.67E-25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 3.31E-27 | 1.42E-26 | 5.78E-25 | 1.55E-26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 4.11E-28 | 1.69E-27 | 6.68E-26 | 7.56E-28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 4.76E-29 | 1.92E-28 | 6.72E-27 | 6.44E-30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 5.44E-30 | 2.09E-29 | 5.70E-28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 6.34E-31 | 2.20E-30 | 4.91E-29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 7.72E-32 | 2.29E-31 | 4.41E-30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 9.66E-33 | 2.42E-32 | 4.50E-31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 8.60E-34 | 1.94E-33 | 3.49E-32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 6.29E-35 | 1.62E-34 | 2.78E-33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 5.28E-36 | 1.72E-35 | 3.09E-34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 4.87E-37 | 1.97E-36 | 2.90E-35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 5.01E-38 | 2.47E-37 | 2.98E-36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 3.93E-39 | 2.39E-38 | 2.84E-37 | 3.51E-40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 2.69E-40 | 2.05E-39 | 1.54E-38 | 1.40E-44 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 1.54E-41 | 1.33E-40 | 3.41E-40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 4.46E-43 | 1.02E-42 | 9.09E-43 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 4 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 4.94E-17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 6.82E-16 | 1.87E-14 | 6.52E-14 | 2.57E-14 | 7.77E-15 | 1.51E-15 | 1.04E-16 | 6.69E-12 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 2.56E-16 | 1.43E-14 | 2.29E-11 | 1.77E-11 | 7.82E-12 | 2.06E-12 | 1.66E-13 | 1.64E-10 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 6.82E-17 | 6.70E-15 | 7.03E-11 | 9.22E-11 | 5.21E-11 | 2.07E-11 | 1.54E-12 | 4.63E-08 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 1.78E-17 | 1.17E-11 | 7.69E-11 | 1.34E-10 | 1.41E-10 | 1.68E-10 | 1.34E-11 | 6.24E-08 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 3.57E-18 | 1.06E-11 | 3.54E-11 | 1.21E-10 | 2.53E-10 | 7.45E-06 | 5.23E-06 | 4.31E-07 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 4.89E-19 | 4.03E-12 | 1.17E-11 | 7.84E-11 | 3.80E-10 | 1.04E-05 | 6.14E-06 | 4.60E-07 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 5.42E-17 | 1.32E-10 | 2.22E-11 | 4.12E-11 | 2.72E-10 | 2.00E-05 | 6.85E-06 | 6.48E-07 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 1.04E-16 | 2.16E-10 | 3.31E-11 | 2.16E-11 | 1.07E-10 | 1.82E-05 | 2.58E-06 | 4.74E-07 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 5.51E-17 | 1.60E-10 | 2.67E-11 | 1.22E-11 | 3.63E-11 | 1.30E-05 | 1.02E-05 | 4.77E-07 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 1.79E-17 | 7.06E-11 | 1.38E-11 | 5.83E-12 | 8.59E-12 | 5.08E-06 | 2.01E-05 | 8.95E-07 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 4.26E-18 | 2.21E-11 | 5.19E-12 | 2.36E-12 | 1.71E-12 | 4.42E-06 | 4.41E-10 | 1.89E-11 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 5.89E-19 | 5.11E-12 | 1.53E-12 | 8.13E-13 | 3.08E-13 | 3.17E-06 | 3.90E-12 | 2.73E-16 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 6.69E-20 | 1.09E-12 | 3.86E-13 | 2.45E-13 | 5.37E-14 | 7.83E-06 | 4.57E-09 | 9.44E-13 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 6.71E-21 | 2.19E-13 | 8.64E-14 | 6.52E-14 | 9.45E-15 | 8.38E-06 | 4.77E-09 | 1.00E-12 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 6.06E-22 | 4.01E-14 | 1.73E-14 | 1.56E-14 | 1.62E-15 | 8.93E-06 | 1.03E-11 | 5.74E-17 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 5.05E-23 | 6.51E-15 | 3.13E-15 | 3.40E-15 | 2.77E-16 | 2.22E-05 | 1.04E-08 | 1.86E-12 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 3.85E-24 | 9.08E-16 | 5.07E-16 | 6.77E-16 | 4.73E-17 | 2.37E-05 | 1.09E-08 | 1.98E-12 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 2.49E-25 | 1.06E-16 | 7.39E-17 | 1.25E-16 | 7.66E-18 | 1.55E-05 | 1.68E-11 | 8.67E-17 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 1.02E-26 | 9.43E-18 | 9.67E-18 | 2.15E-17 | 1.19E-18 | 3.90E-05 | 1.50E-08 | 2.29E-12 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 1.51E-21 | 1.09E-18 | 3.46E-18 | 1.79E-19 | 4.13E-05 | 1.58E-08 | 2.46E-12 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 5.06E-23 | 1.19E-19 | 5.23E-19 | 2.46E-20 | 1.46E-05 | 1.48E-11 | 7.88E-17 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 2.98E-24 | 1.25E-20 | 7.38E-20 | 3.04E-21 | 4.04E-05 | 1.14E-08 | 1.46E-12 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 2.44E-25 | 1.30E-21 | 9.61E-21 | 3.26E-22 | 4.22E-05 | 1.22E-08 | 1.58E-12 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 1.29E-26 | 1.31E-22 | 1.13E-21 | 2.62E-23 | 3.87E-06 | 3.74E-12 | 2.98E-17 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 6.78E-28 | 1.26E-23 | 1.17E-22 | 1.48E-24 | 6.33E-08 | 8.93E-12 | 8.77E-16 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 3.94E-29 | 1.17E-24 | 1.06E-23 | 3.77E-05 | 6.65E-08 | 9.68E-12 | 9.75E-16 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 2.74E-30 | 1.04E-25 | 8.93E-25 | 4.03E-05 | 4.65E-11 | 3.30E-16 | 2.95E-20 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 2.45E-31 | 8.92E-27 | 7.53E-26 | 1.18E-04 | 3.44E-08 | 4.12E-12 | 4.19E-16 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 2.62E-32 | 7.48E-28 | 6.86E-27 | 1.25E-04 | 3.66E-08 | 4.47E-12 | 4.61E-16 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 2.19E-33 | 4.49E-29 | 4.62E-28 | 2.89E-05 | 3.21E-11 | 1.18E-16 | 1.16E-20 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 1.56E-34 | 3.32E-30 | 3.70E-29 | 6.28E-05 | 1.51E-08 | 3.38E-12 | 6.02E-16 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 1.34E-35 | 3.23E-31 | 3.75E-30 | 6.32E-05 | 1.69E-08 | 3.72E-12 | 6.71E-16 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 1.26E-36 | 3.39E-32 | 3.23E-31 | 5.24E-06 | 6.43E-12 | 4.38E-17 | 7.15E-21 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 1.33E-37 | 3.92E-33 | 3.18E-32 | 3.28E-05 | 9.72E-09 | 2.41E-12 | 4.71E-16 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 1.07E-38 | 3.54E-34 | 2.74E-33 | 3.17E-05 | 1.14E-08 | 2.80E-12 | 5.56E-16 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 7.52E-40 | 2.92E-35 | 1.37E-34 | 8.02E-06 | 4.45E-09 | 1.88E-12 | 6.20E-16 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 4.57E-41 | 1.64E-36 | 5.35E-06 | 9.87E-06 | 5.61E-09 | 2.47E-12 | 8.36E-16 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 1.39E-42 | 1.17E-07 | 4.99E-07 | 2.99E-07 | 2.73E-10 | 1.19E-13 | 3.93E-17 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 4.96E-14 | 4.87E-11 | 8.87E-10 | 3.82E-08 | 1.56E-08 | 3.41E-11 | 1.50E-14 | 4.89E-18 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 5 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |
| Y | J | | | | | | | | | | | |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.73E-24 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |
| Y | J | | | | | | | | | | | |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.684E+03 | 41 | 6.48E-19 | 1.34E-14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.501E+03 | 40 | 7.05E-17 | 1.71E-12 | 1.60E-11 | 6.99E-11 | 2.89E-11 | 8.79E-12 | 1.55E-12 | 9.44E-14 | 3.45E-09 | 0.00E+00 | |
| 2.379E+03 | 39 | 1.94E-17 | 1.71E-12 | 1.99E-11 | 4.17E-09 | 3.62E-09 | 2.52E-09 | 7.73E-10 | 5.87E-11 | 9.98E-08 | 0.00E+00 | |
| 2.257E+03 | 38 | 3.10E-18 | 1.05E-12 | 1.80E-11 | 1.57E-08 | 2.57E-08 | 2.57E-06 | 1.95E-06 | 1.32E-06 | 1.13E-06 | 0.00E+00 | |
| 2.196E+03 | 37 | 4.72E-19 | 4.97E-13 | 1.35E-08 | 2.37E-08 | 4.69E-08 | 4.04E-06 | 3.05E-06 | 2.02E-06 | 1.62E-06 | 0.00E+00 | |
| 2.135E+03 | 36 | 5.20E-20 | 1.57E-13 | 1.00E-08 | 1.03E-08 | 5.35E-08 | 8.50E-06 | 7.86E-06 | 5.34E-06 | 5.65E-06 | 0.00E+00 | |
| 2.074E+03 | 35 | 4.13E-21 | 2.57E-14 | 2.86E-09 | 3.09E-09 | 4.50E-08 | 9.14E-06 | 1.67E-05 | 1.02E-05 | 8.36E-06 | 0.00E+00 | |
| 2.013E+03 | 34 | 2.37E-22 | 5.09E-15 | 4.15E-09 | 1.14E-09 | 2.89E-08 | 7.86E-06 | 6.54E-05 | 2.00E-05 | 4.89E-05 | 0.00E+00 | |
| 1.952E+03 | 33 | 1.57E-23 | 2.08E-15 | 2.85E-09 | 5.60E-10 | 1.59E-08 | 2.62E-06 | 1.04E-04 | 4.24E-05 | 5.38E-05 | 0.00E+00 | |
| 1.922E+03 | 32 | 1.30E-24 | 9.66E-16 | 1.87E-09 | 3.31E-10 | 8.95E-09 | 7.61E-07 | 5.16E-05 | 6.21E-04 | 2.89E-05 | 0.00E+00 | |
| 1.891E+03 | 31 | 9.79E-26 | 3.85E-16 | 1.03E-09 | 1.74E-10 | 4.37E-09 | 1.46E-07 | 9.39E-05 | 6.55E-04 | 2.94E-05 | 0.00E+00 | |
| 1.861E+03 | 30 | 6.84E-27 | 8.81E-17 | 3.08E-10 | 6.28E-11 | 1.86E-09 | 2.21E-08 | 1.88E-03 | 6.22E-13 | 1.61E-14 | 0.00E+00 | |
| 1.830E+03 | 29 | 3.68E-28 | 1.00E-17 | 6.53E-11 | 1.74E-11 | 6.99E-10 | 2.84E-09 | 3.00E-03 | 1.34E-13 | 3.52E-19 | 0.00E+00 | |
| 1.800E+03 | 28 | 1.61E-29 | 1.01E-18 | 1.35E-11 | 4.18E-12 | 2.32E-10 | 3.40E-10 | 6.42E-03 | 5.64E-06 | 1.17E-09 | 0.00E+00 | |
| 1.769E+03 | 27 | 5.73E-31 | 9.24E-20 | 2.68E-12 | 8.99E-13 | 6.89E-11 | 4.02E-11 | 6.61E-03 | 5.89E-06 | 1.24E-09 | 0.00E+00 | |
| 1.739E+03 | 26 | 1.71E-32 | 7.84E-21 | 4.85E-13 | 1.74E-13 | 1.84E-11 | 4.72E-12 | 1.05E-02 | 4.05E-13 | 1.03E-18 | 0.00E+00 | |
| 1.708E+03 | 25 | 4.21E-34 | 6.35E-22 | 7.78E-14 | 3.05E-14 | 4.42E-12 | 5.98E-13 | 2.04E-02 | 1.29E-05 | 2.30E-09 | 0.00E+00 | |
| 1.678E+03 | 24 | 9.25E-36 | 4.88E-23 | 1.06E-14 | 4.78E-15 | 9.69E-13 | 8.56E-14 | 2.08E-02 | 1.35E-05 | 2.45E-09 | 0.00E+00 | |
| 1.647E+03 | 23 | 1.47E-37 | 3.25E-24 | 1.20E-15 | 6.73E-16 | 1.95E-13 | 1.29E-14 | 2.27E-02 | 7.81E-13 | 1.45E-18 | 0.00E+00 | |
| 1.617E+03 | 22 | 0.00E+00 | 1.37E-25 | 9.70E-17 | 8.41E-17 | 3.63E-14 | 2.02E-15 | 3.98E-02 | 1.85E-05 | 2.83E-09 | 0.00E+00 | |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 7.57E-23 | 8.97E-18 | 6.28E-15 | 3.14E-16 | 4.05E-02 | 1.95E-05 | 3.04E-09 | 0.00E+00 | |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 4.16E-24 | 9.20E-19 | 1.01E-15 | 4.54E-17 | 2.97E-02 | 9.16E-13 | 1.24E-18 | 0.00E+00 | |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 4.18E-25 | 9.21E-20 | 1.50E-16 | 6.00E-18 | 4.60E-02 | 1.41E-05 | 1.80E-09 | 0.00E+00 | |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 9.89E-26 | 9.10E-21 | 2.04E-17 | 7.03E-19 | 4.71E-02 | 1.50E-05 | 1.95E-09 | 0.00E+00 | |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 7.52E-27 | 8.78E-22 | 2.47E-18 | 6.68E-20 | 1.76E-02 | 4.51E-13 | 4.67E-19 | 0.00E+00 | |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 5.14E-28 | 8.15E-23 | 2.63E-19 | 5.67E-21 | 3.95E-05 | 5.56E-09 | 5.47E-13 | 0.00E+00 | |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 3.60E-29 | 7.24E-24 | 2.47E-20 | 2.03E-02 | 4.15E-05 | 6.04E-09 | 6.09E-13 | 0.00E+00 | |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 2.87E-30 | 6.16E-25 | 2.07E-21 | 5.08E-02 | 1.54E-12 | 1.91E-18 | 1.68E-22 | 0.00E+00 | |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 2.93E-31 | 5.00E-26 | 1.67E-22 | 6.81E-02 | 2.14E-05 | 2.56E-09 | 2.61E-13 | 0.00E+00 | |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 3.44E-32 | 3.85E-27 | 1.42E-23 | 6.80E-02 | 2.28E-05 | 2.79E-09 | 2.88E-13 | 0.00E+00 | |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 3.07E-33 | 1.98E-28 | 8.77E-25 | 3.66E-02 | 1.04E-12 | 4.90E-19 | 4.93E-23 | 0.00E+00 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 2.26E-34 | 1.48E-29 | 7.02E-26 | 1.47E-02 | 3.52E-06 | 7.92E-10 | 1.41E-13 | 0.00E+00 | |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 2.04E-35 | 1.47E-30 | 6.78E-27 | 1.40E-02 | 3.96E-06 | 8.74E-10 | 1.58E-13 | 0.00E+00 | |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 1.97E-36 | 1.56E-31 | 5.54E-28 | 5.02E-03 | 1.06E-13 | 6.93E-20 | 1.17E-23 | 0.00E+00 | |
| 1.037E+03 | 7 | 1.15E-13 | 2.21E-14 | 3.20E-15 | 3.62E-16 | 1.73E-17 | 6.55E-03 | 1.94E-06 | 4.83E-10 | 9.45E-14 | 0.00E+00 | |
| 9.760E+02 | 6 | 1.01E-14 | 3.35E-15 | 8.16E-16 | 1.41E-16 | 9.06E-18 | 6.02E-03 | 2.27E-06 | 5.62E-10 | 1.12E-13 | 0.00E+00 | |
| 8.540E+02 | 5 | 4.61E-16 | 2.37E-16 | 1.22E-16 | 3.80E-17 | 2.41E-18 | 2.15E-03 | 1.20E-06 | 5.07E-10 | 1.68E-13 | 0.00E+00 | |
| 7.320E+02 | 4 | 1.39E-17 | 1.29E-17 | 9.41E-18 | 3.11E-18 | 1.08E-03 | 2.41E-03 | 1.38E-06 | 6.06E-10 | 2.06E-13 | 0.00E+00 | |
| 5.490E+02 | 3 | 3.28E-19 | 4.64E-19 | 2.91E-19 | 3.24E-05 | 6.99E-04 | 4.12E-04 | 3.81E-07 | 1.66E-10 | 5.50E-14 | 0.00E+00 | |
| 3.050E+02 | 2 | 3.29E-21 | 1.76E-12 | 2.97E-08 | 2.71E-06 | 1.25E-04 | 5.12E-05 | 1.13E-07 | 4.95E-11 | 1.61E-14 | 0.00E+00 | |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 6 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |
| Y | J | | | | | | | | | | | |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.52E-08 | 5.72E-07 | 6.20E-07 | 6.62E-07 | 8.54E-08 | 1.94E-08 | 4.11E-09 | 8.51E-10 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.36E-07 | 6.47E-06 | 3.67E-07 | 6.56E-08 | 2.39E-08 | 6.00E-09 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.11E-05 | 5.53E-06 | 1.06E-06 | 3.08E-07 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.79E-05 | 1.90E-06 | 3.77E-07 | 1.26E-07 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.87E-09 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.05E-10 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.04E-12 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.98E-14 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.46E-17 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.06E-19 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.84E-20 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.58E-21 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |
| Y | J | | | | | | | | | | | |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.684E+03 | 41 | 1.67E-10 | 2.03E-11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.501E+03 | 40 | 1.48E-09 | 3.89E-10 | 2.81E-07 | 8.27E-08 | 2.96E-08 | 1.29E-08 | 6.70E-09 | 4.25E-09 | 4.21E-09 | 0.00E+00 | |
| 2.379E+03 | 39 | 8.85E-08 | 1.97E-08 | 3.24E-06 | 1.60E-06 | 7.34E-07 | 3.59E-07 | 2.00E-07 | 1.33E-07 | 1.18E-07 | 0.00E+00 | |
| 2.257E+03 | 38 | 4.56E-08 | 7.00E-07 | 1.47E-05 | 9.45E-06 | 4.90E-06 | 2.65E-06 | 1.49E-06 | 1.02E-06 | 9.45E-07 | 0.00E+00 | |
| 2.196E+03 | 37 | 6.58E-09 | 6.43E-07 | 2.24E-05 | 1.92E-05 | 1.14E-05 | 6.60E-06 | 3.82E-06 | 2.54E-06 | 2.02E-06 | 0.00E+00 | |
| 2.135E+03 | 36 | 7.29E-10 | 1.40E-07 | 1.89E-05 | 4.33E-05 | 2.82E-05 | 1.73E-05 | 1.07E-05 | 6.90E-06 | 8.07E-06 | 0.00E+00 | |
| 2.074E+03 | 35 | 6.58E-11 | 2.31E-08 | 5.86E-06 | 1.80E-04 | 1.08E-04 | 5.71E-05 | 3.43E-05 | 1.92E-05 | 1.44E-05 | 0.00E+00 | |
| 2.013E+03 | 34 | 4.78E-12 | 3.07E-09 | 2.17E-06 | 8.21E-04 | 4.74E-04 | 2.50E-04 | 1.34E-04 | 5.73E-05 | 1.07E-04 | 0.00E+00 | |
| 1.952E+03 | 33 | 4.50E-13 | 3.37E-13 | 1.15E-06 | 2.17E-03 | 1.24E-03 | 6.50E-04 | 3.13E-04 | 1.16E-04 | 1.14E-04 | 0.00E+00 | |
| 1.922E+03 | 32 | 5.58E-14 | 4.44E-17 | 1.02E-06 | 3.90E-03 | 2.21E-03 | 1.16E-03 | 4.48E-04 | 1.67E-03 | 6.56E-05 | 0.00E+00 | |
| 1.891E+03 | 31 | 6.63E-15 | 4.25E-11 | 1.71E-06 | 6.85E-03 | 3.91E-03 | 2.09E-03 | 7.80E-04 | 1.71E-03 | 6.60E-05 | 0.00E+00 | |
| 1.861E+03 | 30 | 7.95E-16 | 3.83E-15 | 4.09E-03 | 1.16E-02 | 6.82E-03 | 3.81E-03 | 4.70E-03 | 2.37E-12 | 3.89E-14 | 0.00E+00 | |
| 1.830E+03 | 29 | 7.71E-17 | 6.82E-16 | 4.87E-03 | 1.92E-02 | 1.16E-02 | 6.78E-03 | 8.34E-03 | 1.43E-12 | 5.08E-18 | 0.00E+00 | |
| 1.800E+03 | 28 | 6.48E-18 | 1.19E-16 | 9.68E-03 | 3.08E-02 | 1.92E-02 | 1.16E-02 | 2.11E-02 | 5.10E-05 | 1.37E-08 | 0.00E+00 | |
| 1.769E+03 | 27 | 4.71E-19 | 1.98E-17 | 1.19E-02 | 4.72E-02 | 3.06E-02 | 1.89E-02 | 2.17E-02 | 5.20E-05 | 1.43E-08 | 0.00E+00 | |
| 1.739E+03 | 26 | 3.09E-20 | 3.18E-18 | 1.04E-02 | 6.90E-02 | 4.65E-02 | 2.96E-02 | 3.53E-02 | 5.06E-12 | 1.52E-17 | 0.00E+00 | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.708E+03 | 25 | 1.82E-21 | 5.78E-19 | 5.29E-03 | 9.58E-02 | 6.72E-02 | 4.38E-02 | 8.31E-02 | 1.26E-04 | 2.90E-08 | 0.00E+00 |
| 1.678E+03 | 24 | 1.05E-22 | 1.72E-19 | 2.08E-03 | 1.27E-01 | 9.21E-02 | 6.14E-02 | 8.20E-02 | 1.28E-04 | 3.04E-08 | 0.00E+00 |
| 1.647E+03 | 23 | 6.55E-24 | 6.74E-20 | 5.26E-04 | 1.59E-01 | 1.20E-01 | 8.20E-02 | 9.43E-02 | 1.17E-11 | 2.25E-17 | 0.00E+00 |
| 1.617E+03 | 22 | 2.04E-25 | 1.60E-20 | 9.14E-05 | 1.91E-01 | 1.50E-01 | 1.04E-01 | 2.03E-01 | 1.97E-04 | 3.87E-08 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 1.06E-20 | 8.37E-09 | 2.22E-01 | 1.80E-01 | 1.27E-01 | 1.96E-01 | 2.01E-04 | 4.08E-08 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 7.76E-25 | 2.94E-13 | 2.47E-01 | 2.07E-01 | 1.49E-01 | 1.68E-01 | 1.82E-11 | 2.03E-17 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 4.15E-29 | 9.26E-18 | 2.64E-01 | 2.30E-01 | 1.69E-01 | 3.28E-01 | 1.71E-04 | 2.75E-08 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 3.01E-33 | 1.64E-03 | 2.67E-01 | 2.46E-01 | 1.85E-01 | 3.19E-01 | 1.77E-04 | 2.93E-08 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 4.64E-34 | 1.30E-03 | 2.63E-01 | 2.55E-01 | 1.95E-01 | 2.36E-01 | 1.96E-11 | 8.09E-18 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 7.21E-35 | 8.52E-04 | 2.52E-01 | 2.56E-01 | 1.96E-01 | 2.81E-04 | 5.06E-08 | 5.87E-12 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 1.08E-35 | 6.28E-04 | 2.37E-01 | 2.51E-01 | 2.11E-01 | 2.85E-04 | 5.34E-08 | 6.40E-12 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 1.61E-36 | 5.71E-04 | 2.18E-01 | 2.40E-01 | 2.43E-01 | 2.10E-11 | 1.98E-17 | 1.93E-21 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 3.29E-09 | 3.04E-04 | 1.99E-01 | 2.26E-01 | 3.28E-01 | 1.50E-04 | 2.22E-08 | 2.56E-12 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 4.23E-09 | 1.26E-04 | 1.82E-01 | 2.11E-01 | 3.14E-01 | 1.55E-04 | 2.36E-08 | 2.78E-12 | 0.00E+00 |
| 1.281E+03 | 11 | 1.21E-14 | 7.63E-09 | 3.14E-05 | 1.66E-01 | 1.91E-01 | 1.93E-01 | 1.45E-11 | 4.55E-18 | 4.79E-22 | 0.00E+00 |
| 1.220E+03 | 10 | 1.72E-12 | 8.70E-09 | 5.59E-06 | 6.87E-02 | 8.11E-02 | 6.84E-02 | 1.48E-05 | 3.89E-09 | 7.50E-13 | 0.00E+00 |
| 1.159E+03 | 9 | 1.23E-12 | 7.34E-09 | 1.11E-06 | 2.11E-02 | 2.33E-02 | 6.64E-02 | 1.61E-05 | 4.21E-09 | 8.23E-13 | 0.00E+00 |
| 1.098E+03 | 8 | 8.07E-13 | 4.36E-09 | 2.38E-07 | 6.98E-03 | 6.34E-03 | 5.40E-02 | 1.91E-12 | 3.59E-19 | 6.32E-23 | 0.00E+00 |
| 1.037E+03 | 7 | 3.89E-12 | 1.31E-09 | 5.76E-08 | 3.82E-03 | 2.07E-03 | 3.01E-02 | 7.77E-06 | 2.18E-09 | 4.52E-13 | 0.00E+00 |
| 9.760E+02 | 6 | 7.94E-13 | 2.00E-10 | 1.13E-08 | 2.23E-03 | 7.28E-04 | 2.74E-02 | 8.75E-06 | 2.46E-09 | 5.23E-13 | 0.00E+00 |
| 8.540E+02 | 5 | 6.44E-14 | 1.87E-11 | 9.12E-07 | 2.57E-03 | 1.04E-03 | 1.09E-02 | 5.64E-06 | 2.73E-09 | 9.81E-13 | 0.00E+00 |
| 7.320E+02 | 4 | 3.77E-15 | 1.45E-12 | 1.21E-07 | 3.93E-04 | 6.81E-03 | 1.12E-02 | 6.04E-06 | 3.03E-09 | 1.12E-12 | 0.00E+00 |
| 5.490E+02 | 3 | 1.74E-16 | 8.45E-14 | 6.99E-09 | 2.43E-04 | 1.03E-02 | 6.13E-03 | 5.80E-06 | 2.97E-09 | 1.10E-12 | 0.00E+00 |
| 3.050E+02 | 2 | 2.61E-18 | 1.11E-11 | 3.78E-07 | 6.66E-05 | 5.01E-03 | 2.27E-03 | 4.52E-06 | 2.25E-09 | 8.11E-13 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 7 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 4.81E-03 | 6.33E-03 | 8.36E-03 | 1.11E-02 | 1.41E-02 | 1.76E-02 | 2.15E-02 | 2.75E-02 | 3.79E-02 | 5.77E-02 | 1.28E-04 |
| 1.891E+03 | 31 | 6.59E-03 | 8.86E-03 | 1.18E-02 | 1.56E-02 | 1.95E-02 | 2.40E-02 | 2.88E-02 | 3.67E-02 | 5.28E-02 | 9.02E-02 | 1.47E-01 |
| 1.861E+03 | 30 | 9.20E-03 | 1.20E-02 | 1.56E-02 | 1.99E-02 | 2.45E-02 | 2.98E-02 | 3.59E-02 | 4.68E-02 | 7.01E-02 | 1.26E-01 | 2.18E-01 |
| 1.830E+03 | 29 | 1.27E-02 | 1.61E-02 | 2.05E-02 | 2.58E-02 | 3.16E-02 | 3.87E-02 | 4.72E-02 | 6.29E-02 | 9.65E-02 | 1.75E-01 | 3.07E-01 |
| 1.800E+03 | 28 | 1.54E-02 | 1.96E-02 | 2.51E-02 | 3.21E-02 | 4.04E-02 | 5.03E-02 | 6.22E-02 | 8.38E-02 | 1.30E-01 | 2.24E-01 | 3.98E-01 |
| 1.769E+03 | 27 | 1.66E-02 | 2.13E-02 | 2.80E-02 | 3.69E-02 | 4.77E-02 | 6.03E-02 | 7.53E-02 | 1.03E-01 | 1.65E-01 | 2.91E-01 | 5.22E-01 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.43E-02 | 6.50E-02 | 7.87E-02 | 9.63E-02 | 1.31E-01 | 2.11E-01 | 3.67E-01 | 6.33E-01 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.47E-02 | 7.82E-02 | 9.58E-02 | 1.18E-01 | 1.63E-01 | 2.61E-01 | 4.24E-01 | 6.78E-01 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.63E-02 | 9.26E-02 | 1.14E-01 | 1.40E-01 | 1.90E-01 | 2.96E-01 | 4.14E-01 | 6.02E-01 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.66E-02 | 9.33E-02 | 1.15E-01 | 1.41E-01 | 1.90E-01 | 2.88E-01 | 3.82E-01 | 5.29E-01 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.47E-02 | 7.86E-02 | 9.62E-02 | 1.18E-01 | 1.58E-01 | 2.36E-01 | 3.02E-01 | 4.04E-01 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.50E-02 | 5.48E-02 | 6.70E-02 | 8.18E-02 | 1.09E-01 | 1.58E-01 | 2.04E-01 | 2.66E-01 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.68E-02 | 3.26E-02 | 3.98E-02 | 4.85E-02 | 6.38E-02 | 9.05E-02 | 1.17E-01 | 1.48E-01 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.38E-02 | 1.68E-02 | 2.05E-02 | 2.49E-02 | 3.23E-02 | 4.43E-02 | 5.54E-02 | 6.83E-02 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.17E-03 | 7.43E-03 | 9.01E-03 | 1.08E-02 | 1.35E-02 | 1.71E-02 | 2.04E-02 | 2.42E-02 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.98E-03 | 2.50E-03 | 3.05E-03 | 3.41E-03 | 3.84E-03 | 4.17E-03 | 4.86E-03 | 5.58E-03 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.94E-04 | 5.44E-04 | 5.96E-04 | 6.16E-04 | 6.99E-04 | 7.09E-04 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.75E-05 | 5.38E-05 | 5.84E-05 | 5.70E-05 | 6.20E-05 | 3.13E-05 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.13E-07 | 5.97E-07 | 6.37E-07 | 6.79E-07 | 1.44E-07 | 3.80E-08 | 8.69E-09 | 1.92E-09 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.90E-06 | 1.39E-05 | 9.58E-07 | 1.69E-07 | 5.81E-08 | 1.52E-08 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.00E-10 | 1.19E-04 | 1.15E-05 | 2.38E-06 | 7.36E-07 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.03E-15 | 1.26E-04 | 1.90E-06 | 5.82E-07 | 2.40E-07 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.29E-09 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.43E-10 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.06E-12 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.19E-43 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.34E-14 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.73E-39 | 3.70E-42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.83E-16 |
| 1.922E+03 | 32 | 3.36E-08 | 6.93E-12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.48E-34 | 1.25E-37 | 9.62E-41 | 8.41E-45 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 2.48E-01 | 3.22E-01 | 3.38E-02 | 0.00E+00 | 0.00E+00 | 4.74E-30 | 2.59E-33 | 2.38E-36 | 2.58E-40 | 4.20E-45 | 0.00E+00 |
| 1.861E+03 | 30 | 3.33E-01 | 5.15E-01 | 9.65E-02 | 0.00E+00 | 0.00E+00 | 1.05E-25 | 4.79E-29 | 8.21E-33 | 7.80E-37 | 4.37E-41 | 1.40E-45 |
| 1.830E+03 | 29 | 5.17E-01 | 6.97E-01 | 2.24E-01 | 0.00E+00 | 0.00E+00 | 2.26E-21 | 8.54E-25 | 1.04E-28 | 1.05E-32 | 3.67E-37 | 1.39E-41 |
| 1.800E+03 | 28 | 6.67E-01 | 8.80E-01 | 1.03E+00 | 0.00E+00 | 0.00E+00 | 4.53E-17 | 1.30E-20 | 1.29E-24 | 1.38E-28 | 6.94E-33 | 2.22E-37 |
| 1.769E+03 | 27 | 8.09E-01 | 1.05E+00 | 1.32E+00 | 2.32E-04 | 3.50E-08 | 9.02E-13 | 1.43E-16 | 1.03E-20 | 3.45E-25 | 2.20E-29 | 6.46E-34 |
| 1.739E+03 | 26 | 9.38E-01 | 1.19E+00 | 1.46E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 9.66E-01 | 1.24E+00 | 1.49E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 8.12E-01 | 1.12E+00 | 1.37E+00 | 1.39E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 7.01E-01 | 9.42E-01 | 1.13E+00 | 1.18E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.16E-42 | 1.35E-01 |
| 1.617E+03 | 22 | 5.22E-01 | 6.44E-01 | 7.88E-01 | 8.06E-01 | 7.84E-04 | 3.24E-07 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.49E-38 | 9.19E-01 |
| 1.586E+03 | 21 | 3.35E-01 | 4.07E-01 | 4.89E-01 | 4.96E-01 | 5.89E-04 | 2.52E-07 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.33E-33 | 4.86E-37 |
| 1.556E+03 | 20 | 1.83E-01 | 2.18E-01 | 2.53E-01 | 2.63E-01 | 3.95E-04 | 1.74E-07 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.47E-28 | 2.15E-32 |
| 1.525E+03 | 19 | 8.21E-02 | 9.57E-02 | 9.69E-02 | 1.10E-01 | 1.15E-01 | 1.14E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.83E-23 | 1.26E-27 |
| 1.495E+03 | 18 | 2.82E-02 | 3.20E-02 | 2.14E-02 | 2.70E-02 | 3.03E-02 | 2.97E-02 | 1.55E-05 | 2.97E-10 | 2.65E-14 | 1.91E-18 | 1.10E-22 |
| 1.464E+03 | 17 | 6.33E-03 | 7.04E-03 | 4.68E-03 | 5.78E-03 | 6.38E-03 | 6.16E-03 | 5.03E-06 | 1.08E-10 | 9.83E-15 | 7.23E-19 | 4.22E-23 |
| 1.434E+03 | 16 | 7.38E-04 | 7.75E-04 | 5.24E-04 | 6.09E-04 | 6.69E-04 | 6.33E-04 | 6.32E-07 | 1.86E-11 | 1.74E-15 | 1.31E-19 | 7.69E-24 |
| 1.403E+03 | 15 | 1.90E-05 | 1.38E-05 | 1.15E-05 | 1.74E-05 | 1.80E-05 | 1.52E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.45E-24 | 2.21E-28 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.33E-29 | 6.37E-33 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.20E-33 | 2.16E-37 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.58E-38 | 1.98E-39 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.30E-40 | 1.56E-40 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.39E-41 | 9.60E-42 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.19E-43 | 5.59E-43 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.80E-45 | 2.66E-44 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.68E-19 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.41E-19 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.87E-20 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 3.99E-10 | 5.62E-11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.501E+03 | 40 | 3.82E-09 | 8.29E-07 | 5.29E-07 | 1.26E-07 | 4.03E-08 | 1.64E-08 | 8.20E-09 | 5.11E-09 | 4.93E-09 | 0.00E+00 |
| 2.379E+03 | 39 | 2.18E-07 | 7.88E-06 | 6.32E-06 | 2.53E-06 | 1.03E-06 | 4.67E-07 | 2.48E-07 | 1.61E-07 | 1.39E-07 | 0.00E+00 |
| 2.257E+03 | 38 | 9.98E-08 | 1.30E-05 | 3.08E-05 | 1.58E-05 | 7.17E-06 | 3.61E-06 | 1.91E-06 | 1.23E-06 | 1.10E-06 | 0.00E+00 |
| 2.196E+03 | 37 | 1.51E-08 | 1.12E-05 | 3.98E-05 | 3.19E-05 | 1.71E-05 | 9.23E-06 | 5.03E-06 | 3.17E-06 | 2.45E-06 | 0.00E+00 |
| 2.135E+03 | 36 | 1.74E-09 | 1.90E-06 | 4.77E-05 | 9.13E-05 | 4.86E-05 | 2.65E-05 | 1.52E-05 | 9.12E-06 | 1.03E-05 | 0.00E+00 |
| 2.074E+03 | 35 | 1.61E-10 | 2.14E-07 | 1.69E-05 | 4.30E-04 | 2.03E-04 | 9.56E-05 | 5.15E-05 | 2.68E-05 | 1.91E-05 | 0.00E+00 |
| 2.013E+03 | 34 | 1.06E-11 | 6.06E-04 | 6.16E-03 | 1.94E-03 | 8.82E-04 | 4.06E-04 | 1.99E-04 | 8.24E-05 | 1.40E-04 | 0.00E+00 |
| 1.952E+03 | 33 | 9.28E-13 | 1.87E-03 | 1.79E-02 | 5.12E-03 | 2.29E-03 | 1.04E-03 | 4.62E-04 | 1.66E-04 | 1.48E-04 | 0.00E+00 |
| 1.922E+03 | 32 | 1.10E-13 | 2.83E-03 | 3.00E-02 | 9.10E-03 | 4.06E-03 | 1.85E-03 | 7.28E-04 | 2.19E-03 | 7.68E-05 | 0.00E+00 |
| 1.891E+03 | 31 | 1.28E-14 | 2.63E-03 | 4.59E-02 | 1.57E-02 | 7.08E-03 | 3.29E-03 | 1.23E-03 | 2.23E-03 | 7.72E-05 | 0.00E+00 |
| 1.861E+03 | 30 | 1.64E-15 | 2.29E-04 | 2.86E-02 | 2.60E-02 | 1.21E-02 | 5.95E-03 | 6.66E-03 | 3.25E-12 | 4.65E-14 | 0.00E+00 |
| 1.830E+03 | 29 | 1.72E-16 | 2.92E-05 | 2.70E-02 | 4.19E-02 | 2.03E-02 | 1.04E-02 | 1.17E-02 | 2.00E-12 | 5.57E-18 | 0.00E+00 |
| 1.800E+03 | 28 | 1.54E-17 | 3.76E-06 | 4.52E-02 | 6.53E-02 | 3.28E-02 | 1.76E-02 | 2.79E-02 | 5.72E-05 | 1.49E-08 | 0.00E+00 |
| 1.769E+03 | 27 | 1.18E-18 | 4.71E-07 | 5.30E-02 | 9.63E-02 | 5.06E-02 | 2.80E-02 | 2.89E-02 | 5.82E-05 | 1.55E-08 | 0.00E+00 |
| 1.739E+03 | 26 | 8.09E-20 | 5.90E-08 | 4.93E-02 | 1.34E-01 | 7.42E-02 | 4.29E-02 | 4.68E-02 | 6.74E-12 | 1.65E-17 | 0.00E+00 |
| 1.708E+03 | 25 | 5.00E-21 | 7.61E-09 | 2.88E-02 | 1.76E-01 | 1.03E-01 | 6.19E-02 | 1.03E-01 | 1.39E-04 | 3.10E-08 | 0.00E+00 |
| 1.678E+03 | 24 | 3.06E-22 | 9.71E-10 | 1.42E-02 | 2.19E-01 | 1.35E-01 | 8.41E-02 | 1.02E-01 | 1.41E-04 | 3.25E-08 | 0.00E+00 |
| 1.647E+03 | 23 | 1.53E-02 | 2.95E-03 | 5.65E-03 | 2.57E-01 | 1.69E-01 | 1.09E-01 | 1.17E-01 | 1.45E-11 | 2.39E-17 | 0.00E+00 |
| 1.617E+03 | 22 | 6.78E-02 | 9.18E-03 | 2.06E-03 | 2.87E-01 | 2.01E-01 | 1.35E-01 | 2.34E-01 | 2.11E-04 | 4.06E-08 | 0.00E+00 |
| 1.586E+03 | 21 | 1.97E-01 | 1.31E-01 | 1.07E-01 | 3.08E-01 | 2.29E-01 | 1.60E-01 | 2.26E-01 | 2.16E-04 | 4.27E-08 | 0.00E+00 |
| 1.556E+03 | 20 | 3.03E-01 | 2.40E-01 | 2.14E-01 | 3.17E-01 | 2.52E-01 | 1.83E-01 | 1.93E-01 | 2.11E-11 | 2.12E-17 | 0.00E+00 |
| 1.525E+03 | 19 | 1.07E-01 | 1.57E-01 | 1.99E-01 | 3.12E-01 | 2.67E-01 | 2.02E-01 | 3.55E-01 | 1.79E-04 | 2.83E-08 | 0.00E+00 |
| 1.495E+03 | 18 | 3.83E-27 | 1.15E-02 | 3.70E-02 | 2.94E-01 | 2.74E-01 | 2.17E-01 | 3.45E-01 | 1.85E-04 | 3.01E-08 | 0.00E+00 |
| 1.464E+03 | 17 | 2.10E-27 | 1.35E-03 | 1.18E-02 | 2.70E-01 | 2.74E-01 | 2.27E-01 | 2.60E-01 | 2.18E-11 | 8.33E-18 | 0.00E+00 |
| 1.434E+03 | 16 | 5.00E-28 | 1.58E-04 | 5.42E-03 | 2.43E-01 | 2.66E-01 | 2.28E-01 | 2.89E-04 | 5.16E-08 | 5.96E-12 | 0.00E+00 |
| 1.403E+03 | 15 | 1.98E-29 | 1.79E-05 | 3.26E-03 | 2.14E-01 | 2.54E-01 | 2.34E-01 | 2.93E-04 | 5.45E-08 | 6.49E-12 | 0.00E+00 |
| 1.373E+03 | 14 | 9.36E-31 | 2.06E-06 | 2.46E-03 | 1.86E-01 | 2.37E-01 | 2.35E-01 | 2.03E-11 | 1.98E-17 | 1.92E-21 | 0.00E+00 |
| 1.342E+03 | 13 | 7.19E-32 | 2.68E-07 | 1.28E-03 | 1.64E-01 | 2.19E-01 | 3.14E-01 | 1.44E-04 | 2.13E-08 | 2.46E-12 | 0.00E+00 |
| 1.312E+03 | 12 | 4.57E-33 | 6.47E-08 | 5.54E-04 | 1.50E-01 | 2.04E-01 | 3.00E-01 | 1.48E-04 | 2.27E-08 | 2.67E-12 | 0.00E+00 |
| 1.281E+03 | 11 | 3.90E-12 | 7.03E-08 | 1.48E-04 | 1.48E-01 | 1.88E-01 | 1.87E-01 | 1.39E-11 | 4.38E-18 | 4.62E-22 | 0.00E+00 |
| 1.220E+03 | 10 | 2.55E-11 | 5.64E-08 | 2.35E-05 | 8.60E-02 | 1.70E-01 | 8.02E-02 | 1.86E-05 | 4.12E-09 | 7.63E-13 | 0.00E+00 |
| 1.159E+03 | 9 | 9.59E-12 | 4.57E-08 | 4.14E-06 | 3.45E-02 | 1.42E-01 | 8.81E-02 | 2.06E-05 | 4.45E-09 | 8.36E-13 | 0.00E+00 |
| 1.098E+03 | 8 | 4.02E-12 | 2.49E-08 | 1.56E-06 | 1.35E-02 | 8.96E-02 | 9.29E-02 | 5.55E-12 | 3.96E-19 | 6.56E-23 | 0.00E+00 |
| 1.037E+03 | 7 | 1.31E-11 | 6.64E-09 | 2.53E-06 | 1.08E-02 | 6.04E-02 | 3.85E-02 | 9.95E-06 | 2.37E-09 | 4.73E-13 | 0.00E+00 |
| 9.760E+02 | 6 | 2.38E-12 | 8.54E-10 | 3.09E-06 | 7.23E-03 | 3.76E-02 | 3.80E-02 | 1.12E-05 | 2.67E-09 | 5.46E-13 | 0.00E+00 |
| 8.540E+02 | 5 | 1.83E-13 | 6.79E-11 | 6.65E-06 | 4.48E-03 | 1.92E-02 | 1.37E-02 | 6.55E-06 | 2.86E-09 | 1.01E-12 | 0.00E+00 |
| 7.320E+02 | 4 | 9.81E-15 | 4.82E-12 | 7.13E-07 | 1.21E-03 | 1.52E-02 | 1.34E-02 | 6.94E-06 | 3.17E-09 | 1.15E-12 | 0.00E+00 |
| 5.490E+02 | 3 | 4.26E-16 | 2.61E-13 | 3.37E-08 | 5.45E-04 | 1.54E-02 | 1.19E-02 | 6.65E-06 | 3.10E-09 | 1.13E-12 | 0.00E+00 |
| 3.050E+02 | 2 | 5.83E-18 | 3.90E-11 | 1.24E-06 | 2.73E-04 | 1.51E-02 | 9.37E-03 | 5.22E-06 | 2.36E-09 | 8.36E-13 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 8 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| Y | J | I = 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | X = 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.29E-08 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.19E-08 | 5.16E-08 | 1.40E-07 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.25E-07 | 2.87E-07 | 7.09E-07 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.94E-07 | 9.49E-07 | 2.22E-06 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.44E-07 | 2.23E-06 | 5.29E-06 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.40E-06 | 5.97E-06 | 1.25E-05 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.68E-06 | 2.28E-05 | 3.58E-05 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.60E-04 | 1.40E-04 | 9.74E-05 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.84E-05 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.14E-05 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.83E-05 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.40E-03 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.25E-02 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| Y | J | I = 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | X = 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.34E-06 | 2.24E-06 | 4.07E-06 | 7.76E-06 |
| 2.196E+03 | 37 | 0.00E+00 | 3.38E-08 | 6.71E-08 | 1.50E-07 | 3.44E-07 | 9.20E-07 | 2.10E-06 | 4.38E-06 | 8.53E-06 | 1.58E-05 | 2.82E-05 |
| 2.135E+03 | 36 | 5.45E-08 | 1.44E-07 | 3.70E-07 | 8.82E-07 | 1.96E-06 | 4.38E-06 | 8.49E-06 | 1.56E-05 | 2.76E-05 | 4.75E-05 | 7.91E-05 |
| 2.074E+03 | 35 | 3.54E-07 | 8.15E-07 | 1.75E-06 | 3.53E-06 | 6.79E-06 | 1.27E-05 | 2.16E-05 | 3.91E-05 | 6.96E-05 | 1.19E-04 | 1.96E-04 |
| 2.013E+03 | 34 | 1.59E-06 | 3.27E-06 | 6.37E-06 | 1.15E-05 | 2.01E-05 | 3.42E-05 | 5.76E-05 | 1.02E-04 | 1.77E-04 | 2.95E-04 | 4.75E-04 |
| 1.952E+03 | 33 | 4.68E-06 | 9.17E-06 | 1.71E-05 | 3.01E-05 | 5.15E-05 | 8.69E-05 | 1.45E-04 | 2.44E-04 | 3.97E-04 | 6.24E-04 | 9.83E-04 |
| 1.922E+03 | 32 | 1.07E-05 | 1.97E-05 | 3.52E-05 | 5.96E-05 | 1.01E-04 | 1.72E-04 | 2.59E-04 | 3.98E-04 | 6.13E-04 | 9.40E-04 | 1.56E-03 |
| 1.891E+03 | 31 | 2.17E-05 | 3.56E-05 | 5.84E-05 | 9.45E-05 | 1.56E-04 | 2.64E-04 | 3.96E-04 | 6.10E-04 | 9.43E-04 | 1.44E-03 | 2.38E-03 |
| 1.861E+03 | 30 | 4.74E-05 | 6.50E-05 | 9.66E-05 | 1.49E-04 | 2.41E-04 | 4.06E-04 | 6.02E-04 | 9.26E-04 | 1.44E-03 | 2.17E-03 | 3.51E-03 |
| 1.830E+03 | 29 | 8.52E-05 | 9.96E-05 | 1.44E-04 | 2.24E-04 | 3.68E-04 | 6.21E-04 | 9.18E-04 | 1.40E-03 | 2.20E-03 | 3.22E-03 | 5.03E-03 |
| 1.800E+03 | 28 | 5.63E-05 | 1.11E-04 | 2.07E-04 | 3.56E-04 | 5.92E-04 | 9.78E-04 | 1.40E-03 | 2.07E-03 | 3.17E-03 | 4.50E-03 | 6.73E-03 |
| 1.769E+03 | 27 | 1.18E-04 | 2.69E-04 | 4.85E-04 | 7.61E-04 | 1.14E-03 | 1.70E-03 | 2.25E-03 | 3.08E-03 | 4.38E-03 | 6.04E-03 | 8.53E-03 |
| 1.739E+03 | 26 | 5.15E-04 | 1.04E-03 | 1.51E-03 | 1.93E-03 | 2.42E-03 | 3.10E-03 | 3.68E-03 | 4.61E-03 | 6.04E-03 | 8.13E-03 | 1.12E-02 |
| 1.708E+03 | 25 | 5.69E-03 | 5.18E-03 | 4.92E-03 | 4.78E-03 | 4.81E-03 | 5.19E-03 | 5.44E-03 | 6.26E-03 | 7.73E-03 | 1.00E-02 | 1.36E-02 |
| 1.678E+03 | 24 | 1.73E-02 | 1.21E-02 | 9.27E-03 | 7.20E-03 | 5.91E-03 | 5.64E-03 | 5.60E-03 | 6.33E-03 | 7.85E-03 | 1.04E-02 | 1.47E-02 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.19E-03 | 1.72E-03 | 2.52E-03 | 3.34E-03 | 4.61E-03 | 6.51E-03 | 9.18E-03 | 1.29E-02 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.45E-04 | 1.43E-03 | 2.16E-03 | 3.08E-03 | 4.48E-03 | 6.02E-03 | 8.26E-03 | 1.13E-02 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.20E-04 | 1.10E-03 | 1.66E-03 | 2.32E-03 | 3.31E-03 | 4.40E-03 | 5.98E-03 | 8.13E-03 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.13E-04 | 1.14E-03 | 1.52E-03 | 2.10E-03 | 2.74E-03 | 3.68E-03 | 4.96E-03 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.88E-04 | 5.48E-04 | 7.41E-04 | 1.04E-03 | 1.39E-03 | 1.89E-03 | 2.58E-03 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.60E-04 | 2.30E-04 | 3.38E-04 | 4.99E-04 | 7.36E-04 | 1.05E-03 | 1.42E-03 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.74E-05 | 9.04E-05 | 1.41E-04 | 2.15E-04 | 3.04E-04 | 4.02E-04 | 5.15E-04 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.23E-05 | 6.55E-05 | 8.43E-05 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.87E-06 | 6.09E-06 | 7.77E-06 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.18E-27 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.28E-19 |
| 2.257E+03 | 38 | 1.36E-05 | 2.26E-05 | 3.65E-05 | 5.80E-05 | 9.17E-05 | 1.41E-04 | 1.89E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.57E-13 |
| 2.196E+03 | 37 | 4.79E-05 | 7.77E-05 | 1.25E-04 | 1.98E-04 | 3.07E-04 | 4.61E-04 | 6.55E-04 | 1.02E-03 | 2.01E-03 | 2.75E-03 | 7.13E-08 |
| 2.135E+03 | 36 | 1.27E-04 | 1.96E-04 | 3.14E-04 | 4.98E-04 | 7.67E-04 | 1.14E-03 | 1.61E-03 | 2.52E-03 | 3.62E-03 | 4.08E-03 | 0.00E+00 |
| 2.074E+03 | 35 | 3.12E-04 | 4.85E-04 | 7.92E-04 | 1.24E-03 | 1.85E-03 | 2.67E-03 | 3.67E-03 | 5.65E-03 | 7.72E-03 | 8.17E-03 | 1.10E-05 |
| 2.013E+03 | 34 | 7.51E-04 | 1.19E-03 | 1.94E-03 | 3.00E-03 | 4.40E-03 | 6.21E-03 | 8.30E-03 | 1.22E-02 | 1.87E-02 | 2.86E-02 | 4.77E-05 |
| 1.952E+03 | 33 | 1.56E-03 | 2.65E-03 | 4.27E-03 | 6.47E-03 | 9.13E-03 | 1.22E-02 | 1.55E-02 | 2.09E-02 | 3.07E-02 | 4.68E-02 | 1.22E-04 |
| 1.922E+03 | 32 | 2.91E-03 | 5.47E-03 | 8.43E-03 | 1.20E-02 | 1.58E-02 | 2.01E-02 | 2.45E-02 | 3.16E-02 | 4.44E-02 | 6.60E-02 | 1.06E-01 |
| 1.891E+03 | 31 | 4.38E-03 | 7.81E-03 | 1.18E-02 | 1.62E-02 | 2.09E-02 | 2.61E-02 | 3.11E-02 | 4.02E-02 | 5.98E-02 | 1.03E-01 | 1.70E-01 |
| 1.861E+03 | 30 | 6.32E-03 | 1.06E-02 | 1.55E-02 | 2.01E-02 | 2.54E-02 | 3.16E-02 | 3.87E-02 | 5.17E-02 | 8.01E-02 | 1.45E-01 | 2.51E-01 |
| 1.830E+03 | 29 | 8.89E-03 | 1.47E-02 | 2.09E-02 | 2.68E-02 | 3.36E-02 | 4.20E-02 | 5.20E-02 | 7.06E-02 | 1.11E-01 | 2.02E-01 | 3.56E-01 |
| 1.800E+03 | 28 | 1.16E-02 | 1.87E-02 | 2.67E-02 | 3.56E-02 | 4.56E-02 | 5.73E-02 | 7.10E-02 | 9.59E-02 | 1.51E-01 | 2.67E-01 | 4.79E-01 |
| 1.769E+03 | 27 | 1.47E-02 | 2.26E-02 | 3.18E-02 | 4.16E-02 | 5.35E-02 | 6.77E-02 | 8.46E-02 | 1.17E-01 | 1.90E-01 | 3.43E-01 | 6.29E-01 |
| 1.739E+03 | 26 | 1.55E-02 | 2.29E-02 | 3.26E-02 | 4.30E-02 | 5.96E-02 | 7.84E-02 | 1.01E-01 | 1.44E-01 | 2.40E-01 | 4.33E-01 | 7.68E-01 |
| 1.708E+03 | 25 | 1.82E-02 | 2.63E-02 | 3.78E-02 | 5.16E-02 | 7.26E-02 | 9.65E-02 | 1.25E-01 | 1.79E-01 | 2.98E-01 | 5.09E-01 | 8.47E-01 |
| 1.678E+03 | 24 | 1.97E-02 | 2.80E-02 | 3.96E-02 | 5.94E-02 | 8.64E-02 | 1.16E-01 | 1.50E-01 | 2.11E-01 | 3.40E-01 | 5.28E-01 | 8.10E-01 |
| 1.647E+03 | 23 | 1.79E-02 | 2.60E-02 | 3.74E-02 | 5.91E-02 | 8.75E-02 | 1.18E-01 | 1.52E-01 | 2.12E-01 | 3.31E-01 | 4.89E-01 | 7.15E-01 |
| 1.617E+03 | 22 | 1.55E-02 | 2.23E-02 | 3.18E-02 | 5.00E-02 | 7.39E-02 | 9.92E-02 | 1.28E-01 | 1.77E-01 | 2.72E-01 | 3.89E-01 | 5.45E-01 |
| 1.586E+03 | 21 | 1.10E-02 | 1.58E-02 | 2.24E-02 | 3.50E-02 | 5.15E-02 | 6.90E-02 | 8.85E-02 | 1.21E-01 | 1.81E-01 | 2.65E-01 | 3.59E-01 |
| 1.556E+03 | 20 | 6.69E-03 | 9.54E-03 | 1.35E-02 | 2.08E-02 | 3.06E-02 | 4.09E-02 | 5.23E-02 | 7.10E-02 | 1.04E-01 | 1.52E-01 | 2.00E-01 |
| 1.525E+03 | 19 | 3.51E-03 | 5.02E-03 | 7.06E-03 | 1.07E-02 | 1.57E-02 | 2.10E-02 | 2.68E-02 | 3.59E-02 | 5.07E-02 | 7.21E-02 | 9.20E-02 |
| 1.495E+03 | 18 | 1.91E-03 | 2.57E-03 | 3.42E-03 | 4.87E-03 | 6.96E-03 | 9.20E-03 | 1.16E-02 | 1.51E-02 | 1.99E-02 | 2.67E-02 | 3.26E-02 |
| 1.464E+03 | 17 | 6.64E-04 | 8.54E-04 | 1.09E-03 | 1.44E-03 | 2.06E-03 | 2.88E-03 | 3.60E-03 | 4.44E-03 | 5.19E-03 | 6.54E-03 | 7.64E-03 |
| 1.434E+03 | 16 | 1.09E-04 | 1.38E-04 | 1.75E-04 | 2.20E-04 | 2.81E-04 | 3.98E-04 | 5.38E-04 | 6.75E-04 | 7.62E-04 | 9.39E-04 | 1.00E-03 |
| 1.403E+03 | 15 | 1.01E-05 | 1.28E-05 | 1.63E-05 | 2.07E-05 | 2.65E-05 | 3.82E-05 | 5.36E-05 | 6.67E-05 | 7.05E-05 | 8.35E-05 | 6.26E-05 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 5.21E-42 | 5.65E-07 | 6.15E-07 | 5.64E-07 | 6.10E-07 | 6.66E-07 | 1.99E-07 | 6.09E-08 | 1.53E-08 | 3.70E-09 |
| 2.501E+03 | 40 | 6.67E-31 | 4.66E-35 | 3.76E-36 | 1.80E-40 | 1.39E-05 | 1.43E-05 | 1.46E-05 | 1.62E-06 | 3.30E-07 | 1.19E-07 | 3.31E-08 |
| 2.379E+03 | 39 | 7.03E-23 | 6.33E-27 | 4.49E-31 | 4.48E-35 | 1.47E-04 | 1.50E-04 | 1.50E-04 | 1.38E-04 | 1.86E-05 | 4.47E-06 | 1.50E-06 |
| 2.257E+03 | 38 | 4.73E-17 | 4.86E-21 | 4.25E-25 | 1.61E-28 | 1.41E-32 | 2.34E-10 | 1.11E-03 | 1.60E-03 | 6.60E-05 | 1.12E-05 | 2.93E-06 |
| 2.196E+03 | 37 | 7.70E-12 | 6.64E-16 | 4.90E-20 | 3.59E-24 | 2.01E-28 | 9.50E-16 | 1.55E-02 | 2.41E-02 | 7.87E-04 | 1.04E-04 | 2.39E-05 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.35E-02 | 7.60E-02 | 1.93E-03 | 2.19E-04 | 4.83E-05 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.36E-04 | 6.65E-05 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.40E-44 | 0.00E+00 | 0.00E+00 | 6.85E-01 | 3.40E-02 | 5.72E-03 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.14E-40 | 4.76E-43 | 0.00E+00 | 2.04E+00 | 8.40E-02 | 1.21E-02 |
| 1.922E+03 | 32 | 1.41E-01 | 1.82E-01 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.37E-35 | 1.64E-38 | 1.22E-41 | 2.64E+00 | 8.32E-02 | 1.09E-02 |
| 1.891E+03 | 31 | 2.74E-01 | 3.17E-01 | 4.33E-03 | 0.00E+00 | 0.00E+00 | 6.59E-31 | 3.47E-34 | 3.78E-37 | 3.02E+00 | 5.41E-02 | 6.42E-03 |
| 1.861E+03 | 30 | 4.40E-01 | 5.85E-01 | 1.42E-02 | 0.00E+00 | 0.00E+00 | 1.40E-26 | 6.31E-30 | 9.51E-34 | 8.25E-38 | 1.16E-01 | 1.05E-02 |
| 1.830E+03 | 29 | 6.10E-01 | 7.99E-01 | 4.27E-02 | 0.00E+00 | 0.00E+00 | 2.74E-22 | 1.08E-25 | 1.19E-29 | 1.26E-33 | 3.14E+00 | 2.33E-01 |
| 1.800E+03 | 28 | 8.01E-01 | 1.03E+00 | 2.74E-01 | 0.00E+00 | 0.00E+00 | 4.50E-18 | 1.50E-21 | 1.42E-25 | 2.12E-29 | 3.66E+00 | 2.80E-01 |
| 1.769E+03 | 27 | 9.95E-01 | 1.25E+00 | 4.99E-01 | 1.67E-04 | 3.49E-08 | 5.66E-14 | 1.35E-17 | 1.03E-21 | 3.67E-26 | 3.24E+00 | 2.19E-01 |
| 1.739E+03 | 26 | 1.16E+00 | 1.44E+00 | 6.16E-01 | 1.69E-04 | 3.36E-08 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.89E+00 | 1.71E-01 |
| 1.708E+03 | 25 | 1.22E+00 | 1.52E+00 | 5.26E-01 | 1.28E-04 | 2.52E-07 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.41E+00 | 1.18E-01 |
| 1.678E+03 | 24 | 1.11E+00 | 1.43E+00 | 1.53E+00 | 1.57E+00 | 2.56E-03 | 1.01E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.91E+00 | 7.59E-02 |
| 1.647E+03 | 23 | 9.48E-01 | 1.21E+00 | 1.42E+00 | 1.42E+00 | 2.86E-03 | 1.17E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.42E+00 | 5.52E-01 |
| 1.617E+03 | 22 | 7.04E-01 | 8.58E-01 | 1.01E+00 | 9.75E-01 | 1.08E+00 | 1.12E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.98E-01 | 1.08E+00 |
| 1.586E+03 | 21 | 4.53E-01 | 5.41E-01 | 6.26E-01 | 6.05E-01 | 6.79E-01 | 6.93E-01 | 5.66E-04 | 3.37E-08 | 2.42E-12 | 7.01E-01 | 7.23E-01 |
| 1.556E+03 | 20 | 2.46E-01 | 2.88E-01 | 3.25E-01 | 3.23E-01 | 3.53E-01 | 3.44E-01 | 3.64E-04 | 2.24E-08 | 1.65E-12 | 3.60E-01 | 3.76E-01 |
| 1.525E+03 | 19 | 1.10E-01 | 1.26E-01 | 1.31E-01 | 1.41E-01 | 1.43E-01 | 1.34E-01 | 2.03E-04 | 1.29E-08 | 9.74E-13 | 1.42E-01 | 1.53E-01 |
| 1.495E+03 | 18 | 3.79E-02 | 4.24E-02 | 3.61E-02 | 3.86E-02 | 3.96E-02 | 3.61E-02 | 3.69E-02 | 3.36E-02 | 3.65E-02 | 4.34E-02 | 5.01E-02 |
| 1.464E+03 | 17 | 8.59E-03 | 9.40E-03 | 7.92E-03 | 8.31E-03 | 8.39E-03 | 7.51E-03 | 7.88E-03 | 7.67E-03 | 9.11E-03 | 1.14E-02 | 1.39E-02 |
| 1.434E+03 | 16 | 1.05E-03 | 1.09E-03 | 9.15E-04 | 9.34E-04 | 9.12E-04 | 7.90E-04 | 8.28E-04 | 8.44E-04 | 1.13E-03 | 1.59E-03 | 2.09E-03 |
| 1.403E+03 | 15 | 4.63E-05 | 3.62E-05 | 2.99E-05 | 3.32E-05 | 3.04E-05 | 2.27E-05 | 2.31E-05 | 2.77E-05 | 4.82E-05 | 8.06E-05 | 1.50E-04 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.54E-30 | 1.01E-05 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.33E-35 | 5.55E-07 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.46E-38 | 3.64E-39 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.07E-39 | 3.79E-40 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.51E-41 | 2.95E-41 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.08E-42 | 2.06E-42 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.40E-44 | 1.14E-43 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.20E-45 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.85E-18 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.20E-19 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.26E-20 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.684E+03 | 41 | 8.38E-10 | 1.20E-08 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.501E+03 | 40 | 5.37E-07 | 3.63E-06 | 9.67E-07 | 1.95E-07 | 5.70E-08 | 2.19E-08 | 1.05E-08 | 6.35E-09 | 6.01E-09 | 0.00E+00 | |
| 2.379E+03 | 39 | 5.30E-07 | 2.63E-05 | 1.13E-05 | 3.95E-06 | 1.48E-06 | 6.33E-07 | 3.21E-07 | 2.03E-07 | 1.71E-07 | 0.00E+00 | |
| 2.257E+03 | 38 | 7.70E-07 | 7.61E-05 | 5.71E-05 | 2.58E-05 | 1.07E-05 | 4.99E-06 | 2.51E-06 | 1.54E-06 | 1.35E-06 | 0.00E+00 | |
| 2.196E+03 | 37 | 5.24E-06 | 7.94E-05 | 7.45E-05 | 5.52E-05 | 2.69E-05 | 1.33E-05 | 6.85E-06 | 4.10E-06 | 3.08E-06 | 0.00E+00 | |
| 2.135E+03 | 36 | 1.07E-05 | 1.61E-05 | 2.26E-04 | 1.86E-04 | 8.56E-05 | 4.17E-05 | 2.19E-05 | 1.24E-05 | 1.34E-05 | 0.00E+00 | |
| 2.074E+03 | 35 | 1.49E-05 | 3.87E-06 | 7.80E-04 | 8.81E-04 | 3.67E-04 | 1.59E-04 | 7.76E-05 | 3.80E-05 | 2.59E-05 | 0.00E+00 | |
| 2.013E+03 | 34 | 9.85E-04 | 1.57E-03 | 9.21E-03 | 3.73E-03 | 1.55E-03 | 6.56E-04 | 2.96E-04 | 1.19E-04 | 1.87E-04 | 0.00E+00 | |
| 1.952E+03 | 33 | 2.03E-03 | 4.49E-03 | 2.56E-02 | 9.58E-03 | 3.93E-03 | 1.65E-03 | 6.86E-04 | 2.38E-04 | 1.95E-04 | 0.00E+00 | |
| 1.922E+03 | 32 | 1.88E-03 | 6.21E-03 | 4.21E-02 | 1.66E-02 | 6.85E-03 | 2.89E-03 | 1.11E-03 | 2.88E-03 | 9.06E-05 | 0.00E+00 | |
| 1.891E+03 | 31 | 1.19E-03 | 5.03E-03 | 6.28E-02 | 2.80E-02 | 1.17E-02 | 5.09E-03 | 1.86E-03 | 2.91E-03 | 9.07E-05 | 0.00E+00 | |
| 1.861E+03 | 30 | 2.17E-03 | 1.03E-03 | 6.27E-02 | 4.56E-02 | 1.98E-02 | 9.07E-03 | 9.54E-03 | 4.47E-12 | 5.63E-14 | 0.00E+00 | |
| 1.830E+03 | 29 | 4.33E-02 | 7.08E-03 | 7.52E-02 | 7.18E-02 | 3.24E-02 | 1.57E-02 | 1.65E-02 | 2.83E-12 | 6.28E-18 | 0.00E+00 | |
| 1.800E+03 | 28 | 5.38E-02 | 1.06E-02 | 1.19E-01 | 1.09E-01 | 5.12E-02 | 2.59E-02 | 3.76E-02 | 6.64E-05 | 1.66E-08 | 0.00E+00 | |
| 1.769E+03 | 27 | 4.18E-02 | 9.63E-03 | 1.40E-01 | 1.54E-01 | 7.67E-02 | 4.04E-02 | 3.90E-02 | 6.73E-05 | 1.72E-08 | 0.00E+00 | |
| 1.739E+03 | 26 | 3.04E-02 | 7.95E-03 | 1.40E-01 | 2.05E-01 | 1.09E-01 | 6.02E-02 | 6.24E-02 | 9.02E-12 | 1.83E-17 | 0.00E+00 | |
| 1.708E+03 | 25 | 1.96E-02 | 5.60E-03 | 9.78E-02 | 2.55E-01 | 1.45E-01 | 8.45E-02 | 1.29E-01 | 1.57E-04 | 3.38E-08 | 0.00E+00 | |
| 1.678E+03 | 24 | 1.10E-02 | 3.06E-03 | 6.13E-02 | 2.99E-01 | 1.83E-01 | 1.11E-01 | 1.27E-01 | 1.59E-04 | 3.54E-08 | 0.00E+00 | |
| 1.647E+03 | 23 | 7.46E-02 | 1.63E-02 | 3.46E-02 | 3.29E-01 | 2.19E-01 | 1.40E-01 | 1.44E-01 | 1.81E-11 | 2.59E-17 | 0.00E+00 | |
| 1.617E+03 | 22 | 1.47E-01 | 2.88E-02 | 1.13E-02 | 3.42E-01 | 2.48E-01 | 1.68E-01 | 2.73E-01 | 2.30E-04 | 4.32E-08 | 0.00E+00 | |
| 1.586E+03 | 21 | 4.08E-01 | 2.01E-01 | 1.58E-01 | 3.42E-01 | 2.71E-01 | 1.93E-01 | 2.63E-01 | 2.35E-04 | 4.54E-08 | 0.00E+00 | |
| 1.556E+03 | 20 | 3.89E-01 | 2.87E-01 | 2.51E-01 | 3.28E-01 | 2.84E-01 | 2.15E-01 | 2.21E-01 | 2.44E-11 | 2.25E-17 | 0.00E+00 | |
| 1.525E+03 | 19 | 1.48E-01 | 1.83E-01 | 2.19E-01 | 3.01E-01 | 2.89E-01 | 2.31E-01 | 3.86E-01 | 1.88E-04 | 2.93E-08 | 0.00E+00 | |
| 1.495E+03 | 18 | 4.86E-03 | 2.47E-02 | 7.43E-02 | 2.64E-01 | 2.85E-01 | 2.42E-01 | 3.74E-01 | 1.94E-04 | 3.12E-08 | 0.00E+00 | |
| 1.464E+03 | 17 | 1.90E-03 | 4.06E-03 | 3.16E-02 | 2.27E-01 | 2.73E-01 | 2.49E-01 | 2.81E-01 | 2.38E-11 | 8.65E-18 | 0.00E+00 | |
| 1.434E+03 | 16 | 3.89E-04 | 6.35E-04 | 1.60E-02 | 1.90E-01 | 2.57E-01 | 2.45E-01 | 2.98E-04 | 5.28E-08 | 6.04E-12 | 0.00E+00 | |
| 1.403E+03 | 15 | 4.30E-05 | 8.97E-05 | 9.26E-03 | 1.56E-01 | 2.37E-01 | 2.46E-01 | 3.02E-04 | 5.56E-08 | 6.58E-12 | 0.00E+00 | |
| 1.373E+03 | 14 | 4.44E-06 | 1.23E-05 | 6.08E-03 | 1.27E-01 | 2.14E-01 | 2.15E-01 | 1.87E-11 | 1.98E-17 | 1.90E-21 | 0.00E+00 | |
| 1.342E+03 | 13 | 5.22E-07 | 1.85E-06 | 3.24E-03 | 1.06E-01 | 1.94E-01 | 2.86E-01 | 1.33E-04 | 1.99E-08 | 2.31E-12 | 0.00E+00 | |
| 1.312E+03 | 12 | 3.88E-08 | 4.10E-07 | 1.54E-03 | 9.68E-02 | 1.80E-01 | 2.73E-01 | 1.38E-04 | 2.12E-08 | 2.51E-12 | 0.00E+00 | |
| 1.281E+03 | 11 | 3.29E-09 | 5.02E-07 | 4.83E-04 | 1.12E-01 | 1.72E-01 | 1.72E-01 | 1.28E-11 | 4.11E-18 | 4.35E-22 | 0.00E+00 | |
| 1.220E+03 | 10 | 3.79E-10 | 3.18E-07 | 7.90E-05 | 8.67E-02 | 1.69E-01 | 7.65E-02 | 2.01E-05 | 4.22E-09 | 7.60E-13 | 0.00E+00 | |
| 1.159E+03 | 9 | 6.16E-11 | 2.67E-07 | 1.37E-05 | 3.91E-02 | 1.45E-01 | 8.49E-02 | 2.21E-05 | 4.55E-09 | 8.33E-13 | 0.00E+00 | |
| 1.098E+03 | 8 | 1.67E-11 | 1.32E-07 | 6.57E-05 | 1.32E-02 | 9.34E-02 | 9.32E-02 | 5.64E-12 | 4.21E-19 | 6.75E-23 | 0.00E+00 | |
| 1.037E+03 | 7 | 3.74E-11 | 3.69E-08 | 5.84E-05 | 9.53E-03 | 6.48E-02 | 3.84E-02 | 1.12E-05 | 2.55E-09 | 4.95E-13 | 0.00E+00 | |
| 9.760E+02 | 6 | 6.50E-12 | 4.34E-09 | 3.93E-05 | 5.79E-03 | 4.10E-02 | 3.83E-02 | 1.26E-05 | 2.86E-09 | 5.70E-13 | 0.00E+00 | |
| 8.540E+02 | 5 | 4.89E-13 | 3.09E-10 | 2.55E-05 | 3.00E-03 | 2.05E-02 | 1.37E-02 | 7.16E-06 | 3.01E-09 | 1.05E-12 | 0.00E+00 | |
| 7.320E+02 | 4 | 2.50E-14 | 2.00E-11 | 4.73E-06 | 1.48E-03 | 1.26E-02 | 1.34E-02 | 7.55E-06 | 3.31E-09 | 1.19E-12 | 0.00E+00 | |
| 5.490E+02 | 3 | 1.04E-15 | 9.96E-13 | 2.06E-07 | 7.65E-04 | 1.46E-02 | 1.21E-02 | 7.25E-06 | 3.24E-09 | 1.17E-12 | 0.00E+00 | |
| 3.050E+02 | 2 | 1.30E-17 | 1.23E-10 | 3.30E-06 | 5.91E-04 | 1.51E-02 | 9.70E-03 | 5.74E-06 | 2.48E-09 | 8.65E-13 | 0.00E+00 | |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 9 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.90E-11 | 3.47E-11 | 2.42E-10 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.73E-10 | 4.37E-10 | 7.97E-09 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.85E-09 | 3.70E-08 | 1.37E-07 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.22E-08 | 2.09E-07 | 6.81E-07 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.20E-07 | 6.82E-07 | 2.03E-06 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.63E-07 | 1.40E-06 | 4.25E-06 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.31E-07 | 2.97E-06 | 8.33E-06 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.11E-06 | 6.14E-06 | 1.70E-05 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.37E-02 | 7.16E-06 | 2.58E-05 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.36E-06 | 1.22E-05 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.14E-05 | 1.58E-05 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.33E-05 | 1.83E-05 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.02E-01 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.22E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 1.98E-10 | 4.77E-10 | 1.11E-09 | 3.60E-09 | 1.29E-08 | 4.02E-08 | 1.27E-07 | 3.41E-07 | 9.21E-07 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 6.03E-09 | 1.18E-08 | 2.33E-08 | 8.02E-08 | 2.65E-07 | 7.52E-07 | 2.00E-06 | 4.25E-06 | 8.62E-06 |
| 2.196E+03 | 37 | 2.88E-09 | 1.51E-08 | 5.93E-08 | 1.62E-07 | 4.00E-07 | 1.08E-06 | 2.47E-06 | 5.09E-06 | 9.83E-06 | 1.81E-05 | 3.22E-05 |
| 2.135E+03 | 36 | 4.73E-08 | 1.54E-07 | 4.18E-07 | 1.02E-06 | 2.32E-06 | 5.19E-06 | 1.01E-05 | 1.85E-05 | 3.25E-05 | 5.53E-05 | 9.15E-05 |
| 2.074E+03 | 35 | 3.83E-07 | 9.18E-07 | 2.01E-06 | 4.11E-06 | 8.02E-06 | 1.52E-05 | 2.75E-05 | 4.91E-05 | 8.55E-05 | 1.44E-04 | 2.35E-04 |
| 2.013E+03 | 34 | 1.69E-06 | 3.65E-06 | 7.26E-06 | 1.36E-05 | 2.42E-05 | 4.19E-05 | 7.39E-05 | 1.29E-04 | 2.19E-04 | 3.60E-04 | 5.73E-04 |
| 1.952E+03 | 33 | 4.75E-06 | 9.84E-06 | 1.90E-05 | 3.47E-05 | 6.12E-05 | 1.06E-04 | 1.87E-04 | 3.14E-04 | 5.06E-04 | 7.92E-04 | 1.22E-03 |
| 1.922E+03 | 32 | 9.85E-06 | 1.99E-05 | 3.72E-05 | 6.66E-05 | 1.17E-04 | 2.05E-04 | 3.48E-04 | 5.62E-04 | 8.82E-04 | 1.36E-03 | 2.11E-03 |
| 1.891E+03 | 31 | 1.77E-05 | 3.31E-05 | 5.91E-05 | 1.03E-04 | 1.77E-04 | 3.08E-04 | 5.20E-04 | 8.44E-04 | 1.34E-03 | 2.06E-03 | 3.18E-03 |
| 1.861E+03 | 30 | 3.23E-05 | 5.53E-05 | 9.39E-05 | 1.60E-04 | 2.75E-04 | 4.73E-04 | 7.88E-04 | 1.28E-03 | 2.04E-03 | 3.08E-03 | 4.66E-03 |
| 1.830E+03 | 29 | 4.43E-05 | 7.52E-05 | 1.32E-04 | 2.34E-04 | 4.11E-04 | 7.16E-04 | 1.19E-03 | 1.93E-03 | 3.06E-03 | 4.49E-03 | 6.61E-03 |
| 1.800E+03 | 28 | 3.26E-05 | 8.14E-05 | 1.78E-04 | 3.47E-04 | 6.28E-04 | 1.09E-03 | 1.78E-03 | 2.81E-03 | 4.24E-03 | 6.05E-03 | 8.72E-03 |
| 1.769E+03 | 27 | 5.13E-05 | 1.58E-04 | 3.55E-04 | 6.65E-04 | 1.12E-03 | 1.80E-03 | 2.75E-03 | 4.08E-03 | 5.82E-03 | 8.15E-03 | 1.16E-02 |
| 1.739E+03 | 26 | 9.95E-05 | 4.11E-04 | 8.67E-04 | 1.43E-03 | 2.13E-03 | 3.04E-03 | 4.25E-03 | 5.88E-03 | 8.16E-03 | 1.13E-02 | 1.57E-02 |
| 1.708E+03 | 25 | 1.51E-04 | 1.18E-03 | 2.07E-03 | 2.84E-03 | 3.59E-03 | 4.56E-03 | 5.84E-03 | 7.62E-03 | 1.02E-02 | 1.38E-02 | 1.90E-02 |
| 1.678E+03 | 24 | 2.44E-04 | 1.74E-03 | 2.66E-03 | 3.37E-03 | 3.80E-03 | 4.58E-03 | 5.78E-03 | 7.57E-03 | 1.02E-02 | 1.42E-02 | 2.01E-02 |
| 1.647E+03 | 23 | 1.25E-04 | 2.20E-04 | 3.77E-04 | 6.18E-04 | 1.23E-03 | 2.19E-03 | 3.62E-03 | 5.65E-03 | 8.49E-03 | 1.25E-02 | 1.79E-02 |
| 1.617E+03 | 22 | 1.08E-04 | 1.88E-04 | 3.21E-04 | 5.09E-04 | 1.11E-03 | 2.00E-03 | 3.29E-03 | 5.16E-03 | 7.65E-03 | 1.10E-02 | 1.55E-02 |
| 1.586E+03 | 21 | 9.46E-05 | 1.64E-04 | 2.75E-04 | 4.07E-04 | 8.40E-04 | 1.50E-03 | 2.44E-03 | 3.77E-03 | 5.54E-03 | 7.89E-03 | 1.10E-02 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.34E-04 | 4.64E-04 | 8.93E-04 | 1.48E-03 | 2.29E-03 | 3.36E-03 | 4.77E-03 | 6.60E-03 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.72E-04 | 2.33E-04 | 4.39E-04 | 7.29E-04 | 1.14E-03 | 1.68E-03 | 2.42E-03 | 3.38E-03 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.31E-05 | 9.67E-05 | 1.82E-04 | 3.07E-04 | 4.90E-04 | 7.55E-04 | 1.12E-03 | 1.60E-03 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.52E-05 | 3.15E-05 | 6.29E-05 | 1.07E-04 | 1.67E-04 | 2.66E-04 | 3.89E-04 | 5.44E-04 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.93E-05 | 2.66E-05 | 3.54E-05 | 5.63E-05 | 8.18E-05 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.97E-06 | 2.66E-06 | 3.45E-06 | 5.37E-06 | 7.72E-06 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.91E-37 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.61E-28 |
| 2.379E+03 | 39 | 1.96E-06 | 3.62E-06 | 6.15E-06 | 9.94E-06 | 1.60E-05 | 2.61E-05 | 3.83E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.30E-18 |
| 2.257E+03 | 38 | 1.54E-05 | 2.56E-05 | 4.12E-05 | 6.53E-05 | 1.03E-04 | 1.59E-04 | 2.11E-04 | 3.21E-04 | 0.00E+00 | 0.00E+00 | 9.65E-13 |
| 2.196E+03 | 37 | 5.44E-05 | 8.80E-05 | 1.40E-04 | 2.22E-04 | 3.43E-04 | 5.12E-04 | 7.26E-04 | 1.14E-03 | 5.95E-04 | 7.12E-04 | 1.41E-07 |
| 2.135E+03 | 36 | 1.45E-04 | 2.24E-04 | 3.57E-04 | 5.62E-04 | 8.57E-04 | 1.26E-03 | 1.78E-03 | 2.84E-03 | 1.44E-03 | 1.55E-03 | 2.53E-07 |
| 2.074E+03 | 35 | 3.71E-04 | 5.71E-04 | 9.27E-04 | 1.43E-03 | 2.11E-03 | 2.99E-03 | 4.08E-03 | 6.33E-03 | 9.62E-03 | 1.11E-02 | 1.79E-02 |
| 2.013E+03 | 34 | 8.88E-04 | 1.39E-03 | 2.22E-03 | 3.38E-03 | 4.90E-03 | 6.80E-03 | 9.03E-03 | 1.33E-02 | 2.09E-02 | 3.21E-02 | 4.63E-02 |
| 1.952E+03 | 33 | 1.85E-03 | 2.94E-03 | 4.62E-03 | 6.93E-03 | 9.78E-03 | 1.26E-02 | 1.59E-02 | 2.14E-02 | 3.31E-02 | 5.20E-02 | 7.95E-02 |
| 1.922E+03 | 32 | 3.29E-03 | 5.37E-03 | 8.29E-03 | 1.19E-02 | 1.61E-02 | 2.01E-02 | 2.46E-02 | 3.20E-02 | 4.80E-02 | 7.49E-02 | 1.22E-01 |
| 1.891E+03 | 31 | 4.84E-03 | 7.57E-03 | 1.13E-02 | 1.49E-02 | 1.95E-02 | 2.49E-02 | 2.84E-02 | 3.93E-02 | 6.27E-02 | 1.12E-01 | 1.87E-01 |
| 1.861E+03 | 30 | 6.97E-03 | 9.97E-03 | 1.44E-02 | 1.68E-02 | 2.20E-02 | 2.88E-02 | 3.65E-02 | 5.23E-02 | 8.56E-02 | 1.58E-01 | 2.77E-01 |
| 1.830E+03 | 29 | 1.00E-02 | 1.44E-02 | 2.03E-02 | 2.36E-02 | 3.06E-02 | 4.00E-02 | 5.14E-02 | 7.36E-02 | 1.21E-01 | 2.23E-01 | 3.97E-01 |
| 1.800E+03 | 28 | 1.29E-02 | 1.95E-02 | 2.77E-02 | 3.70E-02 | 4.78E-02 | 6.04E-02 | 7.55E-02 | 1.04E-01 | 1.66E-01 | 2.99E-01 | 5.42E-01 |
| 1.769E+03 | 27 | 1.72E-02 | 2.52E-02 | 3.42E-02 | 4.36E-02 | 5.55E-02 | 7.00E-02 | 8.80E-02 | 1.24E-01 | 2.07E-01 | 3.81E-01 | 7.14E-01 |
| 1.739E+03 | 26 | 2.16E-02 | 3.01E-02 | 3.72E-02 | 4.22E-02 | 5.58E-02 | 7.40E-02 | 9.74E-02 | 1.47E-01 | 2.58E-01 | 4.81E-01 | 8.78E-01 |
| 1.708E+03 | 25 | 2.54E-02 | 3.49E-02 | 4.51E-02 | 5.26E-02 | 7.02E-02 | 9.39E-02 | 1.24E-01 | 1.86E-01 | 3.23E-01 | 5.74E-01 | 9.88E-01 |
| 1.678E+03 | 24 | 2.69E-02 | 3.62E-02 | 4.89E-02 | 6.54E-02 | 8.89E-02 | 1.18E-01 | 1.55E-01 | 2.24E-01 | 3.71E-01 | 6.13E-01 | 9.82E-01 |
| 1.647E+03 | 23 | 2.47E-02 | 3.43E-02 | 4.73E-02 | 6.78E-02 | 9.32E-02 | 1.24E-01 | 1.60E-01 | 2.28E-01 | 3.65E-01 | 5.71E-01 | 8.67E-01 |
| 1.617E+03 | 22 | 2.12E-02 | 2.92E-02 | 4.00E-02 | 5.74E-02 | 7.87E-02 | 1.04E-01 | 1.34E-01 | 1.90E-01 | 3.00E-01 | 4.52E-01 | 6.59E-01 |
| 1.586E+03 | 21 | 1.50E-02 | 2.06E-02 | 2.80E-02 | 3.98E-02 | 5.46E-02 | 7.23E-02 | 9.30E-02 | 1.30E-01 | 2.00E-01 | 3.10E-01 | 4.35E-01 |
| 1.556E+03 | 20 | 8.99E-03 | 1.23E-02 | 1.67E-02 | 2.35E-02 | 3.22E-02 | 4.25E-02 | 5.47E-02 | 7.60E-02 | 1.14E-01 | 1.77E-01 | 2.41E-01 |
| 1.525E+03 | 19 | 4.64E-03 | 6.35E-03 | 8.61E-03 | 1.19E-02 | 1.63E-02 | 2.15E-02 | 2.77E-02 | 3.82E-02 | 5.57E-02 | 8.40E-02 | 1.11E-01 |
| 1.495E+03 | 18 | 2.21E-03 | 2.99E-03 | 3.96E-03 | 5.16E-03 | 6.98E-03 | 9.21E-03 | 1.18E-02 | 1.59E-02 | 2.19E-02 | 3.11E-02 | 3.93E-02 |
| 1.464E+03 | 17 | 7.36E-04 | 9.70E-04 | 1.24E-03 | 1.51E-03 | 2.00E-03 | 2.74E-03 | 3.53E-03 | 4.68E-03 | 5.89E-03 | 7.80E-03 | 9.36E-03 |
| 1.434E+03 | 16 | 1.13E-04 | 1.52E-04 | 1.99E-04 | 2.54E-04 | 3.26E-04 | 4.28E-04 | 5.57E-04 | 7.27E-04 | 8.72E-04 | 1.13E-03 | 1.26E-03 |
| 1.403E+03 | 15 | 1.07E-05 | 1.43E-05 | 1.87E-05 | 2.41E-05 | 3.10E-05 | 4.14E-05 | 5.61E-05 | 7.21E-05 | 8.06E-05 | 1.00E-04 | 9.38E-05 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 3.51E-40 | 3.66E-43 | 5.23E-07 | 5.82E-07 | 5.01E-07 | 5.50E-07 | 6.25E-07 | 2.58E-07 | 9.36E-08 | 2.68E-08 | 7.34E-09 |
| 2.501E+03 | 40 | 4.33E-32 | 8.06E-36 | 1.33E-05 | 1.38E-05 | 1.35E-05 | 1.41E-05 | 1.43E-05 | 2.45E-06 | 6.05E-07 | 2.49E-07 | 7.75E-08 |
| 2.379E+03 | 39 | 5.24E-22 | 6.49E-26 | 7.66E-30 | 1.43E-04 | 1.41E-04 | 1.49E-04 | 1.53E-04 | 1.39E-04 | 2.75E-05 | 8.41E-06 | 3.19E-06 |
| 2.257E+03 | 38 | 2.74E-16 | 4.75E-20 | 7.01E-24 | 1.29E-03 | 1.31E-03 | 1.30E-03 | 1.31E-03 | 1.72E-03 | 1.59E-04 | 4.30E-05 | 1.47E-05 |
| 2.196E+03 | 37 | 2.48E-11 | 3.71E-15 | 4.92E-19 | 6.74E-23 | 8.03E-27 | 8.28E-03 | 1.11E-02 | 2.62E-02 | 1.89E-03 | 3.93E-04 | 1.23E-04 |
| 2.135E+03 | 36 | 2.36E-10 | 6.97E-14 | 1.68E-17 | 3.26E-21 | 4.08E-25 | 3.42E-02 | 4.71E-02 | 1.09E-01 | 5.52E-03 | 9.52E-04 | 2.78E-04 |
| 2.074E+03 | 35 | 5.85E-06 | 1.75E-09 | 3.07E-13 | 5.05E-17 | 7.39E-21 | 9.32E-02 | 1.07E-01 | 3.64E-01 | 7.47E-03 | 2.00E-03 | 5.14E-04 |
| 2.013E+03 | 34 | 1.39E-05 | 4.07E-09 | 6.98E-13 | 1.99E-16 | 1.18E-19 | 3.65E-23 | 7.29E-27 | 1.14E+00 | 1.05E+00 | 9.78E-02 | 2.37E-02 |
| 1.952E+03 | 33 | 4.54E-05 | 1.46E-08 | 6.63E-11 | 3.66E-12 | 4.21E-15 | 1.09E-18 | 1.91E-22 | 1.97E+00 | 2.32E+00 | 2.00E-01 | 4.41E-02 |
| 1.922E+03 | 32 | 1.21E-02 | 3.21E-02 | 5.06E-06 | 7.40E-08 | 7.04E-11 | 1.52E-14 | 2.35E-18 | 2.66E+00 | 3.13E+00 | 2.04E-01 | 4.05E-02 |
| 1.891E+03 | 31 | 3.09E-01 | 3.59E-01 | 5.35E-01 | 6.65E-04 | 2.27E-07 | 5.60E-11 | 8.61E-15 | 2.98E+00 | 3.71E+00 | 1.48E-01 | 2.60E-02 |
| 1.861E+03 | 30 | 4.89E-01 | 6.42E-01 | 8.84E-01 | 1.09E-03 | 3.66E-07 | 9.08E-11 | 1.39E-14 | 7.54E-19 | 4.21E+00 | 1.25E+00 | 1.45E-01 |
| 1.830E+03 | 29 | 6.88E-01 | 8.83E-01 | 1.20E+00 | 1.52E-03 | 5.15E-07 | 1.41E-10 | 2.54E-14 | 1.62E-18 | 4.64E+00 | 4.38E+00 | 6.17E-01 |
| 1.800E+03 | 28 | 9.14E-01 | 1.14E+00 | 1.54E+00 | 2.21E-03 | 7.59E-07 | 1.76E-07 | 6.96E-11 | 6.50E-15 | 4.87E+00 | 4.62E+00 | 6.95E-01 |
| 1.769E+03 | 27 | 1.15E+00 | 1.41E+00 | 1.95E+00 | 2.42E+00 | 2.77E+00 | 1.71E-03 | 5.25E-07 | 4.18E-11 | 1.82E-15 | 4.08E+00 | 5.44E-01 |
| 1.739E+03 | 26 | 1.35E+00 | 1.63E+00 | 2.22E+00 | 2.68E+00 | 2.98E+00 | 1.89E-03 | 5.91E-07 | 4.74E-11 | 2.02E-15 | 3.66E+00 | 4.27E-01 |
| 1.708E+03 | 25 | 1.44E+00 | 1.75E+00 | 2.23E+00 | 2.46E+00 | 2.69E+00 | 2.06E-03 | 6.57E-07 | 5.45E-11 | 2.40E-15 | 3.12E+00 | 3.01E-01 |
| 1.678E+03 | 24 | 1.36E+00 | 1.74E+00 | 1.81E+00 | 1.77E+00 | 2.06E+00 | 2.25E+00 | 1.38E-04 | 1.01E-08 | 7.10E-13 | 2.53E+00 | 2.09E-01 |
| 1.647E+03 | 23 | 1.17E+00 | 1.47E+00 | 1.71E+00 | 1.65E+00 | 1.85E+00 | 1.95E+00 | 1.85E-04 | 1.32E-08 | 9.36E-13 | 1.86E+00 | 8.91E-01 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.617E+03 | 22 | 8.64E-01 | 1.05E+00 | 1.22E+00 | 1.20E+00 | 1.28E+00 | 1.31E+00 | 4.31E-04 | 3.01E-08 | 2.15E-12 | 1.26E+00 | 1.20E+00 |
| 1.586E+03 | 21 | 5.54E-01 | 6.62E-01 | 7.55E-01 | 7.45E-01 | 8.00E-01 | 8.00E-01 | 8.49E-01 | 8.30E-01 | 8.34E-01 | 8.49E-01 | 8.01E-01 |
| 1.556E+03 | 20 | 3.00E-01 | 3.52E-01 | 3.92E-01 | 3.95E-01 | 4.15E-01 | 3.98E-01 | 4.22E-01 | 4.26E-01 | 4.33E-01 | 4.37E-01 | 4.16E-01 |
| 1.525E+03 | 19 | 1.34E-01 | 1.54E-01 | 1.63E-01 | 1.72E-01 | 1.72E-01 | 1.55E-01 | 1.60E-01 | 1.60E-01 | 1.66E-01 | 1.72E-01 | 1.69E-01 |
| 1.495E+03 | 18 | 4.62E-02 | 5.17E-02 | 4.92E-02 | 5.09E-02 | 5.00E-02 | 4.47E-02 | 4.52E-02 | 4.50E-02 | 4.73E-02 | 5.13E-02 | 5.46E-02 |
| 1.464E+03 | 17 | 1.06E-02 | 1.16E-02 | 1.09E-02 | 1.10E-02 | 1.07E-02 | 9.39E-03 | 9.58E-03 | 1.01E-02 | 1.16E-02 | 1.33E-02 | 1.50E-02 |
| 1.434E+03 | 16 | 1.35E-03 | 1.42E-03 | 1.30E-03 | 1.30E-03 | 1.21E-03 | 1.02E-03 | 1.03E-03 | 1.12E-03 | 1.44E-03 | 1.84E-03 | 2.24E-03 |
| 1.403E+03 | 15 | 8.06E-05 | 6.78E-05 | 5.75E-05 | 5.75E-05 | 4.82E-05 | 3.55E-05 | 3.38E-05 | 3.93E-05 | 6.29E-05 | 9.43E-05 | 1.60E-04 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.25E-30 | 1.06E-05 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.30E-35 | 6.32E-07 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.29E-38 | 5.29E-39 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.44E-39 | 6.87E-40 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.59E-41 | 6.62E-41 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.74E-42 | 5.63E-42 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.48E-44 | 3.70E-43 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.68E-44 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.42E-17 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.73E-18 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.42E-19 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.684E+03 | 41 | 4.01E-08 | 2.31E-08 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.501E+03 | 40 | 6.58E-06 | 5.24E-06 | 1.42E-06 | 2.79E-07 | 7.81E-08 | 2.88E-08 | 1.33E-08 | 7.86E-09 | 7.31E-09 | 0.00E+00 | |
| 2.379E+03 | 39 | 2.49E-06 | 4.13E-05 | 1.66E-05 | 5.65E-06 | 2.03E-06 | 8.36E-07 | 4.10E-07 | 2.52E-07 | 2.10E-07 | 0.00E+00 | |
| 2.257E+03 | 38 | 4.60E-06 | 1.70E-04 | 9.29E-05 | 3.87E-05 | 1.52E-05 | 6.64E-06 | 3.21E-06 | 1.91E-06 | 1.64E-06 | 0.00E+00 | |
| 2.196E+03 | 37 | 3.44E-05 | 3.22E-04 | 1.51E-04 | 9.41E-05 | 4.12E-05 | 1.88E-05 | 9.13E-06 | 5.24E-06 | 3.84E-06 | 0.00E+00 | |
| 2.135E+03 | 36 | 7.74E-05 | 1.53E-04 | 6.33E-04 | 3.50E-04 | 1.43E-04 | 6.32E-05 | 3.05E-05 | 1.64E-05 | 1.73E-05 | 0.00E+00 | |
| 2.074E+03 | 35 | 1.43E-04 | 4.63E-05 | 2.43E-03 | 1.58E-03 | 6.03E-04 | 2.45E-04 | 1.11E-04 | 5.21E-05 | 3.43E-05 | 0.00E+00 | |
| 2.013E+03 | 34 | 5.52E-03 | 4.90E-03 | 1.35E-02 | 6.37E-03 | 2.44E-03 | 9.83E-04 | 4.18E-04 | 1.64E-04 | 2.42E-04 | 0.00E+00 | |
| 1.952E+03 | 33 | 1.03E-02 | 1.27E-02 | 3.68E-02 | 1.57E-02 | 6.02E-03 | 2.41E-03 | 9.61E-04 | 3.26E-04 | 2.51E-04 | 0.00E+00 | |
| 1.922E+03 | 32 | 9.86E-03 | 1.71E-02 | 5.91E-02 | 2.65E-02 | 1.03E-02 | 4.17E-03 | 1.56E-03 | 3.68E-03 | 1.05E-04 | 0.00E+00 | |
| 1.891E+03 | 31 | 6.74E-03 | 1.28E-02 | 8.71E-02 | 4.30E-02 | 1.73E-02 | 7.22E-03 | 2.60E-03 | 3.69E-03 | 1.05E-04 | 0.00E+00 | |
| 1.861E+03 | 30 | 3.38E-02 | 8.55E-03 | 1.09E-01 | 6.79E-02 | 2.86E-02 | 1.27E-02 | 1.29E-02 | 5.90E-12 | 6.71E-14 | 0.00E+00 | |
| 1.830E+03 | 29 | 1.65E-01 | 3.60E-02 | 1.51E-01 | 1.04E-01 | 4.57E-02 | 2.15E-02 | 2.19E-02 | 3.77E-12 | 7.08E-18 | 0.00E+00 | |
| 1.800E+03 | 28 | 1.97E-01 | 5.22E-02 | 2.23E-01 | 1.51E-01 | 7.05E-02 | 3.50E-02 | 4.85E-02 | 7.67E-05 | 1.84E-08 | 0.00E+00 | |
| 1.769E+03 | 27 | 1.56E-01 | 4.85E-02 | 2.68E-01 | 2.06E-01 | 1.03E-01 | 5.34E-02 | 5.00E-02 | 7.75E-05 | 1.91E-08 | 0.00E+00 | |
| 1.739E+03 | 26 | 1.16E-01 | 4.11E-02 | 2.88E-01 | 2.61E-01 | 1.41E-01 | 7.77E-02 | 7.85E-02 | 1.14E-11 | 2.03E-17 | 0.00E+00 | |
| 1.708E+03 | 25 | 7.67E-02 | 3.01E-02 | 2.47E-01 | 3.08E-01 | 1.81E-01 | 1.06E-01 | 1.57E-01 | 1.76E-04 | 3.68E-08 | 0.00E+00 | |
| 1.678E+03 | 24 | 4.61E-02 | 1.77E-02 | 1.97E-01 | 3.40E-01 | 2.20E-01 | 1.36E-01 | 1.53E-01 | 1.78E-04 | 3.85E-08 | 0.00E+00 | |
| 1.647E+03 | 23 | 1.82E-01 | 5.22E-02 | 1.51E-01 | 3.53E-01 | 2.53E-01 | 1.67E-01 | 1.68E-01 | 2.14E-11 | 2.80E-17 | 0.00E+00 | |
| 1.617E+03 | 22 | 2.53E-01 | 6.97E-02 | 7.35E-02 | 3.47E-01 | 2.77E-01 | 1.95E-01 | 3.08E-01 | 2.49E-04 | 4.57E-08 | 0.00E+00 | |
| 1.586E+03 | 21 | 5.08E-01 | 2.72E-01 | 2.38E-01 | 3.28E-01 | 2.91E-01 | 2.18E-01 | 2.95E-01 | 2.53E-04 | 4.80E-08 | 0.00E+00 | |
| 1.556E+03 | 20 | 4.25E-01 | 3.24E-01 | 2.81E-01 | 2.98E-01 | 2.95E-01 | 2.36E-01 | 2.41E-01 | 2.71E-11 | 2.37E-17 | 0.00E+00 | |
| 1.525E+03 | 19 | 1.72E-01 | 2.05E-01 | 2.27E-01 | 2.58E-01 | 2.89E-01 | 2.48E-01 | 4.09E-01 | 1.96E-04 | 3.02E-08 | 0.00E+00 | |
| 1.495E+03 | 18 | 1.11E-02 | 4.19E-02 | 1.12E-01 | 2.14E-01 | 2.75E-01 | 2.55E-01 | 3.96E-01 | 2.02E-04 | 3.20E-08 | 0.00E+00 | |
| 1.464E+03 | 17 | 4.19E-03 | 8.95E-03 | 5.89E-02 | 1.74E-01 | 2.56E-01 | 2.56E-01 | 2.91E-01 | 2.51E-11 | 8.96E-18 | 0.00E+00 | |
| 1.434E+03 | 16 | 8.81E-04 | 1.72E-03 | 3.23E-02 | 1.36E-01 | 2.33E-01 | 2.47E-01 | 3.03E-04 | 5.33E-08 | 6.07E-12 | 0.00E+00 | |
| 1.403E+03 | 15 | 1.05E-04 | 2.90E-04 | 1.81E-02 | 1.03E-01 | 2.08E-01 | 2.44E-01 | 3.06E-04 | 5.62E-08 | 6.60E-12 | 0.00E+00 | |
| 1.373E+03 | 14 | 1.09E-05 | 4.56E-05 | 1.02E-02 | 7.67E-02 | 1.83E-01 | 1.88E-01 | 1.66E-11 | 1.96E-17 | 1.87E-21 | 0.00E+00 | |
| 1.342E+03 | 13 | 1.42E-06 | 7.74E-06 | 5.76E-03 | 5.99E-02 | 1.62E-01 | 2.52E-01 | 1.20E-04 | 1.81E-08 | 2.11E-12 | 0.00E+00 | |
| 1.312E+03 | 12 | 1.46E-07 | 1.65E-06 | 3.11E-03 | 5.32E-02 | 1.49E-01 | 2.40E-01 | 1.24E-04 | 1.93E-08 | 2.29E-12 | 0.00E+00 | |
| 1.281E+03 | 11 | 1.55E-08 | 3.24E-06 | 1.26E-03 | 6.90E-02 | 1.44E-01 | 1.48E-01 | 1.11E-11 | 3.75E-18 | 4.01E-22 | 0.00E+00 | |
| 1.220E+03 | 10 | 1.69E-09 | 1.67E-06 | 3.65E-04 | 5.89E-02 | 1.44E-01 | 6.75E-02 | 1.94E-05 | 4.08E-09 | 7.32E-13 | 0.00E+00 | |
| 1.159E+03 | 9 | 2.20E-10 | 1.24E-06 | 3.85E-04 | 3.06E-02 | 1.16E-01 | 7.38E-02 | 2.11E-05 | 4.39E-09 | 8.01E-13 | 0.00E+00 | |
| 1.098E+03 | 8 | 5.50E-11 | 5.32E-07 | 2.76E-04 | 1.23E-02 | 8.03E-02 | 8.31E-02 | 5.10E-12 | 4.24E-19 | 6.77E-23 | 0.00E+00 | |
| 1.037E+03 | 7 | 9.54E-11 | 1.58E-07 | 1.84E-04 | 6.48E-03 | 5.90E-02 | 3.67E-02 | 1.17E-05 | 2.65E-09 | 5.11E-13 | 0.00E+00 | |
| 9.760E+02 | 6 | 1.55E-11 | 2.07E-08 | 1.04E-04 | 3.25E-03 | 3.92E-02 | 3.67E-02 | 1.31E-05 | 2.97E-09 | 5.87E-13 | 0.00E+00 | |
| 8.540E+02 | 5 | 1.28E-12 | 1.58E-09 | 4.43E-05 | 1.42E-03 | 1.93E-02 | 1.33E-02 | 7.50E-06 | 3.12E-09 | 1.08E-12 | 0.00E+00 | |
| 7.320E+02 | 4 | 6.60E-14 | 1.08E-10 | 1.97E-05 | 8.32E-04 | 1.11E-02 | 1.30E-02 | 7.89E-06 | 3.44E-09 | 1.23E-12 | 0.00E+00 | |
| 5.490E+02 | 3 | 2.66E-15 | 5.63E-12 | 6.49E-06 | 3.74E-04 | 1.34E-02 | 1.19E-02 | 7.59E-06 | 3.36E-09 | 1.21E-12 | 0.00E+00 | |
| 3.050E+02 | 2 | 3.32E-17 | 3.86E-10 | 5.28E-06 | 4.40E-04 | 1.43E-02 | 9.67E-03 | 6.04E-06 | 2.58E-09 | 8.93E-13 | 0.00E+00 | |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 10 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.96E-30 | 6.16E-27 | 1.80E-25 | 2.56E-24 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.96E-27 | 1.35E-24 | 3.92E-23 | 5.51E-22 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.67E-25 | 1.14E-22 | 3.29E-21 | 4.55E-20 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.92E-24 | 5.42E-21 | 1.53E-19 | 2.08E-18 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.22E-22 | 1.52E-19 | 4.21E-18 | 5.55E-17 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.65E-21 | 2.48E-18 | 6.68E-17 | 8.49E-16 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.18E-20 | 3.47E-17 | 8.96E-16 | 1.08E-14 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.39E-19 | 4.16E-16 | 1.01E-14 | 1.13E-13 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.96E-18 | 4.27E-15 | 9.31E-14 | 9.38E-13 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.65E-17 | 3.00E-14 | 5.49E-13 | 4.79E-12 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.62E-16 | 1.39E-13 | 1.98E-12 | 1.47E-11 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.55E-15 | 5.83E-13 | 6.01E-12 | 3.83E-11 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.39E-14 | 1.54E-12 | 1.50E-11 | 9.16E-11 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.03E-14 | 3.02E-12 | 2.94E-11 | 1.79E-10 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.41E-13 | 5.85E-12 | 5.60E-11 | 3.38E-10 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.67E-13 | 9.28E-12 | 8.87E-11 | 5.30E-10 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.22E-13 | 1.27E-11 | 1.25E-10 | 7.40E-10 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.62E-13 | 1.57E-11 | 1.63E-10 | 9.50E-10 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.34E-13 | 2.00E-11 | 2.07E-10 | 1.14E-09 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.15E-13 | 2.37E-11 | 2.48E-10 | 1.27E-09 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.01E-13 | 2.57E-11 | 2.74E-10 | 1.28E-09 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.25E-13 | 2.46E-11 | 3.13E-10 | 1.29E-09 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.75E-13 | 2.03E-11 | 3.19E-10 | 1.14E-09 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.04E-13 | 1.37E-11 | 2.41E-10 | 9.81E-10 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.59E-13 | 8.16E-12 | 1.42E-10 | 6.10E-10 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.20E-13 | 3.69E-12 | 6.58E-11 | 3.11E-10 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.96E-14 | 9.03E-13 | 1.77E-11 | 1.09E-10 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 2.36E-23 | 1.60E-22 | 8.51E-22 | 3.71E-21 | 1.40E-20 | 4.72E-20 | 1.46E-19 | 4.09E-19 | 1.01E-18 | 2.28E-18 | 5.79E-18 |
| 2.501E+03 | 40 | 5.01E-21 | 3.34E-20 | 1.74E-19 | 7.42E-19 | 2.76E-18 | 9.33E-18 | 2.90E-17 | 8.09E-17 | 1.91E-16 | 4.32E-16 | 1.39E-15 |
| 2.379E+03 | 39 | 4.05E-19 | 2.63E-18 | 1.33E-17 | 5.48E-17 | 2.00E-16 | 6.67E-16 | 2.04E-15 | 5.45E-15 | 1.12E-14 | 2.52E-14 | 1.16E-13 |
| 2.257E+03 | 38 | 1.81E-17 | 1.14E-16 | 5.60E-16 | 2.23E-15 | 8.01E-15 | 2.69E-14 | 8.07E-14 | 2.00E-13 | 2.97E-13 | 7.68E-13 | 5.63E-12 |
| 2.196E+03 | 37 | 4.69E-16 | 2.87E-15 | 1.36E-14 | 5.28E-14 | 1.93E-13 | 6.85E-13 | 2.17E-12 | 5.62E-12 | 9.89E-12 | 2.32E-11 | 2.09E-10 |
| 2.135E+03 | 36 | 6.88E-15 | 4.05E-14 | 1.84E-13 | 6.87E-13 | 2.64E-12 | 1.01E-11 | 3.40E-11 | 8.86E-11 | 1.19E-10 | 2.56E-10 | 5.31E-09 |
| 2.074E+03 | 35 | 8.28E-14 | 4.59E-13 | 1.95E-12 | 6.89E-12 | 2.87E-11 | 1.20E-10 | 4.35E-10 | 1.30E-09 | 2.27E-09 | 2.11E-08 | 9.66E-08 |
| 2.013E+03 | 34 | 8.02E-13 | 4.13E-12 | 1.60E-11 | 5.17E-11 | 2.39E-10 | 1.01E-09 | 3.47E-09 | 9.74E-09 | 1.57E-08 | 1.17E-07 | 4.61E-07 |
| 1.952E+03 | 33 | 6.12E-12 | 2.93E-11 | 1.05E-10 | 3.06E-10 | 1.61E-09 | 6.12E-09 | 1.80E-08 | 4.45E-08 | 6.20E-08 | 3.51E-07 | 1.21E-06 |
| 1.922E+03 | 32 | 2.84E-11 | 1.31E-10 | 5.17E-10 | 1.94E-09 | 7.66E-09 | 2.20E-08 | 5.44E-08 | 1.19E-07 | 1.36E-07 | 5.56E-07 | 2.03E-06 |
| 1.891E+03 | 31 | 7.90E-11 | 3.45E-10 | 1.35E-09 | 5.04E-09 | 1.73E-08 | 4.69E-08 | 1.13E-07 | 2.51E-07 | 3.41E-07 | 1.00E-06 | 3.28E-06 |
| 1.861E+03 | 30 | 1.88E-10 | 7.72E-10 | 2.80E-09 | 9.58E-09 | 2.99E-08 | 8.07E-08 | 1.96E-07 | 4.42E-07 | 7.11E-07 | 1.66E-06 | 5.45E-06 |
| 1.830E+03 | 29 | 4.33E-10 | 1.71E-09 | 5.93E-09 | 1.85E-08 | 5.22E-08 | 1.34E-07 | 3.17E-07 | 7.16E-07 | 1.69E-06 | 2.02E-06 | 5.95E-06 |
| 1.800E+03 | 28 | 8.28E-10 | 3.18E-09 | 1.07E-08 | 3.19E-08 | 8.50E-08 | 2.08E-07 | 4.79E-07 | 1.06E-06 | 2.32E-06 | 3.05E-06 | 5.01E-06 |
| 1.769E+03 | 27 | 1.55E-09 | 5.86E-09 | 1.93E-08 | 5.55E-08 | 1.41E-07 | 3.33E-07 | 7.50E-07 | 1.64E-06 | 3.50E-06 | 4.71E-06 | 7.62E-06 |
| 1.739E+03 | 26 | 2.40E-09 | 8.99E-09 | 2.91E-08 | 8.04E-08 | 1.95E-07 | 4.47E-07 | 9.99E-07 | 2.21E-06 | 4.79E-06 | 7.36E-06 | 1.31E-05 |
| 1.708E+03 | 25 | 3.31E-09 | 1.22E-08 | 3.87E-08 | 1.01E-07 | 2.36E-07 | 5.40E-07 | 1.23E-06 | 2.81E-06 | 6.34E-06 | 1.41E-05 | 3.15E-05 |
| 1.678E+03 | 24 | 4.18E-09 | 1.49E-08 | 4.61E-08 | 1.09E-07 | 2.44E-07 | 5.69E-07 | 1.35E-06 | 3.16E-06 | 7.31E-06 | 1.66E-05 | 3.66E-05 |
| 1.647E+03 | 23 | 4.87E-09 | 1.64E-08 | 4.82E-08 | 1.16E-07 | 2.61E-07 | 6.10E-07 | 1.46E-06 | 3.43E-06 | 7.90E-06 | 1.77E-05 | 3.66E-05 |
| 1.617E+03 | 22 | 5.22E-09 | 1.62E-08 | 4.43E-08 | 1.12E-07 | 2.62E-07 | 6.22E-07 | 1.48E-06 | 3.43E-06 | 7.74E-06 | 1.71E-05 | 3.43E-05 |
| 1.586E+03 | 21 | 4.91E-09 | 1.39E-08 | 3.51E-08 | 9.15E-08 | 2.30E-07 | 5.58E-07 | 1.31E-06 | 2.97E-06 | 6.51E-06 | 1.38E-05 | 2.81E-05 |
| 1.556E+03 | 20 | 4.28E-09 | 1.26E-08 | 3.15E-08 | 7.89E-08 | 1.95E-07 | 4.66E-07 | 1.07E-06 | 2.34E-06 | 4.95E-06 | 1.01E-05 | 1.96E-05 |
| 1.525E+03 | 19 | 3.28E-09 | 9.50E-09 | 2.53E-08 | 6.32E-08 | 1.51E-07 | 3.47E-07 | 7.62E-07 | 1.61E-06 | 3.26E-06 | 6.37E-06 | 1.20E-05 |
| 1.495E+03 | 18 | 2.61E-09 | 6.77E-09 | 1.71E-08 | 4.14E-08 | 9.57E-08 | 2.12E-07 | 4.49E-07 | 9.10E-07 | 1.77E-06 | 3.32E-06 | 6.01E-06 |
| 1.464E+03 | 17 | 1.63E-09 | 4.04E-09 | 9.67E-09 | 2.23E-08 | 4.93E-08 | 1.04E-07 | 2.11E-07 | 4.08E-07 | 7.58E-07 | 1.36E-06 | 2.35E-06 |
| 1.434E+03 | 16 | 8.36E-10 | 1.91E-09 | 4.19E-09 | 8.97E-09 | 1.86E-08 | 3.72E-08 | 7.11E-08 | 1.30E-07 | 2.27E-07 | 3.85E-07 | 6.34E-07 |
| 1.403E+03 | 15 | 2.91E-10 | 5.46E-10 | 1.03E-09 | 2.01E-09 | 3.88E-09 | 7.22E-09 | 1.28E-08 | 2.18E-08 | 3.56E-08 | 5.65E-08 | 8.82E-08 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 2.76E-17 | 1.41E-16 | 4.57E-16 | 2.75E-15 | 8.39E-15 | 9.57E-15 | 1.09E-14 | 1.22E-14 | 1.36E-14 | 1.50E-14 | 3.49E-11 |
| 2.501E+03 | 40 | 1.08E-14 | 6.60E-14 | 2.22E-13 | 2.38E-12 | 1.16E-11 | 5.55E-11 | 2.48E-10 | 8.98E-10 | 3.15E-09 | 1.06E-08 | 3.99E-08 |
| 2.379E+03 | 39 | 1.26E-12 | 7.87E-12 | 3.88E-11 | 2.62E-10 | 8.48E-10 | 3.41E-09 | 1.32E-08 | 4.01E-08 | 1.25E-07 | 3.49E-07 | 9.75E-07 |
| 2.257E+03 | 38 | 6.92E-11 | 3.70E-10 | 1.98E-09 | 7.66E-09 | 1.92E-08 | 7.97E-08 | 2.72E-07 | 7.04E-07 | 1.85E-06 | 4.21E-06 | 8.84E-06 |
| 2.196E+03 | 37 | 2.38E-09 | 1.17E-08 | 4.76E-08 | 1.49E-07 | 4.04E-07 | 1.14E-06 | 2.58E-05 | 5.20E-06 | 9.86E-06 | 1.83E-05 | 3.26E-05 |
| 2.135E+03 | 36 | 3.46E-08 | 1.26E-07 | 3.65E-07 | 9.57E-07 | 2.31E-06 | 5.29E-06 | 1.04E-05 | 1.91E-05 | 3.35E-05 | 5.70E-05 | 9.37E-05 |
| 2.074E+03 | 35 | 2.98E-07 | 7.58E-07 | 1.72E-06 | 3.64E-06 | 7.47E-06 | 1.47E-05 | 2.80E-05 | 5.10E-05 | 8.92E-05 | 1.50E-04 | 2.42E-04 |
| 2.013E+03 | 34 | 1.26E-06 | 2.91E-06 | 6.11E-06 | 1.20E-05 | 2.23E-05 | 4.05E-05 | 7.48E-05 | 1.33E-04 | 2.25E-04 | 3.68E-04 | 5.79E-04 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.952E+03 | 33 | 3.16E-06 | 7.15E-06 | 1.47E-05 | 2.85E-05 | 5.38E-05 | 1.02E-04 | 1.87E-04 | 3.16E-04 | 5.13E-04 | 8.06E-04 | 1.23E-03 |
| 1.922E+03 | 32 | 5.53E-06 | 1.26E-05 | 2.58E-05 | 4.99E-05 | 9.48E-05 | 1.85E-04 | 3.42E-04 | 5.89E-04 | 9.70E-04 | 1.53E-03 | 2.31E-03 |
| 1.891E+03 | 31 | 8.40E-06 | 1.84E-05 | 3.71E-05 | 7.16E-05 | 1.34E-04 | 2.58E-04 | 4.88E-04 | 8.68E-04 | 1.46E-03 | 2.31E-03 | 3.47E-03 |
| 1.861E+03 | 30 | 1.34E-05 | 2.88E-05 | 5.81E-05 | 1.14E-04 | 2.17E-04 | 4.05E-04 | 7.52E-04 | 1.34E-03 | 2.22E-03 | 3.45E-03 | 5.09E-03 |
| 1.830E+03 | 29 | 1.43E-05 | 3.44E-05 | 7.64E-05 | 1.61E-04 | 3.21E-04 | 6.15E-04 | 1.15E-03 | 2.04E-03 | 3.22E-03 | 4.88E-03 | 7.25E-03 |
| 1.800E+03 | 28 | 9.42E-06 | 3.17E-05 | 8.93E-05 | 2.11E-04 | 4.43E-04 | 8.60E-04 | 1.60E-03 | 2.78E-03 | 3.64E-03 | 5.55E-03 | 8.52E-03 |
| 1.769E+03 | 27 | 1.32E-05 | 5.04E-05 | 1.49E-04 | 3.48E-04 | 7.03E-04 | 1.30E-03 | 2.32E-03 | 3.86E-03 | 4.96E-03 | 7.53E-03 | 1.16E-02 |
| 1.739E+03 | 26 | 1.90E-05 | 9.16E-05 | 2.79E-04 | 6.13E-04 | 1.14E-03 | 1.97E-03 | 3.30E-03 | 5.30E-03 | 8.16E-03 | 1.20E-02 | 1.73E-02 |
| 1.708E+03 | 25 | 3.05E-05 | 1.61E-04 | 4.85E-04 | 9.62E-04 | 1.62E-03 | 2.60E-03 | 4.17E-03 | 6.51E-03 | 9.93E-03 | 1.48E-02 | 2.10E-02 |
| 1.678E+03 | 24 | 4.72E-05 | 1.95E-04 | 5.12E-04 | 9.75E-04 | 1.53E-03 | 2.48E-03 | 4.07E-03 | 6.47E-03 | 1.01E-02 | 1.53E-02 | 1.99E-02 |
| 1.647E+03 | 23 | 5.67E-05 | 1.41E-04 | 2.96E-04 | 4.80E-04 | 7.20E-04 | 1.39E-03 | 2.74E-03 | 4.92E-03 | 8.25E-03 | 1.31E-02 | 2.00E-02 |
| 1.617E+03 | 22 | 5.10E-05 | 1.20E-04 | 2.45E-04 | 3.91E-04 | 7.90E-04 | 1.50E-03 | 2.70E-03 | 4.58E-03 | 7.44E-03 | 1.15E-02 | 1.72E-02 |
| 1.586E+03 | 21 | 4.93E-05 | 1.01E-04 | 1.90E-04 | 2.98E-04 | 5.78E-04 | 1.09E-03 | 1.95E-03 | 3.28E-03 | 5.28E-03 | 8.13E-03 | 1.20E-02 |
| 1.556E+03 | 20 | 3.64E-05 | 6.58E-05 | 1.15E-04 | 1.85E-04 | 3.03E-04 | 5.97E-04 | 1.10E-03 | 1.89E-03 | 3.07E-03 | 4.74E-03 | 7.02E-03 |
| 1.525E+03 | 19 | 2.16E-05 | 3.79E-05 | 6.44E-05 | 9.99E-05 | 1.57E-04 | 2.98E-04 | 5.43E-04 | 9.27E-04 | 1.51E-03 | 2.33E-03 | 3.47E-03 |
| 1.495E+03 | 18 | 1.05E-05 | 1.78E-05 | 2.91E-05 | 4.36E-05 | 6.52E-05 | 1.19E-04 | 2.13E-04 | 3.63E-04 | 5.94E-04 | 9.34E-04 | 1.41E-03 |
| 1.464E+03 | 17 | 3.95E-06 | 6.43E-06 | 1.01E-05 | 1.38E-05 | 1.87E-05 | 2.94E-05 | 5.49E-05 | 9.57E-05 | 1.66E-04 | 2.71E-04 | 4.16E-04 |
| 1.434E+03 | 16 | 1.02E-06 | 1.60E-06 | 2.46E-06 | 3.66E-06 | 5.46E-06 | 8.20E-06 | 1.19E-05 | 1.97E-05 | 2.76E-05 | 4.37E-05 | 6.66E-05 |
| 1.403E+03 | 15 | 1.35E-07 | 2.04E-07 | 3.03E-07 | 4.45E-07 | 6.48E-07 | 9.41E-07 | 1.31E-06 | 2.07E-06 | 2.79E-06 | 4.29E-06 | 6.43E-06 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 7.30E-10 | 3.45E-09 | 1.09E-08 | 2.73E-08 | 5.66E-08 | 1.12E-07 | 1.88E-07 | 3.45E-07 | 5.63E-07 | 6.57E-07 | 7.15E-07 |
| 2.501E+03 | 40 | 1.03E-07 | 2.20E-07 | 4.16E-07 | 7.49E-07 | 1.35E-06 | 2.46E-06 | 4.03E-06 | 6.99E-06 | 1.14E-05 | 1.41E-05 | 1.54E-05 |
| 2.379E+03 | 39 | 2.08E-06 | 3.83E-06 | 6.52E-06 | 1.07E-05 | 1.76E-05 | 2.91E-05 | 4.17E-05 | 6.66E-05 | 1.04E-04 | 1.41E-04 | 1.67E-04 |
| 2.257E+03 | 38 | 1.58E-05 | 2.63E-05 | 4.24E-05 | 6.84E-05 | 1.09E-04 | 1.70E-04 | 2.30E-04 | 3.44E-04 | 5.15E-04 | 7.67E-04 | 1.05E-03 |
| 2.196E+03 | 37 | 5.49E-05 | 8.86E-05 | 1.41E-04 | 2.21E-04 | 3.41E-04 | 5.06E-04 | 7.33E-04 | 1.18E-03 | 2.17E-03 | 3.42E-03 | 4.66E-03 |
| 2.135E+03 | 36 | 1.48E-04 | 2.28E-04 | 3.60E-04 | 5.56E-04 | 8.28E-04 | 1.19E-03 | 1.71E-03 | 2.87E-03 | 5.27E-03 | 8.16E-03 | 1.12E-02 |
| 2.074E+03 | 35 | 3.82E-04 | 6.07E-04 | 9.46E-04 | 1.39E-03 | 1.98E-03 | 2.72E-03 | 3.65E-03 | 6.05E-03 | 1.04E-02 | 1.38E-02 | 2.05E-02 |
| 2.013E+03 | 34 | 8.90E-04 | 1.41E-03 | 2.16E-03 | 3.16E-03 | 4.47E-03 | 5.93E-03 | 7.83E-03 | 1.20E-02 | 2.04E-02 | 3.40E-02 | 4.97E-02 |
| 1.952E+03 | 33 | 1.75E-03 | 2.67E-03 | 4.09E-03 | 6.01E-03 | 8.40E-03 | 9.31E-03 | 1.19E-02 | 1.56E-02 | 2.91E-02 | 5.26E-02 | 8.34E-02 |
| 1.922E+03 | 32 | 3.03E-03 | 4.62E-03 | 7.05E-03 | 9.78E-03 | 1.34E-02 | 1.51E-02 | 1.82E-02 | 2.40E-02 | 4.36E-02 | 7.79E-02 | 1.29E-01 |
| 1.891E+03 | 31 | 4.32E-03 | 5.96E-03 | 8.88E-03 | 9.99E-03 | 1.35E-02 | 1.79E-02 | 1.76E-02 | 2.90E-02 | 5.67E-02 | 1.12E-01 | 2.00E-01 |
| 1.861E+03 | 30 | 6.22E-03 | 6.80E-03 | 9.92E-03 | 8.94E-03 | 1.27E-02 | 1.85E-02 | 2.56E-02 | 4.30E-02 | 8.18E-02 | 1.63E-01 | 3.01E-01 |
| 1.830E+03 | 29 | 9.46E-03 | 1.10E-02 | 1.57E-02 | 1.41E-02 | 1.97E-02 | 2.87E-02 | 4.04E-02 | 6.59E-02 | 1.21E-01 | 2.37E-01 | 4.40E-01 |
| 1.800E+03 | 28 | 1.17E-02 | 1.74E-02 | 2.47E-02 | 3.31E-02 | 4.32E-02 | 5.54E-02 | 7.09E-02 | 1.03E-01 | 1.74E-01 | 3.25E-01 | 6.08E-01 |
| 1.769E+03 | 27 | 1.60E-02 | 2.34E-02 | 2.97E-02 | 3.71E-02 | 4.72E-02 | 6.05E-02 | 7.82E-02 | 1.18E-01 | 2.12E-01 | 4.12E-01 | 7.90E-01 |
| 1.739E+03 | 26 | 2.39E-02 | 3.21E-02 | 2.92E-02 | 3.02E-02 | 4.06E-02 | 5.62E-02 | 7.84E-02 | 1.32E-01 | 2.58E-01 | 5.17E-01 | 9.78E-01 |
| 1.708E+03 | 25 | 2.90E-02 | 3.97E-02 | 3.96E-02 | 4.13E-02 | 5.58E-02 | 7.74E-02 | 1.07E-01 | 1.76E-01 | 3.31E-01 | 6.32E-01 | 1.13E+00 |
| 1.678E+03 | 24 | 2.74E-02 | 3.81E-02 | 5.10E-02 | 6.26E-02 | 8.39E-02 | 1.12E-01 | 1.50E-01 | 2.27E-01 | 3.94E-01 | 6.90E-01 | 1.15E+00 |
| 1.647E+03 | 23 | 2.89E-02 | 4.05E-02 | 5.53E-02 | 7.25E-02 | 9.69E-02 | 1.27E-01 | 1.65E-01 | 2.39E-01 | 3.94E-01 | 6.47E-01 | 1.02E+00 |
| 1.617E+03 | 22 | 2.47E-02 | 3.44E-02 | 4.68E-02 | 6.14E-02 | 8.19E-02 | 1.07E-01 | 1.39E-01 | 2.00E-01 | 3.24E-01 | 5.12E-01 | 7.72E-01 |
| 1.586E+03 | 21 | 1.72E-02 | 2.39E-02 | 3.24E-02 | 4.23E-02 | 5.65E-02 | 7.39E-02 | 9.53E-02 | 1.36E-01 | 2.14E-01 | 3.50E-01 | 5.05E-01 |
| 1.556E+03 | 20 | 1.00E-02 | 1.39E-02 | 1.89E-02 | 2.45E-02 | 3.27E-02 | 4.28E-02 | 5.52E-02 | 7.86E-02 | 1.22E-01 | 1.99E-01 | 2.79E-01 |
| 1.525E+03 | 19 | 4.97E-03 | 6.92E-03 | 9.37E-03 | 1.20E-02 | 1.60E-02 | 2.10E-02 | 2.72E-02 | 3.87E-02 | 5.86E-02 | 9.35E-02 | 1.27E-01 |
| 1.495E+03 | 18 | 2.05E-03 | 2.87E-03 | 3.87E-03 | 4.82E-03 | 6.40E-03 | 8.46E-03 | 1.10E-02 | 1.56E-02 | 2.28E-02 | 3.44E-02 | 4.49E-02 |
| 1.464E+03 | 17 | 6.09E-04 | 8.52E-04 | 1.14E-03 | 1.37E-03 | 1.79E-03 | 2.40E-03 | 3.16E-03 | 4.48E-03 | 6.13E-03 | 8.70E-03 | 1.09E-02 |
| 1.434E+03 | 16 | 9.73E-05 | 1.38E-04 | 1.88E-04 | 2.48E-04 | 3.25E-04 | 4.10E-04 | 5.40E-04 | 7.35E-04 | 9.30E-04 | 1.28E-03 | 1.52E-03 |
| 1.403E+03 | 15 | 9.34E-06 | 1.31E-05 | 1.79E-05 | 2.39E-05 | 3.15E-05 | 4.03E-05 | 5.60E-05 | 7.43E-05 | 8.63E-05 | 1.14E-04 | 1.23E-04 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 6.57E-07 | 6.47E-07 | 4.78E-07 | 5.00E-07 | 3.94E-07 | 4.31E-07 | 5.20E-07 | 3.08E-07 | 1.33E-07 | 4.38E-08 | 1.42E-08 |
| 2.501E+03 | 40 | 1.53E-05 | 1.45E-05 | 1.21E-05 | 1.25E-05 | 1.13E-05 | 1.26E-05 | 1.31E-05 | 3.37E-06 | 1.01E-06 | 4.94E-07 | 1.92E-07 |
| 2.379E+03 | 39 | 1.72E-04 | 1.72E-04 | 1.64E-04 | 1.31E-04 | 1.15E-04 | 1.29E-04 | 1.41E-04 | 1.30E-04 | 3.74E-05 | 1.51E-05 | 6.54E-06 |
| 2.257E+03 | 38 | 1.30E-03 | 1.46E-03 | 1.43E-03 | 1.16E-03 | 1.19E-03 | 1.25E-03 | 1.29E-03 | 1.80E-03 | 2.83E-04 | 1.09E-04 | 4.61E-05 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.196E+03 | 37 | 5.89E-03 | 6.81E-03 | 6.95E-03 | 7.14E-03 | 7.17E-03 | 7.37E-03 | 1.02E-02 | 2.77E-02 | 3.34E-03 | 9.57E-04 | 3.76E-04 |
| 2.135E+03 | 36 | 1.46E-02 | 1.73E-02 | 1.75E-02 | 1.82E-02 | 1.89E-02 | 2.33E-02 | 4.04E-02 | 1.17E-01 | 1.04E-02 | 2.45E-03 | 9.04E-04 |
| 2.074E+03 | 35 | 2.75E-02 | 3.55E-02 | 4.42E-02 | 5.34E-02 | 6.44E-02 | 7.98E-02 | 1.22E-01 | 3.43E-01 | 1.68E-02 | 4.85E-03 | 1.67E-03 |
| 2.013E+03 | 34 | 6.34E-02 | 8.57E-02 | 1.15E-01 | 1.48E-01 | 1.86E-01 | 2.45E-01 | 3.55E-01 | 7.10E-01 | 1.13E+00 | 1.77E-01 | 5.74E-02 |
| 1.952E+03 | 33 | 1.36E-01 | 2.05E-01 | 2.81E-01 | 3.59E-01 | 4.43E-01 | 5.65E-01 | 7.80E-01 | 1.40E+00 | 2.03E+00 | 3.18E-01 | 9.64E-02 |
| 1.922E+03 | 32 | 2.39E-01 | 3.56E-01 | 4.79E-01 | 6.07E-01 | 7.46E-01 | 9.45E-01 | 1.29E+00 | 2.15E+00 | 2.86E+00 | 3.37E-01 | 9.21E-02 |
| 1.891E+03 | 31 | 3.46E-01 | 4.14E-01 | 5.90E-01 | 8.16E-01 | 1.03E+00 | 1.32E+00 | 1.79E+00 | 2.81E+00 | 3.47E+00 | 2.66E-01 | 6.37E-02 |
| 1.861E+03 | 30 | 5.42E-01 | 7.17E-01 | 9.62E-01 | 1.25E+00 | 1.52E+00 | 1.89E+00 | 2.46E+00 | 3.77E+00 | 4.18E+00 | 1.92E+00 | 3.76E-01 |
| 1.830E+03 | 29 | 7.71E-01 | 9.99E-01 | 1.31E+00 | 1.68E+00 | 2.03E+00 | 2.47E+00 | 3.15E+00 | 4.50E+00 | 4.68E+00 | 4.71E+00 | 1.08E+00 |
| 1.800E+03 | 28 | 1.03E+00 | 1.30E+00 | 1.69E+00 | 2.16E+00 | 2.59E+00 | 3.08E+00 | 3.79E+00 | 5.05E+00 | 4.86E+00 | 4.70E+00 | 1.16E+00 |
| 1.769E+03 | 27 | 1.29E+00 | 1.62E+00 | 2.16E+00 | 2.67E+00 | 3.02E+00 | 3.51E+00 | 4.19E+00 | 5.24E+00 | 5.14E+00 | 3.94E+00 | 8.97E-01 |
| 1.739E+03 | 26 | 1.53E+00 | 1.89E+00 | 2.46E+00 | 2.93E+00 | 3.25E+00 | 3.65E+00 | 4.21E+00 | 4.98E+00 | 4.77E+00 | 3.53E+00 | 7.09E-01 |
| 1.708E+03 | 25 | 1.68E+00 | 2.07E+00 | 2.54E+00 | 2.81E+00 | 3.01E+00 | 3.26E+00 | 3.67E+00 | 4.27E+00 | 4.08E+00 | 3.06E+00 | 5.06E-01 |
| 1.678E+03 | 24 | 1.63E+00 | 2.08E+00 | 2.23E+00 | 2.14E+00 | 2.43E+00 | 2.54E+00 | 2.94E+00 | 3.41E+00 | 3.28E+00 | 2.57E+00 | 3.81E-01 |
| 1.647E+03 | 23 | 1.39E+00 | 1.74E+00 | 2.04E+00 | 1.98E+00 | 2.18E+00 | 2.21E+00 | 2.47E+00 | 2.69E+00 | 2.51E+00 | 1.89E+00 | 1.18E+00 |
| 1.617E+03 | 22 | 1.02E+00 | 1.25E+00 | 1.44E+00 | 1.47E+00 | 1.57E+00 | 1.49E+00 | 1.64E+00 | 1.79E+00 | 1.68E+00 | 1.26E+00 | 1.15E+00 |
| 1.586E+03 | 21 | 6.51E-01 | 7.79E-01 | 8.85E-01 | 9.09E-01 | 9.67E-01 | 9.41E-01 | 9.90E-01 | 1.09E+00 | 1.04E+00 | 8.53E-01 | 7.68E-01 |
| 1.556E+03 | 20 | 3.51E-01 | 4.12E-01 | 4.59E-01 | 4.81E-01 | 5.02E-01 | 4.72E-01 | 4.97E-01 | 5.44E-01 | 5.18E-01 | 4.34E-01 | 3.97E-01 |
| 1.525E+03 | 19 | 1.56E-01 | 1.80E-01 | 1.94E-01 | 2.06E-01 | 2.10E-01 | 1.85E-01 | 1.90E-01 | 2.05E-01 | 2.00E-01 | 1.74E-01 | 1.63E-01 |
| 1.495E+03 | 18 | 5.37E-02 | 6.06E-02 | 6.28E-02 | 6.46E-02 | 6.43E-02 | 5.63E-02 | 5.46E-02 | 5.87E-02 | 5.99E-02 | 5.79E-02 | 5.48E-02 |
| 1.464E+03 | 17 | 1.26E-02 | 1.39E-02 | 1.42E-02 | 1.43E-02 | 1.39E-02 | 1.20E-02 | 1.16E-02 | 1.29E-02 | 1.41E-02 | 1.46E-02 | 1.45E-02 |
| 1.434E+03 | 16 | 1.70E-03 | 1.83E-03 | 1.82E-03 | 1.81E-03 | 1.69E-03 | 1.38E-03 | 1.30E-03 | 1.48E-03 | 1.77E-03 | 2.03E-03 | 2.15E-03 |
| 1.403E+03 | 15 | 1.23E-04 | 1.18E-04 | 1.11E-04 | 1.05E-04 | 8.91E-05 | 6.19E-05 | 5.23E-05 | 6.02E-05 | 8.41E-05 | 1.10E-04 | 1.58E-04 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.54E-31 | 1.04E-05 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.10E-35 | 8.36E-07 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.10E-38 | 6.71E-39 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.68E-39 | 1.02E-39 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.01E-40 | 1.17E-40 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.54E-42 | 1.18E-41 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.14E-43 | 9.07E-43 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.90E-44 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.21E-16 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.62E-17 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.84E-19 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 7.90E-08 | 3.18E-08 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 2.38E-05 | 7.37E-06 | 2.21E-06 | 4.28E-07 | 1.15E-07 | 4.06E-08 | 1.80E-08 | 1.03E-08 | 9.38E-09 | 0.00E+00 |
| 2.379E+03 | 39 | 4.99E-05 | 6.28E-05 | 2.56E-05 | 8.57E-06 | 2.96E-06 | 1.17E-06 | 5.54E-07 | 3.29E-07 | 2.69E-07 | 0.00E+00 |
| 2.257E+03 | 38 | 2.10E-04 | 2.92E-04 | 1.46E-04 | 5.96E-05 | 2.25E-05 | 9.26E-06 | 4.29E-06 | 2.47E-06 | 2.07E-06 | 0.00E+00 |
| 2.196E+03 | 37 | 5.75E-04 | 1.07E-03 | 4.01E-04 | 1.87E-04 | 7.10E-05 | 2.89E-05 | 1.30E-05 | 7.09E-06 | 5.04E-06 | 0.00E+00 |
| 2.135E+03 | 36 | 1.58E-03 | 2.60E-03 | 1.60E-03 | 7.05E-04 | 2.64E-04 | 1.05E-04 | 4.60E-05 | 2.32E-05 | 2.38E-05 | 0.00E+00 |
| 2.074E+03 | 35 | 7.26E-04 | 9.90E-04 | 5.67E-03 | 2.79E-03 | 1.04E-03 | 4.04E-04 | 1.70E-04 | 7.59E-05 | 4.81E-05 | 0.00E+00 |
| 2.013E+03 | 34 | 1.72E-02 | 2.52E-02 | 2.06E-02 | 1.04E-02 | 3.94E-03 | 1.54E-03 | 6.18E-04 | 2.36E-04 | 3.28E-04 | 0.00E+00 |
| 1.952E+03 | 33 | 2.95E-02 | 5.51E-02 | 4.52E-02 | 2.38E-02 | 9.24E-03 | 3.63E-03 | 1.40E-03 | 4.65E-04 | 3.36E-04 | 0.00E+00 |
| 1.922E+03 | 32 | 2.94E-02 | 7.88E-02 | 7.11E-02 | 3.88E-02 | 1.54E-02 | 6.15E-03 | 2.27E-03 | 4.85E-03 | 1.26E-04 | 0.00E+00 |
| 1.891E+03 | 31 | 2.16E-02 | 9.26E-02 | 1.06E-01 | 6.08E-02 | 2.51E-02 | 1.04E-02 | 3.73E-03 | 4.84E-03 | 1.25E-04 | 0.00E+00 |
| 1.861E+03 | 30 | 1.16E-01 | 4.49E-02 | 1.53E-01 | 9.30E-02 | 4.03E-02 | 1.78E-02 | 1.77E-02 | 8.02E-12 | 8.25E-14 | 0.00E+00 |
| 1.830E+03 | 29 | 3.77E-01 | 1.06E-01 | 2.20E-01 | 1.38E-01 | 6.28E-02 | 2.96E-02 | 2.95E-02 | 5.12E-12 | 8.15E-18 | 0.00E+00 |
| 1.800E+03 | 28 | 4.41E-01 | 1.68E-01 | 3.02E-01 | 1.95E-01 | 9.41E-02 | 4.70E-02 | 6.32E-02 | 9.09E-05 | 2.09E-08 | 0.00E+00 |
| 1.769E+03 | 27 | 3.56E-01 | 1.90E-01 | 3.74E-01 | 2.54E-01 | 1.32E-01 | 6.98E-02 | 6.49E-02 | 9.16E-05 | 2.17E-08 | 0.00E+00 |
| 1.739E+03 | 26 | 2.66E-01 | 2.17E-01 | 4.29E-01 | 3.07E-01 | 1.75E-01 | 9.83E-02 | 9.79E-02 | 1.44E-11 | 2.28E-17 | 0.00E+00 |
| 1.708E+03 | 25 | 1.81E-01 | 2.09E-01 | 4.41E-01 | 3.44E-01 | 2.16E-01 | 1.30E-01 | 1.88E-01 | 2.00E-04 | 4.04E-08 | 0.00E+00 |
| 1.678E+03 | 24 | 1.16E-01 | 1.41E-01 | 4.18E-01 | 3.58E-01 | 2.50E-01 | 1.61E-01 | 1.83E-01 | 2.02E-04 | 4.22E-08 | 0.00E+00 |
| 1.647E+03 | 23 | 3.34E-01 | 1.65E-01 | 3.80E-01 | 3.51E-01 | 2.75E-01 | 1.91E-01 | 1.91E-01 | 2.49E-11 | 3.03E-17 | 0.00E+00 |
| 1.617E+03 | 22 | 3.70E-01 | 1.52E-01 | 3.28E-01 | 3.29E-01 | 2.89E-01 | 2.15E-01 | 3.40E-01 | 2.68E-04 | 4.81E-08 | 0.00E+00 |
| 1.586E+03 | 21 | 5.79E-01 | 3.25E-01 | 2.95E-01 | 2.97E-01 | 2.92E-01 | 2.34E-01 | 3.23E-01 | 2.72E-04 | 5.04E-08 | 0.00E+00 |
| 1.556E+03 | 20 | 3.97E-01 | 2.90E-01 | 2.47E-01 | 2.56E-01 | 2.84E-01 | 2.46E-01 | 2.51E-01 | 2.92E-11 | 2.46E-17 | 0.00E+00 |
| 1.525E+03 | 19 | 1.88E-01 | 1.80E-01 | 1.87E-01 | 2.10E-01 | 2.68E-01 | 2.52E-01 | 4.21E-01 | 2.00E-04 | 3.04E-08 | 0.00E+00 |
| 1.495E+03 | 18 | 1.89E-02 | 5.69E-02 | 1.25E-01 | 1.63E-01 | 2.46E-01 | 2.52E-01 | 4.05E-01 | 2.05E-04 | 3.22E-08 | 0.00E+00 |
| 1.464E+03 | 17 | 6.47E-03 | 1.56E-02 | 7.68E-02 | 1.25E-01 | 2.20E-01 | 2.48E-01 | 2.84E-01 | 2.54E-11 | 9.06E-18 | 0.00E+00 |
| 1.434E+03 | 16 | 1.38E-03 | 3.65E-03 | 4.43E-02 | 9.12E-02 | 1.93E-01 | 2.34E-01 | 2.97E-04 | 5.22E-08 | 5.91E-12 | 0.00E+00 |
| 1.403E+03 | 15 | 1.73E-04 | 8.39E-04 | 2.38E-02 | 6.37E-02 | 1.67E-01 | 2.25E-01 | 2.99E-04 | 5.49E-08 | 6.43E-12 | 0.00E+00 |
| 1.373E+03 | 14 | 1.74E-05 | 2.82E-04 | 1.17E-02 | 4.37E-02 | 1.41E-01 | 1.47E-01 | 1.35E-11 | 1.86E-17 | 1.76E-21 | 0.00E+00 |
| 1.342E+03 | 13 | 2.54E-06 | 2.20E-04 | 7.15E-03 | 3.11E-02 | 1.21E-01 | 1.98E-01 | 9.77E-05 | 1.50E-08 | 1.76E-12 | 0.00E+00 |
| 1.312E+03 | 12 | 3.34E-07 | 1.68E-04 | 4.44E-03 | 2.29E-02 | 1.09E-01 | 1.88E-01 | 1.01E-04 | 1.59E-08 | 1.91E-12 | 0.00E+00 |
| 1.281E+03 | 11 | 4.10E-08 | 5.64E-05 | 2.43E-03 | 2.56E-02 | 1.09E-01 | 1.14E-01 | 8.67E-12 | 3.10E-18 | 3.36E-22 | 0.00E+00 |
| 1.220E+03 | 10 | 5.19E-09 | 1.50E-05 | 1.25E-03 | 2.20E-02 | 1.12E-01 | 5.03E-02 | 1.60E-05 | 3.54E-09 | 6.52E-13 | 0.00E+00 |
| 1.159E+03 | 9 | 7.87E-10 | 5.00E-06 | 4.99E-04 | 1.59E-02 | 8.59E-02 | 5.33E-02 | 1.72E-05 | 3.81E-09 | 7.14E-13 | 0.00E+00 |
| 1.098E+03 | 8 | 2.98E-10 | 1.74E-06 | 2.35E-04 | 6.92E-03 | 5.79E-02 | 6.03E-02 | 3.88E-12 | 3.89E-19 | 6.40E-23 | 0.00E+00 |
| 1.037E+03 | 7 | 2.85E-10 | 5.81E-07 | 1.18E-04 | 3.68E-03 | 4.45E-02 | 3.16E-02 | 1.12E-05 | 2.63E-09 | 5.13E-13 | 0.00E+00 |
| 9.760E+02 | 6 | 5.04E-11 | 9.09E-08 | 5.30E-05 | 1.76E-03 | 3.18E-02 | 3.15E-02 | 1.25E-05 | 2.95E-09 | 5.89E-13 | 0.00E+00 |
| 8.540E+02 | 5 | 4.19E-12 | 7.97E-09 | 1.61E-05 | 6.01E-04 | 1.55E-02 | 1.19E-02 | 7.55E-06 | 3.22E-09 | 1.12E-12 | 0.00E+00 |
| 7.320E+02 | 4 | 2.20E-13 | 7.80E-10 | 8.41E-06 | 3.62E-04 | 9.24E-03 | 1.17E-02 | 7.93E-06 | 3.53E-09 | 1.27E-12 | 0.00E+00 |
| 5.490E+02 | 3 | 9.09E-15 | 4.75E-11 | 3.57E-06 | 1.60E-04 | 1.14E-02 | 1.09E-02 | 7.63E-06 | 3.43E-09 | 1.24E-12 | 0.00E+00 |
| 3.050E+02 | 2 | 1.09E-16 | 3.70E-10 | 3.54E-06 | 2.36E-04 | 1.25E-02 | 9.08E-03 | 6.10E-06 | 2.63E-09 | 9.11E-13 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 11 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.30E-30 | 6.63E-27 | 1.94E-25 | 2.75E-24 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.00E-27 | 1.44E-24 | 4.17E-23 | 5.87E-22 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.68E-25 | 1.21E-22 | 3.46E-21 | 4.78E-20 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.82E-24 | 5.64E-21 | 1.59E-19 | 2.15E-18 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.13E-22 | 1.54E-19 | 4.26E-18 | 5.61E-17 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.40E-21 | 2.47E-18 | 6.61E-17 | 8.37E-16 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.65E-20 | 3.37E-17 | 8.61E-16 | 1.03E-14 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.47E-19 | 3.91E-16 | 9.32E-15 | 1.04E-13 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.61E-18 | 3.85E-15 | 8.20E-14 | 8.19E-13 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.15E-17 | 2.54E-14 | 4.47E-13 | 3.85E-12 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.37E-16 | 1.09E-13 | 1.47E-12 | 1.07E-11 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.72E-15 | 4.15E-13 | 3.93E-12 | 2.43E-11 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.23E-14 | 9.47E-13 | 8.75E-12 | 5.27E-11 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.69E-14 | 1.33E-12 | 1.25E-11 | 7.53E-11 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.07E-13 | 2.71E-12 | 2.53E-11 | 1.51E-10 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.88E-13 | 4.24E-12 | 3.96E-11 | 2.36E-10 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.57E-13 | 5.74E-12 | 5.52E-11 | 3.29E-10 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.48E-13 | 7.06E-12 | 7.09E-11 | 4.22E-10 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.32E-13 | 9.09E-12 | 8.66E-11 | 5.17E-10 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.76E-13 | 1.11E-11 | 9.50E-11 | 6.28E-10 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.84E-13 | 1.27E-11 | 8.21E-11 | 6.06E-10 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.68E-13 | 1.33E-11 | 1.12E-10 | 5.45E-10 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.46E-13 | 1.36E-11 | 1.63E-10 | 3.27E-10 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.75E-13 | 1.19E-11 | 2.14E-10 | 3.86E-10 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.77E-13 | 7.11E-12 | 1.26E-10 | 2.33E-10 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.28E-14 | 3.20E-12 | 5.86E-11 | 1.16E-10 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.04E-14 | 7.93E-13 | 1.58E-11 | 4.04E-11 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 2.53E-23 | 1.72E-22 | 9.13E-22 | 3.98E-21 | 1.50E-20 | 5.06E-20 | 1.56E-19 | 4.36E-19 | 1.08E-18 | 2.43E-18 | 5.93E-18 |
| 2.501E+03 | 40 | 5.34E-21 | 3.56E-20 | 1.85E-19 | 7.91E-19 | 2.94E-18 | 9.93E-18 | 3.07E-17 | 8.55E-17 | 2.03E-16 | 4.56E-16 | 1.35E-15 |
| 2.379E+03 | 39 | 4.25E-19 | 2.76E-18 | 1.40E-17 | 5.78E-17 | 2.10E-16 | 7.01E-16 | 2.13E-15 | 5.67E-15 | 1.20E-14 | 2.60E-14 | 1.02E-13 |
| 2.257E+03 | 38 | 1.87E-17 | 1.18E-16 | 5.80E-16 | 2.32E-15 | 8.31E-15 | 2.77E-14 | 8.28E-14 | 2.04E-13 | 3.33E-13 | 7.32E-13 | 4.32E-12 |
| 2.196E+03 | 37 | 4.74E-16 | 2.90E-15 | 1.38E-14 | 5.36E-14 | 1.95E-13 | 6.86E-13 | 2.15E-12 | 5.43E-12 | 8.38E-12 | 1.63E-11 | 1.36E-10 |
| 2.135E+03 | 36 | 6.79E-15 | 3.99E-14 | 1.82E-13 | 6.82E-13 | 2.60E-12 | 9.83E-12 | 3.26E-11 | 8.16E-11 | 1.00E-10 | 1.49E-10 | 2.89E-09 |
| 2.074E+03 | 35 | 7.92E-14 | 4.38E-13 | 1.87E-12 | 6.64E-12 | 2.73E-11 | 1.12E-10 | 3.97E-10 | 1.11E-09 | 1.62E-09 | 1.44E-08 | 6.01E-08 |
| 2.013E+03 | 34 | 7.36E-13 | 3.77E-12 | 1.48E-11 | 4.79E-11 | 2.18E-10 | 8.98E-10 | 2.99E-09 | 7.79E-09 | 1.04E-08 | 7.63E-08 | 2.71E-07 |
| 1.952E+03 | 33 | 5.30E-12 | 2.51E-11 | 9.16E-11 | 2.69E-10 | 1.40E-09 | 5.09E-09 | 1.44E-08 | 3.27E-08 | 3.65E-08 | 1.94E-07 | 5.89E-07 |
| 1.922E+03 | 32 | 2.25E-11 | 1.02E-10 | 4.20E-10 | 1.76E-09 | 6.34E-09 | 1.68E-08 | 3.94E-08 | 7.74E-08 | 6.33E-08 | 1.70E-07 | 6.54E-07 |
| 1.891E+03 | 31 | 5.62E-11 | 2.39E-10 | 9.57E-10 | 4.05E-09 | 1.33E-08 | 3.49E-08 | 8.21E-08 | 1.69E-07 | 1.72E-07 | 2.53E-07 | 7.51E-07 |
| 1.861E+03 | 30 | 1.17E-10 | 4.69E-10 | 1.66E-09 | 6.08E-09 | 1.94E-08 | 5.32E-08 | 1.29E-07 | 2.72E-07 | 3.33E-07 | 4.59E-07 | 1.32E-06 |
| 1.830E+03 | 29 | 2.47E-10 | 9.67E-10 | 3.31E-09 | 1.03E-08 | 2.91E-08 | 7.48E-08 | 1.76E-07 | 3.87E-07 | 8.57E-07 | 7.30E-07 | 1.31E-06 |
| 1.800E+03 | 28 | 3.47E-10 | 1.33E-09 | 4.44E-09 | 1.31E-08 | 3.48E-08 | 8.50E-08 | 1.96E-07 | 4.27E-07 | 9.49E-07 | 9.67E-07 | 1.22E-06 |
| 1.769E+03 | 27 | 6.91E-10 | 2.61E-09 | 8.61E-09 | 2.46E-08 | 6.28E-08 | 1.49E-07 | 3.38E-07 | 7.46E-07 | 1.54E-06 | 1.62E-06 | 2.17E-06 |
| 1.739E+03 | 26 | 1.07E-09 | 3.99E-09 | 1.29E-08 | 3.49E-08 | 8.65E-08 | 2.04E-07 | 4.70E-07 | 1.07E-06 | 2.30E-06 | 3.01E-06 | 4.82E-06 |
| 1.708E+03 | 25 | 1.48E-09 | 5.43E-09 | 1.74E-08 | 4.18E-08 | 1.11E-07 | 2.80E-07 | 6.90E-07 | 1.66E-06 | 3.86E-06 | 8.50E-06 | 1.66E-05 |
| 1.678E+03 | 24 | 1.90E-09 | 6.73E-09 | 2.14E-08 | 3.62E-08 | 1.15E-07 | 3.55E-07 | 9.74E-07 | 2.48E-06 | 5.98E-06 | 1.38E-05 | 2.73E-05 |
| 1.647E+03 | 23 | 2.33E-09 | 7.71E-09 | 2.36E-08 | 4.29E-08 | 1.36E-07 | 4.20E-07 | 1.15E-06 | 2.92E-06 | 7.01E-06 | 1.60E-05 | 3.00E-05 |
| 1.617E+03 | 22 | 2.95E-09 | 8.34E-09 | 2.63E-08 | 5.75E-08 | 1.79E-07 | 5.23E-07 | 1.37E-06 | 3.35E-06 | 7.77E-06 | 1.74E-05 | 2.62E-05 |
| 1.586E+03 | 21 | 3.17E-09 | 5.95E-09 | 2.04E-08 | 6.85E-08 | 1.97E-07 | 5.16E-07 | 1.27E-06 | 2.98E-06 | 6.65E-06 | 1.43E-05 | 2.89E-05 |
| 1.556E+03 | 20 | 2.73E-09 | 6.55E-09 | 2.02E-08 | 6.22E-08 | 1.72E-07 | 4.37E-07 | 1.04E-06 | 2.34E-06 | 5.04E-06 | 1.04E-05 | 2.03E-05 |
| 1.525E+03 | 19 | 1.62E-09 | 6.48E-09 | 2.01E-08 | 5.50E-08 | 1.40E-07 | 3.33E-07 | 7.52E-07 | 1.62E-06 | 3.33E-06 | 6.56E-06 | 1.24E-05 |
| 1.495E+03 | 18 | 1.34E-09 | 4.54E-09 | 1.34E-08 | 3.55E-08 | 8.74E-08 | 2.02E-07 | 4.39E-07 | 9.10E-07 | 1.80E-06 | 3.41E-06 | 6.20E-06 |
| 1.464E+03 | 17 | 8.30E-10 | 2.68E-09 | 7.47E-09 | 1.89E-08 | 4.45E-08 | 9.82E-08 | 2.05E-07 | 4.06E-07 | 7.66E-07 | 1.38E-06 | 2.41E-06 |
| 1.434E+03 | 16 | 4.22E-10 | 1.24E-09 | 3.16E-09 | 7.44E-09 | 1.65E-08 | 3.45E-08 | 6.81E-08 | 1.27E-07 | 2.27E-07 | 3.90E-07 | 6.49E-07 |
| 1.403E+03 | 15 | 1.43E-10 | 3.25E-10 | 7.26E-10 | 1.59E-09 | 3.31E-09 | 6.51E-09 | 1.21E-08 | 2.11E-08 | 3.51E-08 | 5.66E-08 | 8.91E-08 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |
| Y | J | | | | | | | | | | | |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 2.50E-17 | 1.20E-16 | 3.90E-16 | 2.03E-15 | 6.32E-15 | 7.58E-15 | 8.93E-15 | 1.03E-14 | 1.18E-14 | 1.32E-14 | 3.05E-11 |
| 2.501E+03 | 40 | 9.06E-15 | 5.29E-14 | 1.80E-13 | 1.55E-12 | 8.02E-12 | 4.29E-11 | 1.98E-10 | 7.02E-10 | 2.54E-09 | 9.66E-09 | 3.53E-08 |
| 2.379E+03 | 39 | 9.71E-13 | 5.81E-12 | 2.24E-11 | 1.43E-10 | 5.33E-10 | 2.55E-09 | 1.01E-08 | 2.93E-08 | 9.50E-08 | 3.08E-07 | 8.32E-07 |
| 2.257E+03 | 38 | 4.84E-11 | 2.51E-10 | 1.11E-09 | 4.56E-09 | 1.26E-08 | 6.19E-08 | 2.06E-07 | 4.66E-07 | 1.31E-06 | 3.52E-06 | 7.12E-06 |
| 2.196E+03 | 37 | 1.44E-09 | 6.49E-09 | 2.86E-08 | 1.05E-07 | 3.52E-07 | 9.47E-07 | 1.98E-06 | 3.66E-06 | 6.61E-06 | 1.26E-05 | 2.26E-05 |
| 2.135E+03 | 36 | 1.99E-08 | 7.50E-08 | 2.24E-07 | 6.43E-07 | 1.87E-06 | 4.08E-06 | 7.66E-06 | 1.36E-05 | 2.35E-05 | 3.95E-05 | 6.43E-05 |
| 2.074E+03 | 35 | 1.76E-07 | 4.39E-07 | 9.96E-07 | 2.12E-06 | 4.65E-06 | 9.65E-06 | 1.90E-05 | 3.46E-05 | 5.97E-05 | 9.90E-05 | 1.58E-04 |
| 2.013E+03 | 34 | 7.14E-07 | 1.66E-06 | 3.55E-06 | 7.15E-06 | 1.37E-05 | 2.65E-05 | 4.83E-05 | 8.21E-05 | 1.34E-04 | 2.14E-04 | 3.28E-04 |
| 1.952E+03 | 33 | 1.52E-06 | 3.54E-06 | 7.57E-06 | 1.52E-05 | 3.01E-05 | 7.12E-05 | 1.02E-04 | 1.51E-04 | 2.28E-04 | 3.45E-04 | 5.05E-04 |
| 1.922E+03 | 32 | 1.95E-06 | 4.81E-06 | 1.05E-05 | 2.15E-05 | 4.34E-05 | 1.13E-04 | 1.77E-04 | 2.89E-04 | 4.73E-04 | 7.45E-04 | 1.06E-03 |
| 1.891E+03 | 31 | 2.08E-06 | 4.98E-06 | 1.09E-05 | 2.26E-05 | 4.44E-05 | 1.00E-04 | 2.13E-04 | 4.07E-04 | 7.09E-04 | 1.14E-03 | 1.61E-03 |
| 1.861E+03 | 30 | 3.54E-06 | 8.73E-06 | 1.97E-05 | 4.27E-05 | 8.72E-05 | 1.75E-04 | 3.57E-04 | 6.78E-04 | 1.14E-03 | 1.80E-03 | 2.55E-03 |
| 1.830E+03 | 29 | 3.21E-06 | 1.05E-05 | 2.84E-05 | 6.86E-05 | 1.50E-04 | 3.13E-04 | 6.43E-04 | 1.23E-03 | 1.79E-03 | 2.95E-03 | 4.41E-03 |
| 1.800E+03 | 28 | 1.48E-06 | 8.24E-06 | 3.35E-05 | 9.58E-05 | 2.28E-04 | 4.91E-04 | 1.01E-03 | 1.85E-03 | 1.64E-03 | 2.78E-03 | 4.97E-03 |
| 1.769E+03 | 27 | 2.57E-06 | 1.26E-05 | 5.16E-05 | 1.47E-04 | 3.41E-04 | 7.09E-04 | 1.41E-03 | 2.51E-03 | 2.35E-03 | 3.92E-03 | 6.89E-03 |
| 1.739E+03 | 26 | 5.37E-06 | 2.10E-05 | 8.57E-05 | 2.33E-04 | 5.11E-04 | 1.01E-03 | 1.93E-03 | 3.44E-03 | 5.60E-03 | 8.39E-03 | 1.19E-02 |
| 1.708E+03 | 25 | 1.17E-05 | 3.34E-05 | 1.32E-04 | 3.29E-04 | 6.61E-04 | 1.26E-03 | 2.37E-03 | 4.21E-03 | 7.05E-03 | 1.12E-02 | 1.54E-02 |
| 1.678E+03 | 24 | 2.73E-05 | 6.18E-05 | 1.65E-04 | 3.50E-04 | 6.04E-04 | 1.22E-03 | 2.43E-03 | 4.46E-03 | 7.68E-03 | 1.23E-02 | 1.18E-02 |
| 1.647E+03 | 23 | 3.80E-05 | 8.73E-05 | 1.93E-04 | 2.84E-04 | 3.08E-04 | 6.59E-04 | 1.60E-03 | 3.31E-03 | 6.15E-03 | 1.06E-02 | 1.69E-02 |
| 1.617E+03 | 22 | 3.37E-05 | 7.75E-05 | 1.65E-04 | 2.57E-04 | 5.10E-04 | 9.95E-04 | 1.88E-03 | 3.37E-03 | 5.79E-03 | 9.49E-03 | 1.49E-02 |
| 1.586E+03 | 21 | 4.49E-05 | 8.43E-05 | 1.52E-04 | 2.26E-04 | 4.01E-04 | 7.48E-04 | 1.37E-03 | 2.41E-03 | 4.09E-03 | 6.62E-03 | 1.03E-02 |
| 1.556E+03 | 20 | 3.74E-05 | 6.75E-05 | 1.17E-04 | 1.62E-04 | 2.36E-04 | 4.22E-04 | 7.75E-04 | 1.37E-03 | 2.33E-03 | 3.79E-03 | 5.87E-03 |
| 1.525E+03 | 19 | 2.26E-05 | 3.96E-05 | 6.60E-05 | 8.83E-05 | 1.22E-04 | 2.11E-04 | 3.81E-04 | 6.65E-04 | 1.12E-03 | 1.81E-03 | 2.81E-03 |
| 1.495E+03 | 18 | 1.09E-05 | 1.85E-05 | 2.98E-05 | 3.84E-05 | 5.07E-05 | 8.30E-05 | 1.44E-04 | 2.46E-04 | 4.11E-04 | 6.66E-04 | 1.04E-03 |
| 1.464E+03 | 17 | 4.08E-06 | 6.65E-06 | 1.03E-05 | 1.25E-05 | 1.54E-05 | 2.25E-05 | 3.64E-05 | 6.08E-05 | 1.03E-04 | 1.72E-04 | 2.77E-04 |
| 1.434E+03 | 16 | 1.05E-06 | 1.65E-06 | 2.53E-06 | 3.73E-06 | 5.51E-06 | 8.14E-06 | 1.05E-05 | 1.57E-05 | 2.06E-05 | 3.18E-05 | 4.90E-05 |
| 1.403E+03 | 15 | 1.38E-07 | 2.09E-07 | 3.11E-07 | 4.58E-07 | 6.68E-07 | 9.55E-07 | 1.18E-06 | 1.69E-06 | 2.13E-06 | 3.17E-06 | 4.80E-06 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |
| Y | J | | | | | | | | | | | |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 6.13E-10 | 2.91E-09 | 9.72E-09 | 2.56E-08 | 5.62E-08 | 1.09E-07 | 1.70E-07 | 2.78E-07 | 3.64E-07 | 3.86E-07 | 4.00E-07 |
| 2.501E+03 | 40 | 8.65E-08 | 1.78E-07 | 3.35E-07 | 6.54E-07 | 1.28E-06 | 2.32E-06 | 3.63E-06 | 5.69E-06 | 7.39E-06 | 8.23E-06 | 8.54E-06 |
| 2.379E+03 | 39 | 1.68E-06 | 3.00E-06 | 5.11E-06 | 9.28E-06 | 1.63E-05 | 2.74E-05 | 4.21E-05 | 5.94E-05 | 7.22E-05 | 8.51E-05 | 9.35E-05 |
| 2.257E+03 | 38 | 1.22E-05 | 1.98E-05 | 3.23E-05 | 5.69E-05 | 9.68E-05 | 1.51E-04 | 2.21E-04 | 3.46E-04 | 3.83E-04 | 4.76E-04 | 5.90E-04 |
| 2.196E+03 | 37 | 3.80E-05 | 6.18E-05 | 9.77E-05 | 1.53E-04 | 2.37E-04 | 3.50E-04 | 5.29E-04 | 1.10E-03 | 1.61E-03 | 2.07E-03 | 2.60E-03 |
| 2.135E+03 | 36 | 1.01E-04 | 1.58E-04 | 2.40E-04 | 3.51E-04 | 5.01E-04 | 7.02E-04 | 1.04E-03 | 2.46E-03 | 3.72E-03 | 5.10E-03 | 6.71E-03 |
| 2.074E+03 | 35 | 2.47E-04 | 4.54E-04 | 5.57E-04 | 6.99E-04 | 9.00E-04 | 1.16E-03 | 1.56E-03 | 3.16E-03 | 8.01E-03 | 1.36E-02 | 1.90E-02 |
| 2.013E+03 | 34 | 4.98E-04 | 9.35E-04 | 1.15E-03 | 1.50E-03 | 1.99E-03 | 2.47E-03 | 3.40E-03 | 6.11E-03 | 1.40E-02 | 2.66E-02 | 4.09E-02 |
| 1.952E+03 | 33 | 6.62E-04 | 1.05E-03 | 1.68E-03 | 2.50E-03 | 3.55E-03 | 2.93E-03 | 4.44E-03 | 6.10E-03 | 2.11E-02 | 4.78E-02 | 8.31E-02 |
| 1.922E+03 | 32 | 1.10E-03 | 1.79E-03 | 3.01E-03 | 4.15E-03 | 6.22E-03 | 5.36E-03 | 7.12E-03 | 1.05E-02 | 3.36E-02 | 7.31E-02 | 1.31E-01 |
| 1.891E+03 | 31 | 1.56E-03 | 2.04E-03 | 3.52E-03 | 3.08E-03 | 5.35E-03 | 8.51E-03 | 6.58E-03 | 1.64E-02 | 4.72E-02 | 1.04E-01 | 2.01E-01 |
| 1.861E+03 | 30 | 2.47E-03 | 2.09E-03 | 3.16E-03 | 2.45E-03 | 4.32E-03 | 8.31E-03 | 1.36E-02 | 3.16E-02 | 7.39E-02 | 1.57E-01 | 3.07E-01 |
| 1.830E+03 | 29 | 4.59E-03 | 4.08E-03 | 6.13E-03 | 4.38E-03 | 7.74E-03 | 1.48E-02 | 2.47E-02 | 5.26E-02 | 1.14E-01 | 2.34E-01 | 4.54E-01 |
| 1.800E+03 | 28 | 6.51E-03 | 1.02E-02 | 1.52E-02 | 2.15E-02 | 2.95E-02 | 3.96E-02 | 5.36E-02 | 9.00E-02 | 1.69E-01 | 3.27E-01 | 6.24E-01 |
| 1.769E+03 | 27 | 9.10E-03 | 1.35E-02 | 1.62E-02 | 2.07E-02 | 2.80E-02 | 3.84E-02 | 5.37E-02 | 9.84E-02 | 2.02E-01 | 4.17E-01 | 7.65E-01 |
| 1.739E+03 | 26 | 1.58E-02 | 1.98E-02 | 1.25E-02 | 1.20E-02 | 1.86E-02 | 3.01E-02 | 4.84E-02 | 1.05E-01 | 2.44E-01 | 5.26E-01 | 9.49E-01 |
| 1.708E+03 | 25 | 2.21E-02 | 2.99E-02 | 2.08E-02 | 1.98E-02 | 2.96E-02 | 4.68E-02 | 7.34E-02 | 1.49E-01 | 3.21E-01 | 6.53E-01 | 1.12E+00 |
| 1.678E+03 | 24 | 1.69E-02 | 2.61E-02 | 3.56E-02 | 4.23E-02 | 5.93E-02 | 8.43E-02 | 1.20E-01 | 2.07E-01 | 3.94E-01 | 7.26E-01 | 1.17E+00 |
| 1.647E+03 | 23 | 2.55E-02 | 3.67E-02 | 5.04E-02 | 6.22E-02 | 8.25E-02 | 1.10E-01 | 1.47E-01 | 2.30E-01 | 4.01E-01 | 6.84E-01 | 1.03E+00 |
| 1.617E+03 | 22 | 2.22E-02 | 3.17E-02 | 4.31E-02 | 5.32E-02 | 7.03E-02 | 9.32E-02 | 1.24E-01 | 1.92E-01 | 3.31E-01 | 5.37E-01 | 7.74E-01 |
| 1.586E+03 | 21 | 1.53E-02 | 2.17E-02 | 2.95E-02 | 3.64E-02 | 4.82E-02 | 6.38E-02 | 8.45E-02 | 1.30E-01 | 2.18E-01 | 3.56E-01 | 4.92E-01 |
| 1.556E+03 | 20 | 8.73E-03 | 1.24E-02 | 1.69E-02 | 2.07E-02 | 2.74E-02 | 3.64E-02 | 4.82E-02 | 7.46E-02 | 1.23E-01 | 2.00E-01 | 2.68E-01 |
| 1.525E+03 | 19 | 4.17E-03 | 5.95E-03 | 8.07E-03 | 9.81E-03 | 1.30E-02 | 1.73E-02 | 2.31E-02 | 3.61E-02 | 5.87E-02 | 9.29E-02 | 1.21E-01 |
| 1.495E+03 | 18 | 1.57E-03 | 2.25E-03 | 3.07E-03 | 3.66E-03 | 4.88E-03 | 6.58E-03 | 8.87E-03 | 1.42E-02 | 2.25E-02 | 3.39E-02 | 4.28E-02 |
| 1.464E+03 | 17 | 4.25E-04 | 6.22E-04 | 8.53E-04 | 1.00E-03 | 1.32E-03 | 1.79E-03 | 2.46E-03 | 3.98E-03 | 6.02E-03 | 8.59E-03 | 1.05E-02 |
| 1.434E+03 | 16 | 7.31E-05 | 1.06E-04 | 1.49E-04 | 1.99E-04 | 2.65E-04 | 3.26E-04 | 4.45E-04 | 6.77E-04 | 9.32E-04 | 1.28E-03 | 1.55E-03 |
| 1.403E+03 | 15 | 7.11E-06 | 1.03E-05 | 1.44E-05 | 1.97E-05 | 2.62E-05 | 3.26E-05 | 4.78E-05 | 6.94E-05 | 8.62E-05 | 1.14E-04 | 1.36E-04 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |
| Y | J | | | | | | | | | | | |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 3.21E-07 | 3.73E-07 | 2.76E-07 | 3.08E-07 | 2.38E-07 | 2.73E-07 | 3.72E-07 | 3.24E-07 | 1.62E-07 | 5.88E-08 | 5.98E-08 |
| 2.501E+03 | 40 | 8.05E-06 | 7.77E-06 | 6.32E-06 | 7.48E-06 | 6.73E-06 | 9.47E-06 | 1.04E-05 | 3.95E-06 | 1.36E-06 | 7.56E-07 | 1.88E-05 |
| 2.379E+03 | 39 | 9.27E-05 | 9.12E-05 | 8.42E-05 | 6.51E-05 | 5.65E-05 | 7.77E-05 | 1.01E-04 | 8.36E-05 | 4.26E-05 | 2.21E-05 | 1.68E-04 |
| 2.257E+03 | 38 | 6.97E-04 | 7.65E-04 | 7.14E-04 | 5.53E-04 | 6.72E-04 | 9.47E-04 | 1.15E-03 | 1.40E-03 | 3.68E-04 | 1.96E-04 | 8.91E-04 |
| 2.196E+03 | 37 | 3.14E-03 | 3.55E-03 | 3.48E-03 | 4.05E-03 | 4.56E-03 | 5.05E-03 | 8.80E-03 | 1.99E-02 | 4.21E-03 | 1.55E-03 | 4.51E-03 |
| 2.135E+03 | 36 | 8.25E-03 | 9.44E-03 | 8.91E-03 | 1.05E-02 | 1.21E-02 | 1.57E-02 | 3.45E-02 | 8.29E-02 | 1.33E-02 | 3.91E-03 | 1.35E-02 |
| 2.074E+03 | 35 | 1.86E-02 | 2.42E-02 | 3.18E-02 | 3.78E-02 | 4.23E-02 | 4.66E-02 | 1.07E-01 | 2.29E-01 | 2.72E-02 | 7.30E-03 | 3.14E-02 |
| 2.013E+03 | 34 | 4.11E-02 | 5.95E-02 | 8.61E-02 | 1.08E-01 | 1.27E-01 | 1.76E-01 | 3.18E-01 | 4.06E-01 | 8.20E-01 | 2.22E-01 | 1.39E-01 |
| 1.952E+03 | 33 | 1.27E-01 | 1.83E-01 | 2.44E-01 | 2.90E-01 | 3.22E-01 | 4.24E-01 | 7.10E-01 | 8.29E-01 | 1.12E+00 | 3.65E-01 | 2.38E-01 |
| 1.922E+03 | 32 | 2.26E-01 | 3.38E-01 | 4.55E-01 | 5.29E-01 | 5.76E-01 | 7.40E-01 | 1.20E+00 | 1.32E+00 | 1.58E+00 | 3.93E-01 | 2.99E-01 |
| 1.891E+03 | 31 | 3.59E-01 | 4.61E-01 | 6.48E-01 | 7.73E-01 | 8.38E-01 | 1.06E+00 | 1.68E+00 | 1.76E+00 | 1.89E+00 | 3.22E-01 | 3.05E-01 |
| 1.861E+03 | 30 | 5.34E-01 | 7.63E-01 | 1.03E+00 | 1.17E+00 | 1.22E+00 | 1.50E+00 | 2.30E+00 | 2.75E+00 | 2.34E+00 | 2.03E+00 | 6.48E-01 |
| 1.830E+03 | 29 | 7.54E-01 | 1.06E+00 | 1.41E+00 | 1.56E+00 | 1.62E+00 | 1.97E+00 | 2.95E+00 | 3.35E+00 | 2.61E+00 | 2.56E+00 | 9.93E-01 |
| 1.800E+03 | 28 | 9.94E-01 | 1.39E+00 | 1.80E+00 | 1.98E+00 | 2.13E+00 | 2.52E+00 | 3.60E+00 | 3.80E+00 | 2.67E+00 | 2.49E+00 | 1.06E+00 |
| 1.769E+03 | 27 | 1.21E+00 | 1.71E+00 | 2.11E+00 | 2.39E+00 | 2.94E+00 | 3.12E+00 | 4.10E+00 | 4.02E+00 | 3.31E+00 | 1.87E+00 | 9.71E-01 |
| 1.739E+03 | 26 | 1.44E+00 | 2.00E+00 | 2.38E+00 | 2.60E+00 | 3.11E+00 | 3.23E+00 | 4.12E+00 | 3.87E+00 | 3.14E+00 | 1.66E+00 | 8.15E-01 |
| 1.708E+03 | 25 | 1.61E+00 | 2.18E+00 | 2.53E+00 | 2.70E+00 | 2.94E+00 | 3.02E+00 | 3.69E+00 | 3.45E+00 | 2.77E+00 | 1.45E+00 | 6.06E-01 |
| 1.678E+03 | 24 | 1.58E+00 | 2.02E+00 | 2.40E+00 | 2.42E+00 | 2.33E+00 | 2.64E+00 | 3.11E+00 | 2.94E+00 | 2.30E+00 | 1.32E+00 | 4.49E-01 |
| 1.647E+03 | 23 | 1.35E+00 | 1.62E+00 | 1.93E+00 | 2.13E+00 | 1.99E+00 | 2.25E+00 | 2.58E+00 | 2.31E+00 | 1.76E+00 | 9.61E-01 | 1.03E+00 |
| 1.617E+03 | 22 | 9.79E-01 | 1.15E+00 | 1.31E+00 | 1.50E+00 | 1.45E+00 | 1.55E+00 | 1.74E+00 | 1.56E+00 | 1.19E+00 | 6.29E-01 | 5.34E-01 |
| 1.586E+03 | 21 | 6.11E-01 | 7.11E-01 | 7.94E-01 | 9.02E-01 | 8.55E-01 | 9.57E-01 | 1.04E+00 | 9.93E-01 | 7.80E-01 | 4.61E-01 | 3.55E-01 |
| 1.556E+03 | 20 | 3.26E-01 | 3.74E-01 | 4.09E-01 | 4.60E-01 | 4.36E-01 | 4.80E-01 | 5.20E-01 | 4.70E-01 | 3.59E-01 | 2.28E-01 | 1.78E-01 |
| 1.525E+03 | 19 | 1.44E-01 | 1.62E-01 | 1.76E-01 | 1.82E-01 | 1.82E-01 | 1.92E-01 | 2.02E-01 | 1.82E-01 | 1.40E-01 | 9.38E-02 | 7.36E-02 |
| 1.495E+03 | 18 | 4.96E-02 | 5.48E-02 | 6.03E-02 | 5.87E-02 | 5.64E-02 | 5.89E-02 | 5.91E-02 | 5.67E-02 | 4.54E-02 | 3.54E-02 | 2.61E-02 |
| 1.464E+03 | 17 | 1.18E-02 | 1.29E-02 | 1.40E-02 | 1.33E-02 | 1.23E-02 | 1.26E-02 | 1.26E-02 | 1.20E-02 | 1.02E-02 | 8.89E-03 | 6.77E-03 |
| 1.434E+03 | 16 | 1.73E-03 | 1.85E-03 | 1.94E-03 | 1.80E-03 | 1.59E-03 | 1.51E-03 | 1.45E-03 | 1.40E-03 | 1.29E-03 | 1.24E-03 | 9.92E-04 |
| 1.403E+03 | 15 | 1.46E-04 | 1.49E-04 | 1.45E-04 | 1.27E-04 | 1.01E-04 | 7.86E-05 | 6.52E-05 | 6.39E-05 | 6.58E-05 | 7.19E-05 | 7.69E-05 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.39E-32 | 5.76E-06 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.73E-36 | 6.84E-07 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.93E-38 | 1.27E-08 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.79E-39 | 4.69E-10 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.26E-40 | 2.41E-11 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.25E-42 | 3.24E-12 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.92E-43 | 2.21E-12 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.40E-13 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.02E-14 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.15E-15 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.61E-17 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.05E-18 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |
| Y | J | | | | | | | | | | | |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.684E+03 | 41 | 7.06E-08 | 4.54E-08 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.501E+03 | 40 | 1.72E-05 | 8.53E-06 | 3.38E-06 | 5.98E-07 | 1.50E-07 | 5.07E-08 | 2.18E-08 | 1.21E-08 | 1.09E-08 | 0.00E+00 | |
| 2.379E+03 | 39 | 1.41E-04 | 7.49E-05 | 3.75E-05 | 1.16E-05 | 3.82E-06 | 1.45E-06 | 6.65E-07 | 3.85E-07 | 3.09E-07 | 0.00E+00 | |
| 2.257E+03 | 38 | 7.05E-04 | 3.79E-04 | 2.10E-04 | 7.97E-05 | 2.86E-05 | 1.12E-05 | 5.04E-06 | 2.83E-06 | 2.34E-06 | 0.00E+00 | |
| 2.196E+03 | 37 | 3.29E-03 | 1.60E-03 | 7.78E-04 | 2.99E-04 | 1.02E-04 | 3.80E-05 | 1.61E-05 | 8.43E-06 | 5.87E-06 | 0.00E+00 | |
| 2.135E+03 | 36 | 1.06E-02 | 5.48E-03 | 2.89E-03 | 1.25E-03 | 4.10E-04 | 1.48E-04 | 5.98E-05 | 2.87E-05 | 2.86E-05 | 0.00E+00 | |
| 2.074E+03 | 35 | 2.66E-02 | 1.52E-02 | 9.02E-03 | 4.34E-03 | 1.50E-03 | 5.53E-04 | 2.19E-04 | 9.46E-05 | 5.86E-05 | 0.00E+00 | |
| 2.013E+03 | 34 | 1.04E-01 | 4.82E-02 | 2.87E-02 | 1.46E-02 | 5.29E-03 | 1.99E-03 | 7.72E-04 | 2.90E-04 | 3.86E-04 | 0.00E+00 | |
| 1.952E+03 | 33 | 1.87E-01 | 9.69E-02 | 6.01E-02 | 3.19E-02 | 1.20E-02 | 4.58E-03 | 1.73E-03 | 5.66E-04 | 3.93E-04 | 0.00E+00 | |
| 1.922E+03 | 32 | 2.51E-01 | 1.44E-01 | 9.27E-02 | 5.09E-02 | 1.96E-02 | 7.62E-03 | 2.77E-03 | 5.58E-03 | 1.36E-04 | 0.00E+00 | |
| 1.891E+03 | 31 | 2.88E-01 | 1.94E-01 | 1.34E-01 | 7.75E-02 | 3.12E-02 | 1.26E-02 | 4.53E-03 | 5.55E-03 | 1.35E-04 | 0.00E+00 | |
| 1.861E+03 | 30 | 4.77E-01 | 2.78E-01 | 1.94E-01 | 1.16E-01 | 4.90E-02 | 2.12E-02 | 2.06E-02 | 9.43E-12 | 9.10E-14 | 0.00E+00 | |
| 1.830E+03 | 29 | 6.86E-01 | 3.89E-01 | 2.74E-01 | 1.67E-01 | 7.46E-02 | 3.47E-02 | 3.39E-02 | 5.99E-12 | 8.56E-18 | 0.00E+00 | |
| 1.800E+03 | 28 | 7.65E-01 | 4.82E-01 | 3.58E-01 | 2.29E-01 | 1.09E-01 | 5.39E-02 | 7.10E-02 | 9.73E-05 | 2.18E-08 | 0.00E+00 | |
| 1.769E+03 | 27 | 7.55E-01 | 5.41E-01 | 4.29E-01 | 2.84E-01 | 1.47E-01 | 7.79E-02 | 7.25E-02 | 9.79E-05 | 2.25E-08 | 0.00E+00 | |
| 1.739E+03 | 26 | 6.65E-01 | 5.56E-01 | 4.72E-01 | 3.26E-01 | 1.86E-01 | 1.06E-01 | 1.05E-01 | 1.59E-11 | 2.34E-17 | 0.00E+00 | |
| 1.708E+03 | 25 | 5.41E-01 | 5.05E-01 | 4.53E-01 | 3.44E-01 | 2.21E-01 | 1.37E-01 | 1.97E-01 | 2.06E-04 | 4.09E-08 | 0.00E+00 | |
| 1.678E+03 | 24 | 3.87E-01 | 3.96E-01 | 4.08E-01 | 3.40E-01 | 2.46E-01 | 1.64E-01 | 1.90E-01 | 2.08E-04 | 4.26E-08 | 0.00E+00 | |
| 1.647E+03 | 23 | 3.83E-01 | 3.43E-01 | 3.58E-01 | 3.19E-01 | 2.62E-01 | 1.90E-01 | 1.90E-01 | 2.57E-11 | 3.01E-17 | 0.00E+00 | |
| 1.617E+03 | 22 | 3.45E-01 | 2.94E-01 | 3.05E-01 | 2.88E-01 | 2.67E-01 | 2.10E-01 | 3.34E-01 | 2.64E-04 | 4.69E-08 | 0.00E+00 | |
| 1.586E+03 | 21 | 2.70E-01 | 2.40E-01 | 2.50E-01 | 2.49E-01 | 2.61E-01 | 2.23E-01 | 3.17E-01 | 2.68E-04 | 4.92E-08 | 0.00E+00 | |
| 1.556E+03 | 20 | 1.63E-01 | 1.65E-01 | 1.91E-01 | 2.04E-01 | 2.48E-01 | 2.30E-01 | 2.35E-01 | 2.85E-11 | 2.38E-17 | 0.00E+00 | |
| 1.525E+03 | 19 | 7.96E-02 | 9.71E-02 | 1.35E-01 | 1.58E-01 | 2.27E-01 | 2.31E-01 | 3.95E-01 | 1.89E-04 | 2.86E-08 | 0.00E+00 | |
| 1.495E+03 | 18 | 2.29E-02 | 4.64E-02 | 9.09E-02 | 1.17E-01 | 2.02E-01 | 2.28E-01 | 3.80E-01 | 1.94E-04 | 3.03E-08 | 0.00E+00 | |
| 1.464E+03 | 17 | 5.43E-03 | 2.17E-02 | 4.85E-02 | 8.57E-02 | 1.77E-01 | 2.21E-01 | 2.54E-01 | 2.36E-11 | 8.52E-18 | 0.00E+00 | |
| 1.434E+03 | 16 | 1.40E-03 | 8.83E-03 | 2.20E-02 | 5.88E-02 | 1.51E-01 | 2.05E-01 | 2.71E-04 | 4.79E-08 | 5.42E-12 | 0.00E+00 | |
| 1.403E+03 | 15 | 3.10E-04 | 3.27E-03 | 1.04E-02 | 3.89E-02 | 1.27E-01 | 1.95E-01 | 2.73E-04 | 5.03E-08 | 5.88E-12 | 0.00E+00 | |
| 1.373E+03 | 14 | 3.25E-05 | 1.84E-03 | 5.13E-03 | 2.56E-02 | 1.05E-01 | 1.09E-01 | 1.06E-11 | 1.65E-17 | 1.56E-21 | 0.00E+00 | |
| 1.342E+03 | 13 | 4.16E-06 | 8.66E-04 | 3.00E-03 | 1.78E-02 | 8.90E-02 | 1.50E-01 | 7.59E-05 | 1.17E-08 | 1.39E-12 | 0.00E+00 | |
| 1.312E+03 | 12 | 7.39E-07 | 4.72E-04 | 1.68E-03 | 1.31E-02 | 7.95E-02 | 1.42E-01 | 7.84E-05 | 1.25E-08 | 1.51E-12 | 0.00E+00 | |
| 1.281E+03 | 11 | 1.18E-07 | 1.33E-04 | 8.40E-04 | 1.27E-02 | 8.44E-02 | 8.60E-02 | 6.77E-12 | 2.44E-18 | 2.67E-22 | 0.00E+00 | |
| 1.220E+03 | 10 | 2.49E-08 | 2.68E-05 | 3.53E-04 | 1.16E-02 | 7.11E-02 | 3.69E-02 | 1.29E-05 | 2.99E-09 | 5.68E-13 | 0.00E+00 | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.159E+03 | 9 | 6.67E-09 | 7.47E-06 | 1.25E-04 | 9.38E-03 | 6.07E-02 | 4.00E-02 | 1.40E-05 | 3.22E-09 | 6.22E-13 | 0.00E+00 |
| 1.098E+03 | 8 | 2.02E-09 | 2.46E-06 | 5.03E-05 | 3.88E-03 | 4.54E-02 | 4.30E-02 | 3.08E-12 | 3.46E-19 | 5.87E-23 | 0.00E+00 |
| 1.037E+03 | 7 | 6.75E-10 | 9.41E-07 | 2.15E-05 | 2.06E-03 | 3.76E-02 | 2.76E-02 | 1.04E-05 | 2.52E-09 | 4.99E-13 | 0.00E+00 |
| 9.760E+02 | 6 | 1.37E-10 | 1.95E-07 | 8.09E-06 | 9.75E-04 | 2.89E-02 | 2.75E-02 | 1.16E-05 | 2.82E-09 | 5.74E-13 | 0.00E+00 |
| 8.540E+02 | 5 | 1.17E-11 | 1.91E-08 | 2.15E-06 | 2.80E-04 | 1.29E-02 | 1.06E-02 | 7.34E-06 | 3.22E-09 | 1.14E-12 | 0.00E+00 |
| 7.320E+02 | 4 | 8.99E-13 | 7.98E-09 | 7.85E-07 | 1.62E-04 | 9.25E-03 | 1.05E-02 | 7.68E-06 | 3.52E-09 | 1.28E-12 | 0.00E+00 |
| 5.490E+02 | 3 | 5.91E-14 | 1.26E-09 | 3.43E-07 | 7.20E-05 | 9.34E-03 | 9.68E-03 | 7.26E-06 | 3.35E-09 | 1.22E-12 | 0.00E+00 |
| 3.050E+02 | 2 | 5.87E-16 | 4.80E-10 | 1.43E-06 | 1.19E-04 | 1.01E-02 | 7.98E-03 | 5.67E-06 | 2.49E-09 | 8.72E-13 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 12 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.76E-30 | 5.70E-27 | 1.66E-25 | 2.36E-24 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.66E-27 | 1.23E-24 | 3.57E-23 | 5.02E-22 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.37E-25 | 1.02E-22 | 2.92E-21 | 4.04E-20 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.27E-24 | 4.71E-21 | 1.32E-19 | 1.79E-18 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.68E-22 | 1.28E-19 | 3.51E-18 | 4.62E-17 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.60E-21 | 2.00E-18 | 5.33E-17 | 6.76E-16 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.43E-20 | 2.65E-17 | 6.74E-16 | 8.09E-15 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.83E-19 | 2.95E-16 | 6.97E-15 | 7.74E-14 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.61E-18 | 2.73E-15 | 5.74E-14 | 5.72E-13 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.32E-17 | 1.65E-14 | 2.85E-13 | 2.43E-12 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.60E-17 | 6.04E-14 | 7.80E-13 | 5.57E-12 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.05E-15 | 1.68E-13 | 1.43E-12 | 8.59E-12 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.52E-14 | 3.19E-13 | 2.82E-12 | 1.70E-11 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.36E-15 | 1.05E-13 | 1.00E-12 | 6.34E-12 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.73E-14 | 2.05E-13 | 1.95E-12 | 1.22E-11 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.72E-14 | 3.10E-13 | 2.98E-12 | 1.86E-11 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.08E-14 | 4.11E-13 | 4.08E-12 | 2.55E-11 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.66E-14 | 4.99E-13 | 5.17E-12 | 3.26E-11 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.18E-14 | 6.38E-13 | 6.23E-12 | 4.07E-11 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.43E-14 | 7.69E-13 | 6.81E-12 | 5.36E-11 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.50E-14 | 8.81E-13 | 6.27E-12 | 1.40E-10 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.45E-14 | 9.52E-13 | 9.26E-12 | 1.19E-10 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.69E-14 | 1.19E-12 | 1.59E-11 | 2.86E-11 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.29E-14 | 5.03E-12 | 9.37E-11 | 7.47E-11 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.96E-14 | 3.41E-12 | 5.92E-11 | 4.69E-11 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.33E-14 | 1.53E-12 | 2.77E-11 | 2.27E-11 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.78E-15 | 3.79E-13 | 7.47E-12 | 7.17E-12 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 2.18E-23 | 1.48E-22 | 7.87E-22 | 3.44E-21 | 1.29E-20 | 4.37E-20 | 1.35E-19 | 3.76E-19 | 9.29E-19 | 2.10E-18 | 4.99E-18 |
| 2.501E+03 | 40 | 4.58E-21 | 3.05E-20 | 1.59E-19 | 6.80E-19 | 2.53E-18 | 8.53E-18 | 2.63E-17 | 7.32E-17 | 1.75E-16 | 3.91E-16 | 1.09E-15 |
| 2.379E+03 | 39 | 3.60E-19 | 2.34E-18 | 1.19E-17 | 4.92E-17 | 1.79E-16 | 5.95E-16 | 1.80E-15 | 4.79E-15 | 1.02E-14 | 2.19E-14 | 7.68E-14 |
| 2.257E+03 | 38 | 1.56E-17 | 9.89E-17 | 4.87E-16 | 1.95E-15 | 6.99E-15 | 2.32E-14 | 6.90E-14 | 1.69E-13 | 2.84E-13 | 5.87E-13 | 2.94E-12 |
| 2.196E+03 | 37 | 3.91E-16 | 2.40E-15 | 1.14E-14 | 4.45E-14 | 1.62E-13 | 5.63E-13 | 1.75E-12 | 4.26E-12 | 5.70E-12 | 1.09E-11 | 8.07E-11 |
| 2.135E+03 | 36 | 5.49E-15 | 3.23E-14 | 1.48E-13 | 5.55E-13 | 2.10E-12 | 7.80E-12 | 2.54E-11 | 6.11E-11 | 6.60E-11 | 9.42E-11 | 1.42E-09 |
| 2.074E+03 | 35 | 6.20E-14 | 3.44E-13 | 1.48E-12 | 5.27E-12 | 2.12E-11 | 8.45E-11 | 2.92E-10 | 7.58E-10 | 8.66E-10 | 1.08E-08 | 3.06E-08 |
| 2.013E+03 | 34 | 5.51E-13 | 2.82E-12 | 1.11E-11 | 3.63E-11 | 1.58E-10 | 6.24E-10 | 2.02E-09 | 4.84E-09 | 5.05E-09 | 5.43E-08 | 1.35E-07 |
| 1.952E+03 | 33 | 3.70E-12 | 1.75E-11 | 6.43E-11 | 1.91E-10 | 9.05E-10 | 3.06E-09 | 8.31E-09 | 1.69E-08 | 1.47E-08 | 1.17E-07 | 2.53E-07 |
| 1.922E+03 | 32 | 1.41E-11 | 6.29E-11 | 2.75E-10 | 1.48E-09 | 3.33E-09 | 7.33E-09 | 1.58E-08 | 2.56E-08 | 1.60E-08 | 4.34E-08 | 1.74E-07 |
| 1.891E+03 | 31 | 2.89E-11 | 1.20E-10 | 5.04E-10 | 2.84E-09 | 6.61E-09 | 1.58E-08 | 3.57E-08 | 5.58E-08 | 2.83E-08 | 4.02E-08 | 8.46E-08 |
| 1.861E+03 | 30 | 4.05E-11 | 1.59E-10 | 5.42E-10 | 2.34E-09 | 7.74E-09 | 2.14E-08 | 5.13E-08 | 8.43E-08 | 5.27E-08 | 6.93E-08 | 1.37E-07 |
| 1.830E+03 | 29 | 7.96E-11 | 3.11E-10 | 1.06E-09 | 3.26E-09 | 9.32E-09 | 2.42E-08 | 5.67E-08 | 1.07E-07 | 1.27E-07 | 1.09E-07 | 1.59E-07 |
| 1.800E+03 | 28 | 3.07E-11 | 1.22E-10 | 4.27E-10 | 1.30E-09 | 3.58E-09 | 8.99E-09 | 2.14E-08 | 4.82E-08 | 1.06E-07 | 1.22E-07 | 1.71E-07 |
| 1.769E+03 | 27 | 5.85E-11 | 2.30E-10 | 7.86E-10 | 2.32E-09 | 6.11E-09 | 1.50E-08 | 3.53E-08 | 8.05E-08 | 1.71E-07 | 2.02E-07 | 2.95E-07 |
| 1.739E+03 | 26 | 8.82E-11 | 3.41E-10 | 1.15E-09 | 3.22E-09 | 8.30E-09 | 2.06E-08 | 4.99E-08 | 1.18E-07 | 2.65E-07 | 3.79E-07 | 6.26E-07 |
| 1.708E+03 | 25 | 1.21E-10 | 4.57E-10 | 1.53E-09 | 3.91E-09 | 1.10E-08 | 3.04E-08 | 8.00E-08 | 2.02E-07 | 4.86E-07 | 1.09E-06 | 2.09E-06 |
| 1.678E+03 | 24 | 1.55E-10 | 5.66E-10 | 1.87E-09 | 3.81E-09 | 2.75E-08 | 1.31E-07 | 4.00E-07 | 1.07E-06 | 2.63E-06 | 6.08E-06 | 1.09E-05 |
| 1.647E+03 | 23 | 2.00E-10 | 6.66E-10 | 2.18E-09 | 4.91E-09 | 3.64E-08 | 1.81E-07 | 5.58E-07 | 1.49E-06 | 3.63E-06 | 8.39E-06 | 1.37E-05 |
| 1.617E+03 | 22 | 2.94E-10 | 7.93E-10 | 2.99E-09 | 8.32E-09 | 6.61E-08 | 3.01E-07 | 8.74E-07 | 2.22E-06 | 5.23E-06 | 1.16E-05 | 1.11E-05 |
| 1.586E+03 | 21 | 1.20E-09 | 9.81E-10 | 7.74E-09 | 4.10E-08 | 1.40E-07 | 3.94E-07 | 1.01E-06 | 2.42E-06 | 5.48E-06 | 1.19E-05 | 2.37E-05 |
| 1.556E+03 | 20 | 1.30E-09 | 1.83E-09 | 9.34E-09 | 4.01E-08 | 1.25E-07 | 3.37E-07 | 8.29E-07 | 1.91E-06 | 4.16E-06 | 8.65E-06 | 1.70E-05 |
| 1.525E+03 | 19 | 5.99E-10 | 3.83E-09 | 1.37E-08 | 4.04E-08 | 1.07E-07 | 2.63E-07 | 6.08E-07 | 1.33E-06 | 2.77E-06 | 5.50E-06 | 1.04E-05 |
| 1.495E+03 | 18 | 4.84E-10 | 2.56E-09 | 8.89E-09 | 2.56E-08 | 6.63E-08 | 1.58E-07 | 3.53E-07 | 7.43E-07 | 1.49E-06 | 2.84E-06 | 5.21E-06 |
| 1.464E+03 | 17 | 3.01E-10 | 1.49E-09 | 4.89E-09 | 1.35E-08 | 3.34E-08 | 7.63E-08 | 1.63E-07 | 3.29E-07 | 6.28E-07 | 1.15E-06 | 2.02E-06 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.434E+03 | 16 | 1.52E-10 | 6.70E-10 | 2.00E-09 | 5.18E-09 | 1.22E-08 | 2.65E-08 | 5.37E-08 | 1.02E-07 | 1.85E-07 | 3.21E-07 | 5.38E-07 |
| 1.403E+03 | 15 | 4.79E-11 | 1.53E-10 | 4.27E-10 | 1.05E-09 | 2.36E-09 | 4.87E-09 | 9.33E-09 | 1.67E-08 | 2.83E-08 | 4.62E-08 | 7.34E-08 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 1.93E-17 | 8.81E-17 | 2.80E-16 | 1.36E-15 | 4.30E-15 | 5.32E-15 | 6.44E-15 | 7.62E-15 | 8.84E-15 | 1.01E-14 | 2.12E-11 |
| 2.501E+03 | 40 | 6.57E-15 | 3.68E-14 | 1.20E-13 | 9.59E-13 | 5.21E-12 | 2.97E-11 | 1.38E-10 | 4.76E-10 | 1.77E-09 | 8.43E-09 | 2.29E-08 |
| 2.379E+03 | 39 | 6.55E-13 | 3.71E-12 | 1.12E-11 | 8.06E-11 | 3.33E-10 | 1.72E-09 | 6.74E-09 | 1.85E-08 | 6.28E-08 | 2.60E-07 | 5.39E-07 |
| 2.257E+03 | 38 | 3.01E-11 | 1.49E-10 | 5.50E-10 | 2.62E-09 | 7.91E-09 | 4.05E-08 | 1.24E-07 | 2.40E-07 | 7.45E-07 | 2.67E-06 | 4.30E-06 |
| 2.196E+03 | 37 | 8.08E-10 | 3.40E-09 | 1.58E-08 | 6.76E-08 | 2.97E-07 | 5.89E-07 | 1.02E-06 | 1.66E-06 | 2.83E-06 | 5.69E-06 | 1.04E-05 |
| 2.135E+03 | 36 | 9.94E-09 | 3.84E-08 | 1.16E-07 | 3.67E-07 | 1.40E-06 | 2.33E-06 | 3.84E-06 | 6.46E-06 | 1.09E-05 | 1.81E-05 | 2.93E-05 |
| 2.074E+03 | 35 | 7.67E-08 | 1.79E-07 | 3.94E-07 | 8.27E-07 | 1.98E-06 | 4.22E-06 | 8.49E-06 | 1.55E-05 | 2.66E-05 | 4.39E-05 | 6.92E-05 |
| 2.013E+03 | 34 | 3.12E-07 | 6.99E-07 | 1.49E-06 | 3.03E-06 | 5.81E-06 | 1.11E-05 | 1.99E-05 | 3.30E-05 | 5.31E-05 | 8.39E-05 | 1.27E-04 |
| 1.952E+03 | 33 | 5.92E-07 | 1.35E-06 | 2.92E-06 | 5.94E-06 | 1.01E-05 | 1.54E-05 | 1.94E-05 | 2.70E-05 | 4.02E-05 | 6.14E-05 | 9.26E-05 |
| 1.922E+03 | 32 | 5.40E-07 | 1.38E-06 | 3.13E-06 | 6.58E-06 | 1.22E-05 | 1.92E-05 | 2.68E-05 | 4.32E-05 | 7.23E-05 | 1.19E-04 | 1.79E-04 |
| 1.891E+03 | 31 | 2.08E-07 | 5.06E-07 | 1.17E-06 | 2.62E-06 | 5.53E-06 | 1.25E-05 | 2.80E-05 | 5.73E-05 | 1.06E-04 | 1.79E-04 | 2.71E-04 |
| 1.861E+03 | 30 | 3.24E-07 | 8.16E-07 | 1.99E-06 | 4.71E-06 | 1.04E-05 | 2.24E-05 | 4.86E-05 | 9.87E-05 | 1.73E-04 | 2.86E-04 | 4.33E-04 |
| 1.830E+03 | 29 | 3.16E-07 | 9.82E-07 | 2.92E-06 | 7.81E-06 | 1.85E-05 | 4.12E-05 | 9.05E-05 | 1.83E-04 | 2.73E-04 | 4.77E-04 | 7.69E-04 |
| 1.800E+03 | 28 | 2.72E-07 | 1.77E-06 | 1.05E-05 | 3.40E-05 | 8.56E-05 | 1.94E-04 | 4.21E-04 | 7.75E-04 | 4.23E-04 | 9.73E-04 | 2.32E-03 |
| 1.769E+03 | 27 | 4.80E-07 | 2.77E-06 | 1.65E-05 | 5.30E-05 | 1.32E-04 | 2.92E-04 | 6.18E-04 | 1.12E-03 | 7.06E-04 | 1.44E-03 | 3.17E-03 |
| 1.739E+03 | 26 | 9.73E-07 | 4.57E-06 | 2.64E-05 | 8.07E-05 | 1.93E-04 | 4.04E-04 | 8.39E-04 | 1.57E-03 | 2.56E-03 | 3.66E-03 | 4.91E-03 |
| 1.708E+03 | 25 | 2.36E-06 | 7.59E-06 | 3.95E-05 | 1.10E-04 | 2.39E-04 | 4.99E-04 | 1.04E-03 | 1.98E-03 | 3.47E-03 | 5.60E-03 | 7.26E-03 |
| 1.678E+03 | 24 | 8.27E-06 | 1.96E-05 | 5.69E-05 | 1.23E-04 | 2.13E-04 | 5.32E-04 | 1.23E-03 | 2.47E-03 | 4.46E-03 | 7.16E-03 | 4.52E-03 |
| 1.647E+03 | 23 | 1.29E-05 | 3.88E-05 | 9.61E-05 | 1.23E-04 | 9.62E-05 | 2.82E-04 | 9.26E-04 | 2.18E-03 | 4.36E-03 | 7.89E-03 | 1.31E-02 |
| 1.617E+03 | 22 | 1.43E-05 | 4.41E-05 | 1.04E-04 | 1.56E-04 | 3.21E-04 | 6.55E-04 | 1.29E-03 | 2.40E-03 | 4.30E-03 | 7.27E-03 | 1.17E-02 |
| 1.586E+03 | 21 | 3.24E-05 | 6.06E-05 | 1.09E-04 | 1.45E-04 | 2.58E-04 | 4.99E-04 | 9.51E-04 | 1.72E-03 | 3.03E-03 | 5.07E-03 | 8.07E-03 |
| 1.556E+03 | 20 | 3.09E-05 | 5.59E-05 | 9.53E-05 | 1.14E-04 | 1.51E-04 | 2.78E-04 | 5.32E-04 | 9.71E-04 | 1.71E-03 | 2.86E-03 | 4.56E-03 |
| 1.525E+03 | 19 | 1.90E-05 | 3.34E-05 | 5.45E-05 | 6.26E-05 | 7.73E-05 | 1.37E-04 | 2.58E-04 | 4.64E-04 | 8.07E-04 | 1.35E-03 | 2.14E-03 |
| 1.495E+03 | 18 | 9.19E-06 | 1.56E-05 | 2.46E-05 | 2.72E-05 | 3.18E-05 | 5.29E-05 | 9.42E-05 | 1.65E-04 | 2.82E-04 | 4.68E-04 | 7.50E-04 |
| 1.464E+03 | 17 | 3.42E-06 | 5.60E-06 | 8.51E-06 | 8.99E-06 | 1.00E-05 | 1.48E-05 | 2.38E-05 | 3.99E-05 | 6.72E-05 | 1.15E-04 | 1.90E-04 |
| 1.434E+03 | 16 | 8.75E-07 | 1.38E-06 | 2.13E-06 | 3.08E-06 | 4.47E-06 | 6.52E-06 | 7.44E-06 | 1.10E-05 | 1.38E-05 | 2.18E-05 | 3.47E-05 |
| 1.403E+03 | 15 | 1.14E-07 | 1.74E-07 | 2.62E-07 | 3.86E-07 | 5.60E-07 | 7.90E-07 | 8.61E-07 | 1.20E-06 | 1.42E-06 | 2.16E-06 | 3.37E-06 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 3.90E-10 | 1.86E-09 | 7.49E-09 | 1.85E-08 | 4.52E-08 | 7.27E-08 | 8.37E-08 | 1.05E-07 | 1.29E-07 | 1.36E-07 | 1.43E-07 |
| 2.501E+03 | 40 | 4.89E-08 | 9.40E-08 | 1.77E-07 | 4.16E-07 | 9.90E-07 | 1.55E-06 | 1.85E-06 | 2.18E-06 | 2.65E-06 | 2.90E-06 | 3.03E-06 |
| 2.379E+03 | 39 | 9.46E-07 | 1.59E-06 | 2.72E-06 | 6.13E-06 | 1.36E-05 | 2.00E-05 | 2.90E-05 | 2.43E-05 | 2.74E-05 | 3.15E-05 | 3.45E-05 |
| 2.257E+03 | 38 | 6.56E-06 | 1.02E-05 | 1.68E-05 | 3.72E-05 | 7.67E-05 | 1.07E-04 | 1.41E-04 | 1.47E-04 | 1.49E-04 | 1.77E-04 | 2.16E-04 |
| 2.196E+03 | 37 | 1.75E-05 | 2.84E-05 | 4.50E-05 | 7.13E-05 | 1.15E-04 | 1.71E-04 | 2.33E-04 | 5.23E-04 | 6.29E-04 | 7.54E-04 | 9.28E-04 |
| 2.135E+03 | 36 | 4.48E-05 | 6.93E-05 | 1.04E-04 | 1.50E-04 | 2.13E-04 | 2.97E-04 | 4.05E-04 | 9.10E-04 | 1.20E-03 | 1.64E-03 | 2.24E-03 |
| 2.074E+03 | 35 | 9.27E-05 | 1.16E-04 | 1.35E-04 | 1.66E-04 | 2.10E-04 | 2.70E-04 | 3.52E-04 | 6.65E-04 | 1.89E-03 | 3.86E-03 | 5.91E-03 |
| 2.013E+03 | 34 | 1.70E-04 | 2.02E-04 | 2.37E-04 | 3.00E-04 | 3.96E-04 | 5.16E-04 | 6.70E-04 | 1.19E-03 | 3.18E-03 | 6.62E-03 | 1.12E-02 |
| 1.952E+03 | 33 | 1.29E-04 | 1.93E-04 | 2.98E-04 | 4.46E-04 | 6.44E-04 | 7.87E-04 | 1.42E-03 | 1.98E-03 | 1.55E-02 | 4.09E-02 | 8.01E-02 |
| 1.922E+03 | 32 | 2.23E-04 | 3.25E-04 | 5.10E-04 | 7.38E-04 | 1.08E-03 | 1.30E-03 | 2.24E-03 | 3.66E-03 | 2.58E-02 | 6.51E-02 | 1.28E-01 |
| 1.891E+03 | 31 | 3.26E-04 | 4.19E-04 | 6.50E-04 | 8.00E-04 | 1.80E-03 | 3.54E-03 | 2.19E-03 | 9.58E-03 | 3.99E-02 | 9.17E-02 | 1.90E-01 |
| 1.861E+03 | 30 | 5.08E-04 | 5.15E-04 | 7.63E-04 | 8.93E-04 | 1.71E-03 | 4.27E-03 | 7.95E-03 | 2.40E-02 | 6.69E-02 | 1.42E-01 | 2.81E-01 |
| 1.830E+03 | 29 | 9.14E-04 | 8.99E-04 | 1.37E-03 | 1.44E-03 | 3.19E-03 | 8.30E-03 | 1.60E-02 | 4.23E-02 | 1.06E-01 | 2.15E-01 | 4.10E-01 |
| 1.800E+03 | 28 | 3.12E-03 | 5.29E-03 | 8.51E-03 | 1.34E-02 | 1.95E-02 | 2.73E-02 | 3.91E-02 | 7.64E-02 | 1.60E-01 | 3.02E-01 | 5.36E-01 |
| 1.769E+03 | 27 | 4.07E-03 | 6.30E-03 | 7.69E-03 | 1.07E-02 | 1.59E-02 | 2.36E-02 | 3.61E-02 | 8.03E-02 | 1.89E-01 | 3.87E-01 | 5.47E-01 |
| 1.739E+03 | 26 | 6.22E-03 | 7.19E-03 | 3.59E-03 | 3.57E-03 | 8.00E-03 | 1.60E-02 | 3.01E-02 | 8.42E-02 | 2.28E-01 | 4.99E-01 | 6.79E-01 |
| 1.708E+03 | 25 | 1.11E-02 | 1.47E-02 | 7.28E-03 | 6.72E-03 | 1.42E-02 | 2.73E-02 | 4.93E-02 | 1.24E-01 | 3.07E-01 | 6.33E-01 | 8.12E-01 |
| 1.678E+03 | 24 | 7.75E-03 | 1.52E-02 | 2.19E-02 | 2.63E-02 | 3.91E-02 | 5.96E-02 | 9.11E-02 | 1.83E-01 | 3.84E-01 | 7.17E-01 | 8.65E-01 |
| 1.647E+03 | 23 | 2.03E-02 | 2.96E-02 | 4.03E-02 | 4.71E-02 | 6.29E-02 | 8.62E-02 | 1.20E-01 | 2.10E-01 | 3.96E-01 | 6.73E-01 | 7.67E-01 |
| 1.617E+03 | 22 | 1.79E-02 | 2.58E-02 | 3.48E-02 | 4.06E-02 | 5.39E-02 | 7.35E-02 | 1.02E-01 | 1.76E-01 | 3.28E-01 | 5.07E-01 | 5.59E-01 |
| 1.586E+03 | 21 | 1.22E-02 | 1.76E-02 | 2.37E-02 | 2.76E-02 | 3.67E-02 | 4.99E-02 | 6.90E-02 | 1.20E-01 | 2.16E-01 | 2.79E-01 | 3.31E-01 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.556E+03 | 20 | 6.93E-03 | 9.98E-03 | 1.34E-02 | 1.56E-02 | 2.07E-02 | 2.83E-02 | 3.91E-02 | 6.80E-02 | 1.21E-01 | 1.53E-01 | 1.77E-01 |
| 1.525E+03 | 19 | 3.25E-03 | 4.68E-03 | 6.30E-03 | 7.28E-03 | 9.67E-03 | 1.32E-02 | 1.84E-02 | 3.25E-02 | 5.76E-02 | 7.07E-02 | 7.95E-02 |
| 1.495E+03 | 18 | 1.15E-03 | 1.68E-03 | 2.29E-03 | 2.63E-03 | 3.52E-03 | 4.87E-03 | 6.87E-03 | 1.25E-02 | 2.18E-02 | 2.55E-02 | 2.78E-02 |
| 1.464E+03 | 17 | 2.98E-04 | 4.46E-04 | 6.17E-04 | 7.10E-04 | 9.42E-04 | 1.30E-03 | 1.87E-03 | 3.47E-03 | 5.80E-03 | 6.45E-03 | 6.86E-03 |
| 1.434E+03 | 16 | 5.31E-05 | 7.88E-05 | 1.12E-04 | 1.51E-04 | 2.01E-04 | 2.43E-04 | 3.45E-04 | 6.02E-04 | 9.09E-04 | 9.71E-04 | 1.06E-03 |
| 1.403E+03 | 15 | 5.14E-06 | 7.60E-06 | 1.09E-05 | 1.51E-05 | 2.01E-05 | 2.44E-05 | 3.78E-05 | 6.19E-05 | 8.35E-05 | 8.60E-05 | 1.02E-04 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0:00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 1.57E-07 | 2.20E-07 | 1.66E-07 | 1.98E-07 | 1.44E-07 | 1.77E-07 | 2.68E-07 | 3.24E-07 | 1.82E-07 | 9.63E-08 | 8.48E-08 |
| 2.501E+03 | 40 | 3.46E-06 | 3.88E-06 | 3.54E-06 | 4.71E-06 | 4.18E-06 | 6.74E-06 | 6.70E-06 | 4.17E-06 | 1.83E-06 | 1.63E-05 | 2.42E-05 |
| 2.379E+03 | 39 | 3.47E-05 | 3.53E-05 | 3.95E-05 | 3.59E-05 | 3.24E-05 | 4.10E-05 | 3.56E-05 | 2.92E-05 | 8.27E-05 | 2.10E-04 | 2.17E-04 |
| 2.257E+03 | 38 | 2.56E-04 | 2.84E-04 | 3.22E-04 | 2.97E-04 | 3.61E-04 | 6.15E-04 | 6.07E-04 | 4.91E-04 | 8.08E-04 | 1.24E-03 | 1.10E-03 |
| 2.196E+03 | 37 | 1.14E-03 | 1.31E-03 | 1.55E-03 | 2.01E-03 | 2.36E-03 | 2.78E-03 | 5.21E-03 | 6.82E-03 | 6.53E-03 | 6.72E-03 | 5.66E-03 |
| 2.135E+03 | 36 | 3.01E-03 | 3.38E-03 | 3.92E-03 | 5.22E-03 | 6.28E-03 | 8.69E-03 | 2.08E-02 | 2.94E-02 | 2.15E-02 | 1.95E-02 | 1.70E-02 |
| 2.074E+03 | 35 | 7.75E-03 | 1.17E-02 | 1.65E-02 | 1.78E-02 | 1.58E-02 | 2.04E-02 | 4.47E-02 | 8.18E-02 | 5.91E-02 | 4.47E-02 | 4.03E-02 |
| 2.013E+03 | 34 | 1.51E-02 | 2.81E-02 | 4.54E-02 | 5.19E-02 | 5.04E-02 | 7.16E-02 | 1.31E-01 | 1.88E-01 | 2.74E-01 | 2.22E-01 | 1.54E-01 |
| 1.952E+03 | 33 | 8.91E-02 | 1.14E-01 | 1.45E-01 | 1.50E-01 | 1.37E-01 | 1.84E-01 | 3.08E-01 | 3.94E-01 | 4.50E-01 | 3.74E-01 | 2.70E-01 |
| 1.922E+03 | 32 | 1.63E-01 | 2.41E-01 | 3.12E-01 | 3.02E-01 | 2.62E-01 | 3.39E-01 | 5.37E-01 | 6.33E-01 | 6.64E-01 | 4.75E-01 | 3.60E-01 |
| 1.891E+03 | 31 | 2.85E-01 | 4.70E-01 | 6.00E-01 | 4.96E-01 | 3.95E-01 | 4.95E-01 | 7.58E-01 | 8.47E-01 | 8.25E-01 | 5.09E-01 | 4.05E-01 |
| 1.861E+03 | 30 | 3.90E-01 | 7.24E-01 | 9.06E-01 | 7.22E-01 | 5.45E-01 | 6.75E-01 | 1.02E+00 | 1.15E+00 | 1.00E+00 | 9.18E-01 | 6.32E-01 |
| 1.830E+03 | 29 | 5.37E-01 | 9.75E-01 | 1.20E+00 | 9.43E-01 | 7.01E-01 | 8.67E-01 | 1.29E+00 | 1.37E+00 | 1.13E+00 | 9.43E-01 | 7.31E-01 |
| 1.800E+03 | 28 | 6.85E-01 | 1.24E+00 | 1.45E+00 | 1.15E+00 | 8.92E-01 | 1.09E+00 | 1.57E+00 | 1.55E+00 | 1.22E+00 | 9.98E-01 | 7.66E-01 |
| 1.769E+03 | 27 | 7.85E-01 | 1.46E+00 | 1.46E+00 | 1.33E+00 | 1.18E+00 | 1.35E+00 | 1.82E+00 | 1.65E+00 | 1.32E+00 | 9.97E-01 | 7.89E-01 |
| 1.739E+03 | 26 | 9.37E-01 | 1.63E+00 | 1.58E+00 | 1.41E+00 | 1.22E+00 | 1.39E+00 | 1.83E+00 | 1.60E+00 | 1.24E+00 | 9.13E-01 | 7.07E-01 |
| 1.708E+03 | 25 | 1.05E+00 | 1.62E+00 | 1.68E+00 | 1.57E+00 | 1.18E+00 | 1.34E+00 | 1.72E+00 | 1.47E+00 | 1.10E+00 | 7.77E-01 | 5.67E-01 |
| 1.678E+03 | 24 | 1.04E+00 | 1.30E+00 | 1.82E+00 | 1.92E+00 | 1.03E+00 | 1.25E+00 | 1.52E+00 | 1.30E+00 | 9.36E-01 | 5.85E-01 | 4.40E-01 |
| 1.647E+03 | 23 | 8.81E-01 | 9.94E-01 | 1.22E+00 | 1.50E+00 | 7.87E-01 | 9.85E-01 | 1.21E+00 | 9.91E-01 | 6.99E-01 | 4.22E-01 | 3.68E-01 |
| 1.617E+03 | 22 | 6.27E-01 | 6.97E-01 | 7.80E-01 | 9.08E-01 | 5.17E-01 | 7.03E-01 | 8.39E-01 | 6.64E-01 | 4.61E-01 | 2.86E-01 | 2.26E-01 |
| 1.586E+03 | 21 | 3.78E-01 | 4.21E-01 | 4.60E-01 | 5.20E-01 | 2.90E-01 | 3.81E-01 | 5.08E-01 | 4.03E-01 | 2.81E-01 | 1.76E-01 | 1.41E-01 |
| 1.556E+03 | 20 | 2.00E-01 | 2.19E-01 | 2.36E-01 | 2.54E-01 | 1.41E-01 | 1.86E-01 | 2.46E-01 | 1.86E-01 | 1.27E-01 | 8.17E-02 | 6.67E-02 |
| 1.525E+03 | 19 | 8.76E-02 | 9.45E-02 | 1.03E-01 | 9.24E-02 | 5.59E-02 | 7.93E-02 | 9.97E-02 | 7.31E-02 | 4.95E-02 | 3.27E-02 | 2.69E-02 |
| 1.495E+03 | 18 | 2.99E-02 | 3.19E-02 | 3.73E-02 | 3.01E-02 | 1.72E-02 | 2.30E-02 | 3.02E-02 | 2.26E-02 | 1.56E-02 | 1.14E-02 | 9.36E-03 |
| 1.464E+03 | 17 | 7.23E-03 | 7.58E-03 | 8.87E-03 | 6.86E-03 | 3.72E-03 | 4.83E-03 | 6.30E-03 | 4.68E-03 | 3.53E-03 | 3.02E-03 | 2.51E-03 |
| 1.434E+03 | 16 | 1.12E-03 | 1.16E-03 | 1.28E-03 | 9.70E-04 | 4.92E-04 | 6.03E-04 | 7.52E-04 | 5.52E-04 | 4.41E-04 | 4.10E-04 | 3.59E-04 |
| 1.403E+03 | 15 | 1.10E-04 | 1.11E-04 | 1.08E-04 | 7.48E-05 | 3.42E-05 | 3.69E-05 | 4.02E-05 | 2.87E-05 | 2.42E-05 | 2.47E-05 | 3.05E-05 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.23E-32 | 2.43E-06 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.97E-34 | 3.35E-07 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.02E-36 | 4.12E-08 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.24E-37 | 5.95E-09 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.97E-38 | 1.03E-09 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.41E-39 | 2.05E-10 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.67E-40 | 3.61E-11 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.94E-12 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.93E-13 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 6.68E-15 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.38E-16 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.84E-18 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 7.50E-08 | 5.16E-08 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 1.75E-05 | 1.02E-05 | 3.68E-06 | 6.49E-07 | 1.61E-07 | 5.34E-08 | 2.26E-08 | 1.25E-08 | 1.10E-08 | 0.00E+00 |
| 2.379E+03 | 39 | 1.46E-04 | 8.90E-05 | 3.98E-05 | 1.24E-05 | 4.02E-06 | 1.51E-06 | 6.84E-07 | 3.92E-07 | 3.13E-07 | 0.00E+00 |
| 2.257E+03 | 38 | 7.06E-04 | 4.40E-04 | 2.18E-04 | 8.29E-05 | 2.97E-05 | 1.15E-05 | 5.09E-06 | 2.83E-06 | 2.33E-06 | 0.00E+00 |
| 2.196E+03 | 37 | 3.32E-03 | 1.94E-03 | 8.98E-04 | 3.30E-04 | 1.10E-04 | 4.00E-05 | 1.66E-05 | 8.56E-06 | 5.91E-06 | 0.00E+00 |
| 2.135E+03 | 36 | 1.09E-02 | 6.73E-03 | 3.26E-03 | 1.31E-03 | 4.38E-04 | 1.57E-04 | 6.22E-05 | 2.96E-05 | 2.92E-05 | 0.00E+00 |
| 2.074E+03 | 35 | 2.82E-02 | 1.84E-02 | 9.74E-03 | 4.38E-03 | 1.56E-03 | 5.78E-04 | 2.27E-04 | 9.73E-05 | 5.98E-05 | 0.00E+00 |
| 2.013E+03 | 34 | 1.03E-01 | 5.17E-02 | 2.97E-02 | 1.43E-02 | 5.37E-03 | 2.05E-03 | 7.89E-04 | 2.96E-04 | 3.91E-04 | 0.00E+00 |
| 1.952E+03 | 33 | 1.91E-01 | 1.03E-01 | 6.13E-02 | 3.10E-02 | 1.20E-02 | 4.64E-03 | 1.75E-03 | 5.75E-04 | 3.96E-04 | 0.00E+00 |
| 1.922E+03 | 32 | 2.65E-01 | 1.52E-01 | 9.41E-02 | 4.91E-02 | 1.94E-02 | 7.67E-03 | 2.80E-03 | 5.60E-03 | 1.33E-04 | 0.00E+00 |
| 1.891E+03 | 31 | 3.18E-01 | 2.05E-01 | 1.35E-01 | 7.43E-02 | 3.08E-02 | 1.26E-02 | 4.55E-03 | 5.56E-03 | 1.32E-04 | 0.00E+00 |
| 1.861E+03 | 30 | 4.53E-01 | 2.82E-01 | 1.92E-01 | 1.09E-01 | 4.78E-02 | 2.10E-02 | 2.05E-02 | 9.55E-12 | 9.00E-14 | 0.00E+00 |
| 1.830E+03 | 29 | 5.60E-01 | 3.65E-01 | 2.61E-01 | 1.55E-01 | 7.18E-02 | 3.40E-02 | 3.33E-02 | 6.03E-12 | 8.27E-18 | 0.00E+00 |
| 1.800E+03 | 28 | 6.09E-01 | 4.33E-01 | 3.34E-01 | 2.08E-01 | 1.03E-01 | 5.23E-02 | 6.94E-02 | 9.46E-05 | 2.10E-08 | 0.00E+00 |
| 1.769E+03 | 27 | 6.25E-01 | 4.61E-01 | 3.69E-01 | 2.30E-01 | 1.35E-01 | 7.42E-02 | 7.04E-02 | 9.51E-05 | 2.17E-08 | 0.00E+00 |
| 1.739E+03 | 26 | 5.72E-01 | 4.74E-01 | 3.90E-01 | 2.54E-01 | 1.66E-01 | 9.98E-02 | 9.91E-02 | 1.55E-11 | 2.24E-17 | 0.00E+00 |
| 1.708E+03 | 25 | 4.87E-01 | 4.38E-01 | 3.56E-01 | 2.65E-01 | 1.94E-01 | 1.26E-01 | 1.86E-01 | 1.96E-04 | 3.87E-08 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.678E+03 | 24 | 3.67E-01 | 3.56E-01 | 3.10E-01 | 2.63E-01 | 2.15E-01 | 1.51E-01 | 1.79E-01 | 1.98E-04 | 4.03E-08 | 0.00E+00 |
| 1.647E+03 | 23 | 2.98E-01 | 2.92E-01 | 2.61E-01 | 2.47E-01 | 2.26E-01 | 1.72E-01 | 1.73E-01 | 2.44E-11 | 2.84E-17 | 0.00E+00 |
| 1.617E+03 | 22 | 2.40E-01 | 2.37E-01 | 2.12E-01 | 2.21E-01 | 2.29E-01 | 1.89E-01 | 3.08E-01 | 2.46E-04 | 4.37E-08 | 0.00E+00 |
| 1.586E+03 | 21 | 1.58E-01 | 1.75E-01 | 1.62E-01 | 1.88E-01 | 2.22E-01 | 1.99E-01 | 2.91E-01 | 2.50E-04 | 4.57E-08 | 0.00E+00 |
| 1.556E+03 | 20 | 8.45E-02 | 1.14E-01 | 1.13E-01 | 1.52E-01 | 2.08E-01 | 2.03E-01 | 2.09E-01 | 2.64E-11 | 2.20E-17 | 0.00E+00 |
| 1.525E+03 | 19 | 3.78E-02 | 6.49E-02 | 7.25E-02 | 1.16E-01 | 1.89E-01 | 2.03E-01 | 3.57E-01 | 1.72E-04 | 2.61E-08 | 0.00E+00 |
| 1.495E+03 | 18 | 1.28E-02 | 3.24E-02 | 5.01E-02 | 8.50E-02 | 1.66E-01 | 1.99E-01 | 3.42E-01 | 1.77E-04 | 2.76E-08 | 0.00E+00 |
| 1.464E+03 | 17 | 2.84E-03 | 1.74E-02 | 2.89E-02 | 5.83E-02 | 1.43E-01 | 1.91E-01 | 2.22E-01 | 2.13E-11 | 7.79E-18 | 0.00E+00 |
| 1.434E+03 | 16 | 6.58E-04 | 7.96E-03 | 1.57E-02 | 3.84E-02 | 1.21E-01 | 1.77E-01 | 2.42E-04 | 4.30E-08 | 4.87E-12 | 0.00E+00 |
| 1.403E+03 | 15 | 1.38E-04 | 3.28E-03 | 8.37E-03 | 2.45E-02 | 1.01E-01 | 1.67E-01 | 2.44E-04 | 4.52E-08 | 5.29E-12 | 0.00E+00 |
| 1.373E+03 | 14 | 2.08E-05 | 1.42E-03 | 4.34E-03 | 1.55E-02 | 8.25E-02 | 8.63E-02 | 8.71E-12 | 1.47E-17 | 1.38E-21 | 0.00E+00 |
| 1.342E+03 | 13 | 3.93E-06 | 5.38E-04 | 2.61E-03 | 1.11E-02 | 6.92E-02 | 1.20E-01 | 6.20E-05 | 9.67E-09 | 1.15E-12 | 0.00E+00 |
| 1.312E+03 | 12 | 1.01E-06 | 2.50E-04 | 1.37E-03 | 8.33E-03 | 6.14E-02 | 1.14E-01 | 6.41E-05 | 1.03E-08 | 1.25E-12 | 0.00E+00 |
| 1.281E+03 | 11 | 2.30E-07 | 7.55E-05 | 5.00E-04 | 7.27E-03 | 6.26E-02 | 6.54E-02 | 5.33E-12 | 2.02E-18 | 2.23E-22 | 0.00E+00 |
| 1.220E+03 | 10 | 5.16E-08 | 2.08E-05 | 1.59E-04 | 8.06E-03 | 5.65E-02 | 3.09E-02 | 1.12E-05 | 2.65E-09 | 5.08E-13 | 0.00E+00 |
| 1.159E+03 | 9 | 1.29E-08 | 6.48E-06 | 5.42E-05 | 5.86E-03 | 4.58E-02 | 3.30E-02 | 1.21E-05 | 2.85E-09 | 5.57E-13 | 0.00E+00 |
| 1.098E+03 | 8 | 3.37E-09 | 2.24E-06 | 2.05E-05 | 2.49E-03 | 3.30E-02 | 3.30E-02 | 2.41E-12 | 2.97E-19 | 5.07E-23 | 0.00E+00 |
| 1.037E+03 | 7 | 7.65E-10 | 9.60E-07 | 8.66E-06 | 1.44E-03 | 2.51E-02 | 2.26E-02 | 8.61E-06 | 2.09E-09 | 4.14E-13 | 0.00E+00 |
| 9.760E+02 | 6 | 1.81E-10 | 3.85E-07 | 3.34E-06 | 6.70E-04 | 1.69E-02 | 2.18E-02 | 9.57E-06 | 2.34E-09 | 4.76E-13 | 0.00E+00 |
| 8.540E+02 | 5 | 2.90E-11 | 9.70E-08 | 9.91E-07 | 1.72E-04 | 3.34E-03 | 8.81E-03 | 6.40E-06 | 2.82E-09 | 9.95E-13 | 0.00E+00 |
| 7.320E+02 | 4 | 2.58E-12 | 1.86E-08 | 3.31E-07 | 9.33E-05 | 4.56E-03 | 8.85E-03 | 6.72E-06 | 3.08E-09 | 1.12E-12 | 0.00E+00 |
| 5.490E+02 | 3 | 1.79E-13 | 3.12E-09 | 7.86E-08 | 4.50E-05 | 6.82E-03 | 8.21E-03 | 6.32E-06 | 2.93E-09 | 1.07E-12 | 0.00E+00 |
| 3.050E+02 | 2 | 2.75E-15 | 6.99E-10 | 6.97E-07 | 7.29E-05 | 7.89E-03 | 6.82E-03 | 4.98E-06 | 2.21E-09 | 7.75E-13 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 13 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.89E-30 | 3.72E-27 | 1.08E-25 | 1.54E-24 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.03E-27 | 7.94E-25 | 2.30E-23 | 3.24E-22 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.39E-26 | 6.53E-23 | 1.87E-21 | 2.58E-20 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.77E-24 | 2.97E-21 | 8.35E-20 | 1.13E-18 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.81E-23 | 7.86E-20 | 2.16E-18 | 2.84E-17 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.47E-21 | 1.20E-18 | 3.18E-17 | 4.04E-16 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.84E-20 | 1.53E-17 | 3.86E-16 | 4.64E-15 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.92E-19 | 1.61E-16 | 3.77E-15 | 4.19E-14 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.65E-18 | 1.37E-15 | 2.85E-14 | 2.83E-13 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.10E-18 | 7.11E-15 | 1.20E-13 | 1.02E-12 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.90E-17 | 1.87E-14 | 2.33E-13 | 1.65E-12 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.20E-15 | 1.05E-14 | 8.68E-14 | 5.45E-13 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.97E-15 | 2.06E-14 | 1.85E-13 | 1.18E-12 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.60E-17 | 2.41E-14 | 2.57E-13 | 1.70E-12 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.82E-17 | 4.04E-14 | 4.34E-13 | 2.85E-12 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.62E-16 | 6.02E-14 | 6.47E-13 | 4.24E-12 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.97E-16 | 8.06E-14 | 8.77E-13 | 5.73E-12 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.25E-15 | 1.03E-13 | 1.11E-12 | 7.26E-12 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.21E-15 | 1.31E-13 | 1.37E-12 | 8.74E-12 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.62E-15 | 1.56E-13 | 1.71E-12 | 9.57E-12 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.68E-15 | 1.77E-13 | 2.39E-12 | 1.28E-11 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.48E-15 | 1.84E-13 | 3.35E-12 | 1.12E-11 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.15E-15 | 1.77E-13 | 4.09E-12 | 5.25E-12 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.52E-15 | 2.03E-13 | 3.94E-12 | 4.04E-12 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.95E-15 | 1.52E-13 | 2.65E-12 | 2.61E-12 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.82E-15 | 6.68E-14 | 1.20E-12 | 1.18E-12 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.39E-16 | 1.61E-14 | 3.17E-13 | 3.39E-13 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 1.42E-23 | 9.67E-23 | 5.15E-22 | 2.26E-21 | 8.51E-21 | 2.87E-20 | 8.85E-20 | 2.47E-19 | 6.12E-19 | 1.38E-18 | 3.22E-18 |
| 2.501E+03 | 40 | 2.96E-21 | 1.97E-20 | 1.03E-19 | 4.42E-19 | 1.65E-18 | 5.56E-18 | 1.72E-17 | 4.77E-17 | 1.15E-16 | 2.56E-16 | 6.76E-16 |
| 2.379E+03 | 39 | 2.30E-19 | 1.50E-18 | 7.64E-18 | 3.17E-17 | 1.15E-16 | 3.83E-16 | 1.16E-15 | 3.07E-15 | 6.65E-15 | 1.40E-14 | 4.40E-14 |
| 2.257E+03 | 38 | 9.88E-18 | 6.28E-17 | 3.10E-16 | 1.25E-15 | 4.46E-15 | 1.47E-14 | 4.36E-14 | 1.06E-13 | 1.83E-13 | 3.61E-13 | 1.49E-12 |
| 2.196E+03 | 37 | 2.41E-16 | 1.49E-15 | 7.11E-15 | 2.78E-14 | 1.01E-13 | 3.47E-13 | 1.06E-12 | 2.50E-12 | 3.08E-12 | 5.72E-12 | 3.42E-11 |
| 2.135E+03 | 36 | 3.29E-15 | 1.95E-14 | 8.93E-14 | 3.37E-13 | 1.26E-12 | 4.60E-12 | 1.47E-11 | 3.37E-11 | 3.39E-11 | 4.68E-11 | 4.55E-10 |
| 2.074E+03 | 35 | 3.57E-14 | 1.99E-13 | 8.59E-13 | 3.07E-12 | 1.20E-11 | 4.62E-11 | 1.56E-10 | 3.75E-10 | 2.67E-10 | 2.50E-09 | 4.65E-09 |
| 2.013E+03 | 34 | 3.00E-13 | 1.55E-12 | 6.06E-12 | 1.98E-11 | 8.02E-11 | 3.02E-10 | 9.47E-10 | 2.10E-09 | 1.42E-09 | 1.00E-08 | 1.69E-08 |
| 1.952E+03 | 33 | 1.84E-12 | 8.68E-12 | 3.07E-11 | 8.86E-11 | 3.63E-10 | 1.14E-09 | 2.96E-09 | 5.54E-09 | 3.67E-09 | 1.61E-08 | 2.58E-08 |
| 1.922E+03 | 32 | 5.93E-12 | 2.59E-11 | 9.51E-11 | 3.01E-10 | 4.65E-10 | 8.36E-10 | 1.65E-09 | 2.74E-09 | 3.06E-09 | 6.45E-09 | 1.87E-08 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.891E+03 | 31 | 8.44E-12 | 3.41E-11 | 1.29E-10 | 3.91E-10 | 6.59E-10 | 1.40E-09 | 3.10E-09 | 4.91E-09 | 5.05E-09 | 1.32E-08 | 3.08E-08 |
| 1.861E+03 | 30 | 2.71E-12 | 1.13E-11 | 4.09E-11 | 1.70E-10 | 5.78E-10 | 1.65E-09 | 4.14E-09 | 7.07E-09 | 8.02E-09 | 2.04E-08 | 4.41E-08 |
| 1.830E+03 | 29 | 5.88E-12 | 2.43E-11 | 8.77E-11 | 2.83E-10 | 8.37E-10 | 2.24E-09 | 5.47E-09 | 1.08E-08 | 1.54E-08 | 3.32E-08 | 6.03E-08 |
| 1.800E+03 | 28 | 8.58E-12 | 3.56E-11 | 1.29E-10 | 4.10E-10 | 1.16E-09 | 2.99E-09 | 7.29E-09 | 1.70E-08 | 3.51E-08 | 5.43E-08 | 8.61E-08 |
| 1.769E+03 | 27 | 1.42E-11 | 5.79E-11 | 2.05E-10 | 6.27E-10 | 1.69E-09 | 4.27E-09 | 1.03E-08 | 2.43E-08 | 5.40E-08 | 8.71E-08 | 1.46E-07 |
| 1.739E+03 | 26 | 2.10E-11 | 8.39E-11 | 2.94E-10 | 8.75E-10 | 2.26E-09 | 5.68E-09 | 1.41E-08 | 3.45E-08 | 8.09E-08 | 1.50E-07 | 2.79E-07 |
| 1.708E+03 | 25 | 2.83E-11 | 1.11E-10 | 3.86E-10 | 1.16E-09 | 2.80E-09 | 7.28E-09 | 1.94E-08 | 5.07E-08 | 1.27E-07 | 2.97E-07 | 6.08E-07 |
| 1.678E+03 | 24 | 3.62E-11 | 1.36E-10 | 4.70E-10 | 1.61E-09 | 4.08E-09 | 1.07E-08 | 3.04E-08 | 8.31E-08 | 2.12E-07 | 5.10E-07 | 9.81E-07 |
| 1.647E+03 | 23 | 4.46E-11 | 1.51E-10 | 5.33E-10 | 2.12E-09 | 6.05E-09 | 1.75E-08 | 5.16E-08 | 1.41E-07 | 3.55E-07 | 8.46E-07 | 1.55E-06 |
| 1.617E+03 | 22 | 5.08E-11 | 1.32E-10 | 6.02E-10 | 3.24E-09 | 1.15E-08 | 3.56E-08 | 1.03E-07 | 2.71E-07 | 6.54E-07 | 1.47E-06 | 2.09E-06 |
| 1.586E+03 | 21 | 6.66E-11 | 1.08E-10 | 1.31E-09 | 1.56E-08 | 6.63E-08 | 2.03E-07 | 5.44E-07 | 1.34E-06 | 3.09E-06 | 6.78E-06 | 1.39E-05 |
| 1.556E+03 | 20 | 8.80E-11 | 1.90E-10 | 2.44E-09 | 1.87E-08 | 6.76E-08 | 1.94E-07 | 4.95E-07 | 1.17E-06 | 2.59E-06 | 5.42E-06 | 1.07E-05 |
| 1.525E+03 | 19 | 1.10E-10 | 1.54E-09 | 6.77E-09 | 2.18E-08 | 6.11E-08 | 1.55E-07 | 3.68E-07 | 8.20E-07 | 1.73E-06 | 3.47E-06 | 6.64E-06 |
| 1.495E+03 | 18 | 8.15E-11 | 9.89E-10 | 4.23E-09 | 1.35E-08 | 3.73E-08 | 9.27E-08 | 2.12E-07 | 4.56E-07 | 9.24E-07 | 1.78E-06 | 3.30E-06 |
| 1.464E+03 | 17 | 5.11E-11 | 5.64E-10 | 2.28E-09 | 7.00E-09 | 1.85E-08 | 4.42E-08 | 9.73E-08 | 2.00E-07 | 3.88E-07 | 7.16E-07 | 1.27E-06 |
| 1.434E+03 | 16 | 2.52E-11 | 2.43E-10 | 9.03E-10 | 2.62E-09 | 6.61E-09 | 1.51E-08 | 3.16E-08 | 6.16E-08 | 1.13E-07 | 1.99E-07 | 3.36E-07 |
| 1.403E+03 | 15 | 6.62E-12 | 4.03E-11 | 1.70E-10 | 4.99E-10 | 1.23E-09 | 2.69E-09 | 5.36E-09 | 9.89E-09 | 1.71E-08 | 2.83E-08 | 4.55E-08 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 1.14E-17 | 4.88E-17 | 1.53E-16 | 6.86E-16 | 2.20E-15 | 2.83E-15 | 3.53E-15 | 4.28E-15 | 5.08E-15 | 5.90E-15 | 1.20E-11 |
| 2.501E+03 | 40 | 3.58E-15 | 1.89E-14 | 6.08E-14 | 4.43E-13 | 2.53E-12 | 1.53E-11 | 7.17E-11 | 2.40E-10 | 6.90E-10 | 3.68E-09 | 7.29E-09 |
| 2.379E+03 | 39 | 3.26E-13 | 1.74E-12 | 4.72E-12 | 3.35E-11 | 1.53E-10 | 8.46E-10 | 3.27E-09 | 8.60E-09 | 2.39E-08 | 8.90E-08 | 1.43E-07 |
| 2.257E+03 | 38 | 1.35E-11 | 6.44E-11 | 2.16E-10 | 1.03E-09 | 3.47E-09 | 1.84E-08 | 5.29E-08 | 9.41E-08 | 2.51E-07 | 6.56E-07 | 8.85E-07 |
| 2.196E+03 | 37 | 3.13E-10 | 1.26E-09 | 5.98E-09 | 2.39E-08 | 8.99E-08 | 1.35E-07 | 2.03E-07 | 3.14E-07 | 5.11E-07 | 9.05E-07 | 1.60E-06 |
| 2.135E+03 | 36 | 3.12E-09 | 1.23E-08 | 3.75E-08 | 1.12E-07 | 2.93E-07 | 3.88E-07 | 5.74E-07 | 9.18E-07 | 1.53E-06 | 2.56E-06 | 4.21E-06 |
| 2.074E+03 | 35 | 9.47E-09 | 2.03E-08 | 4.37E-08 | 9.29E-08 | 2.11E-07 | 4.49E-07 | 9.42E-07 | 1.84E-06 | 3.37E-06 | 5.85E-06 | 9.67E-06 |
| 2.013E+03 | 34 | 3.24E-08 | 6.70E-08 | 1.41E-07 | 2.91E-07 | 5.64E-07 | 1.04E-06 | 2.20E-06 | 4.23E-06 | 7.54E-06 | 1.28E-05 | 2.07E-05 |
| 1.952E+03 | 33 | 5.20E-08 | 1.14E-07 | 2.50E-07 | 5.26E-07 | 9.00E-07 | 9.94E-07 | 4.65E-06 | 9.42E-06 | 1.64E-05 | 2.70E-05 | 4.31E-05 |
| 1.922E+03 | 32 | 5.22E-08 | 1.32E-07 | 3.09E-07 | 6.87E-07 | 1.32E-06 | 1.83E-06 | 6.66E-06 | 1.41E-05 | 2.62E-05 | 4.58E-05 | 7.44E-05 |
| 1.891E+03 | 31 | 7.28E-08 | 1.72E-07 | 3.98E-07 | 9.14E-07 | 2.01E-06 | 4.23E-06 | 9.43E-06 | 2.00E-05 | 3.84E-05 | 6.79E-05 | 1.10E-04 |
| 1.861E+03 | 30 | 9.82E-08 | 2.27E-07 | 5.47E-07 | 1.33E-06 | 3.08E-06 | 6.90E-06 | 1.54E-05 | 3.26E-05 | 5.98E-05 | 1.02E-04 | 1.65E-04 |
| 1.830E+03 | 29 | 1.20E-07 | 2.57E-07 | 6.60E-07 | 1.78E-06 | 4.44E-06 | 1.04E-05 | 2.37E-05 | 4.96E-05 | 7.93E-05 | 1.37E-04 | 2.39E-04 |
| 1.800E+03 | 28 | 1.70E-07 | 3.43E-07 | 8.74E-07 | 2.54E-06 | 6.59E-06 | 1.57E-05 | 3.60E-05 | 7.14E-05 | 8.64E-05 | 1.94E-04 | 6.31E-04 |
| 1.769E+03 | 27 | 2.98E-07 | 5.77E-07 | 1.46E-06 | 4.14E-06 | 1.06E-05 | 2.47E-05 | 5.49E-05 | 1.07E-04 | 1.25E-04 | 2.94E-04 | 8.67E-04 |
| 1.739E+03 | 26 | 5.57E-07 | 9.80E-07 | 2.30E-06 | 6.16E-06 | 1.51E-05 | 3.34E-05 | 7.32E-05 | 1.47E-04 | 2.65E-04 | 4.24E-04 | 6.32E-04 |
| 1.708E+03 | 25 | 1.03E-06 | 1.59E-06 | 3.45E-06 | 8.42E-06 | 1.86E-05 | 4.07E-05 | 9.09E-05 | 1.88E-04 | 3.59E-04 | 6.31E-04 | 9.36E-04 |
| 1.678E+03 | 24 | 1.10E-06 | 2.05E-06 | 4.97E-06 | 1.04E-05 | 1.92E-05 | 4.68E-05 | 1.20E-04 | 2.69E-04 | 5.33E-04 | 9.28E-04 | 1.01E-03 |
| 1.647E+03 | 23 | 1.86E-06 | 4.12E-06 | 9.90E-06 | 1.49E-05 | 1.93E-05 | 7.85E-05 | 3.84E-04 | 1.04E-03 | 2.26E-03 | 4.35E-03 | 7.78E-03 |
| 1.617E+03 | 22 | 4.40E-06 | 1.82E-05 | 4.67E-05 | 7.01E-05 | 1.52E-04 | 3.31E-04 | 6.83E-04 | 1.33E-03 | 2.47E-03 | 4.34E-03 | 7.20E-03 |
| 1.586E+03 | 21 | 1.79E-05 | 3.32E-05 | 5.95E-05 | 7.60E-05 | 1.30E-04 | 2.57E-04 | 5.09E-04 | 9.56E-04 | 1.74E-03 | 3.02E-03 | 4.95E-03 |
| 1.556E+03 | 20 | 1.92E-05 | 3.47E-05 | 5.77E-05 | 6.27E-05 | 7.88E-05 | 1.44E-04 | 2.83E-04 | 5.33E-04 | 9.73E-04 | 1.68E-03 | 2.76E-03 |
| 1.525E+03 | 19 | 1.21E-05 | 2.12E-05 | 3.38E-05 | 3.48E-05 | 4.05E-05 | 7.01E-05 | 1.35E-04 | 2.51E-04 | 4.52E-04 | 7.78E-04 | 1.27E-03 |
| 1.495E+03 | 18 | 5.85E-06 | 9.93E-06 | 1.53E-05 | 1.52E-05 | 1.67E-05 | 2.68E-05 | 4.82E-05 | 8.65E-05 | 1.51E-04 | 2.57E-04 | 4.22E-04 |
| 1.464E+03 | 17 | 2.17E-06 | 3.56E-06 | 5.28E-06 | 5.09E-06 | 5.35E-06 | 7.72E-06 | 1.21E-05 | 2.05E-05 | 3.44E-05 | 5.97E-05 | 1.02E-04 |
| 1.434E+03 | 16 | 5.52E-07 | 8.78E-07 | 1.35E-06 | 1.91E-06 | 2.72E-06 | 3.89E-06 | 4.14E-06 | 5.95E-06 | 7.31E-06 | 1.16E-05 | 1.89E-05 |
| 1.403E+03 | 15 | 7.15E-08 | 1.10E-07 | 1.66E-07 | 2.45E-07 | 3.55E-07 | 4.88E-07 | 4.86E-07 | 6.54E-07 | 7.47E-07 | 1.14E-06 | 1.83E-06 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 1.95E-10 | 7.46E-10 | 2.39E-09 | 4.75E-09 | 1.06E-08 | 1.75E-08 | 2.33E-08 | 2.71E-08 | 5.96E-08 | 7.53E-08 | 8.68E-08 |
| 2.501E+03 | 40 | 1.33E-08 | 2.31E-08 | 3.97E-08 | 8.49E-08 | 2.03E-07 | 3.41E-07 | 4.72E-07 | 5.45E-07 | 1.21E-06 | 1.60E-06 | 1.82E-06 |
| 2.379E+03 | 39 | 2.21E-07 | 3.39E-07 | 5.36E-07 | 1.11E-06 | 2.55E-06 | 3.99E-06 | 5.89E-06 | 6.06E-06 | 1.23E-05 | 1.74E-05 | 2.08E-05 |
| 2.257E+03 | 38 | 1.24E-06 | 1.82E-06 | 2.86E-06 | 5.94E-06 | 1.33E-05 | 1.94E-05 | 2.61E-05 | 3.10E-05 | 6.26E-05 | 9.60E-05 | 1.30E-04 |
| 2.196E+03 | 37 | 2.69E-06 | 4.32E-06 | 7.02E-06 | 1.14E-05 | 1.88E-05 | 2.89E-05 | 4.02E-05 | 9.99E-05 | 2.93E-04 | 4.25E-04 | 5.63E-04 |
| 2.135E+03 | 36 | 6.54E-06 | 9.61E-06 | 1.61E-05 | 2.63E-05 | 4.06E-05 | 5.95E-05 | 8.17E-05 | 1.86E-04 | 5.57E-04 | 8.89E-04 | 1.30E-03 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.074E+03 | 35 | 1.38E-05 | 1.47E-05 | 3.94E-05 | 6.69E-05 | 9.86E-05 | 1.37E-04 | 1.85E-04 | 3.35E-04 | 9.22E-04 | 1.84E-03 | 3.03E-03 |
| 2.013E+03 | 34 | 2.97E-05 | 3.50E-05 | 7.52E-05 | 1.21E-04 | 1.77E-04 | 2.54E-04 | 3.34E-04 | 5.63E-04 | 1.50E-03 | 3.06E-03 | 5.78E-03 |
| 1.952E+03 | 33 | 6.43E-05 | 9.31E-05 | 1.38E-04 | 2.06E-04 | 2.98E-04 | 4.66E-04 | 5.61E-04 | 6.85E-04 | 6.86E-03 | 2.24E-02 | 2.86E-02 |
| 1.922E+03 | 32 | 1.07E-04 | 1.55E-04 | 2.28E-04 | 3.45E-04 | 4.70E-04 | 7.02E-04 | 8.22E-04 | 1.02E-03 | 1.29E-02 | 3.90E-02 | 5.01E-02 |
| 1.891E+03 | 31 | 1.56E-04 | 2.15E-04 | 2.99E-04 | 4.77E-04 | 6.04E-04 | 7.65E-04 | 7.96E-04 | 3.49E-03 | 3.04E-02 | 5.77E-02 | 7.03E-02 |
| 1.861E+03 | 30 | 2.30E-04 | 2.77E-04 | 4.68E-04 | 8.76E-04 | 1.50E-03 | 2.50E-03 | 4.29E-03 | 1.62E-02 | 5.63E-02 | 9.18E-02 | 1.03E-01 |
| 1.830E+03 | 29 | 3.38E-04 | 3.99E-04 | 7.96E-04 | 1.42E-03 | 2.76E-03 | 4.98E-03 | 9.14E-03 | 3.01E-02 | 9.17E-02 | 1.41E-01 | 1.45E-01 |
| 1.800E+03 | 28 | 9.22E-04 | 1.82E-03 | 3.33E-03 | 6.20E-03 | 9.71E-03 | 1.44E-02 | 2.22E-02 | 5.55E-02 | 1.41E-01 | 1.95E-01 | 1.81E-01 |
| 1.769E+03 | 27 | 1.19E-03 | 1.97E-03 | 2.71E-03 | 4.22E-03 | 6.86E-03 | 1.10E-02 | 1.87E-02 | 5.59E-02 | 1.65E-01 | 1.62E-01 | 1.90E-01 |
| 1.739E+03 | 26 | 8.79E-04 | 1.15E-03 | 1.29E-03 | 1.60E-03 | 3.24E-03 | 6.90E-03 | 1.47E-02 | 5.82E-02 | 2.00E-01 | 1.97E-01 | 2.30E-01 |
| 1.708E+03 | 25 | 1.43E-03 | 2.02E-03 | 2.13E-03 | 2.62E-03 | 5.91E-03 | 1.28E-02 | 2.62E-02 | 8.96E-02 | 2.75E-01 | 2.44E-01 | 2.70E-01 |
| 1.678E+03 | 24 | 2.32E-03 | 6.35E-03 | 1.01E-02 | 1.28E-02 | 2.01E-02 | 3.27E-02 | 5.46E-02 | 1.40E-01 | 3.53E-01 | 2.66E-01 | 2.78E-01 |
| 1.647E+03 | 23 | 1.25E-02 | 1.85E-02 | 2.50E-02 | 2.80E-02 | 3.74E-02 | 5.26E-02 | 7.77E-02 | 1.67E-01 | 3.67E-01 | 2.35E-01 | 2.34E-01 |
| 1.617E+03 | 22 | 1.12E-02 | 1.63E-02 | 2.18E-02 | 2.43E-02 | 3.22E-02 | 4.50E-02 | 6.60E-02 | 1.40E-01 | 2.83E-01 | 1.65E-01 | 1.60E-01 |
| 1.586E+03 | 21 | 7.67E-03 | 1.11E-02 | 1.48E-02 | 1.65E-02 | 2.18E-02 | 3.05E-02 | 4.45E-02 | 9.41E-02 | 1.07E-01 | 9.57E-02 | 9.20E-02 |
| 1.556E+03 | 20 | 4.29E-03 | 6.23E-03 | 8.31E-03 | 9.24E-03 | 1.22E-02 | 1.71E-02 | 2.49E-02 | 5.27E-02 | 5.50E-02 | 4.88E-02 | 4.64E-02 |
| 1.525E+03 | 19 | 1.96E-03 | 2.86E-03 | 3.82E-03 | 4.25E-03 | 5.63E-03 | 7.90E-03 | 1.16E-02 | 2.49E-02 | 2.44E-02 | 2.12E-02 | 1.98E-02 |
| 1.495E+03 | 18 | 6.61E-04 | 9.80E-04 | 1.33E-03 | 1.48E-03 | 1.99E-03 | 2.82E-03 | 4.19E-03 | 9.37E-03 | 8.63E-03 | 7.23E-03 | 6.59E-03 |
| 1.464E+03 | 17 | 1.64E-04 | 2.50E-04 | 3.49E-04 | 3.96E-04 | 5.27E-04 | 7.37E-04 | 1.12E-03 | 2.58E-03 | 2.15E-03 | 1.74E-03 | 1.56E-03 |
| 1.434E+03 | 16 | 2.99E-05 | 4.55E-05 | 6.59E-05 | 8.90E-05 | 1.19E-04 | 1.42E-04 | 2.10E-04 | 4.53E-04 | 3.23E-04 | 2.54E-04 | 2.30E-04 |
| 1.403E+03 | 15 | 2.87E-06 | 4.38E-06 | 6.41E-06 | 9.04E-06 | 1.21E-05 | 1.43E-05 | 2.30E-05 | 4.18E-05 | 2.57E-05 | 2.03E-05 | 2.02E-05 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 1.12E-07 | 1.59E-07 | 1.10E-07 | 1.20E-07 | 8.70E-08 | 1.02E-07 | 1.60E-07 | 3.02E-07 | 1.57E-07 | 1.30E-07 | 8.40E-08 |
| 2.501E+03 | 40 | 2.31E-06 | 2.55E-06 | 2.49E-06 | 2.85E-06 | 2.17E-06 | 1.67E-06 | 1.64E-06 | 2.28E-06 | 1.85E-06 | 3.20E-05 | 2.72E-05 |
| 2.379E+03 | 39 | 2.19E-05 | 2.25E-05 | 2.73E-05 | 2.45E-05 | 2.15E-05 | 1.91E-05 | 1.57E-05 | 1.52E-05 | 1.33E-04 | 2.64E-04 | 2.25E-04 |
| 2.257E+03 | 38 | 1.61E-04 | 1.84E-04 | 2.24E-04 | 1.98E-04 | 1.79E-04 | 2.03E-04 | 2.37E-04 | 2.31E-04 | 1.02E-03 | 1.34E-03 | 1.08E-03 |
| 2.196E+03 | 37 | 7.19E-04 | 8.46E-04 | 1.08E-03 | 1.07E-03 | 1.01E-03 | 1.08E-03 | 1.93E-03 | 3.36E-03 | 6.98E-03 | 6.99E-03 | 5.53E-03 |
| 2.135E+03 | 36 | 1.87E-03 | 2.22E-03 | 2.75E-03 | 2.76E-03 | 2.69E-03 | 3.41E-03 | 8.51E-03 | 1.59E-02 | 2.31E-02 | 2.09E-02 | 1.68E-02 |
| 2.074E+03 | 35 | 4.86E-03 | 5.57E-03 | 6.26E-03 | 6.90E-03 | 6.99E-03 | 1.26E-02 | 3.04E-02 | 5.14E-02 | 5.73E-02 | 4.89E-02 | 4.02E-02 |
| 2.013E+03 | 34 | 9.82E-03 | 1.31E-02 | 1.70E-02 | 2.06E-02 | 2.23E-02 | 4.29E-02 | 9.09E-02 | 1.36E-01 | 1.65E-01 | 1.55E-01 | 1.28E-01 |
| 1.952E+03 | 33 | 3.29E-02 | 4.17E-02 | 5.35E-02 | 6.28E-02 | 6.54E-02 | 1.15E-01 | 2.16E-01 | 2.85E-01 | 2.97E-01 | 2.75E-01 | 2.30E-01 |
| 1.922E+03 | 32 | 6.02E-02 | 8.74E-02 | 1.18E-01 | 1.34E-01 | 1.34E-01 | 2.18E-01 | 3.79E-01 | 4.57E-01 | 4.43E-01 | 3.76E-01 | 3.20E-01 |
| 1.891E+03 | 31 | 9.36E-02 | 1.63E-01 | 2.14E-01 | 2.22E-01 | 2.10E-01 | 3.21E-01 | 5.29E-01 | 6.04E-01 | 5.53E-01 | 4.46E-01 | 3.78E-01 |
| 1.861E+03 | 30 | 1.29E-01 | 2.18E-01 | 2.91E-01 | 3.00E-01 | 2.79E-01 | 4.28E-01 | 6.92E-01 | 7.67E-01 | 6.64E-01 | 5.64E-01 | 4.90E-01 |
| 1.830E+03 | 29 | 1.74E-01 | 2.82E-01 | 3.69E-01 | 3.75E-01 | 3.47E-01 | 5.38E-01 | 8.59E-01 | 9.05E-01 | 7.50E-01 | 5.88E-01 | 5.30E-01 |
| 1.800E+03 | 28 | 2.13E-01 | 3.40E-01 | 4.28E-01 | 4.32E-01 | 4.07E-01 | 6.55E-01 | 1.02E+00 | 1.01E+00 | 8.23E-01 | 6.11E-01 | 5.47E-01 |
| 1.769E+03 | 27 | 2.36E-01 | 3.83E-01 | 4.37E-01 | 4.62E-01 | 4.70E-01 | 7.70E-01 | 1.15E+00 | 1.07E+00 | 9.05E-01 | 6.67E-01 | 5.23E-01 |
| 1.739E+03 | 26 | 2.79E-01 | 4.21E-01 | 4.67E-01 | 4.89E-01 | 4.91E-01 | 7.92E-01 | 1.15E+00 | 1.03E+00 | 8.42E-01 | 6.24E-01 | 4.73E-01 |
| 1.708E+03 | 25 | 3.10E-01 | 4.14E-01 | 4.69E-01 | 5.15E-01 | 4.98E-01 | 7.80E-01 | 1.11E+00 | 9.43E-01 | 7.23E-01 | 5.24E-01 | 3.81E-01 |
| 1.678E+03 | 24 | 3.01E-01 | 3.44E-01 | 4.47E-01 | 5.55E-01 | 4.75E-01 | 7.36E-01 | 1.02E+00 | 7.84E-01 | 5.90E-01 | 3.92E-01 | 2.92E-01 |
| 1.647E+03 | 23 | 2.44E-01 | 2.61E-01 | 2.99E-01 | 3.87E-01 | 3.31E-01 | 5.51E-01 | 7.80E-01 | 5.78E-01 | 4.32E-01 | 2.82E-01 | 2.10E-01 |
| 1.617E+03 | 22 | 1.64E-01 | 1.74E-01 | 1.89E-01 | 2.27E-01 | 1.99E-01 | 3.70E-01 | 5.28E-01 | 3.76E-01 | 2.79E-01 | 1.98E-01 | 1.48E-01 |
| 1.586E+03 | 21 | 9.40E-02 | 9.94E-02 | 1.07E-01 | 1.25E-01 | 1.09E-01 | 1.98E-01 | 3.04E-01 | 2.17E-01 | 1.61E-01 | 1.16E-01 | 9.05E-02 |
| 1.556E+03 | 20 | 4.70E-02 | 4.93E-02 | 5.27E-02 | 5.96E-02 | 5.14E-02 | 9.49E-02 | 1.46E-01 | 9.97E-02 | 7.29E-02 | 5.36E-02 | 4.24E-02 |
| 1.525E+03 | 19 | 1.97E-02 | 2.04E-02 | 2.21E-02 | 2.24E-02 | 1.96E-02 | 3.90E-02 | 5.87E-02 | 3.88E-02 | 2.83E-02 | 2.12E-02 | 1.69E-02 |
| 1.495E+03 | 18 | 6.45E-03 | 6.62E-03 | 7.49E-03 | 7.27E-03 | 6.16E-03 | 1.14E-02 | 1.76E-02 | 1.17E-02 | 8.71E-03 | 6.87E-03 | 5.63E-03 |
| 1.464E+03 | 17 | 1.51E-03 | 1.54E-03 | 1.75E-03 | 1.65E-03 | 1.36E-03 | 2.41E-03 | 3.65E-03 | 2.40E-03 | 1.90E-03 | 1.68E-03 | 1.48E-03 |
| 1.434E+03 | 16 | 2.27E-04 | 2.33E-04 | 2.58E-04 | 2.38E-04 | 1.90E-04 | 3.09E-04 | 4.46E-04 | 2.87E-04 | 2.39E-04 | 2.27E-04 | 2.10E-04 |
| 1.403E+03 | 15 | 2.14E-05 | 2.26E-05 | 2.36E-05 | 2.03E-05 | 1.52E-05 | 2.08E-05 | 2.61E-05 | 1.61E-05 | 1.38E-05 | 1.41E-05 | 1.86E-05 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.23E-33 | 1.58E-06 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.25E-34 | 2.25E-07 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.76E-36 | 3.96E-08 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.03E-36 | 6.64E-09 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.51E-37 | 1.14E-09 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.44E-38 | 2.25E-10 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.32E-39 | 3.90E-11 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.64E-12 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.85E-13 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.00E-15 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.46E-16 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.84E-18 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 7.22E-08 | 4.98E-08 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 1.92E-05 | 1.04E-05 | 3.62E-06 | 6.40E-07 | 1.57E-07 | 5.16E-08 | 2.17E-08 | 1.18E-08 | 1.04E-08 | 0.00E+00 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.379E+03 | 39 | 1.57E-04 | 8.96E-05 | 3.84E-05 | 1.20E-05 | 3.88E-06 | 1.45E-06 | 6.50E-07 | 3.70E-07 | 2.94E-07 | 0.00E+00 |
| 2.257E+03 | 38 | 7.35E-04 | 4.30E-04 | 2.04E-04 | 7.81E-05 | 2.80E-05 | 1.07E-05 | 4.74E-06 | 2.62E-06 | 2.15E-06 | 0.00E+00 |
| 2.196E+03 | 37 | 3.55E-03 | 1.94E-03 | 8.90E-04 | 3.21E-04 | 1.06E-04 | 3.81E-05 | 1.56E-05 | 7.98E-06 | 5.48E-06 | 0.00E+00 |
| 2.135E+03 | 36 | 1.15E-02 | 6.75E-03 | 3.24E-03 | 1.25E-03 | 4.19E-04 | 1.50E-04 | 5.88E-05 | 2.78E-05 | 2.73E-05 | 0.00E+00 |
| 2.074E+03 | 35 | 2.94E-02 | 1.83E-02 | 9.48E-03 | 4.09E-03 | 1.47E-03 | 5.46E-04 | 2.13E-04 | 9.12E-05 | 5.59E-05 | 0.00E+00 |
| 2.013E+03 | 34 | 9.45E-02 | 5.60E-02 | 2.94E-02 | 1.34E-02 | 5.00E-03 | 1.91E-03 | 7.35E-04 | 2.76E-04 | 3.64E-04 | 0.00E+00 |
| 1.952E+03 | 33 | 1.73E-01 | 1.09E-01 | 6.00E-02 | 2.86E-02 | 1.10E-02 | 4.29E-03 | 1.62E-03 | 5.31E-04 | 3.67E-04 | 0.00E+00 |
| 1.922E+03 | 32 | 2.46E-01 | 1.60E-01 | 9.12E-02 | 4.48E-02 | 1.77E-02 | 7.01E-03 | 2.57E-03 | 5.18E-03 | 1.22E-04 | 0.00E+00 |
| 1.891E+03 | 31 | 3.03E-01 | 2.11E-01 | 1.30E-01 | 6.74E-02 | 2.79E-02 | 1.15E-02 | 4.14E-03 | 5.14E-03 | 1.21E-04 | 0.00E+00 |
| 1.861E+03 | 30 | 3.93E-01 | 2.79E-01 | 1.80E-01 | 9.81E-02 | 4.29E-02 | 1.90E-02 | 1.86E-02 | 8.94E-12 | 8.31E-14 | 0.00E+00 |
| 1.830E+03 | 29 | 4.50E-01 | 3.41E-01 | 2.37E-01 | 1.36E-01 | 6.36E-02 | 3.04E-02 | 3.00E-02 | 5.61E-12 | 7.48E-18 | 0.00E+00 |
| 1.800E+03 | 28 | 4.79E-01 | 3.87E-01 | 2.96E-01 | 1.80E-01 | 9.02E-02 | 4.63E-02 | 6.24E-02 | 8.58E-05 | 1.89E-08 | 0.00E+00 |
| 1.769E+03 | 27 | 4.71E-01 | 3.96E-01 | 3.21E-01 | 2.12E-01 | 1.18E-01 | 6.53E-02 | 6.30E-02 | 8.61E-05 | 1.95E-08 | 0.00E+00 |
| 1.739E+03 | 26 | 4.36E-01 | 3.86E-01 | 3.28E-01 | 2.33E-01 | 1.45E-01 | 8.70E-02 | 8.69E-02 | 1.42E-11 | 2.01E-17 | 0.00E+00 |
| 1.708E+03 | 25 | 3.72E-01 | 3.52E-01 | 3.12E-01 | 2.40E-01 | 1.67E-01 | 1.09E-01 | 1.64E-01 | 1.75E-04 | 3.45E-08 | 0.00E+00 |
| 1.678E+03 | 24 | 2.92E-01 | 2.95E-01 | 2.78E-01 | 2.33E-01 | 1.83E-01 | 1.29E-01 | 1.57E-01 | 1.77E-04 | 3.59E-08 | 0.00E+00 |
| 1.647E+03 | 23 | 2.20E-01 | 2.34E-01 | 2.34E-01 | 2.13E-01 | 1.90E-01 | 1.46E-01 | 1.48E-01 | 2.19E-11 | 2.52E-17 | 0.00E+00 |
| 1.617E+03 | 22 | 1.68E-01 | 1.82E-01 | 1.89E-01 | 1.86E-01 | 1.89E-01 | 1.58E-01 | 2.66E-01 | 2.16E-04 | 3.83E-08 | 0.00E+00 |
| 1.586E+03 | 21 | 1.08E-01 | 1.30E-01 | 1.43E-01 | 1.53E-01 | 1.81E-01 | 1.65E-01 | 2.51E-01 | 2.19E-04 | 4.01E-08 | 0.00E+00 |
| 1.556E+03 | 20 | 5.75E-02 | 8.19E-02 | 9.95E-02 | 1.19E-01 | 1.67E-01 | 1.68E-01 | 1.75E-01 | 2.32E-11 | 1.94E-17 | 0.00E+00 |
| 1.525E+03 | 19 | 2.49E-02 | 4.56E-02 | 6.32E-02 | 8.70E-02 | 1.49E-01 | 1.66E-01 | 3.04E-01 | 1.49E-04 | 2.26E-08 | 0.00E+00 |
| 1.495E+03 | 18 | 8.32E-03 | 2.26E-02 | 3.77E-02 | 6.02E-02 | 1.29E-01 | 1.61E-01 | 2.91E-01 | 1.52E-04 | 2.39E-08 | 0.00E+00 |
| 1.464E+03 | 17 | 1.59E-03 | 1.40E-02 | 2.31E-02 | 4.03E-02 | 1.10E-01 | 1.54E-01 | 1.82E-01 | 1.84E-11 | 6.80E-18 | 0.00E+00 |
| 1.434E+03 | 16 | 3.22E-04 | 7.37E-03 | 1.35E-02 | 2.59E-02 | 9.19E-02 | 1.41E-01 | 2.05E-04 | 3.67E-08 | 4.16E-12 | 0.00E+00 |
| 1.403E+03 | 15 | 6.03E-05 | 3.44E-03 | 7.50E-03 | 1.62E-02 | 7.56E-02 | 1.32E-01 | 2.07E-04 | 3.85E-08 | 4.52E-12 | 0.00E+00 |
| 1.373E+03 | 14 | 1.07E-05 | 1.50E-03 | 4.04E-03 | 9.87E-03 | 6.14E-02 | 6.50E-02 | 6.94E-12 | 1.25E-17 | 1.17E-21 | 0.00E+00 |
| 1.342E+03 | 13 | 2.27E-06 | 5.14E-04 | 2.39E-03 | 7.10E-03 | 5.08E-02 | 9.24E-02 | 4.88E-05 | 7.66E-09 | 9.12E-13 | 0.00E+00 |
| 1.312E+03 | 12 | 6.29E-07 | 1.76E-04 | 1.07E-03 | 5.17E-03 | 4.43E-02 | 8.75E-02 | 5.04E-05 | 8.17E-09 | 9.94E-13 | 0.00E+00 |
| 1.281E+03 | 11 | 1.51E-07 | 5.41E-05 | 3.69E-04 | 4.08E-03 | 4.21E-02 | 4.60E-02 | 3.95E-12 | 1.62E-18 | 1.80E-22 | 0.00E+00 |
| 1.220E+03 | 10 | 3.44E-08 | 1.54E-05 | 1.19E-04 | 3.74E-03 | 3.51E-02 | 2.43E-02 | 9.12E-06 | 2.20E-09 | 4.28E-13 | 0.00E+00 |
| 1.159E+03 | 9 | 8.62E-09 | 4.89E-06 | 4.10E-05 | 2.92E-03 | 2.76E-02 | 2.50E-02 | 9.89E-06 | 2.38E-09 | 4.70E-13 | 0.00E+00 |
| 1.098E+03 | 8 | 2.26E-09 | 1.72E-06 | 1.59E-05 | 1.99E-03 | 2.01E-02 | 2.22E-02 | 1.67E-12 | 2.23E-19 | 3.86E-23 | 0.00E+00 |
| 1.037E+03 | 7 | 5.02E-10 | 6.69E-07 | 6.92E-06 | 1.18E-03 | 1.57E-02 | 1.42E-02 | 5.48E-06 | 1.34E-09 | 2.65E-13 | 0.00E+00 |
| 9.760E+02 | 6 | 1.49E-10 | 2.98E-07 | 2.73E-06 | 4.65E-04 | 8.77E-03 | 1.32E-02 | 6.06E-06 | 1.49E-09 | 3.04E-13 | 0.00E+00 |
| 8.540E+02 | 5 | 3.13E-11 | 1.01E-07 | 8.42E-07 | 1.03E-04 | 2.15E-03 | 6.06E-03 | 4.76E-06 | 2.12E-09 | 7.48E-13 | 0.00E+00 |
| 7.320E+02 | 4 | 2.76E-12 | 2.28E-08 | 3.10E-07 | 5.06E-05 | 1.95E-03 | 6.22E-03 | 5.03E-06 | 2.33E-09 | 8.47E-13 | 0.00E+00 |
| 5.490E+02 | 3 | 1.93E-13 | 4.17E-09 | 7.49E-08 | 2.27E-05 | 4.32E-03 | 6.27E-03 | 5.01E-06 | 2.34E-09 | 8.55E-13 | 0.00E+00 |
| 3.050E+02 | 2 | 7.91E-15 | 7.65E-10 | 2.69E-07 | 4.23E-05 | 5.60E-03 | 5.40E-03 | 4.06E-06 | 1.82E-09 | 6.38E-13 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 14 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.01E-31 | 1.53E-28 | 4.60E-27 | 6.73E-26 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.10E-29 | 3.18E-26 | 9.47E-25 | 1.37E-23 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.19E-27 | 2.52E-24 | 7.39E-23 | 1.05E-21 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.36E-25 | 1.10E-22 | 3.16E-21 | 4.40E-20 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.31E-24 | 2.72E-21 | 7.65E-20 | 1.04E-18 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.64E-23 | 3.91E-20 | 1.06E-18 | 1.39E-17 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.42E-22 | 4.67E-19 | 1.21E-17 | 1.49E-16 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.19E-21 | 4.57E-18 | 1.10E-16 | 1.25E-15 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.04E-20 | 3.61E-17 | 7.71E-16 | 7.85E-15 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.90E-19 | 1.69E-16 | 2.97E-15 | 2.64E-14 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.56E-19 | 4.69E-16 | 6.60E-15 | 5.06E-14 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.76E-20 | 9.71E-16 | 1.05E-14 | 7.19E-14 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.51E-19 | 1.63E-15 | 1.84E-14 | 1.26E-13 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.46E-18 | 2.22E-15 | 2.78E-14 | 1.96E-13 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.67E-18 | 3.30E-15 | 4.19E-14 | 2.93E-13 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.84E-17 | 4.90E-15 | 6.11E-14 | 4.24E-13 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.85E-17 | 6.79E-15 | 8.32E-14 | 5.69E-13 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.71E-16 | 9.21E-15 | 1.10E-13 | 7.16E-13 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.50E-16 | 1.17E-14 | 1.49E-13 | 8.58E-13 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.79E-16 | 1.39E-14 | 2.26E-13 | 9.92E-13 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.78E-16 | 1.57E-14 | 3.93E-13 | 1.54E-12 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.50E-16 | 1.53E-14 | 5.02E-13 | 1.63E-12 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.13E-16 | 1.27E-14 | 4.90E-13 | 1.69E-12 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.55E-16 | 1.50E-14 | 3.33E-13 | 1.27E-12 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.26E-16 | 1.10E-14 | 2.14E-13 | 8.00E-13 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.46E-16 | 4.72E-15 | 9.41E-14 | 3.56E-13 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.45E-17 | 1.12E-15 | 2.40E-14 | 9.71E-14 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| Y | J | I = 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | X = 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 6.42E-25 | 4.50E-24 | 2.48E-23 | 1.12E-22 | 4.37E-22 | 1.52E-21 | 4.83E-21 | 1.39E-20 | 3.57E-20 | 8.34E-20 | 1.95E-19 |
| 2.501E+03 | 40 | 1.29E-22 | 8.90E-22 | 4.80E-21 | 2.13E-20 | 8.20E-20 | 2.85E-19 | 9.04E-19 | 2.59E-18 | 6.45E-18 | 1.48E-17 | 3.82E-17 |
| 2.379E+03 | 39 | 9.68E-21 | 6.51E-20 | 3.41E-19 | 1.46E-18 | 5.49E-18 | 1.87E-17 | 5.80E-17 | 1.58E-16 | 3.58E-16 | 7.72E-16 | 2.24E-15 |
| 2.257E+03 | 38 | 3.95E-19 | 2.59E-18 | 1.32E-17 | 5.48E-17 | 2.01E-16 | 6.80E-16 | 2.05E-15 | 5.12E-15 | 9.37E-15 | 1.83E-14 | 6.63E-14 |
| 2.196E+03 | 37 | 9.05E-18 | 5.75E-17 | 2.83E-16 | 1.14E-15 | 4.24E-15 | 1.49E-14 | 4.60E-14 | 1.09E-13 | 1.34E-13 | 2.43E-13 | 1.35E-12 |
| 2.135E+03 | 36 | 1.16E-16 | 7.09E-16 | 3.34E-15 | 1.30E-14 | 4.95E-14 | 1.83E-13 | 5.92E-13 | 1.35E-12 | 1.47E-12 | 1.90E-12 | 1.92E-11 |
| 2.074E+03 | 35 | 1.18E-15 | 6.80E-15 | 2.98E-14 | 1.09E-13 | 4.35E-13 | 1.71E-12 | 5.79E-12 | 1.36E-11 | 1.75E-11 | 2.37E-11 | 4.11E-10 |
| 2.013E+03 | 34 | 9.25E-15 | 4.89E-14 | 1.91E-13 | 6.29E-13 | 2.70E-12 | 1.06E-11 | 3.43E-11 | 7.57E-11 | 9.60E-11 | 1.34E-10 | 1.36E-09 |
| 1.952E+03 | 33 | 5.27E-14 | 2.54E-13 | 8.04E-13 | 2.27E-12 | 1.28E-11 | 4.68E-11 | 1.31E-10 | 2.63E-10 | 3.31E-10 | 5.02E-10 | 2.37E-09 |
| 1.922E+03 | 32 | 1.59E-13 | 7.09E-13 | 1.02E-12 | 1.87E-12 | 4.35E-11 | 1.26E-10 | 2.91E-10 | 5.50E-10 | 7.59E-10 | 1.31E-09 | 3.17E-09 |
| 1.891E+03 | 31 | 2.78E-13 | 1.20E-12 | 2.78E-12 | 6.85E-12 | 5.59E-11 | 1.66E-10 | 4.09E-10 | 7.40E-10 | 8.61E-10 | 2.06E-09 | 5.11E-09 |
| 1.861E+03 | 30 | 3.83E-13 | 1.70E-12 | 6.54E-12 | 2.14E-11 | 7.19E-11 | 2.11E-10 | 5.48E-10 | 1.06E-09 | 1.35E-09 | 3.11E-09 | 7.14E-09 |
| 1.830E+03 | 29 | 6.63E-13 | 2.89E-12 | 1.09E-11 | 3.65E-11 | 1.11E-10 | 3.06E-10 | 7.75E-10 | 1.66E-09 | 2.55E-09 | 5.37E-09 | 1.10E-08 |
| 1.800E+03 | 28 | 1.04E-12 | 4.50E-12 | 1.70E-11 | 5.62E-11 | 1.64E-10 | 4.38E-10 | 1.10E-09 | 2.61E-09 | 5.32E-09 | 9.52E-09 | 1.76E-08 |
| 1.769E+03 | 27 | 1.53E-12 | 6.50E-12 | 2.39E-11 | 7.77E-11 | 2.17E-10 | 5.57E-10 | 1.38E-09 | 3.33E-09 | 7.63E-09 | 1.44E-08 | 2.80E-08 |
| 1.739E+03 | 26 | 2.20E-12 | 9.17E-12 | 3.35E-11 | 1.11E-10 | 2.92E-10 | 7.28E-10 | 1.81E-09 | 4.52E-09 | 1.09E-08 | 2.27E-08 | 4.78E-08 |
| 1.708E+03 | 25 | 2.93E-12 | 1.20E-11 | 4.35E-11 | 1.67E-10 | 3.93E-10 | 9.37E-10 | 2.40E-09 | 6.27E-09 | 1.60E-08 | 3.90E-08 | 8.81E-08 |
| 1.678E+03 | 24 | 3.67E-12 | 1.44E-11 | 5.28E-11 | 2.78E-10 | 6.47E-10 | 1.51E-09 | 4.00E-09 | 1.08E-08 | 2.81E-08 | 6.97E-08 | 1.57E-07 |
| 1.647E+03 | 23 | 4.27E-12 | 1.61E-11 | 5.58E-11 | 3.41E-10 | 8.64E-10 | 2.19E-09 | 6.06E-09 | 1.64E-08 | 4.22E-08 | 1.04E-07 | 2.70E-07 |
| 1.617E+03 | 22 | 4.52E-12 | 1.82E-11 | 5.03E-11 | 3.54E-10 | 1.03E-09 | 2.76E-09 | 7.59E-09 | 1.98E-08 | 4.90E-08 | 1.22E-07 | 4.72E-07 |
| 1.586E+03 | 21 | 6.43E-12 | 3.27E-11 | 9.76E-11 | 3.40E-10 | 1.30E-09 | 3.99E-09 | 1.09E-08 | 2.75E-08 | 6.53E-08 | 1.49E-07 | 3.31E-07 |
| 1.556E+03 | 20 | 5.58E-12 | 4.13E-11 | 1.61E-10 | 5.18E-10 | 1.70E-09 | 4.93E-09 | 1.29E-08 | 3.14E-08 | 7.14E-08 | 1.53E-07 | 3.11E-07 |
| 1.525E+03 | 19 | 6.12E-12 | 3.12E-11 | 1.50E-10 | 5.08E-10 | 1.48E-09 | 3.90E-09 | 9.52E-09 | 2.18E-08 | 4.73E-08 | 9.76E-08 | 1.92E-07 |
| 1.495E+03 | 18 | 5.27E-12 | 2.27E-11 | 9.19E-11 | 3.06E-10 | 8.80E-10 | 2.28E-09 | 5.37E-09 | 1.19E-08 | 2.48E-08 | 4.93E-08 | 9.43E-08 |
| 1.464E+03 | 17 | 3.27E-12 | 1.28E-11 | 4.81E-11 | 1.54E-10 | 4.23E-10 | 1.05E-09 | 2.40E-09 | 5.09E-09 | 1.02E-08 | 1.94E-08 | 3.56E-08 |
| 1.434E+03 | 16 | 1.54E-12 | 5.53E-12 | 1.88E-11 | 5.61E-11 | 1.47E-10 | 3.49E-10 | 7.57E-10 | 1.53E-09 | 2.90E-09 | 5.26E-09 | 9.20E-09 |
| 1.403E+03 | 15 | 4.34E-13 | 1.35E-12 | 3.83E-12 | 1.06E-11 | 2.65E-11 | 6.02E-11 | 1.24E-10 | 2.38E-10 | 4.27E-10 | 7.33E-10 | 1.22E-09 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| Y | J | I = 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | X = 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 6.34E-19 | 2.56E-18 | 8.10E-18 | 3.29E-17 | 1.06E-16 | 1.46E-16 | 1.95E-16 | 2.53E-16 | 3.20E-16 | 3.96E-16 | 8.30E-13 |
| 2.501E+03 | 40 | 1.78E-16 | 9.02E-16 | 3.03E-15 | 1.86E-14 | 1.07E-13 | 7.51E-13 | 3.94E-12 | 1.42E-11 | 2.84E-11 | 6.24E-11 | 8.16E-10 |
| 2.379E+03 | 39 | 1.44E-14 | 7.53E-14 | 2.13E-13 | 1.20E-12 | 5.60E-12 | 3.97E-11 | 1.82E-10 | 5.47E-10 | 1.07E-09 | 2.24E-09 | 1.58E-08 |
| 2.257E+03 | 38 | 5.41E-13 | 2.66E-12 | 8.98E-12 | 3.18E-11 | 1.00E-10 | 8.84E-10 | 3.40E-09 | 8.15E-09 | 1.69E-08 | 3.33E-08 | 1.13E-07 |
| 2.196E+03 | 37 | 1.21E-11 | 5.27E-11 | 2.42E-10 | 4.75E-10 | 9.54E-10 | 1.30E-08 | 3.32E-08 | 6.50E-08 | 1.19E-07 | 2.04E-07 | 3.55E-07 |
| 2.135E+03 | 36 | 1.43E-10 | 5.85E-10 | 1.85E-09 | 3.73E-09 | 7.41E-09 | 3.75E-08 | 8.39E-08 | 1.59E-07 | 2.88E-07 | 5.07E-07 | 8.69E-07 |
| 2.074E+03 | 35 | 1.33E-09 | 3.34E-09 | 7.73E-09 | 1.71E-08 | 3.54E-08 | 7.28E-08 | 1.53E-07 | 3.13E-07 | 6.08E-07 | 1.12E-06 | 1.95E-06 |
| 2.013E+03 | 34 | 3.91E-09 | 9.12E-09 | 2.00E-08 | 4.24E-08 | 8.38E-08 | 1.52E-07 | 3.25E-07 | 6.85E-07 | 1.34E-06 | 2.47E-06 | 4.29E-06 |
| 1.952E+03 | 33 | 6.35E-09 | 1.50E-08 | 3.39E-08 | 7.33E-08 | 1.33E-07 | 1.71E-07 | 5.62E-07 | 1.38E-06 | 2.81E-06 | 5.16E-06 | 8.90E-06 |
| 1.922E+03 | 32 | 8.04E-09 | 1.96E-08 | 4.56E-08 | 1.03E-07 | 2.07E-07 | 3.19E-07 | 8.90E-07 | 2.09E-06 | 4.32E-06 | 8.11E-06 | 1.41E-05 |
| 1.891E+03 | 31 | 1.21E-08 | 2.76E-08 | 6.25E-08 | 1.42E-07 | 3.18E-07 | 6.47E-07 | 1.44E-06 | 3.14E-06 | 6.44E-06 | 1.19E-05 | 2.02E-05 |
| 1.861E+03 | 30 | 1.62E-08 | 3.46E-08 | 7.62E-08 | 1.77E-07 | 4.12E-07 | 9.43E-07 | 2.16E-06 | 4.78E-06 | 9.94E-06 | 1.73E-05 | 2.80E-05 |
| 1.830E+03 | 29 | 2.50E-08 | 4.73E-08 | 9.73E-08 | 2.28E-07 | 5.52E-07 | 1.32E-06 | 3.07E-06 | 6.81E-06 | 1.55E-05 | 2.29E-05 | 3.32E-05 |
| 1.800E+03 | 28 | 4.42E-08 | 8.01E-08 | 1.57E-07 | 3.69E-07 | 9.05E-07 | 2.16E-06 | 5.02E-06 | 1.09E-05 | 2.96E-05 | 3.82E-05 | 4.92E-05 |
| 1.769E+03 | 27 | 7.42E-08 | 1.32E-07 | 2.56E-07 | 5.90E-07 | 1.42E-06 | 3.28E-06 | 7.40E-06 | 1.57E-05 | 4.04E-05 | 5.59E-05 | 8.12E-05 |
| 1.739E+03 | 26 | 1.25E-07 | 2.14E-07 | 3.97E-07 | 8.69E-07 | 2.00E-06 | 4.40E-06 | 9.65E-06 | 2.02E-05 | 4.06E-05 | 7.66E-05 | 1.33E-04 |
| 1.708E+03 | 25 | 1.96E-07 | 3.17E-07 | 5.72E-07 | 1.18E-06 | 2.57E-06 | 5.33E-06 | 1.15E-05 | 2.44E-05 | 4.94E-05 | 9.43E-05 | 1.80E-04 |
| 1.678E+03 | 24 | 2.34E-07 | 3.83E-07 | 7.44E-07 | 1.45E-06 | 3.21E-06 | 5.78E-06 | 1.21E-05 | 2.67E-05 | 5.70E-05 | 1.16E-04 | 3.06E-04 |
| 1.647E+03 | 23 | 3.61E-07 | 5.49E-07 | 1.01E-06 | 1.62E-06 | 4.92E-06 | 7.93E-06 | 1.49E-05 | 3.34E-05 | 7.32E-05 | 1.50E-04 | 3.07E-04 |
| 1.617E+03 | 22 | 5.31E-07 | 6.98E-07 | 1.18E-06 | 1.35E-06 | 3.37E-06 | 8.94E-06 | 2.09E-05 | 4.43E-05 | 8.90E-05 | 1.67E-04 | 2.97E-04 |
| 1.586E+03 | 21 | 3.73E-07 | 7.70E-07 | 1.47E-06 | 1.62E-06 | 2.96E-06 | 6.78E-06 | 1.52E-05 | 3.11E-05 | 6.16E-05 | 1.14E-04 | 2.00E-04 |
| 1.556E+03 | 20 | 5.54E-07 | 1.03E-06 | 1.69E-06 | 1.55E-06 | 1.72E-06 | 3.55E-06 | 8.08E-06 | 1.68E-05 | 3.34E-05 | 6.19E-05 | 1.08E-04 |
| 1.525E+03 | 19 | 3.58E-07 | 6.43E-07 | 1.01E-06 | 8.96E-07 | 8.74E-07 | 1.67E-06 | 3.71E-06 | 7.61E-06 | 1.48E-05 | 2.74E-05 | 4.79E-05 |
| 1.495E+03 | 18 | 1.72E-07 | 2.98E-07 | 4.49E-07 | 3.91E-07 | 3.54E-07 | 6.11E-07 | 1.24E-06 | 2.45E-06 | 4.61E-06 | 8.43E-06 | 1.48E-05 |
| 1.464E+03 | 17 | 6.25E-08 | 1.05E-07 | 1.54E-07 | 1.34E-07 | 1.23E-07 | 1.77E-07 | 2.88E-07 | 5.32E-07 | 9.50E-07 | 1.80E-06 | 3.32E-06 |
| 1.434E+03 | 16 | 1.56E-08 | 2.55E-08 | 3.99E-08 | 5.56E-08 | 7.91E-08 | 1.13E-07 | 1.04E-07 | 1.54E-07 | 1.83E-07 | 3.22E-07 | 5.90E-07 |
| 1.403E+03 | 15 | 1.98E-09 | 3.13E-09 | 4.86E-09 | 7.35E-09 | 1.09E-08 | 1.48E-08 | 1.24E-08 | 1.66E-08 | 1.77E-08 | 3.01E-08 | 5.47E-08 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 1.74E-11 | 6.96E-11 | 2.05E-10 | 9.96E-10 | 3.32E-09 | 5.17E-09 | 7.02E-09 | 8.82E-09 | 1.46E-08 | 1.86E-08 | 2.27E-08 |
| 2.501E+03 | 40 | 2.44E-09 | 5.25E-09 | 9.94E-09 | 2.30E-08 | 6.34E-08 | 9.52E-08 | 1.29E-07 | 1.59E-07 | 2.73E-07 | 3.76E-07 | 4.57E-07 |
| 2.379E+03 | 39 | 3.85E-08 | 7.19E-08 | 1.24E-07 | 2.76E-07 | 6.92E-07 | 9.60E-07 | 1.27E-06 | 1.44E-06 | 2.50E-06 | 3.86E-06 | 5.12E-06 |
| 2.257E+03 | 38 | 2.25E-07 | 3.81E-07 | 6.33E-07 | 1.37E-06 | 3.18E-06 | 4.13E-06 | 5.19E-06 | 6.04E-06 | 1.14E-05 | 2.08E-05 | 3.20E-05 |
| 2.196E+03 | 37 | 6.00E-07 | 9.70E-07 | 1.58E-06 | 2.60E-06 | 4.37E-06 | 6.92E-06 | 9.98E-06 | 2.18E-05 | 7.61E-05 | 1.10E-04 | 1.51E-04 |
| 2.135E+03 | 36 | 1.40E-06 | 2.08E-06 | 3.40E-06 | 5.73E-06 | 9.33E-06 | 1.45E-05 | 2.10E-05 | 4.45E-05 | 1.49E-04 | 2.24E-04 | 3.26E-04 |
| 2.074E+03 | 35 | 3.01E-06 | 3.67E-06 | 7.11E-06 | 1.30E-05 | 2.12E-05 | 3.25E-05 | 4.72E-05 | 9.69E-05 | 2.66E-04 | 4.25E-04 | 6.66E-04 |
| 2.013E+03 | 34 | 6.70E-06 | 8.67E-06 | 1.53E-05 | 2.55E-05 | 3.97E-05 | 6.21E-05 | 8.77E-05 | 1.74E-04 | 4.65E-04 | 7.24E-04 | 1.14E-03 |
| 1.952E+03 | 33 | 1.43E-05 | 2.18E-05 | 3.28E-05 | 4.99E-05 | 7.34E-05 | 1.28E-04 | 1.70E-04 | 3.20E-04 | 1.12E-03 | 1.65E-03 | 1.71E-03 |
| 1.922E+03 | 32 | 2.23E-05 | 3.57E-05 | 5.36E-05 | 8.57E-05 | 1.19E-04 | 1.90E-04 | 2.55E-04 | 4.64E-04 | 2.18E-03 | 3.24E-03 | 3.43E-03 |
| 1.891E+03 | 31 | 3.13E-05 | 5.34E-05 | 7.37E-05 | 1.33E-04 | 1.74E-04 | 2.18E-04 | 3.45E-04 | 6.97E-04 | 3.91E-03 | 5.31E-03 | 5.73E-03 |
| 1.861E+03 | 30 | 4.20E-05 | 8.67E-05 | 1.07E-04 | 2.19E-04 | 2.68E-04 | 3.17E-04 | 4.21E-04 | 1.72E-03 | 7.28E-03 | 9.03E-03 | 9.55E-03 |
| 1.830E+03 | 29 | 4.68E-05 | 1.02E-04 | 1.33E-04 | 3.05E-04 | 3.97E-04 | 5.00E-04 | 7.19E-04 | 3.16E-03 | 1.18E-02 | 1.38E-02 | 1.45E-02 |
| 1.800E+03 | 28 | 6.04E-05 | 9.52E-05 | 1.70E-04 | 3.13E-04 | 4.98E-04 | 7.61E-04 | 1.24E-03 | 5.42E-03 | 1.69E-02 | 1.82E-02 | 2.10E-02 |
| 1.769E+03 | 27 | 1.11E-04 | 1.69E-04 | 2.90E-04 | 3.80E-04 | 5.02E-04 | 7.03E-04 | 1.11E-03 | 5.37E-03 | 1.64E-02 | 1.62E-02 | 3.27E-02 |
| 1.739E+03 | 26 | 2.04E-04 | 3.00E-04 | 5.78E-04 | 6.12E-04 | 6.56E-04 | 7.84E-04 | 1.14E-03 | 5.86E-03 | 2.02E-02 | 2.03E-02 | 4.04E-02 |
| 1.708E+03 | 25 | 2.67E-04 | 3.92E-04 | 8.03E-04 | 8.40E-04 | 9.11E-04 | 1.16E-03 | 1.81E-03 | 9.09E-03 | 2.80E-02 | 2.70E-02 | 4.80E-02 |
| 1.678E+03 | 24 | 3.94E-04 | 5.11E-04 | 6.99E-04 | 8.20E-04 | 1.16E-03 | 1.81E-03 | 3.11E-03 | 1.39E-02 | 3.52E-02 | 3.14E-02 | 4.94E-02 |
| 1.647E+03 | 23 | 5.43E-04 | 8.59E-04 | 1.22E-03 | 1.40E-03 | 1.92E-03 | 2.82E-03 | 4.45E-03 | 1.65E-02 | 3.55E-02 | 2.92E-02 | 4.16E-02 |
| 1.617E+03 | 22 | 4.92E-04 | 7.56E-04 | 1.05E-03 | 1.19E-03 | 1.62E-03 | 2.36E-03 | 3.69E-03 | 1.32E-02 | 2.60E-02 | 2.08E-02 | 2.83E-02 |
| 1.586E+03 | 21 | 3.28E-04 | 5.01E-04 | 6.91E-04 | 7.82E-04 | 1.06E-03 | 1.55E-03 | 2.41E-03 | 6.45E-03 | 1.01E-02 | 1.43E-02 | 1.73E-02 |
| 1.556E+03 | 20 | 1.79E-04 | 2.73E-04 | 3.76E-04 | 4.22E-04 | 5.71E-04 | 8.37E-04 | 1.31E-03 | 3.48E-03 | 4.24E-03 | 6.69E-03 | 8.21E-03 |
| 1.525E+03 | 19 | 7.87E-05 | 1.20E-04 | 1.65E-04 | 1.84E-04 | 2.51E-04 | 3.70E-04 | 5.82E-04 | 1.59E-03 | 1.81E-03 | 2.80E-03 | 3.36E-03 |
| 1.495E+03 | 18 | 2.47E-05 | 3.86E-05 | 5.42E-05 | 6.07E-05 | 8.38E-05 | 1.25E-04 | 2.01E-04 | 5.72E-04 | 6.19E-04 | 9.22E-04 | 1.08E-03 |
| 1.464E+03 | 17 | 5.76E-06 | 9.32E-06 | 1.35E-05 | 1.55E-05 | 2.14E-05 | 3.14E-05 | 5.17E-05 | 1.53E-04 | 1.53E-04 | 2.16E-04 | 2.49E-04 |
| 1.434E+03 | 16 | 1.01E-06 | 1.66E-06 | 2.55E-06 | 3.58E-06 | 4.96E-06 | 6.01E-06 | 9.52E-06 | 2.66E-05 | 2.41E-05 | 3.18E-05 | 3.61E-05 |
| 1.403E+03 | 15 | 9.43E-08 | 1.56E-07 | 2.43E-07 | 3.62E-07 | 4.99E-07 | 5.84E-07 | 9.83E-07 | 2.64E-06 | 2.13E-06 | 2.58E-06 | 3.02E-06 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 4.29E-08 | 4.27E-08 | 3.77E-08 | 3.42E-08 | 3.03E-08 | 2.77E-08 | 2.71E-08 | 5.15E-08 | 4.99E-08 | 5.64E-08 | 4.68E-08 |
| 2.501E+03 | 40 | 6.44E-07 | 9.12E-07 | 8.32E-07 | 7.44E-07 | 6.34E-07 | 5.37E-07 | 4.93E-07 | 7.55E-07 | 8.25E-07 | 2.59E-05 | 2.06E-05 |
| 2.379E+03 | 39 | 5.84E-06 | 6.38E-06 | 8.16E-06 | 8.33E-06 | 8.11E-06 | 7.52E-06 | 6.50E-06 | 5.71E-06 | 5.16E-05 | 2.07E-04 | 1.65E-04 |
| 2.257E+03 | 38 | 4.35E-05 | 5.28E-05 | 6.87E-05 | 6.99E-05 | 6.80E-05 | 6.96E-05 | 7.69E-05 | 7.77E-05 | 3.04E-04 | 6.33E-04 | 5.75E-04 |
| 2.196E+03 | 37 | 2.02E-04 | 2.49E-04 | 3.37E-04 | 3.63E-04 | 3.69E-04 | 3.94E-04 | 7.08E-04 | 1.25E-03 | 2.60E-03 | 3.47E-03 | 3.02E-03 |
| 2.135E+03 | 36 | 4.96E-04 | 6.38E-04 | 8.52E-04 | 9.39E-04 | 9.78E-04 | 1.23E-03 | 3.79E-03 | 6.77E-03 | 1.04E-02 | 1.13E-02 | 9.68E-03 |
| 2.074E+03 | 35 | 1.22E-03 | 1.61E-03 | 1.99E-03 | 2.35E-03 | 2.53E-03 | 4.04E-03 | 1.39E-02 | 2.27E-02 | 3.02E-02 | 2.87E-02 | 2.45E-02 |
| 2.013E+03 | 34 | 2.30E-03 | 3.52E-03 | 5.09E-03 | 6.78E-03 | 7.83E-03 | 1.33E-02 | 3.90E-02 | 5.65E-02 | 6.65E-02 | 6.63E-02 | 6.33E-02 |
| 1.952E+03 | 33 | 4.96E-03 | 9.25E-03 | 1.45E-02 | 1.96E-02 | 2.24E-02 | 3.59E-02 | 8.77E-02 | 1.13E-01 | 1.22E-01 | 1.21E-01 | 1.16E-01 |
| 1.922E+03 | 32 | 9.62E-03 | 1.93E-02 | 3.09E-02 | 4.07E-02 | 4.49E-02 | 6.85E-02 | 1.46E-01 | 1.73E-01 | 1.76E-01 | 1.70E-01 | 1.65E-01 |
| 1.891E+03 | 31 | 1.54E-02 | 3.30E-02 | 5.13E-02 | 6.39E-02 | 6.75E-02 | 9.93E-02 | 1.94E-01 | 2.17E-01 | 2.13E-01 | 2.03E-01 | 1.97E-01 |
| 1.861E+03 | 30 | 2.23E-02 | 4.44E-02 | 6.84E-02 | 8.41E-02 | 8.76E-02 | 1.29E-01 | 2.42E-01 | 2.60E-01 | 2.46E-01 | 2.28E-01 | 2.34E-01 |
| 1.830E+03 | 29 | 3.09E-02 | 5.78E-02 | 8.61E-02 | 1.04E-01 | 1.07E-01 | 1.58E-01 | 2.87E-01 | 2.96E-01 | 2.71E-01 | 2.39E-01 | 2.50E-01 |
| 1.800E+03 | 28 | 4.05E-02 | 7.12E-02 | 1.01E-01 | 1.19E-01 | 1.23E-01 | 1.85E-01 | 3.24E-01 | 3.19E-01 | 2.83E-01 | 2.35E-01 | 2.49E-01 |
| 1.769E+03 | 27 | 5.18E-02 | 8.36E-02 | 1.09E-01 | 1.29E-01 | 1.35E-01 | 2.07E-01 | 3.46E-01 | 3.24E-01 | 2.82E-01 | 2.31E-01 | 2.16E-01 |
| 1.739E+03 | 26 | 6.13E-02 | 9.26E-02 | 1.17E-01 | 1.36E-01 | 1.40E-01 | 2.13E-01 | 3.39E-01 | 3.04E-01 | 2.55E-01 | 2.11E-01 | 1.92E-01 |
| 1.708E+03 | 25 | 6.77E-02 | 9.29E-02 | 1.15E-01 | 1.36E-01 | 1.38E-01 | 2.11E-01 | 3.11E-01 | 2.66E-01 | 2.13E-01 | 1.73E-01 | 1.54E-01 |
| 1.678E+03 | 24 | 6.50E-02 | 8.04E-02 | 1.02E-01 | 1.27E-01 | 1.23E-01 | 2.03E-01 | 2.62E-01 | 2.08E-01 | 1.65E-01 | 1.29E-01 | 1.15E-01 |
| 1.647E+03 | 23 | 5.18E-02 | 6.10E-02 | 7.15E-02 | 8.73E-02 | 8.35E-02 | 1.47E-01 | 1.95E-01 | 1.48E-01 | 1.16E-01 | 8.87E-02 | 7.44E-02 |
| 1.617E+03 | 22 | 3.43E-02 | 3.95E-02 | 4.50E-02 | 5.24E-02 | 4.99E-02 | 9.53E-02 | 1.26E-01 | 9.25E-02 | 7.13E-02 | 5.60E-02 | 4.64E-02 |
| 1.586E+03 | 21 | 1.98E-02 | 2.23E-02 | 2.49E-02 | 2.85E-02 | 2.68E-02 | 5.01E-02 | 6.91E-02 | 5.00E-02 | 3.85E-02 | 3.07E-02 | 2.65E-02 |
| 1.556E+03 | 20 | 9.42E-03 | 1.06E-02 | 1.18E-02 | 1.32E-02 | 1.23E-02 | 2.35E-02 | 3.20E-02 | 2.27E-02 | 1.73E-02 | 1.39E-02 | 1.22E-02 |
| 1.525E+03 | 19 | 3.80E-03 | 4.22E-03 | 4.71E-03 | 5.05E-03 | 4.65E-03 | 9.46E-03 | 1.26E-02 | 8.63E-03 | 6.57E-03 | 5.37E-03 | 4.74E-03 |
| 1.495E+03 | 18 | 1.20E-03 | 1.32E-03 | 1.50E-03 | 1.58E-03 | 1.44E-03 | 2.77E-03 | 3.68E-03 | 2.50E-03 | 1.94E-03 | 1.64E-03 | 1.48E-03 |
| 1.464E+03 | 17 | 2.73E-04 | 2.98E-04 | 3.39E-04 | 3.51E-04 | 3.12E-04 | 5.80E-04 | 7.50E-04 | 5.05E-04 | 4.10E-04 | 3.83E-04 | 3.73E-04 |
| 1.434E+03 | 16 | 3.98E-05 | 4.38E-05 | 4.97E-05 | 5.04E-05 | 4.37E-05 | 7.61E-05 | 9.25E-05 | 6.16E-05 | 5.22E-05 | 5.18E-05 | 5.25E-05 |
| 1.403E+03 | 15 | 3.49E-06 | 4.00E-06 | 4.50E-06 | 4.37E-06 | 3.62E-06 | 5.48E-06 | 5.81E-06 | 3.78E-06 | 3.28E-06 | 3.43E-06 | 5.02E-06 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.51E-34 | 4.65E-07 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.95E-35 | 7.01E-08 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.86E-36 | 1.45E-08 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.04E-37 | 2.82E-09 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 9.92E-38 | 5.45E-10 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.38E-38 | 1.17E-10 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.94E-39 | 2.15E-11 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.75E-12 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.06E-13 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.62E-15 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.02E-16 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.91E-18 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.684E+03 | 41 | 4.19E-08 | 2.98E-08 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |
| 2.501E+03 | 40 | 1.41E-05 | 7.42E-06 | 2.48E-06 | 4.31E-07 | 1.03E-07 | 3.34E-08 | 1.38E-08 | 7.44E-09 | 6.50E-09 | 0.00E+00 | |
| 2.379E+03 | 39 | 1.13E-04 | 6.25E-05 | 2.60E-05 | 7.95E-06 | 2.52E-06 | 9.26E-07 | 4.10E-07 | 2.30E-07 | 1.82E-07 | 0.00E+00 | |
| 2.257E+03 | 38 | 4.24E-04 | 2.57E-04 | 1.24E-04 | 4.77E-05 | 1.71E-05 | 6.55E-06 | 2.88E-06 | 1.58E-06 | 1.30E-06 | 0.00E+00 | |
| 2.196E+03 | 37 | 2.07E-03 | 1.16E-03 | 5.38E-04 | 1.96E-04 | 6.50E-05 | 2.32E-05 | 9.49E-06 | 4.81E-06 | 3.29E-06 | 0.00E+00 | |
| 2.135E+03 | 36 | 6.93E-03 | 4.13E-03 | 2.00E-03 | 7.71E-04 | 2.59E-04 | 9.21E-05 | 3.59E-05 | 1.69E-05 | 1.66E-05 | 0.00E+00 | |
| 2.074E+03 | 35 | 1.83E-02 | 1.15E-02 | 5.95E-03 | 2.53E-03 | 9.06E-04 | 3.35E-04 | 1.30E-04 | 5.52E-05 | 3.36E-05 | 0.00E+00 | |
| 2.013E+03 | 34 | 5.12E-02 | 3.24E-02 | 1.77E-02 | 8.05E-03 | 3.02E-03 | 1.15E-03 | 4.42E-04 | 1.66E-04 | 2.19E-04 | 0.00E+00 | |
| 1.952E+03 | 33 | 9.46E-02 | 6.25E-02 | 3.55E-02 | 1.69E-02 | 6.57E-03 | 2.55E-03 | 9.59E-04 | 3.13E-04 | 2.20E-04 | 0.00E+00 | |
| 1.922E+03 | 32 | 1.36E-01 | 9.21E-02 | 5.37E-02 | 2.63E-02 | 1.04E-02 | 4.11E-03 | 1.50E-03 | 3.12E-03 | 7.24E-05 | 0.00E+00 | |
| 1.891E+03 | 31 | 1.69E-01 | 1.23E-01 | 7.65E-02 | 3.94E-02 | 1.63E-02 | 6.69E-03 | 2.40E-03 | 3.09E-03 | 7.16E-05 | 0.00E+00 | |
| 1.861E+03 | 30 | 2.08E-01 | 1.57E-01 | 1.04E-01 | 5.68E-02 | 2.48E-02 | 1.10E-02 | 1.07E-02 | 5.54E-12 | 5.00E-14 | 0.00E+00 | |
| 1.830E+03 | 29 | 2.33E-01 | 1.87E-01 | 1.34E-01 | 7.75E-02 | 3.63E-02 | 1.73E-02 | 1.71E-02 | 3.49E-12 | 4.41E-18 | 0.00E+00 | |
| 1.800E+03 | 28 | 2.42E-01 | 2.08E-01 | 1.63E-01 | 1.00E-01 | 5.07E-02 | 2.60E-02 | 3.58E-02 | 5.05E-05 | 1.10E-08 | 0.00E+00 | |
| 1.769E+03 | 27 | 2.28E-01 | 2.10E-01 | 1.78E-01 | 1.18E-01 | 6.60E-02 | 3.64E-02 | 3.58E-02 | 5.06E-05 | 1.14E-08 | 0.00E+00 | |
| 1.739E+03 | 26 | 2.08E-01 | 2.03E-01 | 1.81E-01 | 1.31E-01 | 8.06E-02 | 4.81E-02 | 4.82E-02 | 8.66E-12 | 1.18E-17 | 0.00E+00 | |
| 1.708E+03 | 25 | 1.77E-01 | 1.85E-01 | 1.73E-01 | 1.35E-01 | 9.26E-02 | 5.99E-02 | 9.20E-02 | 1.01E-04 | 1.99E-08 | 0.00E+00 | |
| 1.678E+03 | 24 | 1.38E-01 | 1.55E-01 | 1.55E-01 | 1.31E-01 | 1.01E-01 | 7.03E-02 | 8.77E-02 | 1.02E-04 | 2.07E-08 | 0.00E+00 | |
| 1.647E+03 | 23 | 9.92E-02 | 1.21E-01 | 1.30E-01 | 1.20E-01 | 1.04E-01 | 7.89E-02 | 8.02E-02 | 1.31E-11 | 1.46E-17 | 0.00E+00 | |
| 1.617E+03 | 22 | 6.18E-02 | 8.78E-02 | 1.03E-01 | 1.04E-01 | 1.02E-01 | 8.48E-02 | 1.47E-01 | 1.23E-04 | 2.17E-08 | 0.00E+00 | |
| 1.586E+03 | 21 | 3.51E-02 | 5.91E-02 | 7.56E-02 | 8.48E-02 | 9.67E-02 | 8.76E-02 | 1.38E-01 | 1.24E-04 | 2.27E-08 | 0.00E+00 | |
| 1.556E+03 | 20 | 1.69E-02 | 3.60E-02 | 5.17E-02 | 6.53E-02 | 8.79E-02 | 8.80E-02 | 9.16E-02 | 1.35E-11 | 1.10E-17 | 0.00E+00 | |
| 1.525E+03 | 19 | 6.82E-03 | 1.99E-02 | 3.28E-02 | 4.75E-02 | 7.72E-02 | 8.61E-02 | 1.65E-01 | 8.24E-05 | 1.25E-08 | 0.00E+00 | |
| 1.495E+03 | 18 | 2.24E-03 | 9.99E-03 | 1.96E-02 | 3.28E-02 | 6.60E-02 | 8.27E-02 | 1.57E-01 | 8.44E-05 | 1.32E-08 | 0.00E+00 | |
| 1.464E+03 | 17 | 4.97E-04 | 4.53E-03 | 1.13E-02 | 2.18E-02 | 5.51E-02 | 7.81E-02 | 9.31E-02 | 1.04E-11 | 3.82E-18 | 0.00E+00 | |
| 1.434E+03 | 16 | 9.82E-05 | 1.91E-03 | 6.33E-03 | 1.39E-02 | 4.52E-02 | 7.10E-02 | 1.11E-04 | 2.00E-08 | 2.28E-12 | 0.00E+00 | |
| 1.403E+03 | 15 | 1.73E-05 | 7.67E-04 | 3.44E-03 | 8.63E-03 | 3.65E-02 | 6.57E-02 | 1.11E-04 | 2.10E-08 | 2.47E-12 | 0.00E+00 | |
| 1.373E+03 | 14 | 3.11E-06 | 3.19E-04 | 1.93E-03 | 5.28E-03 | 2.91E-02 | 3.06E-02 | 3.64E-12 | 6.84E-18 | 6.40E-22 | 0.00E+00 | |
| 1.342E+03 | 13 | 6.73E-07 | 1.11E-04 | 1.01E-03 | 3.21E-03 | 2.35E-02 | 4.44E-02 | 2.40E-05 | 3.81E-09 | 4.54E-13 | 0.00E+00 | |
| 1.312E+03 | 12 | 1.88E-07 | 4.31E-05 | 5.16E-04 | 1.91E-03 | 1.98E-02 | 4.19E-02 | 2.48E-05 | 4.05E-09 | 4.94E-13 | 0.00E+00 | |
| 1.281E+03 | 11 | 4.67E-08 | 1.44E-05 | 2.13E-04 | 1.05E-03 | 1.71E-02 | 1.90E-02 | 1.81E-12 | 8.18E-19 | 9.10E-23 | 0.00E+00 | |
| 1.220E+03 | 10 | 1.11E-08 | 4.44E-06 | 7.39E-05 | 7.21E-04 | 1.34E-02 | 1.15E-02 | 4.55E-06 | 1.13E-09 | 2.25E-13 | 0.00E+00 | |
| 1.159E+03 | 9 | 2.86E-09 | 1.52E-06 | 2.80E-05 | 5.21E-04 | 1.03E-02 | 1.14E-02 | 4.93E-06 | 1.23E-09 | 2.47E-13 | 0.00E+00 | |
| 1.098E+03 | 8 | 7.62E-10 | 5.67E-07 | 1.12E-05 | 3.99E-04 | 8.14E-03 | 8.96E-03 | 7.18E-13 | 9.68E-20 | 1.70E-23 | 0.00E+00 | |
| 1.037E+03 | 7 | 1.84E-10 | 2.29E-07 | 4.89E-06 | 2.48E-04 | 5.61E-03 | 4.06E-03 | 1.56E-06 | 3.83E-10 | 7.63E-14 | 0.00E+00 | |
| 9.760E+02 | 6 | 7.79E-11 | 1.46E-07 | 1.91E-06 | 1.20E-04 | 3.22E-03 | 3.82E-03 | 1.72E-06 | 4.27E-10 | 8.76E-14 | 0.00E+00 | |
| 8.540E+02 | 5 | 1.84E-11 | 8.17E-08 | 6.71E-07 | 4.57E-05 | 1.43E-03 | 2.25E-03 | 2.12E-06 | 9.51E-10 | 3.37E-13 | 0.00E+00 | |
| 7.320E+02 | 4 | 1.74E-12 | 2.33E-08 | 2.83E-07 | 2.44E-05 | 9.43E-04 | 2.37E-03 | 2.22E-06 | 1.05E-09 | 3.82E-13 | 0.00E+00 | |
| 5.490E+02 | 3 | 1.28E-13 | 3.96E-09 | 6.09E-08 | 9.01E-06 | 1.70E-03 | 2.72E-03 | 2.35E-06 | 1.12E-09 | 4.10E-13 | 0.00E+00 | |
| 3.050E+02 | 2 | 6.25E-15 | 6.66E-10 | 9.39E-08 | 1.51E-05 | 2.30E-03 | 2.50E-03 | 1.98E-06 | 8.96E-10 | 3.17E-13 | 0.00E+00 | |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

*-*-*-*-*-*-*-*-*-*-*- C - SPECIES CONCENTRATION..... FOR PLANE K = 15 AT STEP 6601, TIME= 1.6223E+04 -*-*-*-*-*-*-*-*-*-*-*

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 0.00E+00 | 1.83E+02 | 3.66E+02 | 4.88E+02 | 5.49E+02 | 6.10E+02 | 6.71E+02 | 7.02E+02 | 7.32E+02 | 7.63E+02 | 7.93E+02 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 8.24E+02 | 8.54E+02 | 8.85E+02 | 9.15E+02 | 9.46E+02 | 9.76E+02 | 1.01E+03 | 1.04E+03 | 1.07E+03 | 1.10E+03 | 1.13E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.16E+03 | 1.19E+03 | 1.22E+03 | 1.25E+03 | 1.28E+03 | 1.31E+03 | 1.34E+03 | 1.37E+03 | 1.40E+03 | 1.43E+03 | 1.46E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.49E+03 | 1.52E+03 | 1.56E+03 | 1.59E+03 | 1.62E+03 | 1.65E+03 | 1.68E+03 | 1.71E+03 | 1.77E+03 | 1.83E+03 | 1.89E+03 |

| Y | J | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X = | 1.95E+03 | 2.01E+03 | 2.07E+03 | 2.13E+03 | 2.20E+03 | 2.26E+03 | 2.32E+03 | 2.38E+03 | 2.50E+03 | 2.62E+03 | 2.74E+03 |

| Y | J | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.928E+03 | 42 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.684E+03 | 41 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.501E+03 | 40 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.379E+03 | 39 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.257E+03 | 38 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.196E+03 | 37 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.135E+03 | 36 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.074E+03 | 35 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 2.013E+03 | 34 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.952E+03 | 33 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.922E+03 | 32 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.891E+03 | 31 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.861E+03 | 30 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.830E+03 | 29 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.800E+03 | 28 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.769E+03 | 27 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.739E+03 | 26 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.708E+03 | 25 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.678E+03 | 24 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.647E+03 | 23 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.617E+03 | 22 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.586E+03 | 21 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.556E+03 | 20 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.525E+03 | 19 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.495E+03 | 18 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.464E+03 | 17 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.434E+03 | 16 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.403E+03 | 15 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.373E+03 | 14 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.342E+03 | 13 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.312E+03 | 12 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.281E+03 | 11 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.220E+03 | 10 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.159E+03 | 9 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.098E+03 | 8 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 1.037E+03 | 7 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 9.760E+02 | 6 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 8.540E+02 | 5 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 7.320E+02 | 4 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 5.490E+02 | 3 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 3.050E+02 | 2 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |
| 0.000E+00 | 1 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 |

| I = | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 |
|---|---|---|---|---|---|---|---|---|---|---|
| X = | 2.87E+03 | 2.99E+03 | 3.11E+03 | 3.23E+03 | 3.35E+03 | 3.48E+03 | 3.60E+03 | 3.72E+03 | 3.84E+03 | 3.96E+03 |

**********

—> SIMULATION TIME OF STORED DATA: 1.622E+04
—> STEP NUMBER AT WHICH GENERATED: 6601

—> WRITING VARIABLE: P - PRESSURE OR PRESSURE HEAD
—> WRITING VARIABLE: C - SPECIES CONCENTRATION.....

====> DATA SET NUMBER: 2 WRITTEN TO c:\pfo\3z402020.arc

1-
1100-EM-1 Groundwater Model

| SYMBOL | NAME | MIN. VALUE | MAX. VALUE | SCALE |
|---|---|---|---|---|
| X | TIME | 0.000E+00 | 1.622E+04 | 3.000E+03 |

```
  1  C( 10, 17, 10)   0.000E+00  9.330E+02
  2  C( 24, 19, 10)   0.000E+00  1.206E+02
  3  C( 36, 21, 10)   0.000E+00  5.863E+01
  4  C( 10, 17, 11)   0.000E+00  9.455E+02
     ALL Y-AXES        0.000E+00  9.455E+02  2.000E+02

NOTES: 1. ACTUAL VALUE = MIN. VALUE + PRINTED VALUE * SCALE
       2. SCALE IS IN UNITS PER INCH

        0.0     1.0     2.0     3.0     4.0     5.0     6.0
X 0.000 4.......+.......+.......+.......+.......+.......+.
X 0.167 4                                              .
X 0.333 4                                              .
X 0.500 3                       14      4              .
X 0.667 32          4     4                            .
X 0.833 3 22   41     4                                .
X 1.000 3  22   4 4                                    +
X 1.167 3   241                                        .
X 1.333 334 4 2         14                             .
X 1.500 .3   2    414414444                            .
X 1.667 .33 4244 44                                    .
X 1.833 . 4122                                         .
X 2.000 41 32                                          +
X 2.167 4  32                                          .
X 2.333 4  3                                           .
X 2.500 4 23                                           .
X 2.667 423                                            .
X 2.833 423                                            .
X 3.000 423                                            +
X 3.167 4 3                                            .
X 3.333 43                                             .
X 3.500 43                                             .
X 3.667 43                                             .
X 3.833 4                                              .
X 4.000 4                                              +
X 4.167 4                                              .
X 4.333 4                                              .
X 4.500 4                                              .
X 4.667 4                                              .
X 4.833 4                                              .
X 5.000 4                                              +
X 5.167 4                                              .
X 5.333 4                                              .
X 5.500 .                                              .
X 5.667 .                                              .
X 5.833 .                                              .
X 6.000 +                                              +
X 6.167 .                                              .
X 6.333 .                                              .
X 6.500 .                                              .
X 6.667 .                                              .
X 6.833 .                                              .
X 7.000 +                                              +
X 7.167 .                                              .
X 7.333 .                                              .
X 7.500 .                                              .
X 7.667 .                                              .
X 7.833 .                                              .
X 8.000 +.......+.......+.......+.......+.......+.......++

1*****************************************************************************

        THIS OUTPUT IS PRODUCED BY THE COMPUTATIONAL MODEL

        ----------P O R F L O W - 3 D----------

          FOR TRANSIENT OR STEADY STATE ANALYSIS OF
         FLOW, HEAT AND MULTI-COMPONENT MASS TRANSPORT
        IN VARIABLY SATURATED POROUS OR FRACTURED MEDIA

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        FOR ENQIRIES AND ASSISTANCE: CALL 310-471-3023 USA

            VERSION 2.40.0 /MASTER - DATE: 02 JAN 92
        DATE OF RUN: 10/20/92 -  TIME OF RUN: 13:04:31.6

        ELAPSED TIME FOR THIS CASE :   27.06 MINUTES
        TIME PER GRID NODE PER STEP:    0.49 MILLISECONDS
        TIME PER NODE-STEP-EQUATION:    0.24 MILLISECONDS
         2 EQUATIONS SOLVED AT 40950 NODES FOR   81 STEPS
```

LICENSE # : 3240AWW034
LICENSED TO: US DEPT OF THE ARMY: MATT JOHANSEN
CONDITIONS : GOVERNMENT USE: ONLY LIMITED LICENSE
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RECORD OF INPUT DATA STREAM

1

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## Saturated Zone Contaminant Output File (continued)

**Computed concentrations at nodes representing MW-13/14/15, TW-9, TW-16, and TW-1, for the model calibration discussed in Section 6.4.5.**

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93129330933

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.HIS      3/7/93      Page 1
  3000   11  3812
PORFLOW-3DVERSION 2.40.0 /MASTER - DATE: 02 JAN 923240AWW03403/07/93  09:01:06.5
USACE Walla Walla Dist, Environmental Engineering Br.
1100-EM-1 Groundwater Model
U  V  W  P  P2  P3  T  C  C2  C3  C4  S  S2  S3  RHO RHO2
RHO3AX  AY  AZ  ZS  FCX FCY FCZ FCX2SE  KR  H  H2  H3
   65   42   15 40950   16   1   4   1   0   1   0   0
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 28636 28416 28551 28414
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# APPENDIX I

# DOCUMENT MAILING LIST

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The following agencies, organizations, and interested parties will receive a copy of this document and the Proposed Plan during the Public Review process:

U.S. Environmental Protection Agency
U.S. Department of Interior
Agency for Toxic Substances and Disease Registry
National Oceanic and Atmospheric Administration

Nez Perce Tribe
Confederated Tribes and Bands of the Yakima Indian Nation
Confederated Tribes of the Umatilla Indian Reservation
Confederated Tribes of the Warm Springs
Wanapum Indian Band

Washington State Department of Ecology
Oregon State Department of Environmental Quality

Benton County Planning Department
City of Richland

Administrative Record
Public Information Repositories

Notification of the proposed action will be distributed to the Hanford Federal Facility Agreement and Consent Order Public Notification List.

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# APPENDIX J

# LAND USE

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## 1.0 INTRODUCTION AND SUMMARY

The land within the boundary of the 1100-EM-1 Operable Unit is currently used for industrial-related purposes and forms the center of a larger industrial complex (the Tri-Cities Science and Technology Park). This current use of the land as industrial is also projected in the land use and facility plans which the U.S. Department of Energy (DOE) prepared at Hanford. The planning process used by DOE in developing these plans is detailed and systematic and accomplished by professional land use planners. However, the plans are not predictors of longer term land use (beyond 20 to 30 years) and should not be used as predictors of land use beyond reasonable lengths of time nor for land use changes resulting from longer term events, (for example, as in the case for the 1100-EM-1 Operable Unit, the potential excessing of this land after cleanup). For the 1100-EM-1 Operable Unit, DOE has no near term plans to excess any property. DOE maintains the current land use is industrial, and will continue such use for the present and near term future, even after any cleanup. Land use planning of adjacent land by city (Richland) and county (Benton) jurisdictions is consistent with this assumption (more information is contained in the following sections about local government land use planning).

DOE recognizes that there is not universal agreement on land use for the 1100-EM-1 Operable Unit, nor for most of the Hanford site for that matter. To secure recommendations and determine if consensus could be reached among the various groups or interested parties concerning differing land uses proposed for various sections of Hanford land, DOE, in April 1992, convened a divergent group from relevant Federal agencies, Native American tribes, state and local governments, and environmental and interest groups to develop recommendations concerning potential use of lands after cleanup. This group was chartered as the "Hanford Future Site Uses Working Group;" recommendations developed are to be used as input into the Hanford Remedial Actions Environmental Impact Statement (HRA-EIS). (This document is not expected to be available until 1995 or later. It is expected to provide significant assistance to all parties in reaching agreement on land use.) As of December, 1992, a draft of the final report from the Hanford Site Uses Working Group had been submitted to the Manager, DOE-RL, with a schedule for publication in January 1993.

Relevant sections of that document (chapter 2) indicate that land and groundwater cleanup scenarios in the 1100 Area should be based on eventual unrestricted [residential] use. The report provides recommendations for criteria to be used in determining cleanup priorities for taking actions in achieving unrestricted status. Generally, the recommendations support near term remediation of the soil sites to unrestricted use, but do not contain a basis for near term cleanup of the low levels of contaminants in groundwater. More information is contained in the following sections about the Hanford Site Uses Working Group and about these recommendations.

The existing land use, planned land use by DOE, and current city/county planned land use of adjacent land support a rationale for determining that the appropriate land use for land in the 1100-EM-1 Operable Unit is industrial. However, the recommendations from the Hanford Future Site Uses Work Group are directed towards residential use. However, this divergence appears to provide an opportunity for an overall land use strategy in development of cost effective remedial alternatives protective of human health and the environment:

(1) that contaminated sites which would exist indefinitely (beyond any reasonable time for assured institutional control) would be cleaned up to standards for unrestricted use where practicable, and (2) that institutional controls (such as land and groundwater restrictions) be implemented for sites where it can be shown that the contaminant would degrade or attenuate within a reasonable period of time or, for sites where contaminants would remain in place above unrestricted use cleanup goals, where it can be shown that meeting the more stringent standards is not practicable. This is the land use strategy emphasized in this document. The following sections contain more information about present land use, land use planning, and the Hanford Future Site Uses Working Group.

## 2.0 PRESENT LAND USE OF 1100-EM-1 OPERABLE UNIT AND ADJACENT LAND

The land within the 1100-EM-1 Operable Unit is currently used for such purposes as vehicle maintenance and warehouse activities. The majority of the land is undeveloped. Immediately to the east of the Operable Unit are the Battelle Pacific Northwest Laboratory office complex, Kaiser offices, lay-down yard and staging areas (part of the DOE 3000 Area), and several office buildings (principally used by Westinghouse Hanford Company). Farther to the east is a well-established development with numerous professional, research, utility, and manufacturing firms including offices for the Port of Benton, Washington Public Power Supply System, and Westinghouse Hanford Company. To the west of the 1100-EM-1 Operable Unit is an area of mixed types of industrial and commercial uses which includes light industrial, commercial, the Richland Airport, Siemens Power Corporation (reactor fuel rod fabrication facility), and the Richland sanitary landfill. The adjacent property to the east and west has significant areas of vacant or undeveloped land. The Hanford Reservation extends from the 1100 Area to the north. The south tip of the 1100 Area touches on the boundary of a residential area.

More detailed information about present land use for the individual areas within the 1100-EM-1 Operable Unit is given in section 6.0 below.

## 3.0 HANFORD SITE DEVELOPMENT PLANNING PROCESS

Land use and future development of sites within Hanford are controlled through a systematic process that considers the needs of all Hanford Site organizations. For the 1100-EM-1 Operable Unit, principal organizations involved are the Pacific Northwest Laboratory, Kaiser Engineers Hanford, and Hanford Environmental Health Foundation. The process also considers the needs of all work activities such as cleanup, solid and liquid waste disposal, waste processing, research and development, transportation, and utilities. Primary products of the site planning process are Site Development Plans for each of the major areas (100, 200, 300, 400, and 1100 Areas) of Hanford.

Site-selection activities (location of development) are coordinated through a Hanford Site Selection Review Team, which is composed of representatives from each Hanford site contractor, and from a number of departments within the operating contractor's organization. The development and administration of these activities is performed by the Westinghouse Hanford Site Planning Group under the jurisdiction of the DOE/RL Site Infrastructure Division.

## 4.0 HANFORD SITE DEVELOPMENT PLANS

Presently, land use plans are developed by the Westinghouse Hanford Site Planning Group with review and approvals from Westinghouse Hanford Company, Pacific Northwest Laboratory, Kaiser Engineers Hanford, Hanford Environmental Health Foundation and the DOE/RL Site Infrastructure Division in accordance with DOE Order 4320.1B, Site Development Planning. The plans address the present conditions, projected activities for the next 5 years, and future vision for the next 20 years at Hanford. They are updated annually to reflect changing land use, developmental conditions, and new concepts.

Specific land use planning documents pertaining to land use for the 1100-EM-1 Operable Unit are as follows:

-Site planning for the areas northeast (and downgradient - from a groundwater movement standpoint) of the Horn Rapids Landfill are guided by the *Draft Hanford 300 Area Development Plan*, DOE/RL-91-09 (DOE-RL, 1991), which primarily contains specific details of future facility development of the 300 Area.

-Land use plans for the Horn Rapids Landfill and 1100 Area west of Stevens Drive are described in the *Draft Hanford Site Development Plan*, DOE/RL-92-20 (DOE-RL, 1992).

-A development plan is being prepared to address detailed plans for the 1100 Area east of Stevens Drive. This plan is scheduled for submittal from Westinghouse Hanford Company to DOE for review in December 1992.

More detailed information from these plans in summarized section 6 below.

## 5.0 STATE AND LOCAL AGENCY PLANNING

State and local agency development plans play an important role in Hanford Site planning. Key agencies consulted in plan development include the Benton-Franklin Governmental Conference, the Washington State Department of Transportation, the Port of Benton, the city of Richland, and Benton and Franklin Counties. Because of its adjoining property and ongoing planning activities in the 1100 area, the city of Richland has played an especially important role in the planning for the 1100 Area.

Several city of Richland planning activities involve planning for the areas adjacent to the 300 and 1100 Areas. These activities include participation in the Tri-Cities Science and Technology Park, zoning and conceptual planning, and implementation of the Washington State Growth Management Act. Land use planning for these adjacent areas is important in the evaluation of land use at Hanford because it shows the 1100 Area as located within a larger industrial area.

# 6.0 PRESENT AND FUTURE LAND USE - DETAILED INFORMATION

## 6.1 HANFORD 300 AREA DEVELOPMENT PLAN

### 6.1.1 Existing Missions and Land Use

Future land use of the 300 Area is based, to a significant degree, upon present land use and mission. The area considered in this planning includes the south part of the 300 Area which is the area directly downgradient of the Horn Rapids Landfill (HRL). Presently, the 300 Area is integral to two primary missions [*Draft Hanford 300 Area Development Plan*, (DOE/RL-91-09)]:

- To clean up the Hanford Site, eliminate potential risks to the public, and serve as the DOE's model in environmental restoration.
- To provide facilities for research, development, demonstration, testing, and evaluation to support the following:
  - Hanford Site environmental restoration and waste management programs.
  - National environmental restoration and waste management programs.
  - Molecular programs on waste and ecological processes.
  - Environmental programs on subsurface and global processes.
  - National energy strategy programs on energy efficiency.
  - Fluid dynamics programs.
  - Space power and transmission programs.

All of the current uses are consistent with industrial land use.

### 6.1.2 Five-Year Projects

Projects that will require construction of a new facility or significantly affect land use development in the 300 Area during the next 5 years consist of the following (DOE/RL-91-09):

- Research and Development of Office of Environmental Restoration and Waste Management Projects.

- Research and Development of Programmatic Projects.
- Research and Development of Multiprogram Energy Laboratories-Facilities Support Projects.
- Landlord Program Projects.
- Solid and Liquid Waste Remediation Projects.

A detailed list of 300 Area projects is provided in the DOE/RL-91-09. All 5-year projects are consistent with industrial land use.

### 6.1.3 Long-Range Projects

The long-range projects identified in the *Draft Hanford 300 Area Development Plan* have varying degrees of probability and programmatic clarity. The listing of a project does not mean or imply that it has or will have the approval of the DOE or a DOE contractor. The following list of speculative projects is only for envisioning the long-range development in the 300 Area (DOE/RL-91-09):

- Engineering Test Laboratory.
- Environmental Research Laboratory.
- Special Analysis Facility.
- Waste Systems Performance Analysis Center.
- George Washington Way Road Improvements.
- Advanced Reactor Development Laboratory.
- Space Power Generator Development.
- Q Avenue Road Extension.
- East-West Road Creation.
- Material Sciences and Thin Film Membranes.
- Chemical Sciences Laboratory.
- Isotope Production and Packaging Facility.
- Port of Benton Boulevard Extension.

Facility location and associated transportation development is shown on figure J-1. All long-range land use of the 300 Area is consistent with industrial use.

## 6.2 HANFORD 600 AREA DEVELOPMENT PLAN

The 600 Area, for site planning purposes, included the HRL area. Future use of the HRL is anticipated to be for research and development (DOE/RL-92-20) and is consistent with industrial use (figure J-2).

## 6.3 DRAFT 1100 AREA SITE DEVELOPMENT PLAN

The 1100 Area is defined, for site planning purposes, as the area south of Horn Rapids Road and west of Stevens Drive. It presently serves as an industrial area for shipping, receiving, and vehicle maintenance activities. The long-range vision for this area is an operations support (industrial) use (figure J-2). Long-range operations are anticipated to be industrial in nature.

The site development plan for the 1100 Area is in progress and is scheduled for DOE review in December 1992. Work to date on this plan indicates that the present, 5-year, and future use of this land will be industrial. Assembly of a list of the construction projects to be initiated during the next 5 years is at a preliminary stage, but includes the following for the 1100 Area:

- Power supply substation for the Environmental and Molecular Sciences Laboratory.
- Repairing of roadways.
- Demolition 1166 building.
- Modernization of bus lot.
- Bus sweep rack (cleaning facility).
- Upgrade railroad tracks.

The list of long-range construction projects is incomplete at this time, but includes the following:

- Connection with city of Richland street extensions (figure J-3).
- Traffic light installation for city of Richland street extensions.

The present bus and warehouse activities are anticipated to continue into the future and will continue to determine DOE's industrial use of the 1100 Area.

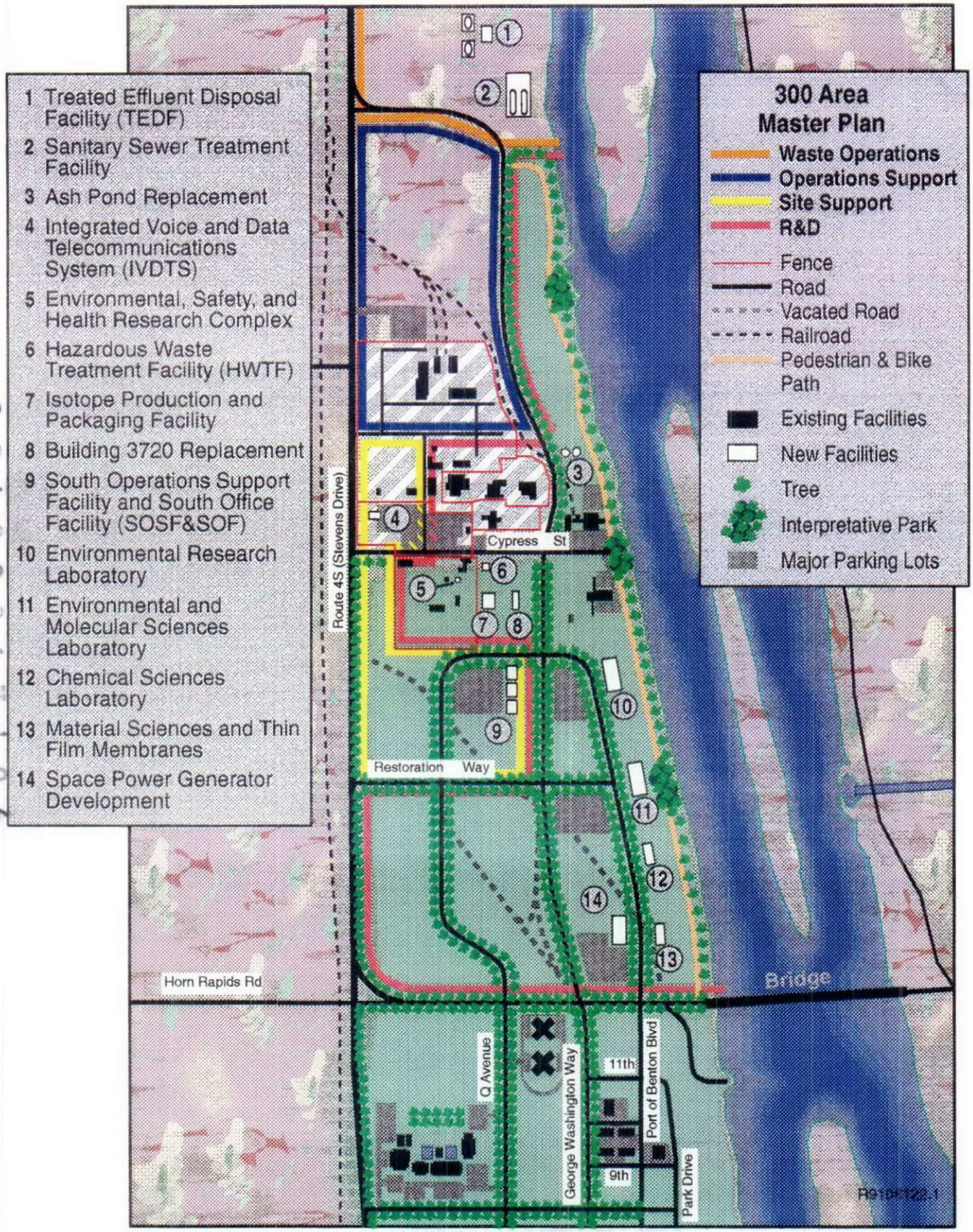


Figure J-1. 300 Area Master Plan

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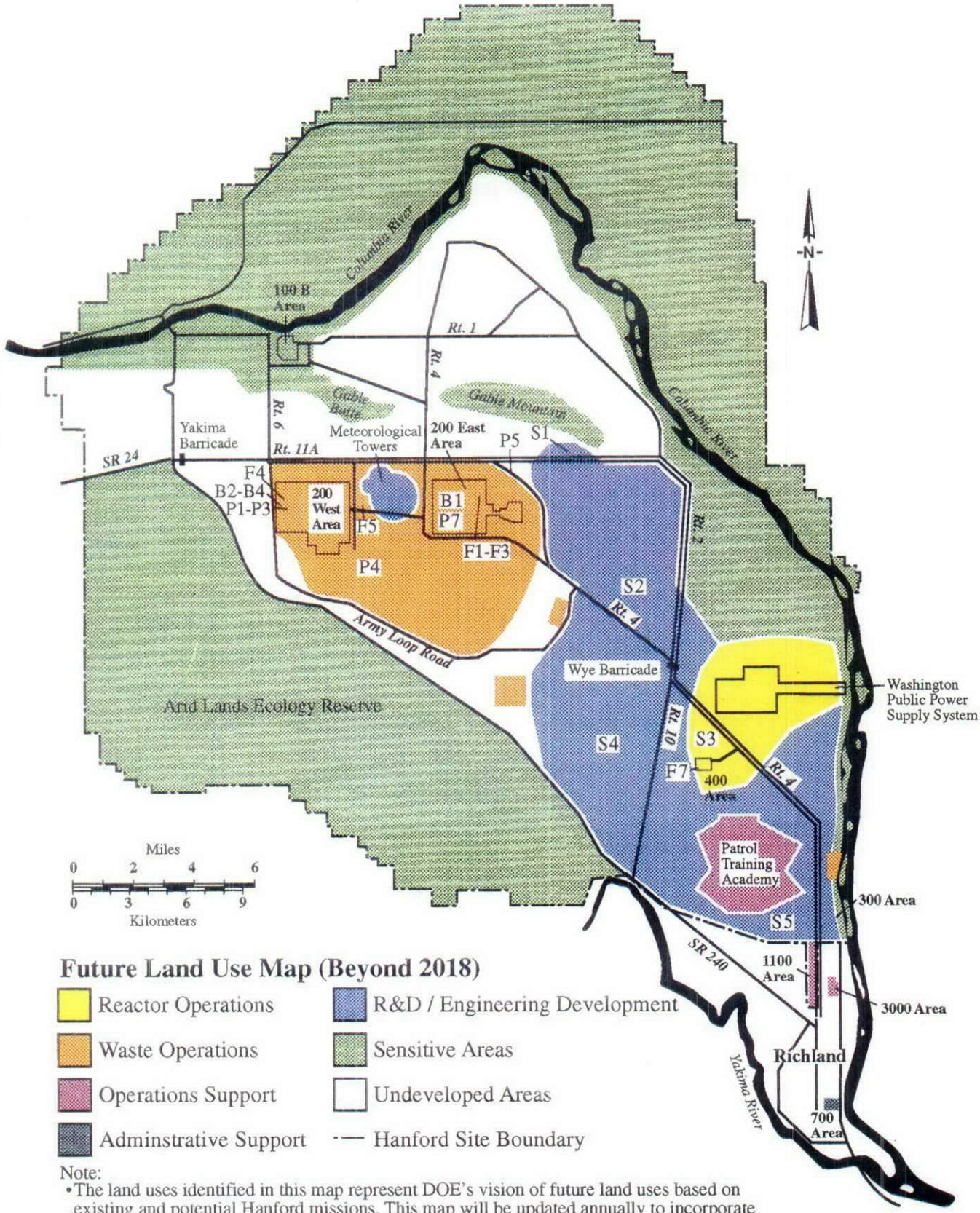


## Future Land Use Map (Beyond 2018)

- Reactor Operations
- Waste Operations
- Operations Support
- Adminstrative Support
- R&D / Engineering Development
- Sensitive Areas
- Undeveloped Areas
- Hanford Site Boundary

Note:
- The land uses identified in this map represent DOE's vision of future land uses based on existing and potential Hanford missions. This map will be updated annually to incorporate decisions made by the Hanford Remedial Action Environmental Impact Statement, other NEPA or regulatory decision documents, mission changes, and other sources as appropriate.

Figure J-2. Draft Hanford Site Development Plan

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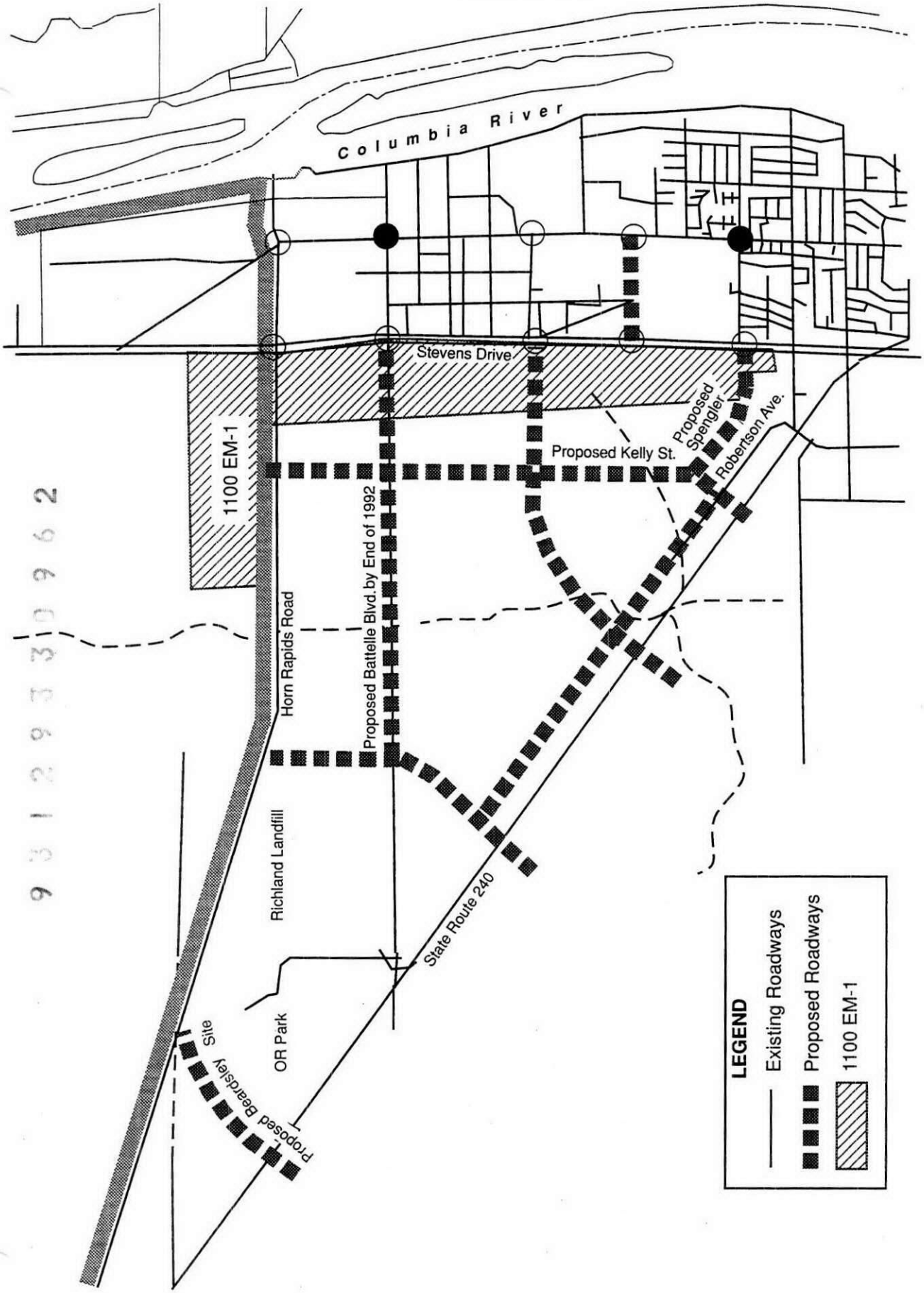


Figure J-3. City of Richland Street Extension Map

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## 6.4 LAND USE AND PLANNING FOR ADJACENT PROPERTY

### 6.4.1 Washington State Growth Management Act

The city of Richland is currently changing its planning to conform to Washington State Growth Management Act requirements (WSGMA). The present land use comprehensive plan is shown on figure J-4 and, according to Herb Everet (Richland Planning and Inspection Supervisor, Community Development Department), is not anticipated to be changed significantly by future Visioning Meetings (the public participation process portion of the Growth Management Act). Land use and public opinion surveys are being conducted by the city as part of the WSGMA planning process. The information collected to date does not suggest any changes to the North Richland portion of the present comprehensive land use plan. By law, the comprehensive plan should be adopted by July 1, 1993. The WSGMA requires that the city zoning be consistent with the comprehensive plan.

### 6.4.2 City of Richland Land Use Zoning

Non-Federal property in the North Richland area has been zoned by the city of Richland for industrial-type activities as shown on figure J-5. Zoning of property adjacent to the 1100 Area includes heavy manufacturing, medium industrial, and limited manufacturing. This industrial land use can be assumed to continue into the future because of long-range goals associated with the Tri-Cities Science and Technology Park as shown on figure J-6. The city is deeply committed to development of the Tri-Cities Science and Technology Park, and every aspect of their planning, including zoning, is consistent with this development. The city of Richland and DOE/RL, are negotiating the annexation of the 1100 Area (Tri-City Herald, 1992a and 1992b). Annexation would provide for DOE retention of the land with the city of Richland providing many of the services to the area. As a part of the agreement, the city of Richland would extend its industrial zoning to cover this area.

### 6.4.3 Tri-Cities Science and Technology Park

The city of Richland is a member of the Tri-Cities Science and Technology Park Association and is developing a market and promotional strategy for the Tri-Cities Science and Technology Park. Plans for this development include construction of administrative offices, research facilities, and commercial and light manufacturing operations. The city of Richland owns most of the property adjacent to the east side of the 1100 Area (figure J-7). The city intends to sell this property to commercial firms to encourage the development of an industrial park. The city is presently leasing some of this land for agricultural use. The contractual arrangement of the lease allows the city to terminate this activity at any time based upon the city's intent to market this area as an industrial park. According to Herb Everet, the city does not intend this agricultural activity to continue over a prolonged period. Planning has begun on extending a number of streets in the area west of Stevens Drive and north of SR-240 (see figure J-3). A portion of the Battelle Boulevard extension is planned

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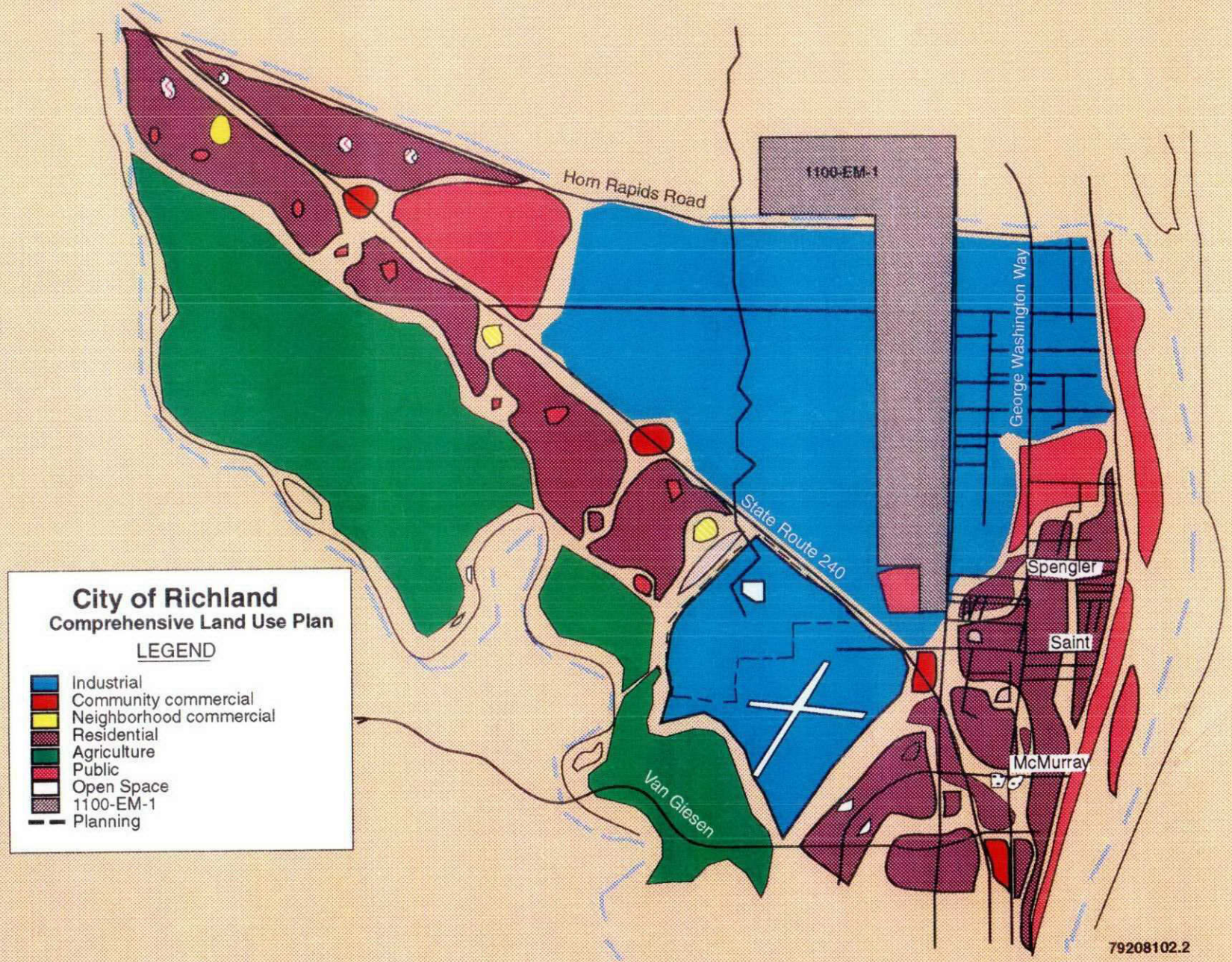


Figure J-4. City of Richland Comprehensive Plan

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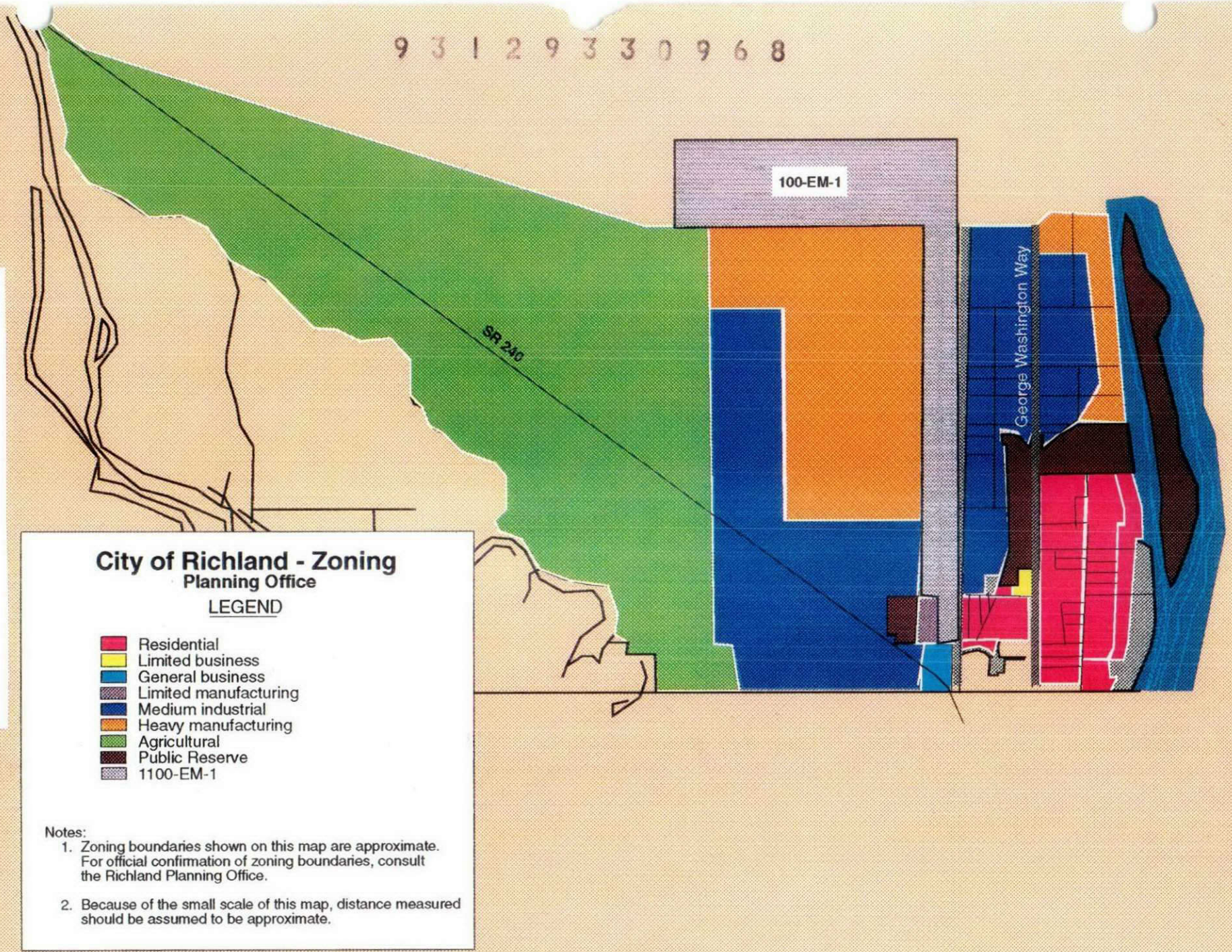


Figure J-5. City of Richland Land Use Zoning

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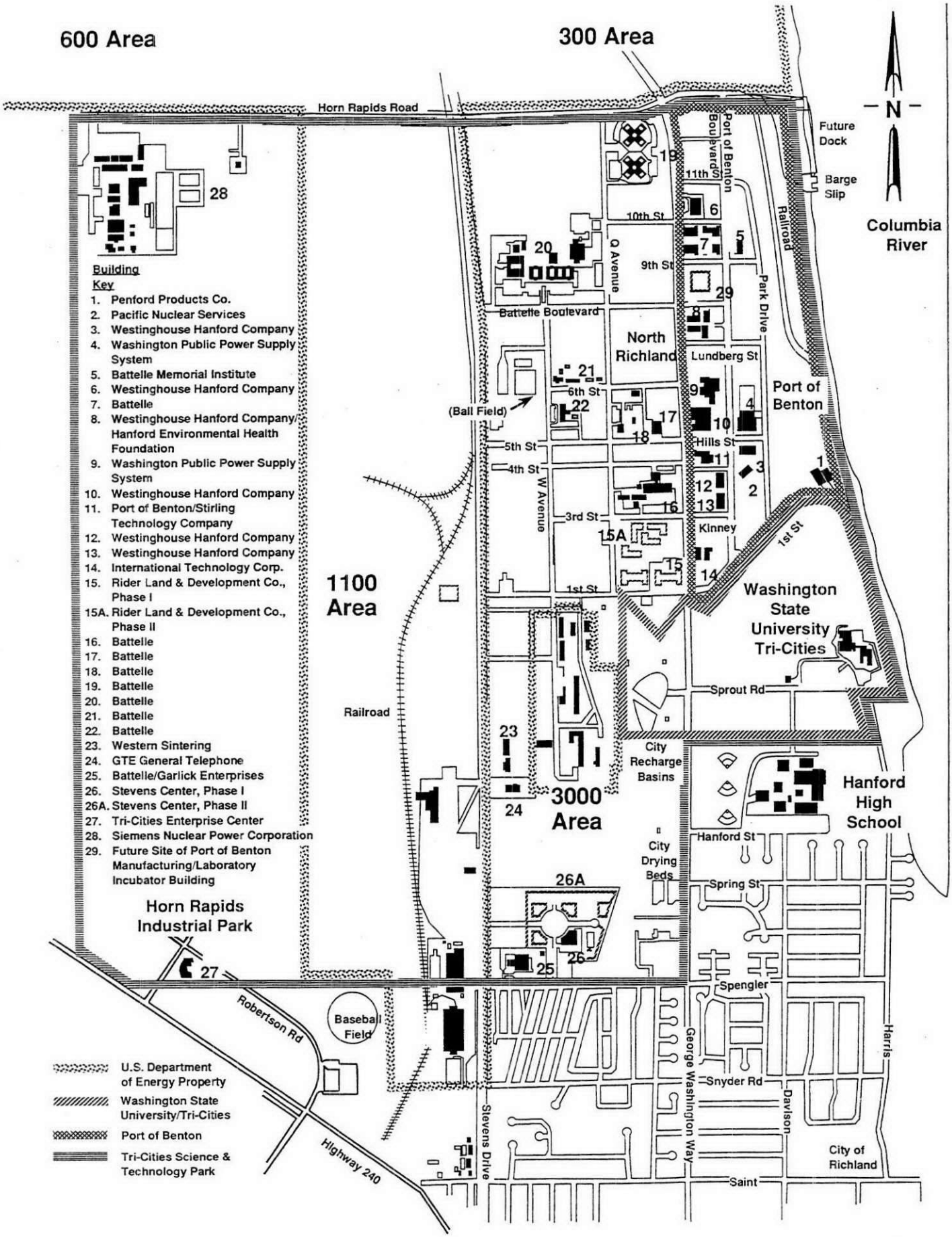


Figure J-6. Tri-Cities Science and Technology Park

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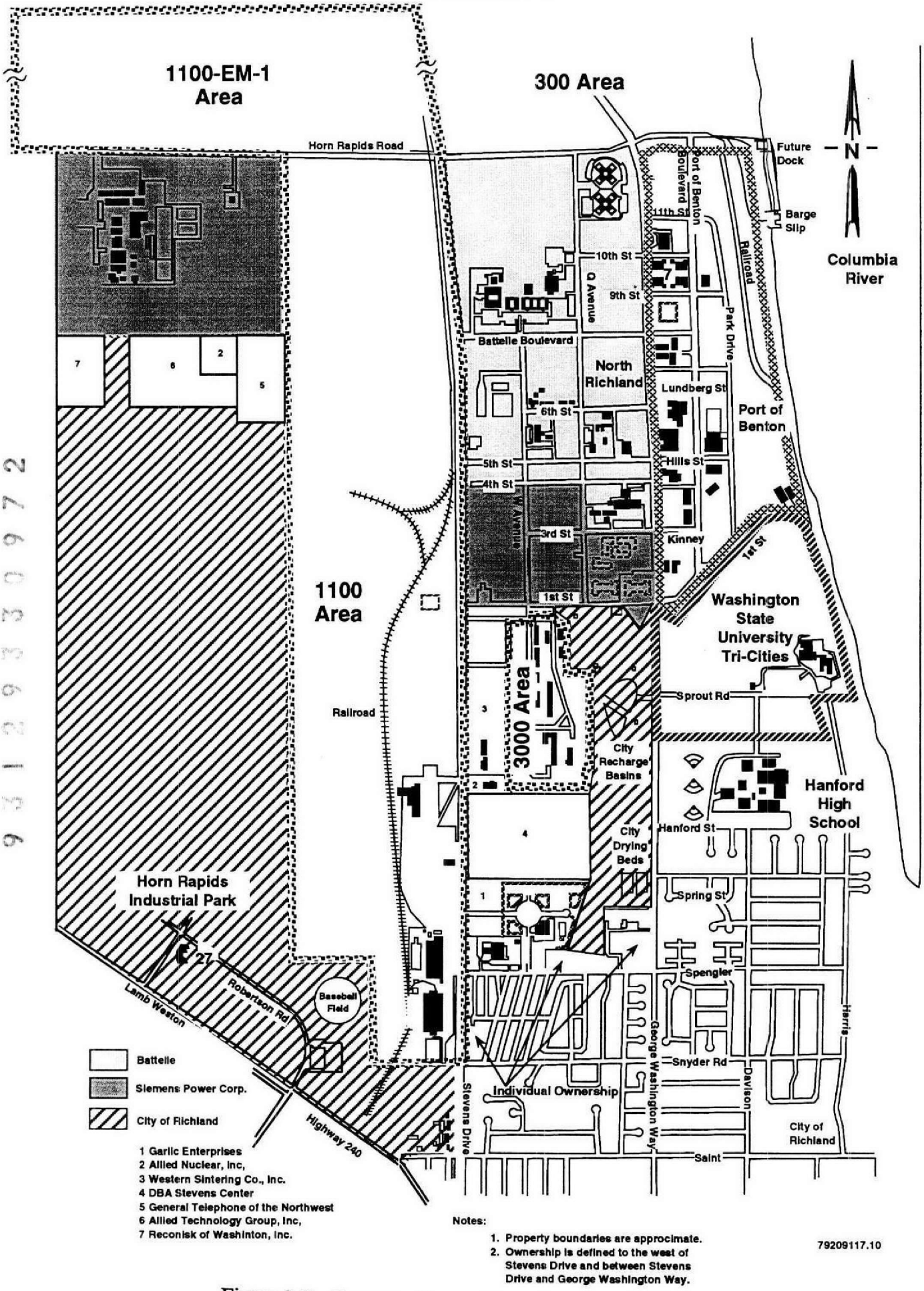


Figure J-7. Property Ownership Adjacent to 1100 Area

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for 1992. The intent of this planning is to serve future commercial development in this area better and demonstrate the city's intent to promote the industrial park.

## 7.0 FUTURE LAND USE

### 7.1 HANFORD SITE DEVELOPMENT PLANNING, LOCAL GOVERNMENTAL PLANNING

An industrial type of land use is identified for the 1100 and 300 Areas for at least the next 20 years. The long range needs for the Hanford mission require these areas to serve as operation support and research facility functions. Additionally, the 1100-EM-1 Operable Unit is at the heart of a large industrial complex for which the city of Richland, and other participants in the Tri-Cities Science and Technology Park Association, are developing long range plans for commercial/industrial development. Proposed planning by the city of Richland indicates an industrial zone for the 1100 Area government-owned land. The city is proposing this zoning in the event that the Federal government releases jurisdiction of the property. The 1100 Area and adjacent areas zoned by the city of Richland are industrial based upon DOE's and the city of Richland's existing development and future land use plans.

### 7.2 HANFORD FUTURE SITE USES WORKING GROUP

#### 7.2.1 Purpose and Approach of the Working Group

The following information is taken from the FINAL DRAFT of the Working Group,as available on December 15, 1992, prior to final publication of the report. The published version, expected in January 1992, could contain text changes; any changes are not expected to change the substantive information below. Directly quoted material is indicated by quotation marks, with page numbers cited.

> The Hanford Future Site Uses Working Group was convened in April, 1992, by relevant Federal, tribal, state, and local governments with an interest in the cleanup and possible future use of the Hanford Site. The group was comprised of these entities and additional representatives from several constituencies with crucial interests in the successful cleanup of Hanford and in the possible future use of the site after cleanup. These constituencies included representatives of labor, environment, agriculture, economic development, and citizen interest groups.
>
> The Working Group was charged with three related tasks:
>
> - To examine Hanford and identify a range of potential future uses for the site;

- To select appropriate cleanup scenarios necessary to make these future uses possible in light of potential exposure to contamination, if any, after cleanup; and

- To probe for convergences among the Working Group's cleanup scenarios for any priorities or criteria which could prove useful in focusing or conducting the cleanup of Hanford." (See page 3.)

### 7.2.2 Rationale for Forming of Working Group

Formation of the Working Group was "predicated on the belief that the Hanford cleanup would be well served by having a better understanding of the range of possible future uses to which the site might be devoted after cleanup was completed. While the principal goal of cleanup is to protect human health and safety, the possible future uses of the site can provide critical direction to the cleanup as well. An understanding of possible future uses can focus the efforts of both the DOE and the Federal and state regulators, as well as the Congress and the public, on what manner of cleanup is needed, and what is most important to accomplish over time as Hanford's lengthy cleanup unfolds. The fact that DOE is in the midst of developing the HRA-EIS, which will chart the course for some, but not all, of the Hanford cleanup, was a prime contributing factor for convening the Working Group. DOE, the State of Washington, and the U.S. Environmental Protection Agency (EPA) have committed to using the Working Group's products to inform and guide them in all relevant aspects of their cleanup decisions. (See pages 3 and 4.)

### 7.2.3. Convening and Deliberative Process

The process by which the Working Group was convened and conducted its deliberations is described more fully in the Final Report, section, *Working Group Process*. "In brief, the Working Group was guided by a Charter and groundrules that identified their task and how they would work together. The Working Group agreed to a process that began with developing a common base of information on issues relevant to the Working Group's charge. This common base of information then served as the foundation for envisioning future use options and identifying cleanup scenarios needed to make those future use options possible. To facilitate their deliberations about Hanford's 560 square miles, Working Group members divided the site into six geographic areas. They then developed future use options and cleanup scenarios as well as findings and recommendations for each of the areas." (See page 3.)

### 7.2.4 Status of Working Group, Summary of Accomplishments, and Guide to Understanding Working Group's Recommendations

"The Working Group has now completed its work. It has identified a range of possible future uses for each major geographic area of the Hanford site. These future uses are described in generic terms, such as agriculture, industry, wildlife, *etc.*, rather than

precise articulations of specific activities such as cherry orchards, laboratories, elk herds, *etc.* The Working Group has thought through the levels of access needed to permit these uses to occur and has selected appropriate cleanup scenarios that identify those levels of access.

These levels of access include "unrestricted" use, "restricted" use, "exclusive" use for hazardous and nuclear waste/materials activities, and "buffer," the area that surrounds an "exclusive" area. It is important to note that the Working Group has developed fewer cleanup scenarios for each area than future use options. This is because a particular cleanup scenario (*e.g.*, "unrestricted" use) often suffices for several future use options (*e.g.*, wildlife, agriculture, Native American uses).

The Working Group's product is the result of the active participation of each constituency group. Indeed, it is the extensive and impressive nature of this participation that is one of the greatest strengths of the Working Group's effort. The Working Group had a groundrule that a future use option would be included if it was advocated by any one member of the Working Group. This groundrule ensured that the range of uses would be relatively broad but still reflect some winnowing of uses that did not have at least one "champion" in the group. However, inclusion of a use does not mean that the Working Group *as a whole* endorses that specific use.

Thus, this report is the result of the Working Group's efforts as a whole, yet it does not represent the traditional notion of consensus or support by each member for each future use in the report. The Working Group's report is *not* a land use report *per se*. The Working Group did not intend to specify and delineate the exact future uses which would occur throughout the site. To have done so would have meant addressing the issue of future site management and/or ownership which was beyond the scope of the Working Group's charter.

Therefore, this report should be viewed as a vision of possible future uses and an examination of what the cleanup needs to accomplish in order to make those uses possible." (See pages 4 and 5.)

### 7.2.5 Summary of Recommendations

- Protect the Columbia River--The river is a vital resource in the northwest. High priority should be given to stopping the actual and potential future contamination of the river.

- Deal with Groundwater Contamination--In some areas, dealing with contaminated groundwater should be a high priority, especially where there is potential for contamination of the river or drinking water. In other areas, it may be a low priority for now and restrictions should be placed on groundwater use to minimize the spread of contamination. As time passes and technology advances, groundwater contamination should be dealt with throughout the site to eventually permit unrestricted use.

- Use the Central Plateau Wisely for Waste Management--In general, wastes should be removed from most of the site and concentrated in the 200 Areas. Treatment, storage, and disposal activities should be managed to minimize the amount of land used by waste management activities. Continuing oversight will be necessary for the foreseeable future.

- Cleanup Areas of High Future use Values Soon--The potential future use value of the land should be one of the criteria considered when determining cleanup priority. There are two types of high future use values: (1) areas that could contribute to the development or utilization of the site for other purposes, *e.g.* the river corridor and southeast part of the site; and (2) areas where for a low cost and a short time would be needed to make land available for other uses, especially the North Slope and ALE Reserve.

- Do no Harm with Cleanup or New Development--Cleanup and potential future development (by DOE or others) should result in a net benefit to the environment. This accompanies the following recommendation.

- Cleanup to the Level Necessary to Enable the Future use Selected--The Working Group uses the categories "restricted" and "unrestricted" for the cleanup scenarios for most of the site. The unrestricted classification would essentially enable all uses to occur. However, not all uses need unrestricted status. Cleanup should go to the level necessary for the use in mind. The appropriate level of cleanup should be performed to ensure that cleanup contributes to the future productivity of the site by doing no more harm than the contamination would if left alone or not fully remediated. (For example, valuable wildlife habitat could be destroyed if major excavation of soils were to occur. However, subsurface soil or groundwater contamination would not necessarily harm the wildlife.)

- Transport Waste Safely and be Prepared--Transportation of wastes in and out of Hanford is a key concern of many Northwest residents. DOE should work with the various states, tribes, and local communities to establish a safe and effective transportation and emergency response program.

- Capture Economic Development Opportunities--The regional economy is highly dependent on Hanford programs. The Hanford portion of the economy must ultimately be replaced. DOE should take every opportunity to help build a stable and diversified local economy.

### 7.2.6 Summary of Results Applicable to the 1100-EM-1 Operable Unit

The Working Group identified a range of alternatives that can be evaluated in the Hanford Remedial Action Environmental Impact Statement. The alternatives include two main features: cleanup scenarios and future use options.

A *cleanup scenario* suggests levels of "access" that could be allowable after cleanup based on the presence or absence of contamination, including:

- Unrestricted--contamination does not preclude any uses. (Other restrictions may exist, *e.g.* protection of archaeological sites or wildlife habitat.)

- Restricted--there are limits on use because of contamination. It can apply to air, surface, subsurface, or groundwater.

- Exclusive--the land would be dedicated to the management and monitoring of radioactive and hazardous wastes.

A *future use option* is a specific proposal for how an area of the site might be used in the future. (For example: wildlife, agriculture, industry, Native American uses, and waste management.) Individual future use options may be compatible with one another and it is conceivable that more than one of these uses could co-exist.

Alternatives identified by the Working Group are:

- All Other Areas

  [Term used in report to refer to areas other than Arid Lands Ecology Reserve, land north of the Columbia River, Central Plateau (generally referred to as 200 Area), Reactor Sites (along the river, generally referred to as 100 Area), and Columbia River. The 1100-EM-1 Operable Unit is included in this category].

  Cleanup scenarios: (1) unrestricted use; and (2) surface and subsurface restricted in the 300 Area, unrestricted elsewhere; groundwater unrestricted in the 1100 Area, restricted elsewhere. Future use options: industrial; wildlife; Native American uses; agriculture.

  *Timing & Importance*--The following criteria were identified for deciding which contaminated areas within "All Other Areas" would be most important for immediate or early cleanup:

  1) Eliminating contamination threats to the Columbia River because of the threat they pose to human and environmental health. Key priorities would be threats to well-fields used for drinking water and contaminated areas that are highly desirable for economic development.

  2) Cleaning up large areas that are highly desirable for economic development.

  3) Cleaning up large areas that have small amounts of contamination and that can be cleaned up quickly, using technology, at relatively low cost, or "quick hits" for example, the area between ALE and the River west of Highway 240.

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# APPENDIX K

# RISK ASSESSMENT

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# 1.0 INTRODUCTION

The 1100-EM-1 Operable Unit is one of four hazardous substance response project units associated with the 1100 Area of the U. S. Department of Energy's (DOE's) Hanford Site. In July 1989, the U. S. Environmental Protection Agency (EPA) placed the 1100 Area on the National Priorities List (NPL). The Phase I Remedial Investigation (RI) Report for the 1100-EM-1 Operable Unit (DOE/RL-90-18) was issued in August, 1990, and a Phase I and II Feasibility Study (FS) Report (DOE/RL-90-32) issued in August, 1991. Phase II RI activities have been conducted since these earlier reports. The data obtained from these activities have been evaluated to characterize further the operable unit, and to develop and evaluate remedial alternatives. Note: The screening of contaminants for the baseline risk assessments did not strictly follow EPA Region 10 guidance but an interpretation of the HSBRAM. The exclusion of organic contaminants was done without going through the full prescreening process. The HSBRAM is currently being revised to prevent such an interpretation in the future.

Section 1.1 sets forth the general purpose, scope, and organization of the 1100-EM-1 Baseline Industrial Scenario Risk Assessment (BISRA) and Baseline Residential Scenario Risk Assessment (BRSRA). A brief description of the operable unit is also provided. Additional information regarding the 1100-EM-1 Operable Unit was presented in the Phase I RI Report (DOE/RL-90-18).

## 1.1 PURPOSE AND SCOPE OF THE BISRA AND BRSRA

Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR § 300, a site-specific baseline risk assessment was conducted "to characterize the current and potential threats to human health and the environment... The results of the baseline risk assessment will help establish acceptable exposure levels for use in developing remedial alternatives in the FS..."[40 CFR §300(d)(4)].

The 1100-EM-1 Operable Unit is located in an area designated as industrial and is surrounded by areas zoned by the city of Richland for industrial and commercial use (appendix J, Land Use). Consequently, there are no residents at any of the 1100-EM-1 subunits. However, at the direction of EPA [(Einan, 1991), and appendix I], Department of Energy, Richland Field Office (DOE-RL) agreed to provide a BRSRA for selected subunits of the 1100-EM-1 Operable Unit [(Wisness, 1991), and appendix I]. A BRSRA was submitted to fulfill the agreement made between DOE-RL, EPA, and state of Washington Department of Ecology (Ecology). This baseline risk assessment document combines both the BRSRA and BISRA.

### 1.1.1 Purpose and Scope of the BISRA

The purpose of this BISRA is to evaluate potential threats to industrial workers posed by contaminants detected at each of seven subunits identified in the 1100-EM-1 Operable Unit. Currently, no workers are assigned to tasks at any of the subunits on a regular basis. However, this BISRA conservatively assumes that industrial personnel may work at the subunits in the future. This BISRA assumes that personnel are assigned to the 1100 Area for the purposes other than remediation. These subunits are:

- 1100-1 (Battery Acid Pit)
- 1100-2 (Paint and Solvent Pit)
- 1100-3 (Antifreeze and Degreaser Pit)
- 1100-4 (Antifreeze Tank Site)
- UN-1100-6 (Discolored Soil Site)
- Horn Rapids Landfill (HRL)
- Ephemeral Pool

The scope of the BISRA is limited to the evaluation of an industrial scenario, as presented in the Hanford Site Baseline Risk Assessment Methodology (HSBRAM), (DOE-RL-91-45, Revision 1) utilizing soil data from Phase I and Phase II RI sampling. Sampling for two subunits, HRL and the Ephemeral Pool, was conducted as part of Phase II site investigation activities. A summary of the Phase II soil sampling data is provided in appendix D. Phase I data is provided in appendix I of the Phase I Report (DOE/RL-90-18). Phase I and Phase II data are used to identify the contaminants at the subunits. The scope of the BISRA is focused on the soil contamination present in the subunits. Only exposure pathways directly related to the soil are evaluated. These pathways include soil ingestion, dermal exposure, and inhalation of fugitive dust.

The contaminants were evaluated in a two-step process to minimize statistical analysis and allow comparison of maximum value concentrations and 95-percent upper confidence limit (UCL) concentrations. Maximum concentrations were used not only for preliminary risk-based screening, but also for the initial risk-based assessment calculations. If a health risk was indicated, 95-percent UCL concentrations were used in the calculations for comparison.

The maximum concentrations do not generally reflect the spatial distribution of the contaminants at the operable subunits. Therefore, the maximum concentration may not be representative of actual subunit conditions, and may be very conservative, especially for large areas, such as HRL.

### 1.1.2 Purpose and Scope of the BRSRA

The purpose of the BRSRA is to evaluate potential threats to onsite residents at each of five 1100-EM-1 subunits, as defined in Einan, 1991 (see appendix I), and Einan, 1992 (see appendix I). These subunits are:

- 1100-2 (Paint and Solvent Pit);
- 1100-3 (Antifreeze and Degreaser Pit);
- UN-1100-6 (Discolored Soil Site);
- HRL; and
- Ephemeral Pool.

The scope of the BRSRA includes evaluation of specific contaminants of potential concern and specific exposure pathways.

## 1.2 REPORT ORGANIZATION

The BISRA and BRSRA are organized in a format consistent with that recommended in the Risk Assessment Guidance for Superfund (RAGS), Volume 1: Human Health Evaluation Manual, part A (EPA, 1989a) and performed according to HSBRAM.

The remainder of Chapter 1 provides background information on the 1100-EM-1 Operable Unit and the specific subunits outlined above.

The identification of contaminants of potential concern (COPC) is discussed in Chapter 2. Contaminants detected at the 1100-EM-1 Operable Unit are compared to risk-based benchmark screening concentrations. This comparison yields a list of COPC that are further evaluated in the exposure assessment and toxicity assessment of the BISRA. The COPC of the BRSRA were selected by EPA.

The exposure assessment is presented in Chapter 3. The exposure assessment determines the magnitude of the exposures through potential exposure pathways. As indicated above, the only receptor populations considered in the BISRA are onsite industrial workers; and BRSRA onsite residents at each individual subunit. The receptor populations considered in the BISRA are industrial workers. For the BRSRA, onsite residents at each subunit are the receptor population.

The toxicity assessment is presented in Chapter 4. The toxicity assessment identifies adverse effects associated with exposure. The toxicity assessment is supplemented by toxicity profiles for the contaminants of potential concern that are presented in appendix II. The characterization of risk associated with the operable subunits is presented in Chapter 5. Summaries of the BISRA and BRSRA are provided in Chapter 6. References cited in the risk assessment are provided in Chapter 7.

Appendixes are used to present letters and memoranda cited (appendix I); toxicological profiles (appendix II); example calculations (appendix III); statistical information (appendix IV); and the results of the Uptake/Biokinetic (UBK) Model for Lead (appendix V). Published information that is readily available to Hanford Site and regulator personnel is incorporated by reference.

## 1.3 1100-EM-1 OPERABLE UNIT HISTORY AND DESCRIPTION

The Hanford Site is a 150,000 hectares (ha) (560 $mi^2$) reservation operated by the Federal Government since 1943. The Hanford Site is located along the Columbia River in southeastern Washington and covers portions of Benton, Grant, Franklin, and Adams Counties. The 1100 Area (see figure 1-1), which is adjacent to the city of Richland in Benton County, comprises the southeastern-most portion of the Hanford Site.

The 1100 Area is a central warehousing, vehicle maintenance, and transportation distribution center. It is the main portal to the Hanford Site. The 1100-EM-1 Operable Unit is one of four operable units assigned to the 1100 Area.

A brief description of the five subunits evaluated in these BISRA and BRSRA is provided in section 3 of this RI/FS report (DOE/RL-92-67). Figure 1-2 illustrates the subunits within the 1100-EM-1 Operable Unit.

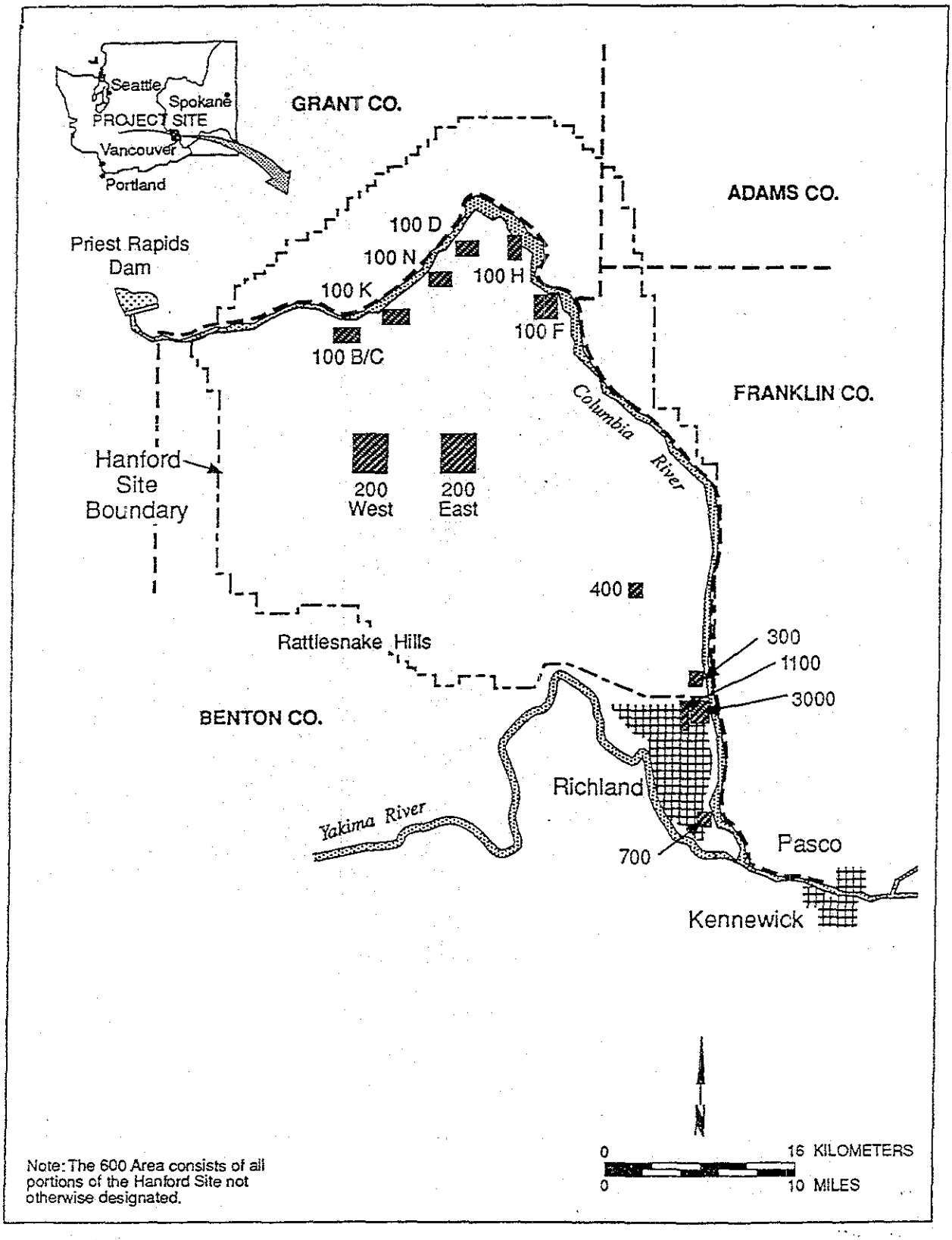


Figure 1-1 Hanford Site

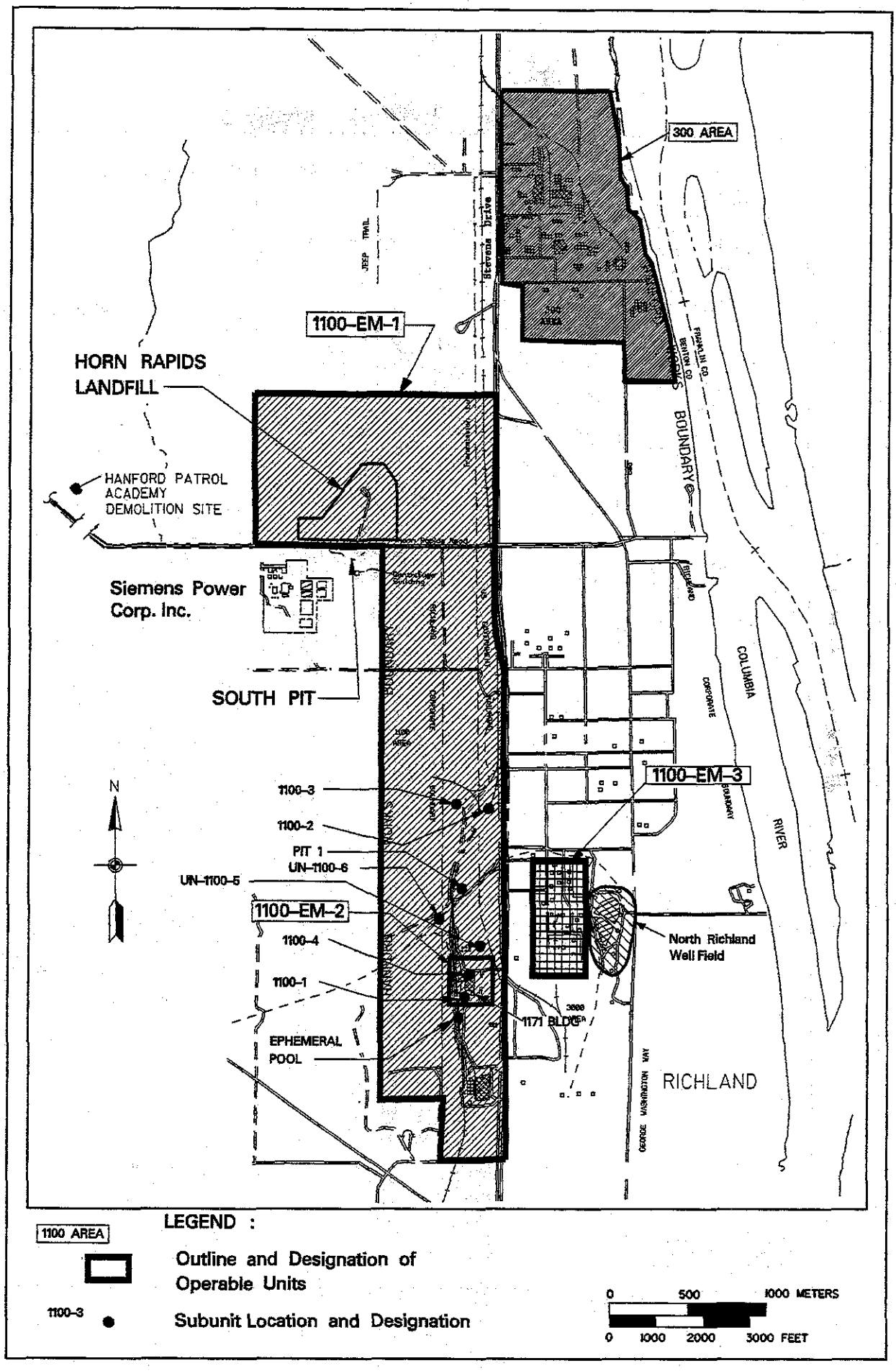


Figure 1-2 Operable Subunits Within the 1100-EM-1 Operable Unit

## 2.0 IDENTIFICATION OF COPC FOR BISRA AND BRSRA

This chapter presents the process for evaluating the available data to identify COPC for the BISRA and BRSRA. For the BISRA, the process is conducted as described in the HSBRAM (DOE/RL-91-45). The BRSRA is based on EPA selected COPC, as discussed in Einan, 1991 and Einan, 1992 (see appendix I).

## 2.1 IDENTIFICATION OF 1100-EM-1 COPC FOR BISRA

A large number of waste materials in varying quantities were potentially disposed of in the soil at the subunits. As part of the Phase I RI, the sampling data were evaluated for each of the subunits. As part of the Phase II RI, additional soil sampling data were collected from the Ephemeral Pool and HRL. The maximum concentrations of all detected contaminants from both Phase I and Phase II soil sampling were used to identify COPC for this BISRA. Contaminants associated with groundwater and surfacewater are not evaluated in this BISRA. Neither groundwater and surfacewater directly originating from the 1100 Area is utilized since potable water is provided by the city of Richland.

The first step in the identification of COPC for a risk assessment is the comparison of the maximum parameter concentrations to project-specific control concentrations (*i.e.*, control screening) as recommended in the HSBRAM (DOE/RL-91-45). The upper tolerance limit (UTL) values, as defined in appendix IV, are used as the project-specific control distribution. The UTL values are sometimes referred to as background values and control screening as background screening. For control screening, if the parameter concentration in soil at a specific subunit is not greater than the UTL, it is eliminated from further evaluation in the risk assessment. A contaminant is retained for further evaluation in the preliminary risk screening if the maximum concentration is greater than UTL. Additional information on the calculation of the UTL's is presented in appendix IV.

For this BISRA, control screening for Phase I and Phase II data was conducted with the data presented in appendix IV. The Phase I data were tabulated in appendix I (DOE-RL- 90-18) and the Phase II data are in appendix I. The contaminants and maximum concentrations identified in soil samples remaining after control screening are provided in table 2-1 of this risk assessment.

For the purposes of this report, several conservative assumptions are used with respect to the contaminants:

- All Arochlors isomer concentrations detected (*e.g.*, Arochlor 1248, 1254, or 1260) were combined and evaluated as total polychlorinated biphenyls (PCB's).

- 1,1,1-trichloro-2,2-bis-(p-chlorophenyl)ethane (DDT) is defined as the sum of 4,4'-DDT, 4,4'-DDD, and 4,4'-DDE.

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**Table 2-1. Summary of 1100-EM-1 Operable Unit Soil Contaminants and Maximum Contaminant Concentrations. (sheet 1 of 1)**

| Contaminant | 1100-1 (mg/kg) | 1100-2 (mg/kg) | 1100-3 (mg/kg) | 1100-4 (mg/kg) | Discolored Soil Site (UN-1100-6) (mg/kg) | Horn Rapids Landfill (mg/kg) | Ephemeral Pool (mg/kg) |
|---|---|---|---|---|---|---|---|
| Antimony | -- | -- | -- | -- | -- | 15.6 | -- |
| Arsenic | 3.2 | -- | -- | 5.8 | -- | 6.6 | -- |
| Barium | -- | -- | -- | -- | -- | 1,320 | -- |
| Beryllium | -- | -- | -- | 0.93 | -- | 1.3 | -- |
| Cadmium | -- | -- | -- | -- | -- | 2.4 | -- |
| Chromium | -- | 16.8 | 14 | -- | -- | 1,250 | -- |
| Cobalt | -- | -- | 17.8 | -- | -- | 42.5 | -- |
| Copper | 37.9 | 24.4 | 31.7 | 19.8 | -- | 1,280 | -- |
| Cyanide | -- | -- | -- | -- | -- | 0.56 | -- |
| Lead | 266 | 94.6 | 26.4 | 5.7 | 22.1 | 854 | 54.2 |
| Manganese | -- | 366 | 436 | -- | -- | 501 | -- |
| Mercury | 0.39 | -- | -- | -- | -- | 1.3 | -- |
| Nickel | 20.9 | -- | -- | -- | -- | 557 | -- |
| Selenium | -- | -- | -- | -- | -- | 0.97 | -- |
| Silver | -- | -- | -- | 2 | -- | 7.7 | -- |
| Thallium | -- | 0.48 | 0.4 | 0.48 | -- | 3.1 | -- |
| Vanadium | 118 | -- | -- | -- | -- | 101 | -- |
| Zinc | 100 | 56.6 | 60 | 53.8 | 111 | 3,160 | 67.5 |
| BEHP | -- | -- | -- | -- | 25,000 | -- | -- |
| Beta-HCH | -- | -- | -- | -- | -- | 0.094 | -- |
| Chlordane | -- | -- | -- | -- | 1.86 | -- | 2.8 |
| Chlorobenzene | -- | 0.006 | -- | -- | -- | -- | -- |
| DDT | -- | 0.16 | -- | -- | 0.17 | 1.98 | -- |
| Endosulfan II | -- | -- | -- | -- | -- | 0.11 | 0.16 |
| Endrin | -- | -- | -- | -- | -- | 0.42 | 0.039 |
| Heptachlor | -- | -- | -- | -- | 0.065 | 0.02 | 0.029 |
| 2-Hexanone | -- | -- | -- | -- | 0.053 | -- | -- |
| Naphthalene | -- | -- | -- | -- | -- | 8.2 | -- |
| PCB's | -- | -- | -- | -- | -- | 100 | 42 |
| Tetrachloroethene | -- | 0.035 | -- | -- | -- | 0.006 | -- |
| Trichloroethene | -- | 0.008 | -- | -- | -- | -- | -- |
| 1,1,1-Trichloroethane | -- | -- | -- | -- | 0.035 | -- | -- |

-- Indicates not a contaminant at this subunit
Note: This table includes data from the Phase I RI and Phase II RI.

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- Di-n-octyl-phthalate is combined and evaluated with the carcinogen bis(2-ethylhexyl)phthalate (BEHP) because there are insufficient data to develop toxicity values for di-n-octyl-phthalate.

- The alpha- and gamma-isomers of chlordane are combined for evaluation as total chlordane.

- 2-methylnaphthalene and naphthalene are combined for evaluation as naphthalene because toxicity values are not available. This assumption is conservative because naphthalene is more toxic than 2-methylnaphthalene.

- Endrin and endrin ketone are combined and evaluated as endrin.

- All chromium is assumed to be chromium(VI), which is the most toxic valence state of chromium. Insufficient data are available to ascertain specification of chromium at the subunits at this time. This assumption provides a conservative evaluation of the potential toxicity associated with chromium present in soil at 1100-EM-1 subunits.

Several contaminants have been eliminated from further evaluation in this BISRA using procedures recommended in RAGS (EPA, 1989a), the EPA Region 10 (EPA-10) Supplemental RAGS (EPA-10, 1991), and the HSBRAM (DOE/RL-91-45). These contaminants are aluminum, calcium, iron, magnesium, potassium, and sodium. As discussed in Chapter 4 of DOE/RL-90-18, these contaminants have a low potential for toxicity under environmental conditions and most are essential elements for humans. Additionally, the concentrations detected in Phase I and Phase II RI samples are within the normal range for soils within the United States (DOE/RL-90-18).

Copper and cobalt were eliminated from evaluation in the Phase I RI Report because they are essential elements for humans, the maximum concentrations encountered did not exceed the normal range in soils within the United States (DOE/RL-90-18), and the RfD's were not available at the time the Phase I RI Report was written. Since this time, EPA-10 has provided interim RfD's for both of these elements (see appendix I) therefore, copper and cobalt are included in the preliminary risk-based screening for the 1100-EM-1.

## 2.2 1100-EM-1 COPC FOR BISRA

The next step in the identification of COPC is a risk-based screening process that focuses on the list of contaminants and identifies contaminants that contribute most significantly to the overall risk at a site. The risk-based screening process is conducted as

discussed in the HSBRAM (DOE/RL-91-45). The procedure involves the calculation of risk-based benchmark concentrations against which the maximum concentration of a contaminant is compared. Any contaminants that exceed the risk-based benchmark screening concentrations are retained as COPC.

As a supplement to the risk-based screening, potential contaminant-specific soil cleanup regulations are also compared to the maximum detected concentrations. Any contaminants exceeding potential regulatory cleanup guidelines are also retained for further evaluation in the risk assessment. The preliminary risk-based screening process and the results of the 1100-EM-1 risk-based screening are discussed in the following subsections.

### 2.2.1 Preliminary Risk-Based Screening Process for BISRA

As recommended in the HSBRAM (DOE/RL-91-45), all preliminary risk-based benchmark screening concentrations are calculated using onsite residential exposure assumptions. Onsite residential exposure assumptions are utilized for preliminary screening because they are more conservative than industrial exposure assumptions. In Chapter 3 of this risk assessment, an onsite industrial scenario is used to estimate contaminant intakes. Contaminants that may represent a significant risk (concentrations above benchmark screening levels) are retained for further evaluation in the BISRA.

The calculation of the preliminary risk-based benchmark concentrations considers both noncarcinogenic effects (*i.e.*, systemic toxicity) and carcinogenic effects. Risk-based benchmark concentrations are calculated for soil concentrations that would be equivalent to exposures at a hazard quotient (HQ) of 0.1 for contaminants with noncarcinogenic effects. A concentration equivalent to an incremental lifetime cancer risk (ICR) of 1E-07 is used for contaminants with carcinogenic effects.

For carcinogenic contaminants, the screening equation is:

$$C = \frac{TR \times BW \times AT}{SF \times IR \times EF \times ED} \qquad (1)$$

where:

| | | |
|---|---|---|
| C | = | risk-based benchmark concentration in soil (mg/kg) |
| TR | = | target excess individual lifetime cancer risk (1E-07) |
| BW | = | body weight (kg) |
| AT | = | averaging time (365 d/yr x 70 yr) |
| SF | = | contaminant-specific slope factor $(mg/kg\text{-}d)^{-1}$ |
| IR | = | intake rate (mg/d or for soil or $m^3/d$ for air) |
| EF | = | exposure frequency (d/yr) |
| ED | = | exposure duration (yr) |

Appropriate conversion factors are used, as necessary.

For noncarcinogenic effects, the equation is:

$$C = \frac{THQ \times RfD \times BW \times AT}{IR \times EF \times ED} \quad (2)$$

where:

| | | |
|---|---|---|
| C | = | risk-based benchmark concentration in soil (mg/kg) |
| THQ | = | target hazard quotient (0.1) |
| RfD | = | contaminant-specific chronic reference dose (mg/kg-d) |
| BW | = | body weight (kg) |
| AT | = | averaging time (365 d/yr x 70 yr) |
| IR | = | intake rate (mg/d or $m^3$/d for soil or air, respectively) |
| EF | = | exposure frequency (d/yr) |
| ED | = | exposure duration (yr) |

Appropriate conversion factors are used, as necessary.

Two soil exposure pathways are used in calculating preliminary risk-based benchmark concentrations, as recommended in the HSBRAM (DOE/RL-91-45) and by EPA-10 (EPA-10, 1991). These exposure pathways are soil ingestion and inhalation of fugitive dust. The exposure assumptions for each pathway are discussed below and summarized in table 2-2. Example calculations are provided in appendix III.

**2.2.1.1 Soil Ingestion.** All soil ingestion risk-based benchmark concentrations are derived using onsite residential exposure assumptions from the HSBRAM (DOE/RL-91-45). The residential exposure assumptions of the HSBRAM are based on EPA-10, 1991 and the Washington State Model Toxics Control Act Cleanup Regulations (MTCACR), Washington Administrative Code (WAC) 173-340. For carcinogens, the exposure assumptions are based on combining a child and an adult exposure. For oral soil ingestion of contaminants with noncarcinogenic effects, the exposure assumptions are based only on exposures for a child.

**2.2.1.2 Air Inhalation.** Soil criteria are similarly derived for the inhalation of fugitive dust generated by contaminated soil. The risk-based benchmark concentration in soil for carcinogens and noncarcinogens were calculated using exposure parameters for an adult and child, respectively.

For purposes of screening, several assumptions are made to determine a particulate emission factor that relates the contaminant concentration in soil with the concentration of respirable particles in the air due to fugitive dust from the contaminated site. A particulate emission factor of 8E+07 $m^3$/kg is used in the screening equations. This factor has been derived by conservatively assuming the concentration of airborne particulates is at the maximum annual air quality standard of 0.050 mg/$m^3$ (40 CFR 50). It is also assumed that

**Table 2-2.** Preliminary Risk-Based Screening Exposure Factors

| Exposure Factor | HSBRAM Reasonable Maximum Exposure [a] |
|---|---|
| Intake Rate - Soil Ingestion<br>Adult<br>Child | <br>100 mg/d<br>200 mg/d |
| Intake Rate - Inhalation<br>Adult<br>Child | <br>20 $m^3$/d<br>10 $m^3$/d |
| Exposure Frequency | 365 d/yr |
| Exposure Duration<br>Adult<br>Child<br>Total | <br>24 yr<br>6 yr<br>30 yr |
| Body Weight<br>Adult<br>Child | <br>70 kg<br>16 kg |
| Averaging Time<br>Carcinogens<br>Noncarcinogens | <br>70 yr x 365 d/yr<br>6 yr x 365 d/yr (child) or<br>30 yr x 365 d/yr (adult) |
| Particulate Emission Factor | 8E07 $m^3$/kg[b] |

[a]DOE/RL-91-45; Factors based on EPA-10, 1991 and WAC 173-340
[b]Calculated factor; see chapter 2, paragraph 2.2.1

the concentration of contaminant in the dust suspended in the air is directly related to the concentration of contaminant in the parent soil and that all air particulates are derived entirely from the parent soil.

Lead does not have any published numerical toxicity values such as slope factors (SF's) or chronic reference doses (RfD's) that can be used to calculate risk-based benchmark concentrations. The regulatory criteria for lead is a soil concentration of 500-1,000 mg/kg (EPA 1989b). Concentrations below 500 mg/kg have not been shown to cause increases in blood lead levels in the sensitive subpopulation, children (EPA, 1989b). Therefore, for the BISRA, lead is not evaluated further at a subunit if the concentration detected is below 500 mg/kg.

### 2.2.2 Preliminary Risk-Based Screening Results

Contaminants that exceed risk-based benchmark concentrations are considered COPC's. These contaminants are indicated by shading in tables 2-3 through 2-9. They are retained for further evaluation in the BISRA.

## 2.3 SUMMARY OF COPC IDENTIFICATION FOR BISRA

The COPC for the soil medium that have been identified following the risk-based screenings are listed in table 2-10 for each subunit. These COPC are evaluated further in the BISRA to estimate the magnitude of potential exposures (chapter 3) and risks associated with those exposures (chapter 5). Since lead exceeds the regulatory criteria (at 500 mg/kg, with a concentration of 854 mg/kg, it is retained as a contaminant of interest at HRL, and is discussed in chapter 5, paragraph 5.4.3.

## 2.4 IDENTIFICATION OF COPC FOR BRSRA

As part of the Phase I RI, the sampling data were evaluated for each of the subunits. Based on the results of the Phase I RI Report, EPA selected the following COPC, as discussed in Einan, 1991 and Einan, 1992 (see appendix I).

| | Subunit | Contaminant |
|---|---|---|
| • | 1100-2 | Tetrachloroethene |
| • | 1100-3 | Arsenic<br>Chromium<br>Lead |
| • | UN-1100-6 subunit<br>(Discolored Soil Site) | Bis (2-ethylhexyl) phthalate (BEHP)<br>Chlordane |

| | |
|---|---|
| • HRL | Arsenic<br>Chromium<br>PCB's<br>Nitrate<br>Tetrachloroethene<br>Trichloroethene<br>1,1,1-Trichloroethane<br>Lead |
| • Ephemeral Pool | Chlordane<br>PCB's |

SF's were not available for beryllium when the Phase I RI report was prepared. Beryllium has been added as a COPC for the BRSRA because it is a probable carcinogen and a SF is now available.

Gross-alpha and gross-beta radioactivity has been detected in the groundwater in the vicinity of HRL. Although not considered COPC, a qualitative discussion is provided in chapter 5, paragraph 5.3.

As indicated in appendix I, table I-2, Einan, 1991 (see appendix I), 1,1,1-trichloroethane was identified as a contaminant to be evaluated in the soil at HRL. However, this compound was only detected in soil gas and groundwater at low concentrations. Therefore, no maximum concentration is presented in table 2-1. Because this contaminant was detected at low concentrations and because it is not highly toxic at low concentrations or known to be a carcinogen, no quantitative evaluation of 1,1,1-trichloroethane is provided.

**Table 2-3.** Preliminary Risk-Based Screening for Soil Contaminants at the Battery Acid Pit (1100-1) Subunit.

| Parameter | Maximum Detected Soil Concentration (mg/kg) | Oral RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Inhalation RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Oral SF (mg/kg-d)$^{-1}$ | Soil Concentration at Oral ICR = 1E-07 (mg/kg) | Inhalation SF (mg/kg-d)$^{-1}$ | Soil Concentration at Inhalation ICR = 1E-07 (mg/kg) | Regulatory Soil Cleanup Guidelines (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 3.2 | 3.0E-04[a] | 2.4 | -- | -- | 1.7E+00[c] | 0.038 | 5.0E+01[a,b] | 1.1 | -- |
| Copper | 37.9 | 4.0E-02[f] | 320 | -- | -- | -- | -- | -- | -- | -- |
| Lead | 266 | ND | -- | ND | -- | ND | -- | ND | -- | 500-1,000[d] |
| Mercury | 0.39 | 3.0E-04[b] | 2.4 | 8.5E-05[b] | 1,100 | -- | -- | -- | -- | -- |
| Nickel | 20.9 | 2.0E-02[a] | 160 | -- | -- | -- | -- | 8.4E-01[a] | 19 | -- |
| Vanadium | 118 | 7.0E-03[b] | 56 | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 100 | 2.0E-01[b] | 1,600 | -- | -- | -- | -- | -- | -- | -- |

[a]Integrated Risk Information System (IRIS, EPA 1992a)
[b]Health Effects Assessment Summary Tables (HEAST, EPA 1992b)
[c]Based on 30% absorption of inhaled arsenic (EPA 1992b)
[d]EPA 1989b
[e]Surrogate based on proposed arsenic unit risk of 5E-05 $\mu$g/L (EPA 1991).
[f]EPA Region-10 (see Appendix A)

-- Indicates not available

ND Not Determined

Note: Shaded areas indicate screening criterion exceeded

**Table 2-4.** Preliminary Risk-Based Screening for Soil Contaminants at the Paint and Solvent Pit (1100-2) Subunit.

| Parameter | Maximum Detected Soil Concentration (mg/kg) | Oral RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Inhalation RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Oral SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Oral ICR = 1E-07 (mg/kg) | Inhalation SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Inhalation ICR = 1E-07 (mg/kg) | Regulatory Soil Cleanup Guidelines (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 16.8 | 5.0E-03[a] | 40 | -- | -- | -- | -- | 4.1E+01[a] | 0.40 | -- |
| Copper | 24.4 | 4.0E-02 | 320 | -- | -- | -- | -- | -- | -- | -- |
| Lead | 94.6 | ND | -- | ND | -- | ND | -- | ND | -- | 500-1000[c] |
| Manganese | 366 | 1.0E-01[a] | 800 | 1.1E-04[a] | 350 | -- | -- | -- | -- | -- |
| Thallium | 0.48 | 7.0E-05[b] | 0.56 | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 56.6 | 2.0E-01[b] | 1,600 | -- | -- | -- | -- | -- | -- | -- |
| Chlorobenzene | 0.006 | 2.0E-02[a] | 160 | 5E-03[b] | 65,000 | -- | -- | -- | -- | -- |
| DDT | 0.16 | 5.0E-04[a] | 4.0 | -- | -- | 3.4E-01[a] | 0.19 | 3.4E-01[a] | 48 | -- |
| Tetrachloroethene | 0.035 | 1.0E-02[a] | 80 | -- | -- | 5.2E-02[d] | 1.2 | 2E-03[d] | 8,200 | -- |
| Trichloroethene | 0.006 | -- | -- | -- | -- | 1.1E-02 | 5.8 | 6.0E-03 | 2,700 | -- |

[a]Integrated Risk Information System (IRIS, EPA 1992a)
[b]Health Effects Assessment Summary Tables (HEAST, EPA 1992b)
[c]EPA 1989b
[d]EPA-Region 10 (see Appendix A)
-- Indicates not available
ND Not Determined
Note: Shaded areas indicate screening criterion exceeded

**Table 2-5.** Preliminary Risk-Based Screening for Soil Contaminants at the Antifreeze and Degreaser Pit (1100-3) Subunit.

| Parameter | Maximum Detected Soil Concentration (mg/kg) | Oral RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Inhalation RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Oral SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Oral ICR = 1E-07 (mg/kg) | Inhalation SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Inhalation ICR = 1E-07 (mg/kg) | Regulatory Soil Cleanup Guidelines (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| Chromium | 14 | 5.0E-03[a] | 40 | -- | -- | -- | -- | 4.1E+01[a] | 1.6 | -- |
| Cobalt | 17.8 | 6.0E-02[c] | 480 | -- | -- | -- | -- | -- | -- | -- |
| Copper | 31.7 | 4.0E-02[f] | 320 | -- | -- | -- | -- | -- | -- | -- |
| Lead | 26.4 | ND | -- | ND | -- | ND | -- | ND | -- | 500-1,000[d] |
| Manganese | 436 | 1.0E-01[a] | 800 | 1.1E-04[a] | 350 | -- | -- | -- | -- | -- |
| Zinc | 60 | 2.0E-01[b] | 1,600 | -- | -- | -- | -- | -- | -- | -- |

[a]Integrated Risk Information System (IRIS, EPA 1992a)
[b]Health Effects Assessment Summary Tables (HEAST, EPA 1992b)
[c]Based on 30% absorption of inhaled arsenic (EPA 1992b)
[d]EPA 1989b
[e]Surrogate based on proposed arsenic unit risk of 5E-05 $\mu g/L$ (EPA 1991)
[f]EPA Region-10 (see Appendix A)

-- Indicates not available

ND Not Determined

Note: Shaded areas indicate screening criterion exceeded

**Table 2-6.** Preliminary Risk-Based Screening for Soil Contaminants at the Antifreeze Tank Site (1100-4) Subunit.

| Parameter | Maximum Detected Soil Concentration (mg/kg) | Oral RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Inhalation RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Oral SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Oral ICR = 1E-07 (mg/kg) | Inhalation SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Inhalation ICR = 1E-07 (mg/kg) | Regulatory Soil Cleanup Guidelines (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 5.8 | 3.0E-04[a] | 2.4 | -- | -- | 1.7E+00[e] | 0.038 | 5.0E+01[a] | 1.1[e] | -- |
| Beryllium | 0.93 | 5.0E-03[a] | 40 | -- | -- | 4.3E+00[a] | 0.015 | 8.4E+00[a] | 1.9 | -- |
| Copper | 19.8 | 4.0E-02[f] | 320 | -- | -- | -- | -- | -- | -- | -- |
| Lead | 5.7 | ND | -- | ND | -- | ND | -- | ND | -- | 500-1000[d] |
| Silver | 2 | 5.0E-03[a] | 40 | -- | -- | -- | -- | -- | -- | -- |
| Thallium | 0.48 | 7.0E-05[b] | 0.56 | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 63.8 | 2.0E-01[b] | 1,600 | -- | -- | -- | -- | -- | -- | -- |

[a]Integrated Risk Information System (IRIS, EPA 1992a)
[b]Health Effects Assessment Summary Tables (HEAST, EPA 1992b)
[c]Based on 30% absorption of inhaled arsenic (EPA 1992b)
[d]EPA 1989b
[e]Surrogate based on proposed arsenic unit of risk of 5E-05 $\mu m/L$ (EPA 1991)
[f]EPA Region-10 (see Appendix A)
-- Indicates not available
ND Not Determined
Note: Shaded area indicate screening criterion exceeded

**Table 2-7.** Preliminary Risk-Based Screening for Soil Contaminants at the Discolored Soil Site (UN-1100-6) Subunit.

| Parameter | Maximum Detected Soil Concentration (mg/kg) | Oral RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Inhalation RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Oral SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Oral ICR = 1E-07 (mg/kg) | Inhalation SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Inhalation ICR = 1E-07 (mg/kg) | Regulatory Soil Cleanup Guidelines (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| Lead | 22.1 | ND | -- | ND | -- | ND | -- | ND | -- | 500-1,000[c] |
| Zinc | 111 | 2.0E-01[b] | 1,600 | -- | -- | -- | -- | -- | -- | -- |
| BEHP | 25,000 | 2.0E-02[a] | 160 | -- | -- | 1.4E-02[a] | 4.5 | 1.4E-02[d] | 1,200 | -- |
| Chlordane | 1.86 | 6.0E-05[a] | 0.48 | -- | -- | 1.3E+00[a] | 0.049 | 1.3E+00[a] | 13 | -- |
| DDT | 0.17 | 5.0E-04[a] | 4.0 | -- | -- | 3.4E-01[a] | 0.19 | 3.4E-01[a] | 48 | -- |
| Heptachlor | 0.065 | 5.0E-04[a] | 4.0 | -- | -- | 4.5E+00[a] | 0.014 | 4.5E+00[a] | 3.6 | -- |
| 2-hexanone | 0.053 | 5.0E-02[f] | 400 | 9.0E-02[f] | 290,000 | - | -- | -- | -- | -- |
| 1,1,1-trichloroethane | 0.035 | 9.0E-02 | 720 | 3E-01 | 960,000 | - | -- | -- | -- | -- |

[a]Integrated Risk Information System (IRIS, EPA 1992a)
[b]Health Effects Assessment Summary Tables (HEAST, EPA 1992b)
[c]EPA 1989b
[d]Surrogate inhalation SF assumed to equal BEHP oral SF
[e]Surrogate based on proposed arsenic unit risk of 5E-05 $\mu g/L$ (EPA 1991)
[f]Surrogate based on 2-butanone (HEAST, EPA 1992b)

-- Indicates not available

ND Not Determined

Note: Shaded areas indicate screening criterion exceeded

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**Table 2-8.** Preliminary Risk-Based Screening for Soil Contaminants at the Horn Rapids Landfill. (sheet 1 of 2)

| Parameter | Maximum Detected Soil Concentration (mg/kg) | Oral RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Inhalation RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Oral SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Oral ICR = 1E-07 (mg/kg) | Inhalation SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Inhalation ICR = 1E-07 (mg/kg) | Regulatory Soil Cleanup Guidelines (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 15.6 | 4.0E-04[a] | 3.2 | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 6.6 | 3.0E-04[a] | 2.4 | -- | -- | 1.7E+00[+] | 0.038 | 5.0E+01[a] | 1.1[a] | -- |
| Barium | 1320 | 7.0E-02[a] | 560 | 1.0E-04[b] | 320 | -- | -- | -- | -- | -- |
| Beryllium | 1.3 | 5.0E-03 | 41 | -- | -- | 4.3E+00[a] | 0.015 | 8.4E+00[a] | 1.9 | -- |
| Cadmium | 2.4 | 1.0E-03[a] | 8.0 | -- | -- | -- | -- | 6.1E+00[a] | 2.7 | -- |
| Chromium | 1250 | 5.0E-03[a] | 40 | -- | -- | -- | -- | 4.1E+01[a] | 0.4 | -- |
| Cobalt | 42.5 | 6.0E-02[f] | 480 | -- | -- | -- | -- | -- | -- | -- |
| Copper | 1280 | 4.0E-02[f] | 320 | -- | -- | -- | -- | -- | -- | -- |
| Cyanide | 0.56 | 2.0E-02[a] | 160 | -- | -- | -- | -- | -- | -- | -- |
| Lead | 854 | ND | -- | ND | -- | ND | -- | ND | -- | 500-1,000[d] |
| Manganese | 501 | 1.0E-01[a] | 800 | 1.1E-04[a] | 350 | -- | -- | -- | -- | -- |
| Mercury | 1.3 | 3.0E-04[b] | 2.4 | 8.6E-05[b] | 280 | -- | -- | -- | -- | -- |
| Nickel | 557 | 2.0E-02[a] | 160 | -- | -- | -- | -- | 8.4E-01[b] | 19 | -- |
| Selenium | 0.97 | 5.0E-03[b] | 44 | -- | -- | -- | -- | -- | -- | -- |
| Silver | 7.7 | 5.0E-03[a] | 40 | -- | -- | -- | -- | -- | -- | -- |
| Thallium | 3.1 | 7.0E-05[a] | 0.56 | -- | -- | -- | -- | -- | -- | -- |
| Vanadium | 101 | 7.0E-03[b] | 56 | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 3160 | 2.0E-01[b] | 1,600 | -- | -- | -- | -- | -- | -- | -- |
| Beta-HCH | 0.094 | -- | -- | -- | -- | 1.8E+00[a] | 0.036 | 1.8E+00[a] | 36 | -- |
| DDT | 1.98 | 5.0E-04[a] | 4.0 | -- | -- | 3.4E-01[a] | 0.19 | 3.4E-01[a] | 190 | -- |
| Endosulfan II | 0.11 | 5.0E-05[a] | 0.4 | -- | -- | -- | -- | -- | -- | -- |

**Table 2-8.** Preliminary Risk-Based Screening for Soil Contaminants at the Horn Rapids Landfill. (sheet 2 of 2)

| Parameter | Maximum Detected Soil Concentration (mg/kg) | Oral RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Inhalation RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Oral SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Oral ICR = 1E-07 (mg/kg) | Inhalation SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Inhalation ICR = 1E-07 (mg/kg) | Regulatory Soil Cleanup Guidelines (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| Endrin | 0.42 | 3.0E-04[a] | 2.4 | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor | 0.02 | 5.0E-04[a] | 4.0 | -- | -- | 4.5E+00[a] | 0.014 | 4.5E+00[a] | 3.6 | -- |
| Naphthalene | 8.2 | 4.0E-02[b] | 320 | -- | -- | -- | -- | -- | -- | -- |
| PCBs | 102 | -- | -- | -- | -- | 7.7E+00[a] | 0.008 | 7.7E+00[h] | 2.1 | 1-25[i] |
| Tetrachloroethane | 0.006 | 1.0E-02[a] | 80 | -- | -- | 5.2E-02[f] | 1.2 | 2.0E-03[f] | 8,200 | -- |

[a]Integrated Risk Information System (IRIS, EPA 1992a)
[b]Health Effects Assessment Summary Tables (HEAST, EPA 1991 or EPA 1992b)
[c]Based on 30% absorption of inhaled arsenic (EPA 1992b)
[d]EPA 1989b
[e]Surrogate inhalation SF assumed to equal BEHP oral SF
[f]EPA-Region 10 (see Appendix A)
[g]Surrogate oral and inhalation RfDs based on 2-butanone (HEAST, EPA 1992b)
[h]Surrogate inhalation SF assumed to be equal to PCB oral SF
[i]40 CFR 761
[+]Surrogate based on proposed arsenic unit risk of 5E-05 $\mu g/L$ (EPA 1991)

-- Indicates not available

ND = Not Determined

Note: Shaded areas indicate screening criterion exceeded

**Table 2-9.** Preliminary Risk-Based Screening for Soil Contaminants at the Ephemeral Pool.

| Parameter | Maximum Detected Soil Concentration (mg/kg) | Oral RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Inhalation RfD (mg/kg-d) | Soil Concentration at HQ=0.1 (mg/kg) | Oral SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Oral ICR = 1E-07 (mg/kg) | Inhalation SF $(mg/kg\text{-}d)^{-1}$ | Soil Concentration at Inhalation ICR = 1E-07 (mg/kg) | Regulatory Soil Cleanup Guidelines (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| Lead | 54.2 | ND | -- | ND | -- | ND | -- | ND | -- | 500-1,000[e] |
| Zinc | 67.5 | 2.0E-01[b] | 1,600 | -- | -- | -- | -- | -- | -- | -- |
| Chlordane | 2.8 | 6.0E-05[a] | 0.48 | -- | -- | 1.3E+00[a] | 0.049 | 1.3E+00[a] | 13 | -- |
| Endosulfan II | 0.16 | 5E-05[a] | 0.4 | -- | -- | -- | -- | -- | -- | -- |
| Endrin | 0.039 | 3E-04[a] | 2.4 | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor | 0.029 | 5.0E-04[a] | 4.0 | -- | -- | 4.5E+00[a] | 0.014 | 4.5E+00[a] | 3.6 | -- |
| PCBs | 42 | -- | -- | -- | -- | 7.7E+00[a] | 0.008 | 7.7E+00[c] | 2.1 | 1-25[d] |

[a]Integrated Risk Information System (IRIS, EPA 1992a)
[b]Health Effects Assessment Summary Tables (HEAST, EPA 1991)
[c]Surrogate inhalation SF assumed to be equal to PCB oral SF
[d]40 CFR 761
[e]EPA 1989b

-- Indicates not available

ND = Not determined

Note: Shaded areas indicate screening criterion exceeded

**Table 2-10.** Summary of Contaminants of Potential Concern for the 1100-EM-1 Operable Unit.

| Contaminant | 1100-1 | 1100-2 | 1100-3 | 1100-4 | Discolored Soil Site UN-1100-6 | Horn Rapids Landfill | Ephemeral Pool | Ground-water |
|---|---|---|---|---|---|---|---|---|
| Antimony | | | | | | X | | |
| Arsenic | X | | | X | | X | | |
| Barium | | | | | | X | | |
| Beryllium | | | | X | | X | | |
| Chromium | | X | X | | | X | | |
| Copper | | | | | | X | | |
| Lead[a] | | | | | | --[a] | | |
| Manganese | | X | X | | | X | | |
| Nickel | X | | | | | X | | |
| Thallium | | | | | | X | | |
| Vanadium | X | | | | | X | | |
| Zinc | | | | | | X | | |
| BEHP | | | | | X | | | |
| Beta-HCH | | | | | | X | | |
| Chlordane | | | | | X | | X | |
| DDT | | | | | | X | | |
| Heptachlor | | | | | X | X | X | |
| PCB's | | | | | | X | X | |
| Nitrate | | | | | | | | X |
| TCE | | | | | | | | X |

[a]Contaminant of interest

## 3.0 HUMAN EXPOSURE ASSESSMENT

The purpose of the human exposure assessment is to estimate the magnitude, frequency, duration, and route of exposure to the COPC. The exposure estimation is used with appropriate toxicity information to assess the nature and extent of health threats from the COPC. The exposure assessment identifies receptor populations and exposure pathways as discussed in paragraph 3.1 through 3.4 below. This information is integrated with measured or estimated contaminant concentrations to quantify contaminant exposures and is presented in paragraph 3.5. A summary of the exposure assessment is provided in paragraph 3.7. For the BRSRA, a separate discussion of the evaluation of the exposures to lead at 1100-2 and HRL is discussed in paragraph 3.6.

## 3.1 IDENTIFICATION OF HUMAN RECEPTOR POPULATIONS FOR BISRA

Identification of the human populations at risk from exposure to COPC at the 1100-EM-1 subunits is usually determined by present and future land and water use assumptions. For the purposes of the BISRA, it is assumed that future land and water use will remain similar to existing conditions. The geographic distribution of the individual subunits throughout the operable unit limits the potential for the same receptor to have long-term exposures at multiple subunits. Currently, no workers are assigned to tasks in any of the subunits on a regular basis. However, the BISRA conservatively assumes that such assignments could occur in the future because the 1100-EM-1 Operable Unit is located in an area designated for industrial use and is surrounded by areas zoned, by the city of Richland, for industrial and commercial use.

Onsite industrial workers are selected as both the current and the future receptor populations for the 1100-EM-1 Operable Unit. Industrial workers are assumed to work full-time at only one subunit where they could potentially be exposed to contaminants from that subunit alone. The BISRA also assumes that personnel are assigned to the 1100 Area for purposes other than remediation. It is expected that the city of Richland's water will continue to be available to potential industrial facilities at the operable unit.

## 3.2 IDENTIFICATION OF HUMAN RECEPTOR POPULATIONS FOR THE BRSRA

There is no current residential use of 1100-EM-1, and none is expected in the future. However, as indicated previously, the EPA has requested evaluation of residential receptors at five subunits.

Residents are assumed to live at only one subunit where they could potentially be exposed to contaminants from that subunit alone. It is also assumed that availability of city of Richland water at all subunits continues except at HRL. The hypothetical residents at HRL are conservatively assumed to use groundwater as the only source of potable water.

## 3.3 IDENTIFICATION OF EXPOSURE PATHWAYS FOR BISRA

The HSBRAM (DOE/RL-91-45) provides the exposure pathways that are used to evaluate the industrial scenario. The BISRA for the 1100-EM-1 Operable Unit is confined to the soil contamination. Potential exposure to groundwater contamination is not evaluated in the BISRA because potable water at 1100 Area facilities is currently obtained from the city of Richland. Modeling presented in DOE/RL-90-18 also indicates that the concentrations of contaminants currently found in the groundwater in the vicinity of the 1100-EM-1 Operable Unit would undergo extensive dilution upon entering the Columbia River. Therefore, potential exposures to groundwater are not evaluated in the BISRA.

Although a few volatile organic compounds have been detected in the soil and/or soil gas, the evaluation of these contaminants in the Phase I RI Report indicates the inhalation of volatiles at the concentrations detected does not pose a risk greater than 1E-06 (DOE/RL-90-18). The EPA has also indicated that soil gas surveys are used for field screening and data generated from soil gas surveys should not be used in risk assessment [Einan, EPA (Letter to R. Stewart, DOE/RL) January 16, 1992, see appendix I]. Given the above information, and because most volatile contaminants have been found only in soil gas at very low concentrations, the potential volatilization of contaminants from the soil is not considered viable exposure pathway for the BISRA.

The potential exposure pathways through which industrial workers may be exposed to soil contaminants at a specific 1100-EM-1 subunit, are:

- Soil ingestion;
- inhalation of fugitive dust; and
- dermal exposure.

## 3.4 IDENTIFICATION OF EXPOSURE PATHWAYS FOR BRSRA

The soil and water contaminants and exposure pathways were defined by EPA [Einan, 1991 (see appendix I)] and a followup letter of clarification [Einan, 1992 (see appendix I)].

The soil-related pathways specified by EPA, included the ingestion of soil, dermal contact with soil, ingestion of garden produce, and inhalation of particulates (*i.e.*, fugitive dust). Other potential soil-related pathways (*e.g.*, animal or crop uptake as associated with an agricultural scenario) were not requested by EPA [Einan, 1992 (see appendix I)].

Of the COPC specified by EPA for evaluation, three are classified as volatile contaminants that would generally be evaluated via the inhalation pathway. These are tetrachloroethene, trichloroethene (TCE), and 1,1,1-trichloroethane. For reasons outlined in paragraph 3.3, these contaminants will not be quantitatively evaluated in the BRSRA. The volatilization of contaminants from soil will be qualitatively addressed in paragraph 5.4.

EPA also specified potential exposure pathways associated with the groundwater at HRL for evaluation [Einan, 1991 and Einan, 1992 (see appendix I)]. Pathways were evaluated for both direct groundwater use and for exposures through transport of contaminants off the Hanford Site. Contaminants present in the groundwater in the vicinity of HRL may be transported to the Columbia River in the future. In the Phase I RI, the concentration of TCE at the groundwater interface with the river was estimated to be approximately 0.05 mg/L and at the city of Richland water intake, approximately 6E-06 mg/L. Additional modeling for the Phase II RI indicates TCE at the groundwater interface with the river would be less than 0.001 mg/L, which is less than the maximum contaminant level (MCL) for this contaminant.

In addition to the evaluation of direct groundwater use in the vicinity of HRL, EPA [Einan, 1992 (see appendix I)] directed that an evaluation of trichloroethene be conducted to assess the potential contribution to exposures for subunit residents who may swim in the Columbia River or eat fish from the Columbia River. Groundwater and surface water modeling results (DOE/RL-90-18), although shown to be conservative, based on recent modeling done during the Phase II RI, are used to estimate potential concentrations of trichloroethene in surface water and fish.

Columbia River water is used to recharge the North Richland well field to supplement potable water production. Groundwater modeling of contaminant transport to the Columbia River was presented in the Phase I RI Report. Evaluation of the risk associated with the ingestion of Columbia River water as a drinking source, as presented in the Baseline Risk Assessment in the Phase I RI report, indicates that the incremental lifetime cancer risk is approximately 2E-09 (DOE/RL-90-18). Therefore, further evaluation of the exposures through use of Columbia River water or city of Richland drinking water are not presented for the BRSRA.

Given the above information, the soil-related exposure pathways evaluated in the BRSRA for onsite residential receptors at the five specified 1100-EM-1 subunits under consideration are:

- Soil ingestion;
- inhalation of fugitive dust;
- ingestion of garden produce; and
- dermal exposure to soil.

In addition, EPA specified groundwater exposure pathways for contaminants detected in groundwater in the vicinity of HRL include:

- Ingestion of groundwater;
- inhalation of volatiles from groundwater;
- ingestion of Columbia River fish; and
- dermal contact with Columbia River water during swimming.

The dermal route of exposure to potable water was also considered, but is not included in the exposure pathway because the dermal route has been reported as insignificant, tetrachloroethene (EPA 1985), and 1,1,1-trichloroethane (ATSDR, 1988). It is not clear whether exposure to dermal nitrate is a concern. This issue is discussed in the uncertainty analysis paragraph 5.4.

## 3.5 QUANTIFICATION OF EXPOSURES FOR BISRA AND BRSRA

The exposure assessment includes a quantification of exposures for the receptors via the exposure pathways that have been identified. An exposure concentration (*i.e.*, a concentration that is contacted over the exposure period) is estimated and used with population variables (*e.g.*, exposure parameters) and assessment variables (*e.g.*, averaging times) to determine an intake. The following paragraphs describe the assumptions, information, and calculations used to estimate exposure intakes for onsite residents and industrial workers. A detailed presentation of sample calculations is provided in appendix IV.

### 3.5.1 Exposure Concentrations

**3.5.1.1 Soil Ingestion and Dermal Exposure Pathways for BRSRA and BISRA.** The exposure concentrations for the soil ingestion and dermal exposure pathways are conservatively assumed to be the maximum concentrations of the COPC as determined from the Phase I RI Report or Phase II soil sampling (see tables 2-3 through 2-9). The use of the maximum concentration is generally conservative because it does not consider any actual or potential spatial distribution of the contaminant over the subunit (*i.e.*, it is highly likely that the concentration at the actual exposure location will be significantly less than the maximum). This assumption is also conservative because it assumes that the maximum concentration is readily accessible for receptor contact even if the maximum concentration is actually located below the surface at considerable depth.

**3.5.1.2 Inhalation - Fugitive Dust for BISRA and BRSRA.** Exposure concentrations for the fugitive dust pathway are derived using subunit specific maximum soil concentrations and the subunit specific fugitive dust concentration in air at the receptor location. Exposure concentrations in air are not determined for the 1100-4 subunit because the contaminated soil is located beneath a cement floor, inside the 1171 Building.

The EPA's Fugitive Dust Model (FDM) was used due to its availability, applicability, and regulator's familiarity. The fugitive dust concentration is calculated by incorporating a subunit specific emission rate and deposition rate into EPA's FDM (version 91109 and Bowman Environmental Engineering, version 1.21). The FDM uses site-specific meteorological data and has the capability to directly compute the effect of wind speed on each source-specific emission rate during each meteorological averaging period. The

site-specific meteorological data used by the FDM consists of 1 full year (1988) of hourly wind speed and direction data, (collected at a monitoring station located near the 1100-EM-1 operable unit), and hourly temperature, mixing height, and stability class data, (measured at the Hanford Meteorological Station). The FDM also accounts for deposition of suspended particulates during airborne travel.

The FDM uses the Universal Soil Loss equation to calculate fugitive dust emission rates:

$$E = ACI'KL'V'$$

where:

| | | |
|---|---|---|
| E | = | emission factor (mass/time-area), |
| A | = | portion of total dust emission as suspended particulate matter (*i.e.*, particle diameter less than 30 $\mu$m) (dimensionless), |
| C | = | climatic factor ($0.0 \leq C \leq 1.0$) (dimensionless), |
| I′ | = | soil erodibility factor (mass/time-area), |
| K | = | surface roughness factor ($0.5 \leq K \leq 1.0$) (dimensionless), |
| L′ | = | unsheltered field width factor ($0.0 \leq L' \leq 1.0$) (dimensionless), and |
| V′ | = | vegetative cover factor ($0.0 \leq V' \leq 1.0$) (dimensionless). |

Wind velocity and soil moisture are major factors in windblown fugitive dust emission rates, and are reflected in the climatic factor as:

$$C = \frac{0.345u^{w}}{PE^{2}} \qquad 2$$

where:

| | | |
|---|---|---|
| PE | = | site-specific Thornthwaite's precipitation-evaporation index (dimensionless) = 29.1, |
| u | = | wind speed (mph), and |
| w | = | wind speed dependence factor (dimensionless) = 3. |

Combining Equations 1 and 2 results in:

$$E = Q_0 u^{w} \qquad 3$$

where:

$$Q_0 = \frac{(0.345)AI'KL'V'}{29.1^2} = \text{proportionality constant} \qquad 4$$

Input to the FDM consists of the proportionality constant, $Q_0$, and the wind speed dependence factor, w. Note, however, that the empirically determined constant 0.345 used in Equations 2 and 4 is valid only if the wind speed is described in units of miles per hour, but that the FDM expects wind speeds in units of meters per second. For this modeling effort, the constant 0.345 was multiplied by $2.237^w$ (*i.e.*, 1 m/s = 2.237 mph and w = 3) or 11.193 to make all units consistent.

The soil erodibility factor, I′, is determined from table 3 of *Wind Erosion Forces In The United States and Their Use in Predicting Soil Loss* (Skidmore and Woodruff, 1968) and is based on the portion of surface soil retained by a No. 20 standard sieve with 0.84 mm (0.03 inches) square mesh. Conservatively biased estimates of the >0.84 mm (0.03 inches) fractions of the surface soils for the 1100-2, 1100-3, Discolored Soil Site, and HRL subunits are 35, 37, 5, and 29 percent, respectively. These data are obtained from paragraph 3.5.2.2 of the Phase I RI Report (DOE/RL-90-18), and convert to I values of 65, 62, 180, and 76 tons/acre-yr. For the Ephemeral Pool, grain size distribution data are not available. The fraction >0.84 mm (0.03 inches) at this subunit is conservatively assumed to be 5 percent (the same as Discolored Soil Site), resulting in an I′ value of 180 tons/acre-yr.

The surface roughness factor, K, accounts for the resistance to wind erosion provided by ridges and furrows and is conservatively assumed to be unity (*i.e.*, no reduction in resistance).

An unsheltered field width factor, L′, of .7 is typical for exposed areas about 305 m (1,000 ft) across and the value of A is 0.041 (dimensionless), for fine soils (Baskett, 1983).

A vegetative cover factor of unity is conservatively assumed, making no allowance for reductions in emissions due to vegetation.

The entire suspended particulate fraction is conservatively regarded as respirable. These emission rates are used in the FDM to determine downwind air concentrations of respirable fugitive dust.

In order to estimate the concentration of fugitive dust at a receptor location, the FDM accounts for gravitational settling and particle disposition during airborne travel. A "default" particle size distribution in the FDM test input data, listed below, was used.

| Particle Size Class | Particle Diameter ($\mu$m) | Fraction in Each Size Class |
|---|---|---|
| 1 | 1.25 | 0.0262 |
| 2 | 3.75 | 0.0678 |
| 3 | 7.50 | 0.1704 |
| 4 | 12.50 | 0.1536 |
| 5 | 20.00 | 0.5820 |

A particle density of 2.5 g/cm$^3$ was used, which is consistent with the range for most mineral soils (Brady, 1984). Comparison of dust concentrations calculated by the FDM, with particle densities ranging from 0 to 2.5 g/cm$^3$, showed very little sensitivity to this parameter; dust concentrations typically varied only hundredths of a $\mu$g/kg between high and low particle densities.

The receptor location within each subunit was chosen as the point calculated by the FDM with the maximum fugitive dust concentration, based on a 25 meter grid system (50 m for HRL) that was centered on the middle of the subunit. The concentration of fugitive dust at each subunit as calculated by the FDM, is shown in table 3-1. The contaminant concentration in air is assumed to be directly proportional to the contaminant concentration in soil. Therefore, the fugitive dust concentrations were multiplied by the maximum soil contaminant concentrations (table 2-1), and appropriate conversion factors, to produce contaminant concentrations in air shown in table 3-2.

**3.5.1.3 Garden Produce Pathway for BRSRA.** The quantification of exposures from the ingestion of garden produce requires an estimation of the contaminant concentration in the produce. The amount of contaminant that is taken up by garden produce from the soil can be estimated using published or derived plant uptake factors for specific contaminants. The *Land Application and Distribution and Marketing of Sewage Sludge, Technical Support Document* (EPA, 1986a) provides plant-specific contaminant uptake factors for a number of contaminants. Uptake factors are available for both inorganic and organic contaminants for a variety of garden or agricultural plants. The relationship between the contaminant concentration in soil to a contaminant concentration in plants is:

$$\text{Plant concentration} = \text{Uptake factor x soil concentration}$$

where the uptake factor is expressed as [$\mu$g/g tissue dry weight ($\mu$g/g soil)$^{-1}$] and the soil concentration is expressed as $\mu$g/g. All soil concentrations are expressed as dry weight. The evaluation takes into account only the contamination present in soil and does not include any potential contributions from irrigation water.

Four specific garden produce categories are evaluated in this BRSRA based on the direction provided by EPA [Einan, 1991; Einan, 1992 (see appendix I)]. The garden produce categories and corresponding vegetables evaluated are: root (*e.g.*, carrots), potatoes, leafy vegetables (*e.g.*, lettuce), and garden fruits (*e.g.*, tomatoes).

A summary of the plant uptake factors for the COPC is provided in table 3-3. Contaminant-specific uptake factors are available for arsenic, PCB's, and lead. The following assumptions were made in the absence of more appropriate data. The plant uptake factors for BEHP are conservatively assumed to be the same as for PCB's. The plant uptake factors for heptachlor are used as a conservative surrogate for chlordane. Chlordane is chemically similar to heptachlor and contains approximately 10 percent heptachlor (by weight). However, the root uptake factor for chlordane is conservatively derived as a 95-percent UCL for a variety of uptake factors for chlordane in sugar beets (EPA, 1986a). The surrogate plant uptake factors were chosen based on the surrogate's bioaccumulation factor being greater than the bioaccumulation factor of the compound being evaluated.

Since uptake factors for chromium and beryllium are not reported in EPA, (1986a), uptake factors for arsenic, cadmium, lead, mercury, nickel, selenium, and zinc are used to derive a conservative estimate [*i.e.*, upper 95-percent confidence limit (UCL)] for each specific plant category. These values are used as a surrogate plant uptake factor for chromium and beryllium, except the uptake factor for chromium in leafy vegetables, which is published in Kabata-Pendias and Pendias, 1984.

The potential exposure to volatile compounds through the garden scenario was not quantitatively evaluated in the BRSRA and volatile contaminants are not presented in table 3-3. Volatile compounds such as tetrachloroethene have short half-lives in soil, are not persistent in the soil, and are not expected to be readily taken up by plants or to bioaccumulate in plants (Ryan *et al.*, 1988). Based on the very low concentrations of volatile contaminants detected in the soil, plant uptake of these COPC is not considered an operable exposure route and the uptake of volatile contaminants from soil or soil gas is not evaluated further in this BRSRA.

A summary of contaminant concentrations for the garden pathway is provided in table 3-4. The 1100-2 subunit is not presented in this table because the only contaminant at this subunit (tetrachloroethene) is not evaluated for the garden pathway.

**3.5.1.4 Groundwater Pathways for BRSRA.** The exposure concentrations for the groundwater ingestion and inhalation of volatiles from groundwater pathways are the maximum concentrations of the COPC as determined from the Phase I and Phase II groundwater sampling at HRL (DOE/RL-90-18 and appendix E). The concentrations are 0.11 mg/L and 61 mg/L for trichloroethene and nitrate as total nitrogen (N), respectively. As directed, 1,1,1-trichloroethane was not evaluated [Einan, 1991 (see appendix I)].

**Table 3-1.** Fugitive Dust Concentration for Specific 1100-EM-1 Operable Subunits[1].

| Subunit | $Q_0$ ($g/m^2$ - s) | Fugitive Dust Concentration ($\mu g/m^3$) |
|---|---|---|
| 1100-1 | $1.674 \times 10^{-7}$ | 0.036 |
| 1100-2 | $6.042 \times 10^{-8}$ | 35.5 |
| 1100-3 | $5.754 \times 10^{-8}$ | 26.2 |
| UN-1100-6 | $7.428 \times 10^{-8}$ | 17.8 |
| Horn Rapids Landfill | $7.062 \times 10^{-8}$ | 111.3 |
| Ephemeral Pool | $1.676 \times 10^{-7}$ | 47.6 |

[1] Based on the maximum concentration generated by the EPA Fugitive Dust model.

9 3 1 2 9 3 3 1 0 2 4

**Table 3-2. Estimated Air Concentrations Based on Maximum Contaminant Concentrations.**

| Contaminant | 1100-1 | 1100-2 | 1100-3 | UN-1100-6 | Horn Rapids Landfill | Ephemeral Pool |
|---|---|---|---|---|---|---|
| | Downwind Air Concentration ($mg/m^3$) | Downwind Air Concentration ($mg/m^3$) | Downwind Air Concentration ($mg/m^3$) | Downwind Air Concentration ($mg/m^3$) | Downwind Air Concentration ($mg/m^3$) | Downwind Air Concentration ($mg/m^3$) |
| Antimony | -- | -- | -- | -- | --[a] | -- |
| Arsenic | 1.1E-10 | -- | 9.0E-08 | -- | 7.3E-07 | -- |
| Barium | -- | -- | -- | -- | 1.5E-04 | -- |
| Beryllium | -- | -- | -- | -- | 1.4E-07 | -- |
| Chromium | -- | 6.0E-07 | 3.7E-07 | -- | 1.4E-04 | -- |
| Copper | -- | -- | -- | -- | --[a] | -- |
| Lead | -- | -- | 7.0E-07 | -- | 9.5E-05 | -- |
| Manganese | -- | 1.3E-05 | 1.1E-05 | -- | 5.6E-05 | -- |
| Nickel | -- | -- | -- | -- | 6.2E-05 | -- |
| Thallium | -- | -- | -- | -- | --[a] | -- |
| Vanadium | --[a] | -- | -- | -- | --[a] | -- |
| Zinc | -- | -- | -- | -- | --[a] | -- |
| BEHP | -- | -- | -- | 4.4E-04 | -- | -- |
| Beta-HCH | -- | -- | -- | -- | 1.0E-08 | -- |
| Chlordane | -- | -- | -- | 3.3E-08 | -- | 1.3E-07 |
| DDT | -- | -- | -- | -- | 2.2E-07 | -- |
| Heptachlor | -- | -- | -- | 1.2E-09 | 2.2E-09 | 1.4E-09 |
| PCBs | -- | -- | -- | -- | 1.1E-05 | 2.0E-06 |
| Tetrachloroethene | | 1.2E-09 | | | 6.7E-10 | |

[a] Inhalation RfDs and SFs are not available with which to evaluate these contaminants of potential concern.
-- Indicates not a contaminant of potential concern for the air pathway at this subunit.

**Table 3-3.** Summary of Plant Uptake Factors[a,b].

| Contaminant | Leafy | Root | Garden Fruits | Potatoes |
|---|---|---|---|---|
| Arsenic | 0.04 | 0.02 | 0.002 | 0.0006 |
| BEHP[c] | 0.38 | 0.36 | 0.02 | 0.02 |
| Beryllium[d] | 0.43 | 0.26 | 0.041 | 0.06 |
| Chlordane | 0.02[e] | 2.02[f] | 0.21[e] | 0.3[e] |
| Chromium | 0.2[g] | 0.26[d] | 0.041[d] | 0.06[d] |
| Lead | 0.008 | 0.003 | 0.002 | 0.0008 |
| PCBs | 0.38 | 0.36 | 0.02 | 0.02 |

[a]All uptake factors expressed as [$\mu$g/g tissue Dry Weight ($\mu$g/g soil)$^{-1}$]
[b]Source: EPA 1986a unless otherwise indicated
[c]PCB uptake factors used as surrogates for BEHP
[d]95% upper confidence limit of mean for uptake factors of As, Cd, Pb, Hg, Ni, Se, Zn (EPA 1986a)
[e]Heptachlor uptake factors used as surrogates for chlordane
[f]95% upper confidence limit of mean for uptake of chlordane by sugar beets
[g] Kabata - Pendias and Pendias 1984

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**3.5.1.5 Residential-Related Recreational Pathways for BRSRA.** Two recreational exposures are evaluated for residents at HRL. Residents may swim in or consume fish from the Columbia River, which could be potentially impacted by groundwater from the vicinity of the 1100-EM-1 Operable Unit. Trichloroethene and nitrate are groundwater COPC that potentially could be transported to the Columbia River. Only trichloroethene is likely to be dermally absorbed. The estimated future concentration of trichloroethene in the Columbia River is conservatively assumed to be 6E-06 mg/L (DOE/RL-90-18), which is the value used in evaluating potential dermal exposures during swimming. By extrapolating observations of groundwater concentrations, the nitrate as N at the Columbia River is estimated to be 0.003 mg/L. This is below the MCL of 10 mg/L for nitrate as N.

With a bioconcentration factor of 17 L/kg on a wet weight basis (EPA, 1986b), trichloroethene may bioaccumulate in fish. The resulting contaminant concentration in the tissue of fish inhabiting the Columbia River in the vicinity of the city of Richland water intake is conservatively estimated to be 1E-04 mg/kg. Little information exists on the bioconcentration potential of nitrate in animals. However, because nitrate is readily metabolized, bioconcentration is unlikely. Therefore, nitrate is not evaluated for exposures through bioaccumulation in fish.

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### 3.5.2 Calculation of Contaminant Intakes

Standard EPA equations for calculation of intakes, as provided in RAGS (EPA, 1989a) and the HSBRAM (DOE/RL-91-45) are used as the basis for all intake calculations. The basic equation for calculating intakes, with respect to body weight, for ingestion or inhalation is:

where:

$$\text{Intake} = \frac{C \times IR \times EF \times ED \times CF}{BW \times AT} \qquad (3)$$

| | | |
|---|---|---|
| Intake | = | chronic daily intake of the contaminant (mg/kg-d) |
| C | = | concentration of contaminant in the medium (*e.g.*, mg/kg or $mg/m^3$) |
| IR | = | intake rate (*e.g.*, mg/d or $m^3/d$) |
| EF | = | exposure frequency (d/yr) |
| ED | = | exposure duration (yr) |
| BW | = | body weight (kg) |
| AT | = | averaging time (d/yr x yr) |
| CF | = | conversion factor (as appropriate) |

**Table 3-4.** Summary of Contaminant Concentrations for the Garden Pathway at Specific 1100-EM-1 Operable Subunits Based on Maximum Contaminant Concentrations.

| | Leafy (lettuce) (mg/kg) | Root (carrots) (mg/kg) | Garden Fruits (tomatoes) (mg/kg) | Potatoes (mg/kg) |
|---|---|---|---|---|
| **1100-3** | | | | |
| Arsenic | 1.36E-01 | 6.8E-02 | 6.8E-03 | 2.0E-03 |
| Chromium | 2.8E+00 | 3.6E+00 | 5.7E-01 | 8.4E-01 |
| Lead | 2.11E-01 | 7.9E-02 | 5.3E-03 | 2.1E-02 |
| **UN-1100-6** | | | | |
| BEHP | 9.5E+03 | 9.0E+03 | 5.0E+02 | 5.0E+02 |
| Chlordane | 3.7E-02 | 3.8E+00 | 3.9E-01 | 5.6E-01 |
| **Ephemeral Pool** | | | | |
| Chlordane | 5.6E-02 | 5.7E+00 | 5.9E-01 | 8.4E-01 |
| PCB | 1.6E+01 | 1.5E+01 | 8.4E-01 | 8.4E-01 |
| **Horn Rapids Landfill** | | | | |
| Arsenic | 2.6E-01 | 1.3E-01 | 1.3E-02 | 4.0E-03 |
| Beryllium | 5.6E-01 | 3.4E-01 | 5.3E-02 | 7.8E-02 |
| Chromium | 2.5E+02 | 3.2E+02 | 5.1E+01 | 7.5E+01 |
| Lead | 6.8E+00 | 2.6E+00 | 1.7E+00 | 6.8E-01 |
| PCB | 3.9E+01 | 3.7E+01 | 2.0E+00 | 2.0E+00 |

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The exposure parameters (*i.e.*, body weight, averaging time, intake rate, exposure frequency, and exposure duration) for the BISRA are those presented for the industrial scenario of the HSBRAM (DOE/RL-91-45), and are discussed below with conversion factors indicated, as appropriate. A summary of the industrial and residential exposure parameters are provided in table 3-5 and table 3-6, respectively. See appendix IV for specific BRSRA calculations, *e.g.*, in combining child and adult exposures.

**3.5.2.1 Soil Ingestion for BISRA.** The following are exposure parameters for the soil ingestion pathway:

| | | |
|---|---|---|
| C | = | maximum contaminant concentration (mg/kg) |
| IR | = | intake rate (50 mg/d) |
| EF | = | exposure frequency (146 d/yr) |
| ED | = | exposure duration (20 yr) |
| BW | = | body weight (70 kg) |
| AT | = | averaging time (noncarcinogenic effects: 365 d/yr x 20 yr; carcinogenic effects: 365 d/yr x 70 yr) |
| CF | = | conversion factor (1E-06 kg/mg) |

**3.5.2.2 Soil Ingestion for BRSRA.** All exposure parameters for the soil ingestion pathway are those presented for the residential scenario as discussed in *Supplemental Risk Assessment Guidance for Superfund*, (EPA-10, 1991). These factors are used as required by EPA [Einan, 1992 (see appendix I)]. For evaluating both carcinogens and noncarcinogens, the exposure assumptions are based on a child and an adult exposure.

| | | |
|---|---|---|
| C | = | maximum contaminant concentration (mg/kg) |
| IR | = | intake rate (Child: 200 mg/d; Adult: 100 mg/d) |
| EF | = | exposure frequency (350 d/yr) |
| ED | = | exposure duration (Child: 6 yr; Adult: 24 yr) |
| BW | = | body weight (Child: 15 kg; Adult: 70 kg) |
| AT | = | averaging time (noncarcinogenic effects: 365 d/yr x 30 yr; carcinogenic effects: 365 d/yr x 70 yr) |
| CF | = | conversion factor (1E-06 kg/mg) |

**3.5.2.3 Inhalation of Fugitive Dust for BISRA.** The following are exposure parameters used for the industrial scenario:

| | | |
|---|---|---|
| C | = | estimated air concentration ($mg/m^3$) |
| IR | = | intake rate (20 $m^3/d$) |
| EF | = | exposure frequency (250 d/yr) |
| ED | = | exposure duration (20 yr) |
| BW | = | body weight (70 kg) |
| AT | = | averaging time (noncarcinogenic effects: 365 d/yr x 20 yr; carcinogenic effects: 365 d/yr x 70 yr) |

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**Table 3-5.** Summary of Industrial Scenario Exposure Factors.

| Exposure Factor | HSBRAM Reasonable Maximum Exposure[a] |
|---|---|
| Intake Rate | |
| Soil Ingestion | 50 mg/d |
| Inhalation | 20 $m^3$/d |
| Exposure Frequency | |
| Soil Ingestion | 146 d/yr |
| Inhalation | 250 d/yr |
| Dermal | 146 d/yr |
| Exposure Duration | 20 yr |
| Body Weight | 70 kg |
| Averaging Time | |
| Carcinogens | 70 yr x 365 d/yr |
| Noncarcinogens | 20 yr x 365 d/yr |
| Skin Surface Area | 5000 $cm^2$ |
| Soil-to-Skin Adherence Factor | 0.2 mg/$cm^2$/event |
| Absorption Factor | |
| Inorganics | 0.001[c] |
| BEHP | 0.0055[b] |
| All other organics | 0.06[c] |

[a]DOE-RL 1992; factors based on EPA-10 (1991), WAC 173-340, EPA (1992c)
[b]Calculated; see Subsection 3.5.3
[c]EPA (1992c)

**Table 3-6.** Summary of Residential Scenario Exposure Factors (sheet 1 of 2)

| Exposure Factor | Reasonable Maximum Exposure[a] |
|---|---|
| Intake Rate | |
| Ingestion | |
| Adult - Soil | 100 mg/d |
| Child - Soil | 200 mg/d |
| Adult - Groundwater | 2 L/d |
| Inhalation | |
| Adult - Soil | 20 $m^3$/d |
| Adult - Groundwater (volatiles) | 15 $m^3$/d |
| Fish Ingestion[c] | 54 g/d |
| Garden Produce[b] | |
| Root (e.g., carrots) | 0.88 g/d |
| Leafy (e.g., lettuce) | 1.1 g/d |
| Garden fruit (e.g., tomato) | 2.2 g/d |
| Potato | 9.1 g/d |
| Exposure Frequency | 350 d/yr<br>2.6 hr/d, 7 d/yr (swimming) |
| Exposure Duration | |
| Soil Ingestion and Dermal | |
| Adult | 24 yr |
| Child | 6 yr |
| All other pathways | 30 yr |
| Body Weight — Adult | 70 kg |
| Body Weight — Child | 15 kg |
| Averaging Time — Carcinogens | 70 yr x 365 d/yr |
| Averaging Time — Non-carcinogens | 30 yr x 365 d/yr |
| Skin Surface Area — Adult - Soil | 5000 $cm^2$ (summer); 1900 $cm^2$ (winter) |
| Skin Surface Area — Child - Soil | 3900 $cm^2$ |
| Skin Surface Area — Adult - Swimming | 20,000 $cm^2$ |
| Soil to Skin Adherence Factor | 1 mg/$cm^2$/d |
| Contaminant-Specific Absorption Factor | |
| Inorganics[d] | 0.001 |
| BEHP[e] | 0.0055 |
| All other organics[d] | 0.06 |
| Permeability Coefficient[d] | |
| Trichloroethene | $2 \times 10^{-1}$ |
| Tetrachloroethene | $4 \times 10^{-1}$ |
| Groundwater Volatilization Factor[a] | 0.5 L/$m^3$ |

[a]Factors based on EPA-10 (1991) unless otherwise specified
[b]EPA (1986a)
[c]EPA (1991a)
[d]EPA (1992c)
[e]Calculated factor; see Section 3.5.3

**3.5.2.4 Inhalation of Fugitive Dust for BRSRA.** All exposure parameters for the inhalation of fugitive dust pathway are those presented for the residential scenario, as discussed in EPA-Region 10 guidance (EPA-10 1991). For evaluating both carcinogens and noncarcinogens, the exposure assumptions are based on an adult exposure.

| | | |
|---|---|---|
| C | = | estimated air concentration ($mg/m^3$) |
| IR | = | intake rate (20 $m^3/d$) |
| EF | = | exposure frequency (350 d/yr) |
| ED | = | exposure duration (30 yr) |
| BW | = | body weight (70 kg) |
| AT | = | averaging time (noncarcinogenic effects: 365 d/yr x 30 yr; carcinogenic effects: 365 d/yr x 70 yr) |

**3.5.2.5 Dermal Exposure to Contaminated Soil for BISRA.** The intake equation provided in paragraph 3.5.2 above, is modified to provide the absorbed dose equation for dermal exposures to contaminated soil. For the purpose of the BISRA, it is conservatively assumed that workers do not wear protective clothing that would limit dermal exposure. Exposure factors, as provided in the HSBRAM (DOE/RL-91-45), are indicated.

$$\text{Dermally absorbed dose} = \frac{CS \times SA \times AF \times ABS \times EF \times ED \times CF}{BW \times AT} \qquad (4)$$

where:

Dermally absorbed dose = (mg/kg-d)

| | | |
|---|---|---|
| CS | = | maximum concentration of contaminant in soil (mg/kg) |
| SA | = | skin surface area available for contact (5000 $cm^2$) |
| AF | = | soil-to-skin adherence factor (0.2 $mg/cm^2$/event) |
| ABS | = | contaminant-specific absorption factor (unitless) |
| EF | = | event frequency (146 events/yr) |
| ED | = | exposure duration (20 yr) |
| CF | = | conversion factor (1E-06 kg/mg) |
| BW | = | body weight (70 kg) |
| AT | = | averaging time (noncarcinogenic effects: 365 d/yr x 20 yr; carcinogenic effects: 365 d/yr x 70 yr) |

The contaminant-specific absorption factor is a value that is either assumed or derived from published literature. Specific information on dermal absorption for most of the COPC is limited.

For the inorganic COPC, a review of the published literature, including available toxicological profiles from the Agency for Toxic Substances and Disease Registry (ATSDR), indicates that uptake across intact skin is very limited for most metal ions. The average dermal absorption of cadmium from a soil matrix is estimated at 1.0 percent (*i.e.*, 0.01), as

discussed in the *"Dermal Exposure Assessment: Principles and Applications"* (EPA, 1992c). Therefore, for the calculation of dermal intakes, it is assumed that the contaminant-specific absorption factor (ABS) is 0.01 for all inorganic COPC based on the available information for cadmium.

Several organic COPC are also present in the soil at the Discolored Soil Site, HRL, and the Ephemeral Pool. A review of the literature provided little specific information on the absorption of the specific organic compounds of potential concern — β-HCH, chlordane, DDT, heptachlor, and PCB's — from skin contact with contaminated soil. EPA (1992c) recommends the use of an upper bound estimate of 6 percent (*i.e.*, 0.06), as an absorption factor for PCB's based on studies of 3,3', 4,4' tetrachlorobiphenyl. A value of 0.06 is assumed to be an appropriate ABS for all organic COPC except BEHP.

For BEHP, data are available on potential dermal absorption that can be combined with assumptions of contact time with the soil and dermal bioavailability. Studies in rats have shown that 6.9 percent of BEHP, applied as pure product, is dermally absorbed (Life Systems, Inc. 1989). Ryan *et al.* (1987) suggest that only 10 percent of organic contaminants in soil are generally bioavailable for dermal exposures. If the contact time with the soil is conservatively assumed to be 8 hr, 80 percent of the contaminant is estimated to be absorbed during this time period (Shu *et al.* 1988). This absorption information and dermal bioavailability information can be combined to estimate an absorption factor for BEHP of 0.55 percent (*i.e.*, 0.0055).

**3.5.2.6 Dermal Exposure to Contaminated Soil for BRSRA.** The equation and assumptions used for the BRSRA for dermally absorbed dose is the same as that used for the BISRA, as described above. The dermal exposure parameters for the contaminated soil pathway are those recommended by EPA (EPA-10, 1991). For evaluating both carcinogens and noncarcinogens, the exposure assumptions are based on a child and an adult exposure. The following parameters are different for the BRSRA:

| | | |
|---|---|---|
| SA | = | skin surface area available for contact (Child: 3900 $cm^2$, Adult: 5000 $cm^2$ - summer, 1900 $cm^2$ - winter) |
| AF | = | soil-to-skin adherence factor (1 $mg/cm^2$/event) |
| EF | = | event frequency (Child: 1/event/day, 350 d/yr; Adult: 1/event/day, 350 d/yr with 90 d as summer and 260 d as winter) |
| ED | = | exposure duration (Child: 6 yr; Adult: 24 yr) |
| BW | = | body weight (Child: 15 kg; Adult: 70 kg) |

**3.5.2.7 Ingestion of Garden Produce for BRSRA.** The exposure parameters for the ingestion of garden produce [*i.e.*, dry weight (DW) consumption rates for each vegetable category) have been derived from EPA (1986a, 1989d, and 1990). The percentage of homegrown vegetables and the remaining exposure factors are provided in EPA, 1991a. The currently recommended parameters in EPA, 1991a are based on fresh weight and are for total vegetable consumption only. Therefore, they are not appropriate to evaluate individual vegetable categories.

For evaluating both carcinogens and noncarcinogens, the exposure assumption is based on an adult exposure. The highest daily DW consumptions for a vegetable category provided in EPA (1986a, 1989d, and 1990) have been adjusted to represent the amount that is homegrown (*i.e.*, 40 percent), as recommended in EPA (1991a). The adjusted daily DW consumptions are:

- Root (*e.g.*, carrots) 0.88 g/d
- Leafy (*e.g.*, lettuce) 1.1 g/d
- Garden fruits (*e.g.*, tomatoes) 2.2 g/d
- Potatoes 9.1 g/d

The exposure parameters for the garden produce pathway are:

| | | |
|---|---|---|
| C | = | estimated plant concentration (mg/kg dry weight) |
| IR | = | intake rate (produce-specific g/d dry weight) |
| EF | = | exposure frequency (350 d/yr) |
| ED | = | exposure duration (30 yr) |
| BW | = | body weight (70 kg) |
| AT | = | averaging time (noncarcinogenic effects: 365 d/yr x 30 yr; carcinogenic effects: 365 d/yr x 70 yr) |
| CF | = | conversion factor (1E-03 kg/g) |

**3.5.2.8 Ingestion of Groundwater for BRSRA.** The exposure parameters for the consumption of groundwater are those presented for the residential scenario, as discussed in EPA-Region 10 guidance (EPA-10, 1991). For evaluating both carcinogen and non-carcinogens, the exposure assumptions are based on an adult exposure.

| | | |
|---|---|---|
| CW | = | estimated concentration in groundwater (mg/L) |
| IR | = | intake rate (2 L/d) |
| EF | = | exposure frequency (350 d/yr) |
| ED | = | exposure duration (30 yr) |
| BW | = | body weight (70 kg) |
| AT | = | averaging time (noncarcinogenic effects: 365 d/yr x 30 yr; carcinogenic effects: 365 d/yr x 70 yr) |

**3.5.2.9 Inhalation of Volatiles from Groundwater for BRSRA.** The potential inhalation of volatiles from the use of groundwater in a residence is evaluated as recommended in EPA-Region 10 guidance (EPA-10, 1991). Exposure assumptions are based on an adult exposure:

| | | |
|---|---|---|
| CW | = | estimated concentration in water (mg/L) x K volatilization factor (0.5 $L/m^3$) |
| IR | = | intake rate (15 $m^3/d$) |
| EF | = | exposure frequency (350 d/yr) |
| ED | = | exposure duration (30 yr) |
| BW | = | body weight (70 kg) |
| AT | = | averaging time (noncarcinogenic effects: 365 d/yr x 30 yr; carcinogenic effects: 365 d/yr x 70 yr) |

**3.5.2.10 Fish Ingestion for BRSRA.** The exposure parameters for the consumption of fish are those presented in EPA (1991a). Exposure assumptions are based on adult exposure:

| | | |
|---|---|---|
| C | = | estimated concentration in fish (mg/kg) |
| IR | = | intake rate (54 g/d) |
| EF | = | exposure frequency (350 d/yr) |
| ED | = | exposure duration (30 yr) |
| BW | = | body weight (70 kg) |
| AT | = | averaging time (noncarcinogenic effects: 365 d/yr x 30 yr; carcinogenic effects: 365 d/yr x 70 yr) |
| CF | = | conversion factor (1E-03 kg/g) |

**3.5.2.11 Dermal Contact with Columbia River Water for BRSRA.** The intake equation provided above for ingestion is modified to provide the absorbed dose equation for dermal contact with Columbia River water. All exposure parameters for the dermal contact with water are those presented for the residential scenario as discussed in EPA-Region 10 guidance (EPA-10, 1991). For evaluating both carcinogens and noncarcinogens, the exposure assumptions are based on an adult exposure.

$$\text{Dermally absorbed dose} = \frac{CW \times SA \times K_p \times ET \times EF \times ED \times CF}{BW \times AT} \qquad (5)$$

where :

| | | |
|---|---|---|
| Dermally absorbed dose | = | normalized with respect to bodyweight (mg/kg-d) |
| CW | = | maximum concentration of contaminant in water (mg/L) |
| SA | = | skin surface area available for contact (20,000 $cm^2$) |
| $K_p$ | = | contaminant-specific permeability coefficient (cm/hr) |
| ET | = | event time (2.6 hr/d) |
| EF | = | event frequency (7 d/yr) |
| ED | = | exposure duration (30 yr) |
| CF | = | conversion factor (1 L/1000 $cm^3$) |
| BW | = | body weight (70 kg) |
| AT | = | averaging time (noncarcinogenic effects: 365 d/yr x 30 yr; carcinogenic effects: 365 d/yr x 70 yr) |

The contaminant-specific permeability factor ($K_p$) is a value that is either assumed or can be derived from the literature if sufficient dermal absorption information is available. Trichloroethene is the only contaminant of potential concern that may impact the Columbia River that is evaluated for the BRSRA. The $K_p$ for trichloroethene is 2E-01 cm/hr (0.08 in/hr) (EPA, 1992c).

### 3.5.3 Summary of Contaminant Intakes for BISRA

The estimated intakes of COPC for industrial workers are provided in tables 3-7 and 3-8. The intakes are provided for both noncarcinogenic effects and carcinogenic effects. Specific intakes are not presented if there is no RfD or SF for a contaminant, or if the SF is zero (*e.g.*, a contaminant is not carcinogenic by this pathway). It should be noted that the fugitive dust intake of arsenic is reduced by 30 percent because of absorption (EPA, 1992b).

### 3.5.4 Summary of Contaminant Intakes for BRSRA

The estimated intakes of COPC for onsite residents are provided in tables 3-9 through 3-12. As noted for the BISRA, specific intakes are not presented if there is no risk SF or RfD for a contaminant or if the slope factor is zero. Table 3-9 provides the intakes for the soil ingestion, inhalation of fugitive dust, and dermal contact pathways based on the maximum contaminant concentrations. As referenced for the BISRA, fugitive dust intake of arsenic is reduced by 30 percent because of absorption. The contaminant intakes from the consumption of garden produce are presented in table 3-10. The 1100-2 subunit is not presented in table 3-10 because the only contaminant at this subunit (tetrachloroethene) is not evaluated for the garden pathway. Volatile contaminants detected at HRL are not presented in this table. Contaminant intakes for the groundwater pathway are shown in table 3-11. The contaminant intakes from the residential-related recreational pathways (consumption of fish and dermal absorption through swimming) are presented in table 3-12. The intakes are provided for both noncarcinogenic effects and carcinogenic effects.

## 3.6 EXPOSURE ASSESSMENT FOR LEAD IN BRSRA

EPA (see chapter 2 and appendix I) has indicated that lead is to be evaluated as a contaminant of potential concern at 1100-3 and at HRL, where it is detected in soil at a maximum concentration of 26.4 mg/kg, and 854 mg/kg, respectively. The EPA has also recommended the use of the Uptake/Biokinetic Model (UBK) for evaluating the potential residential exposures to lead at these two subunits.

EPA does not currently recommend numerical toxicity values for lead, in part, because there is no scientific consensus concerning the effects of lead at low doses. [Data on blood-lead levels and various health effects indicate a spectrum of adverse health effects in populations having increased blood-lead levels. EPA has reviewed key studies relating to the toxicokinetics and health effects of lead in humans in its *Air Quality Criteria Document for Lead* (EPA, 1986c)]. Although a threshold for these effects has not been established, the available evidence suggests that it lies within 10 to 15 $\mu$g/dl. The evidence for adverse effects below this range of blood-lead is uncertain and remains controversial.

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**Table 3-7**. Summary of Industrial Scenario Intakes Based on Maximum Contaminant Concentrations for 1100-1, 1100-2, 1100-3, 1100-4, the Discolored Soil Site, and the Ephemeral Pool.

| Contaminant | Pathway | | | | | |
|---|---|---|---|---|---|---|
| | Soil Ingestion (mg/kg-d) | | Fugitive Dust Inhalation (mg/kg-d) | | Dermal Exposure (mg/kg-d) | |
| | Noncarcinogenic | Carcinogenic | Noncarcinogenic | Carcinogenic | Noncarcinogenic | Carcinogenic |
| **1100-1** | | | | | | |
| Arsenic | 9.3E-07 | 2.6E-07 | -- | 1.8E-12[a] | 1.8E-08 | 5.2E-09 |
| Vanadium | 3.4E-05 | -- | -- | -- | 6.7E-07 | -- |
| **1100-2** | | | | | | |
| Chromium | 4.8E-06 | -- | -- | 3.4E-08 | 9.5E-08 | -- |
| Manganese | 1.1E-04 | -- | 2.6E-06 | -- | 2.1E-06 | -- |
| **1100-3** | | | | | | |
| Chromium | 4.0E-06 | -- | -- | 2.1E-08 | 7.9E-08 | -- |
| Manganese | 1.3E-04 | -- | 2.2E-06 | -- | 2.5E-06 | -- |
| **1100-4** | | | | | | |
| Arsenic | 1.7E-06 | 4.7E-07 | -- | -- | 3.3E-08 | 9.4E-09 |
| Beryllium | 2.7E-07 | 7.6E-08 | -- | -- | 5.3E-09 | 1.5E-09 |
| **Discolored Soil Site** | | | | | | |
| BEHP | 7.2E-03 | 2.0E-03 | -- | 2.5E-05 | 7.9E-04 | 2.2E-04 |
| Chlordane | 5.3E-07 | 1.5E-07 | -- | 1.8E-09 | 6.4E-07 | 1.8E-07 |
| Heptachlor | 1.9E-08 | 5.3E-09 | -- | 6.7E-11 | 2.2E-08 | 6.4E-09 |
| **Ephemeral Pool** | | | | | | |
| Chlordane | 8.1E-07 | 2.3E-07 | -- | 7.3E-09 | 9.6E-07 | 2.7E-07 |
| Heptachlor | 8.4E-09 | 2.4E-09 | -- | 7.8E-11 | 9.9E-09 | 2.8E-09 |
| PCB's | -- | 3.4E-06 | -- | 1.1E-07 | -- | 4.1E-06 |

[a]Intakes adjusted based on 30% absorption of inhaled arsenic (EPA 1992b)
-- = Not Applicable

**Table 3-8**. Summary of Industrial Scenario Intakes Based on Maximum Contaminant Concentrations for the Horn Rapids Landfill.

| Contaminant | Pathway | | | | | |
|---|---|---|---|---|---|---|
| | Soil Ingestion (mg/kg-d) | | Fugitive Dust Inhalation (mg/kg-d) | | Dermal Exposure (mg/kg-d) | |
| | Noncarcinogenic | Carcinogenic | Noncarcinogenic | Carcinogenic | Noncarcinogenic | Carcinogenic |
| Antimony | 4.5E-06 | -- | -- | -- | 8.9E-08 | -- |
| Arsenic | 1.9E-06 | 5.4E-07 | -- | 1.2E-08[a] | 3.7E-08 | 1.1E-08 |
| Barium | 3.8E-04 | -- | 3.0E-05 | NA | 7.5E-06 | -- |
| Beryllium | 3.7E-07 | 1.1E-07 | -- | 7.8E-09 | 7.4E-09 | 2.1E-09 |
| Chromium | 3.6E-04 | -- | -- | 7.8E-06 | 7.1E-06 | -- |
| Copper | 3.7E-04 | -- | -- | -- | 7.3E-06 | -- |
| Manganese | 1.5E-04 | -- | 1.1E-05 | -- | 2.9E-06 | -- |
| Nickel | 1.6E-04 | -- | -- | 3.5E-06 | 3.2E-06 | -- |
| Thallium | 8.9E-07 | -- | -- | -- | 1.7E-08 | -- |
| Vanadium | 2.9E-05 | -- | -- | -- | 5.8E-07 | -- |
| Zinc | 9.1E-04 | -- | -- | -- | 1.8E-05 | -- |
| Beta-HCH | -- | 7.7E-09 | -- | 5.6E-10 | -- | 9.2E-09 |
| DDT | 5.7E-07 | 1.6E-07 | -- | 1.2E-08 | 6.8E-07 | 1.9E-07 |
| Heptachlor | 5.8E-09 | 1.6E-09 | -- | 1.2E-10 | 6.8E-09 | 1.9E-09 |
| PCBs | -- | 8.4E-06 | -- | 6.2E-07 | -- | 1.0E-05 |

[a]Intakes adjusted based on 30% absorption of inhaled arsenic (EPA, 1992b)
-- = Not Applicable

**Table 3-9**. Summary of Residential Scenario Intakes Based on Maximum Contaminant Concentrations for the Soil Ingestion, Fugitive Dust Inhalation, and Dermal Exposure Pathways at Specific 1100-EM-1 Operable Subunits.

| Contaminant | Pathway | | | | | |
|---|---|---|---|---|---|---|
| | Soil Ingestion (mg/kg-d) | | Fugitive Dust Inhalation (mg/kg-d) | | Dermal Exposure (mg/kg-d) | |
| | Noncarcinogenic | Carcinogenic | Noncarcinogenic | Carcinogenic | Noncarcinogenic | Carcinogenic |
| 1100-2 | | | | | | |
| Tetrachloroethene | 1.3E-07 | 5.6E-08 | --[c] | 1.4E-10 | 1.7E-07 | 7.2E-08 |
| 1100-3 | | | | | | |
| Arsenic | 1.3E-05 | 5.4E-06 | --[c] | 3.2E-09[a] | 2.7E-07 | 1.1E-07 |
| Chromium | 5.2E-05 | --[b] | --[c] | 4.4E-08 | 1.1E-06 | --[b] |
| Lead | --[c] | --[d] | --[c] | --[d] | --[c] | --[d] |
| UN-1100-6 | | | | | | |
| BEHP | 9.3E-02 | 4.0E-02 | --[c] | 5.3E-05 | 1.1E-02 | 4.7E-03 |
| Chlordane | 6.9E-06 | 2.9E-06 | --[c] | 4.0E-09 | 8.8E-06 | 3.8E-06 |
| Ephemeral Pool | | | | | | |
| Chlordane | 1.0E-05 | 4.5E-06 | --[c] | 1.6E-08 | 1.3E-05 | 5.7E-06 |
| PCBs | --[c] | 6.6E-05 | --[c] | 2.4E-07 | --[c] | 8.6E-05 |
| Horn Rapids Landfill | | | | | | |
| Arsenic | 2.4E-05 | 1.0E-5 | --[c] | 2.6E-08[a] | 5.2E-07 | 2.2E-07 |
| Beryllium | 4.8E-06 | 2.1E-06 | --[c] | 1.7E-08 | 1.0E-07 | 4.4E-08 |
| Chromium | 4.6E-03 | --[b] | --[c] | 1.7E-05 | 9.9E-05 | --[b] |
| Lead | --[c] | --[d] | --[c] | --[d] | --[c] | --[d] |
| PCBs | --[c] | 1.6E-04 | --[c] | 1.3E-06 | --[c] | 2.1E-04 |
| Tetrachloroethene | 2.2E-08 | 9.6E-09 | --[c] | 8.0E-11 | 2.8E-08 | 1.2E-08 |

[a]Intakes adjusted for 30% absorption of inhaled arsenic (EPA, 1992b)
[b]Not considered carcinogenic by this route of exposure or pathway
[c]RfD not available to evaluate intake for this pathway.
[d]SF not available to evaluate intake for this pathway.
-- Indicates not applicable

**Table 3-10**. Summary of Contaminant Intakes for Homegrown Vegetables in the Garden Pathway at Specific 1100-EM-1 Operable Subunits Based on the Maximum Contaminant Concentrations in Soil.

| | Leafy (lettuce)[a] (mg/kg-d) | | Root (carrots)[b] (mg/kg-d) | | Garden Fruits (tomatoes)[c] (mg/kg-d) | | Potatoes[d] (mg/kg-d) | | Total Contaminant Intake (mg/kg-d) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Non-Carcinogenic | Carcinogenic | Non-Carcinogenic | Carcinogenic | Non-Carcinogenic | Carcinogenic | Non-Carcinogenic | Carcinogenic | Non-Carcinogenic | Carcinogenic |
| **1100-3** | | | | | | | | | | |
| Arsenic | 2.0E-06 | --[e] | 8.2E-07 | --[e] | 2.0E-07 | --[e] | 2.4E-07 | --[e] | 3.3E-06 | --[e] |
| Chromium | 4.2E-05 | --[e] | 4.3E-05 | --[e] | 1.7E-05 | --[e] | 1.0E-04 | --[e] | 2.0E-04 | --[e] |
| Lead | --[f] | --[g] | --[f] | --[g] | --[f] | --[g] | --[f] | --[g] | --[f] | --[g] |
| **Discolored Soil Site (UN-1100-8)** | | | | | | | | | | |
| BEHP | 1.4E-01 | 6.2E-02 | 1.1E-01 | 4.7E-02 | 1.5E-02 | 6.5E-03 | 6.4E-02 | 2.6E-02 | 3.3E-01 | 1.4E-01 |
| Chlordane | 5.6E-07 | 2.4E-07 | 4.6E-05 | 2.0E-05 | 1.2E-05 | 5.1E-06 | 7.1E-05 | 3.0E-05 | 1.2E-04 | 5.5E-05 |
| **Ephemeral Pool** | | | | | | | | | | |
| Chlordane | 8.4E-07 | 3.6E-07 | 7.0E-05 | 3.0E-05 | 1.8E-05 | 7.8E-06 | 1.0E-04 | 4.5E-05 | 1.9E-04 | 8.3E-05 |
| PCBs | --[f] | 1.0E-04 | --[f] | 7.8E-05 | --[f] | 1.1E-05 | --[f] | 4.5E-05 | --[f] | 2.3E-04 |
| **Horn Rapids Landfill** | | | | | | | | | | |
| Arsenic | 4.0E-06 | --[e] | 1.6E-06 | --[e] | 3.9E-07 | --[e] | 5.1E-07 | --[e] | 6.4E-06 | --[e] |
| Beryllium | 8.4E-06 | 3.6E-06 | 4.1E-06 | 1.8E-06 | 1.6E-06 | 6.9E-07 | 9.9E-06 | 4.2E-06 | 2.4E-05 | 1.0E-05 |
| Chromium | 3.8E-03 | --[e] | 3.8E-03 | --[e] | 1.5E-03 | --[e] | 9.6E-03 | --[e] | 1.8E-02 | --[e] |
| Lead | 1.0E-04 | 4.4E-05 | 3.1E-05 | 1.4E-05 | 5.1E-05 | 2.2E-05 | 8.7E-05 | 3.6E-05 | 2.6E-04 | 1.2E-04 |
| PCB's | --[f] | 2.5E-04 | --[f] | 1.9E-04 | --[f] | 2.6E-05 | --[f] | 1.1E-04 | --[f] | 5.8E-04 |

[a] Assumes intake of 1.1 g/d dry weight (EPA, 1986a)
[b] Assumes intake of .88 g/d dry weight (EPA, 1986a)
[c] Assumes intake of 2.2 g/d dry weight (EPA, 1986a)
[d] Assumes intake of 9.1 g/d dry weight (EPA, 1986a)
[e] Not considered carcinogenic by this route of exposure or pathway
[f] RfD not available to evaluate intake for this pathway.
[g] SF not available to evaluate intake for this pathway.
-- Indicates not applicable

**Table 3-11.** Summary of Residential Scenario Intakes Based on the Maximum Contaminant Concentrations for the Groundwater Pathway at the Horn Rapids Landfill.

| Contaminant | Pathway | | | |
|---|---|---|---|---|
| | Ingestion (mg/kg-d) | | Volatile Inhalation (mg/kg-d) | |
| | Non-carcinogenic | Carcinogenic | Non-Carcinogenic | Carcinogenic |
| Nitrate | 1.7E+00 | --[a] | --[b] | --[a,b] |
| Trichloroethene | --[c] | 1.3E-03 | --[c] | 4.8E-03 |

[a]Not considered to be a carcinogen
[b]Not a volatile contaminant
[c]RfD not available to evaluate intake for this pathway
-- Indicates not applicable

**Table 3-12.** Summary of Intakes from Residential-Related Recreational Pathways for the 1100-EM-1 Operable Unit.

| Contaminant | Pathway | | | |
|---|---|---|---|---|
| | Swimming[a] (mg/kg-d) | | Eating Fish (mg/kg-d) | |
| | Non-Carcinogenic | Carcinogenic | Non-Carcinogenic | Carcinogenic |
| Trichloroethene | --[b] | 1.4E-08 | --[b] | 3.1E-08 |

[a]Indicates dermally absorbed dose
[b]RfD not available to evaluate intake for this pathway

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EPA is developing the UBK model to estimate blood-lead levels due to overall exposure to lead in the environment (EPA, 1991c and 1991d). The model has not officially been released, but is available from EPA for limited evaluation and use. The current model (version 0.5) estimates lead uptake and blood-lead levels in children ages 0 to 6. Children at this age are a sensitive group of individuals, are potentially more susceptible to the adverse effects associated with lead exposures.

The UBK model uses default parameters or subunit-specific information on concentrations of lead in soil, dust, air, diet, or water to predict blood-lead levels in children. The UBK model conservatively predicts absorption (uptake) of lead by various routes and applies that uptake to a compartment kinetic model. This compartment kinetic model describes lead distribution in the body and integrates the effect of the lead uptake over time. Graphical results of the UBK model are used to show the percentages of children of specific age groups that may have blood-lead levels above or below a specified concentration. For this BRSRA, a value of 10 $\mu$g/dL has been selected as the blood-lead level of interest. The Centers for Disease Control currently recommends that blood-lead levels in children should not exceed 10 $\mu$g/dL in order to prevent potential adverse intellectual development. Based on this threshold, the model's default exposure parameters results in an acceptable soil concentration of approximately 500 mg/kg.

A discussion of the application of the UBK model at the 1100-3 subunit and HRL subunit is discussed below. The results of the UBK model are discussed in chapter 5, paragraph 5.1. Computer output for the model results is provided in appendix V.

### 3.6.1 1100-3

The UBK model is run for two assumed residential scenarios at this subunit. First, to determine the predicted blood-lead level in children from 0 to 6 years of age, the model's default exposure parameters are used with the maximum concentration of lead detected at the 1100-3 subunit (*i.e.*, 26.4 mg/kg). This provides a subunit benchmark for <u>each age</u> for soil ingestion and dust inhalation based on the maximum subunit lead concentration in soil and assumes typical (default) diet, water, and air exposures.

The second scenario is to predict the blood lead level specifically in a 2-year old child (24 to 36 months) based on soil ingestion, dust inhalation, and dietary intake of lead from consumption of the four vegetable groups evaluated in the residential scenario, <u>in conjunction with typical background</u>. A 2-year old child has been selected because daily DW consumption for each vegetable group is readily available for this age group and young children are one of the most sensitive subpopulations for lead exposure. Additionally, this approach is consistent with the approach recommended in EPA, 1986a.

To evaluate the dietary lead uptake for a 2-year old child, the daily dietary consumption of lead (as DW) via intake of subunit-grown potatoes, leafy vegetables, root vegetables, and garden fruits is determined for a 2-year old child. The concentration of lead

in each of the four vegetable groups, presented in table 3-4, is multiplied by the child's DW consumption of vegetables from each food group. The DW consumptions of a 2-year old child, as provided in EPA (1986a) are:

| | |
|---|---|
| • Leafy vegetables (*e.g.*, lettuce) | 0.485 g/d |
| • Root vegetables (*e.g.*, carrots) | 0.668 g/d |
| • Garden fruits (*e.g.*, tomatoes) | 1.669 g/d |
| • Potatoes | 10.034 g/d |

For children, potentially living at 1100-3 and consuming vegetables in these food groups that are homegrown at the subunit, the daily lead intake from these foods is estimated to be:

| | |
|---|---|
| • Leafy vegetables (*e.g.*, lettuce) | 0.1 μg/d |
| • Root vegetables (*e.g.*, carrots) | 0.05 μg/d |
| • Garden fruits (*e.g.*, tomatoes) | 0.009 μg/d |
| • Potatoes | 0.21 μg/d |
| Total additional lead intake | 0.37 μg/d |

To complete this second scenario, the UBK model predicts the blood level in a 2-year old child by combining the above subunit specific total additional dietary lead intake data with the subunit specific benchmark data from the first scenario.

Model outputs for these two scenarios are discussed in chapter 5, paragraph 5.1 and provided in appendix V. The modelling results are conservative because of the assumption that all vegetables in these four food groups are homegrown and that the entire subunit is uniformly contaminated at the maximum concentration detected in the soil.

### 3.6.2 HRL

The UBK model was run for the same two assumed residential scenarios at HRL as were performed for 1100-3. With the exception of the concentrations in the four vegetable groups the parameters are the same as for subunit 1100-3. For children, potentially living at HRL and consuming vegetables in these food groups that are all homegrown at the subunit, the daily additional lead intake from these foods was estimated as:

| | |
|---|---|
| • Leafy vegetables (*e.g.*, lettuce) | 3.3 μg/d |
| • Root vegetables (*e.g.*, carrots) | 1.7 μg/d |
| • Garden fruits (*e.g.*, tomatoes) | 2.8 μg/d |
| • Potatoes | 6.8 μg/d |
| Total additional lead intake | 14.6 μg/d |

To complete this second scenario, the UBK model predicts the blood level in a 2-year old child by combining the subunit specific total additional dietary lead intake data, with the subunit specific data from the first scenario.

Model outputs for these two scenarios are also discussed in chapter 5, paragraph 5.1 and provided in appendix V. Again, the modelling results are conservative because of the assumption that all vegetables in these four food groups are homegrown and that the entire subunit is uniformly contaminated at the maximum concentration detected in the soil.

## 3.7 SUMMARY OF EXPOSURE ASSESSMENT

The exposure assessment for the BISRA and BRSRA quantifies potential exposures for industrial workers who would work at a specific subunit on a regular basis and onsite residents who would live at a specific subunit, respectively. The intakes, based on both carcinogenic and noncarcinogenic effects, are estimated for exposure pathways recommended in the HSBRAM (DOE/RL-91-45) for the industrial scenario and are as requested by EPA [Einan, 1991 (see appendix I)] for the residential scenario. It has been noted that the fugitive dust intake of arsenic is reduced by 30 percent because of absorption (EPA, 1992b). Pathways determined for the BISRA are only related to soil as discussed in paragraphs 3.3 and 3.5 above. Uncertainty in the estimated exposures is discussed in chapter 5, paragraph 5.4 as part of the overall uncertainty in the characterization of risks for the 1100-EM-1 Operable Unit.

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## 4.0 HUMAN HEALTH TOXICITY ASSESSMENT

The purpose of the toxicity assessment is to identify the potential adverse effects associated with exposure to site-related substances and to estimate, using numerical toxicity values, the likelihood that these adverse effects may occur based on the extent of the exposure. The toxicity assessment for the BISRA was conducted in accordance with RAGS (EPA, 1989a) and is discussed in the HSBRAM (DOE/RL-91-45).

The preparation of a toxicity assessment relies primarily on existing toxicity information, and does not usually involve development of toxicity information or dose-response relationships. Current toxicological information that has already been evaluated and summarized is available in a number of documents, databases, and other sources. Toxicological profiles for the COPC are provided in appendix II.

### 4.1 TOXICITY INFORMATION FOR NONCARCINOGENIC EFFECTS

Systemic, toxic effects other than cancer can be associated with exposures to chemicals. The chronic reference dose (RfD) is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of the daily exposure level for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of deleterious effects during a lifetime. Chronic RfD's are specifically developed to be protective for long-term exposure to a compound (seven years to lifetime). The RfD is developed to reflect the duration of exposure (*e.g.*, subchronic exposures - 2 weeks to 7 years and chronic exposures - 7 years to a lifetime) and the route of exposure (*e.g.*, inhalation, oral, *etc.*). RfD generally refers to chronic reference dose when used without other modifiers.

RfD's are derived from data obtained from studies in animals or humans using modification and uncertainty factors that account for uncertainty in the information used to derive the RfD. Uncertainty factors are applied for extrapolation of the no-observed-effects-level (NOEL) in a study population to the RfD used in the risk assessment. A factor of 10 is usually applied to reflect the level of each of the sources of uncertainty listed below:

- Use of lowest observed effect level (LOEL) or other parameters that are less conservative than NOEL;
- Use of data from short-term exposure studies to extrapolate to long-term exposure;
- use of data from animal studies to predict human effects; and
- use of data from homogeneous animal populations or healthy human populations to predict effects in the general population.

A modifying factor may also be incorporated into the RfD to reflect qualitative professional judgements regarding scientific uncertainties not considered by the uncertainty factor, such as the completeness of the data base and the number of animals in the study. Uncertainty factors and modifying factors, as published by EPA in IRIS or HEAST, are presented in table 4-1.

For purposes of these baseline risk assessments, the chronic RfD is utilized to evaluate potential noncarcinogenic effects. The chronic RfD is a daily exposure level that is not likely to cause an appreciable lifetime risk of deleterious effects to the general population, and sensitive subpopulations.

Table 4-1 summarizes the noncarcinogenic toxicity values for the COPC at the 1100-EM-1 Operable Units evaluated. Oral RfD's have been published for all of the COPC except for PCB's and trichloroethene. Confidence in these RfD's is low or medium for all COPC except nitrate. The confidence in the RfD for nitrate is high because the values are derived from human infant studies. An inhalation RfD is published for only two of the COPC, barium and 1,1,1-trichloroethane. However, 1,1,1-trichloroethane has only been detected in soil gas (DOE/RL-90-18); and, soil gas exposures are not evaluated, as indicated in chapter 3, paragraph 3.2. The RfD for barium is based on a 4-month inhalation study in rats that resulted in fetotoxicity. Based on this reproductive study, an interim RfD is published in HEAST, but it is under review and the RfD is subject to change.

The noncarcinogenic effects for the COPC include a variety of effects such as altered blood chemistry profiles for antimony, gastrointestinal irritation for copper, or increased blood pressure for barium. Liver effects, such as increased liver weight, lesions in the liver, or changes in liver enzymes, are associated with thallium, BEHP, chlordane, DDT, heptachlor, and tetrachloroethene. Skin effects are associated with arsenic. No critical effects are identified for beryllium or chromium by the oral route. Nitrate is associated with changes in the capacity of the blood system to transport oxygen.

Additional information on the noncarcinogenic effects for each contaminant of potential concern is provided in the toxicity profiles presented in appendix III.

## 4.2 TOXICITY INFORMATION FOR CARCINOGENIC EFFECTS

Toxicity values have also been developed for evaluating potential human carcinogenic effects from exposures to chemicals. Potential human carcinogenic effects are evaluated using the chemical-specific SF and accompanying EPA weight-of evidence determination. The toxicity values (*i.e.*, SF's) for carcinogens have been derived based on the premise that for any exposure to a carcinogenic chemical there is always a carcinogenic response (*i.e.*, there is no threshold). The SF is used in risk assessment to estimate an upper-bound lifetime probability of an individual developing cancer as a result of exposure to a particular level of a potential carcinogen.

**Table 4-1.** Summary of Noncarcinogenic Toxicity Information for Contaminants of Potential Concern at the 1100-EM-1 Operable Unit.

| Contaminant | ORAL | | | | | | INHALATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Oral Rfd (mg/kg-day) | Oral Rfd (basis/source) | Confidence Level | Critical Effect | Uncertainty Factors | Modifying Factors | Inhalation Rfd (mg/kg-d) | Inhalation Rfd (basis/source) | Confidence level | Critical effect | Uncertainty Factor | Modifying Factor |
| Antimony | 4E-4 | Water/IRIS | low | longevity, blood gluc. | 1,000 | 1 | -- | -- | -- | -- | -- | -- |
| Arsenic | 3E-4 | Food/IRIS | medium | hyperpigmentation keratosis | 3 | 1 | -- | -- | -- | -- | -- | -- |
| Barium | 7E-2 | Water/IRIS | medium | incr. blood press | 3 | 1 | 1E-4 | HEAST | -- | -- | 1,000 | -- |
| Beryllium | 5E-3 | Water/IRIS | -- | none observed | 100 | 1 | -- | -- | -- | -- | -- | -- |
| Chromium VI | 5E-3 | Water/IRIS | low | none | 500 | 1 | -- | -- | -- | -- | -- | -- |
| Copper | 4E-02 | EPA Region 10 | -- | GI irritation | -- | -- | -- | -- | -- | -- | -- | -- |
| Lead | ND | -- | -- | -- | -- | -- | ND | -- | -- | - | - | - |
| Manganese | 1E-01 | IRIS | -- | -- | -- | -- | 1.1E-04 | -- | -- | -- | -- | -- |
| Nickel | 2E-2 | Food/IRIS | medium | decrease body + organ weight | 300 | 1 | -- | -- | -- | -- | -- | -- |
| Thallium | 8E-5<br>9E-5 | -/IRIS | -- | SGOT and serum LDH level | 3,000 | -- | -- | -- | -- | -- | -- | -- |
| Vanadium | 7E-3 | Water/HEAST | -- | none | 100 | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 2E-1 | HEAST | -- | anemia | 10 | -- | -- | -- | -- | -- | -- | -- |
| BEHP | 2E-2 | IRIS | low | liver weight | 1000 | 1 | -- | -- | -- | -- | -- | -- |
| Beta-HCH | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlordane | 6E-5 | Food/IRIS | low | liver hypertrophy in mice | 1,000 | 1 | -- | -- | -- | -- | -- | -- |
| Heptachlor | 5E-4 | Food/IRIS | low | liver weight | 300 | 1 | -- | -- | -- | -- | -- | -- |
| PCB's | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Tetrachloroethene | 1E-2 | Gavage/IRIS HEAST 1991 | medium | hepatotoxic in mice, weight gain rat | 1,000 | 1 | -- | -- | -- | -- | -- | -- |
| 1,1,1-Trichloroethane | 9E-2 | Oral/HEAST | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Trichloroethene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Sources:
IRIS (Integrated Risk Information System Access): July, 1992a (EPA, 1992a)
HEAST (Health Effects Assessment Summary Tables) (EPA,1992b) unless otherwise indicated

ND = Not determined
-- Indicates not available

In addition to identifying the SF, the likelihood that a substance is a human carcinogen is also considered. A weight-of-evidence classification is assigned to each substance based on the strength of evidence of carcinogenicity. The EPA weight-of-evidence classifications are:

- Group A - Human Carcinogen
- Group B - Probable Human Carcinogen
  - B1 - Limited evidence of carcinogenicity in humans
  - B2 - Sufficient evidence of carcinogenicity in animals with inadequate or lack of evidence in humans
- Group C - Possible Human Carcinogen
- Group D - Not Classifiable as to Human Carcinogenicity
- Group E - Evidence of Non-Carcinogenicity in Humans

The toxicity values and supporting information for carcinogenic substances carried through the BISRA are summarized in table 4-2. EPA has not published a SF for lead in either IRIS or HEAST. Thirteen of the twenty COPC are considered carcinogens. Arsenic, chromium (VI), and nickel are known human carcinogens (EPA weight-of-evidence classification A). Arsenic is associated with lung and skin cancer by both the oral and inhalation exposure routes. Chromium (VI) and nickel are considered carcinogenic only by the inhalation route of exposure, because no evidence is currently available to indicate that they are carcinogenic by the oral route of exposure.

Beryllium, lead, BEHP, chlordane, DDT, heptachlor, and PCB's are probable human carcinogens (EPA weight-of-evidence classification B2) with insufficient human data, but sufficient data in animals to suggest that they are carcinogens. $\beta$-HCH is an EPA weight-of-evidence classification C, possible human carcinogen. The weight-of-evidence classification for tetrachloroethene and trichloroethene are currently under review pending resolution of the differing opinions on the classification (see appendix I).

Additional information on the toxicity associated with these COPC is provided in appendix II.

**Table 4-2.** Summary of Carcinogenic Toxicity Information for the Contaminants of Potential Concern at the 1100-EM-1 Operable Unit.

| Contaminant | Weight of Evidence Classification | Type of Cancer | Oral SF $(mg/kg\text{-}d)^{-1}$ | Oral SF (source) | Inhalation SF $(mg/kg\text{-}d)^{-1}$ | Inhalation SF (source) |
|---|---|---|---|---|---|---|
| Arsenic | A | Skin, Lung | 1.75E+00[a] | Surrogate | 5.0E+01 | IRIS/HEAST |
| Beryllium | B2 | -- | 4.3E+00 | IRIS | 8.4 | HEAST |
| Chromium VI | A | Lung | NA[b] | NA | 4.1E+01 | IRIS/HEAST |
| Lead | B2 | -- | ND | NA | ND | NA |
| Nickel | A | Lung | NA[b] | NA | 8.4E-01 | IRIS |
| BEHP | B2 | -- | 1.4E-02 | IRIS | 1.4E-02[e] | Surregate |
| Beta-HCH | C | -- | 1.8E+00 | IRIS | 1.8E+00 | IRIS |
| Chlordane | B2 | -- | 1.3E+00 | IRIS | 1.3E+00 | IRIS |
| DDT | B2 | -- | 3.4E-01 | IRIS | 3.4E-01 | IRIS |
| Heptachlor | B2 | -- | 4.5E+00 | IRIS | 4.5E+00 | IRIS |
| PCB's | B2 | -- | 7.7E+00[e] | IRIS | 7.7+00[c] | Surrogate |
| Tetrachloroethene | B2[c,d] | -- | 5.2E-02 | Region-10[c] | 2E-03 | Region-10[c] |
| 1,1,1-Trichloroethane | NA | NA | NA | NA | NA | NA |
| Trichloroethene | B2[c,d] | -- | 1.1E-02 | Region-10[c] | 6.0E-03 | Region-10[c] |

[a]Based on proposed arsenic unit risk of 5E-05 $\mu g/L$ (EPA, 1991a)
[b]Not considered carcinogenic by oral route of exposure
[c]As recommended by Superfund Technical Support Center, April 1992 (EPA-10, see Appendix I)
[d]Weight-of-evidence classification under evaluation
[e]Surrogate; assumed same as oral SF
-- Indicates not available; presented for Class A carcinogens only
ND - Not determined
NA - Not applicable

Sources: IRIS - Integrated Risk Information Access: July, 1992 (EPA, 1992a)
HEAST - Health Effects Assessment Summary Tables (EPA, 1992b), unless otherwise indicated

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## 5.0 RISK CHARACTERIZATION

The information from the exposure assessment and the toxicity assessment is used to characterize the human health risks. The risk characterization presents quantitative and qualitative descriptions of risk. The quantification of the noncarcinogenic risk is discussed in paragraph 5.1 and quantification of carcinogenic risk is discussed in paragraph 5.2. Based on the results of the risk assessment using the maximum contaminant concentrations, contaminants that are estimated to have a risk greater than 1E-06 are considered for evaluation using the 95-percent UCL values. A discussion of the estimated risks using the 95-percent UCL is provided in paragraph 5.3. A discussion of the uncertainty in the risk characterization is provided in paragraph 5.4.

## 5.1 QUANTIFICATION OF NONCARCINOGENIC RISK

Potential human health hazards associated with exposure to noncarcinogenic substances, or carcinogenic substances with systemic toxicities other than cancer, are evaluated separately from carcinogenic risks. The daily intake over a specified time period (*e.g.*, lifetime or some shorter time period) is compared to an RfD for a similar time period (*e.g.*, chronic RfD or subchronic RfD) to determine a ratio called the hazard quotient (HQ). Estimates of intakes for both the BISRA and BRSRA are based on chronic exposures. The nature of the contaminant sources and the low probability for sudden releases of contaminants from the subunits preclude short-term fluctuations in contaminant concentrations that might produce acute or subchronic effects.

The formula for estimation of the HQ is:

$$HQ = \frac{\text{Daily Intake}}{\text{RfD}} \qquad (6)$$

If the HQ exceeds unity, the possibility exists for systemic toxic effects. The HQ is not a mathematical prediction of the severity or incidence of the effects, but rather is an indication that effects may occur, especially in sensitive subpopulations. If the HQ is less than unity, then the likelihood of adverse noncarcinogenic effects is small.

RfD's are route specific. Currently, all of the RfD's in IRIS are based on ingestion and inhalation; none have been based on dermal contact. As recommended by EPA, 1992c, until more appropriate dose-response factors are available, the oral RfD's should be used to evaluate dermal exposures. The uncertainty regarding these assumptions is discussed in paragraph 5.4.

Some contaminants do not have RfD's published in IRIS or HEAST. Therefore, the HQ cannot be calculated for these contaminants and the potential adverse effects are not evaluated. This lack of RfD's is most significant for the inhalation pathway where barium is

the only contaminant of potential concern (COPC) with an inhalation RfD. It should be noted that the inhalation RfD for chromium has been withdrawn by EPA and inhalation issues are under review by the RfD/reference concentration (RfC) Work Group (EPA, 1992b). Chromium is evaluated for carcinogenicity via the inhalation pathway at subunits where it is a COPC (*e.g.*, 1100-2, 1100-3, and HRL), as discussed in paragraph 5.2.. The lack of toxicity values is discussed similarly in section 5.4.

Inhalation RfD's for 1,1,1-trichloroethane have been published in IRIS or HEAST. As discussed in chapter 2 and chapter 3, paragraph 3.2; 1,1,1-trichloroethane has only been detected in soil gas and groundwater at low concentrations and has not been quantitatively evaluated. The HQ's were determined for barium and manganese in the inhalation pathway. All COPC have published SF's, used to estimate carcinogenic risk. Carcinogenic effects usually occur at levels significantly lower than those associated with systemic toxic effects. Therefore, cancer is usually the predominant adverse effect for contaminants that produce carcinogenic as well as systemic toxic effects.

The HQ for all contaminants for a specific pathway or a scenario can be summed to provide a hazard index (HI) for that pathway or scenario.

Lead exposures have been evaluated for potential adverse impacts using the UBK Model. The results are presented in appendix V and summarized below for 1100-3 BRSRA and the HRL BRSRA.

### 5.1.1 Summary of Systemic Toxic Effects for BISRA

**5.1.1.1 1100-1 BISRA.** The noncarcinogenic HQ's for the COPC are presented in table 5-1. The HI for the soil ingestion pathway and dermal exposure pathways is at least 2 orders of magnitude less than unity. Therefore, adverse systemic toxic health effects in industrial workers are not likely from ingestion or dermal exposure to the maximum concentrations of arsenic or vanadium detected at this subunit. Neither arsenic nor vanadium have inhalation RfD's; therefore, an HI is not calculated for this exposure pathway. Arsenic is evaluated for carcinogenicity via inhalation in paragraph 5.2.

**5.1.1.2 1100-2 BISRA.** Chromium and manganese are the only COPC's at this subunit. The overall hazard index for exposure to chromium and manganese is 0.02, as presented in table 5-1. Therefore, adverse systemic toxic health effects are not likely for industrial workers exposed to the COPC at 1100-2 via the ingestion, inhalation, or dermal pathways.

**5.1.1.3 1100-3 BISRA.** Chromium and manganese are the only COPC's at this subunit. The noncarcinogenic HQ's for chromium and manganese are presented in table 5-1. The HI for the soil ingestion, inhalation, and dermal pathway is 0.02. Adverse systemic toxic effects in industrial workers are not likely from ingestion or dermal exposure to chromium detected in soils at this subunit.

**5.1.1.4 1100-4 BISRA.** The noncarcinogenic HQ's for arsenic and beryllium, the two COPC at this subunit, are presented in table 5-1. As indicated in chapter 3, paragraph 3.3.1, the contaminated soils are located beneath a cement floor in a building, and hence the fugitive dust pathway is not evaluated. The quantitative evaluation of the soil ingestion and dermal pathways is provided for information purposes. Both the soil ingestion HI and the dermal exposure pathway HI are at least 2 orders of magnitude less than unity. If contact with the COPC were to occur by soil ingestion and dermal exposure, adverse systemic toxic effects in industrial workers are not likely.

**5.1.1.5 UN-1100-6 Subunit (Discolored Soil Site) BISRA.** The HQ's for the COPC at this subunit are also presented in table 5-1. The HI for the soil ingestion pathway is 0.4 and is due primarily to the BEHP present in the soil at this site. The HI for the dermal exposure pathway is 0.05. Adverse systemic toxic effects in industrial workers are not likely from ingestion or dermal exposure to COPC detected at this subunit. None of the COPC have published inhalation RfD's, so no inhalation HQ's or HI's are presented, although they have all been evaluated for carcinogenity in paragraph 5.2.

**5.1.1.6 Ephemeral Pool BISRA.** The HQ's for the COPC at the Ephemeral Pool are presented in table 5-1. The soil ingestion HI is 0.01 and the dermal exposure pathway HI is 0.02. Adverse systemic toxic effects in industrial workers are not likely for soil ingestion or dermal exposure to COPC detected at this subunit. None of the COPC have published inhalation RfD's, so no inhalation HQ's or HI's are presented, although they have all been evaluated for carcinogenity in paragraph 5.2.

**5.1.1.7 HRL BISRA.** The HQ's for the COPC at HRL are presented in table 5-2. The soil ingestion pathway HI is 0.2, the fugitive dust inhalation pathway HI is 0.04, and the dermal exposure pathway HI is 0.004. The total subunit HI is 0.6. Consequently, adverse systemic toxic effects are not likely from potential exposures to the COPC for industrial workers at this subunit.

### 5.1.2 Summary of Systemic Toxic Effects for BRSRA

**5.1.2.1 1100-2 BRSRA.** Tetrachloroethene is the only COPC at 1100-2. The individual HQ and overall HI for exposure to tetrachloroethene through the ingestion or dermal route of exposure is 5 orders of magnitude less than unity, as presented in table 5-3. The garden produce exposure pathway assessment for each subunit is presented in table 5-4, with the exception of 1100-2, because tetrachloroethene is not evaluated for the garden pathway. Adverse systemic toxic effects are unlikely for residents who may be exposed to tetrachloroethene in the soil at this subunit. As presented in table 5-5, HI estimated for this subunit is 0.00003.

**5.1.2.2 1100-3 BRSRA.** The HQ's via the ingestion and dermal pathways for the COPC at this subunit are presented in table 5-3. For soil ingestion and dermal exposure, the HQ's are all less than unity. The HI for the soil ingestion pathway is 0.05 and for the dermal exposure pathway is 0.001. Adverse systemic toxic effects in residents are not likely from exposure to the arsenic and chromium detected in soils at this subunit.

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9 3 1 2 9 3 3 1 0 5 9

**Table 5-1.** Summary of the Baseline Industrial Scenario Risk Assessment for 1100-1, 1100-2, 1100-3, 1100-4, the Discolored Soil Site (UN-1100-6), and the Ephemeral Pool. (Sheet 1 of 2)

| Contaminant | Pathway | | | | | | Contaminant Totals | | Subunit Totals | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Soil Ingestion | | Fugitive Dust Inhalation | | Dermal Exposure | | | | | |
| | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HI[c] | ICR[b] |
| **1100-1** | | | | | | | | | | |
| Arsenic | 0.003 | 4E-07 | -- | 9E-11[d] | 0.00006 | 9E-09 | 0.003 | 4E-07 | | |
| Vanadium | 0.005 | -- | -- | -- | 0.0001 | -- | 0.005 | -- | | |
| Pathway Totals | 0.008 | 4E-07 | -- | 9E-11 | 0.0002 | 9E-09 | | | 0.008 | 4E-07 |
| **1100-2** | | | | | | | | | | |
| Chromium | 0.001 | -- | -- | 1E-07 | 0.00002 | -- | 0.001 | 1E-06 | | |
| Manganese | 0.001 | -- | .02 | -- | 0.00002 | -- | .02 | -- | | |
| Pathway Totals | 0.002 | -- | .02 | 1E-06 | 0.00004 | -- | | | .02 | 1E-06 |
| **1100-3** | | | | | | | | | | |
| Chromium | 0.0008 | -- | -- | 8E-08 | 0.00002 | -- | 0.0008 | 8E-08 | | |
| Manganese | 0.001 | -- | 0.02 | -- | 0.00002 | -- | 0.02 | -- | | |
| Pathway Totals | 0.002 | -- | 0.02 | 9E-07 | 0.00004 | -- | | | 0.02 | 9E-07 |
| **1100-4** | | | | | | | | | | |
| Arsenic | 0.006 | 8E-07 | -- | -- | 0.0001 | 2E-08 | 0.006 | 8E-07 | | |
| Beryllium | 0.0005 | 3E-07 | -- | -- | 0.000001 | 6E-09 | 0.0005 | 3E-07 | | |
| Pathway Totals | 0.006 | 1E-06 | -- | -- | 0.0001 | 3E-08 | | | 0.006 | 1E-06 |

**Table 5-1.** Summary of the Baseline Industrial Scenario Risk Assessment for 1100-1, 1100-2, 1100-3, 1100-4, the Discolored Soil Site (UN-1100-6), and the Ephemeral Pool. (Sheet 2 of 2)

| Contaminant | Pathway | | | | | | Contaminant Totals | | Subunit Totals | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Soil Ingestion | | Fugitive Dust Inhalation | | Dermal Exposure | | | | | |
| | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HI[c] | ICR[b] |
| **Discolored Soil Site (UN-1100-6)** | | | | | | | | | | |
| BEHP | 0.4 | 3E-05 | -- | 4E-07 | 0.04 | 3E-06 | 0.4 | 3E-05 | | |
| Chlordane | 0.009 | 2E-07 | -- | 2E-09 | 0.01 | 2E-07 | 0.02 | 4E-07 | | |
| Heptachlor | 0.0004 | 2E-08 | -- | 3E-10 | 0.00004 | 3E-08 | 0.0004 | 5E-08 | | |
| Pathway Totals | 0.4 | 3E-05 | -- | 4E-07 | 0.05 | 3E-06 | | | 0.4 | 3E-05 |
| **Ephemeral Pool** | | | | | | | | | | |
| Chlordane | 0.01 | 3E-07 | -- | 1E-08 | 0.02 | 3E-07 | 0.03 | 6E-07 | | |
| Heptachlor | 0.00002 | 1E-08 | -- | 4E-10 | 0.00002 | 1E-08 | 0.00004 | 2E-08 | | |
| PCBs | -- | 3E-05 | -- | 8E-07 | -- | 3E-05 | -- | 6E-05 | | |
| Pathway Totals | 0.01 | 3E-05 | -- | 8E-07 | 0.02 | 3E-05 | | | 0.03 | 6E-05 |

[a]Hazard Quotient
[b]Lifetime Incremental Cancer Risk
[c]Hazard Index
[d]Based on 30% absorption of inhaled arsenic (EPA 1992b)
-- = Not Applicable

**Table 5-2.** Summary of the Baseline Industrial Scenario Risk Assessment Based on Maximum Contaminant Concentrations for the Horn Rapids Landfill.

| Contaminant | Pathway | | | | | | Contaminant Totals | | Subunit Totals | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Soil Ingestion | | Fugitive Dust Inhalation | | Dermal Exposure | | | | | |
| | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HI[c] | ICR[b] |
| Arsenic | 0.006 | 9E-07 | -- | 6E-07[d] | 0.0001 | 2E-08 | 0.006 | 1E-06 | | |
| Barium | 0.005 | -- | 0.3 | -- | 0.00001 | -- | 0.3 | -- | | |
| Beryllium | 0.00007 | 5E-07 | -- | 7E-08 | 0.000002 | 9E-09 | 0.00007 | 5E-07 | | |
| Chromium | 0.07 | -- | -- | 3E-04 | 0.001 | -- | 0.07 | 3E-04 | | |
| Copper | 0.009 | -- | -- | -- | 0.0002 | -- | 0.009 | -- | | |
| Manganese | 0.002 | -- | 0.1 | -- | 0.00003 | -- | 0.1 | -- | | |
| Nickel | 0.008 | -- | -- | 3E-06 | 0.0002 | -- | 0.008 | 3E-06 | | |
| Thallium | 0.01 | -- | -- | -- | 0.0002 | -- | 0.01 | -- | | |
| Vanadium | 0.004 | -- | -- | -- | 0.00008 | -- | 0.004 | -- | | |
| Zinc | 0.05 | -- | -- | -- | 0.0009 | -- | 0.05 | -- | | |
| Beta-HCH | -- | 1E-08 | -- | 1E-09 | -- | 2E-08 | -- | 3E-08 | | |
| DDT | 0.001 | 5E-08 | -- | 4E-09 | 0.001 | 6E-08 | 0.002 | 1E-07 | | |
| Heptachlor | 0.00001 | 7E-09 | -- | 5E-10 | 0.00001 | 9E-09 | 0.00002 | 2E-08 | | |
| PCBs | -- | 6E-05 | -- | 5E-06 | -- | 8E-05 | -- | 2E-04 | | |
| | | | | | | | | | | |
| Pathway Totals | 0.2 | 6E-05 | 0.4 | 3E-04 | 0.004 | 8E-05 | | | 0.6 | 4E-04 |

[a]Hazard Quotient
[b]Lifetime Incremental Cancer Risk
[c]Hazard Index
[d]Based on 30% absorption of inhaled arsenic (EPA 1992b)
-- = Not Applicable

**Table 5-3** Summary of Baseline Residental Scenario Risk Assessment Based on Maximum Contaminant Concentrations for the Soil Ingestion, Fugitive Dust Inhalation, and Dermal Exposure Pathways, for Specific 1100-EM-1 Operable Subunits. (Sheet 1 of 2)

| Contaminant | Pathway | | | | | | Contaminant Totals | | Subunit Totals | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Soil Ingestion | | Fugitive Dust Inhalation | | Dermal Exposure | | | | | |
| | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[b] | ICR[b] | HI[c] | ICR[b] |
| 1100-2 | | | | | | | | | | |
| Tetrachloroethane | 0.00001 | 3E-09 | --[e] | 3E-13 | 0.00002 | 4E-09 | 0.00003 | 7E-09 | 0.00003 | 7E-09 |
| 1100-3 | | | | | | | | | | |
| Arsenic | 0.04 | 9E-06 | --[e] | 2E-07[d] | 0.0009 | 2E-07 | 0.04 | 9E-06 | | |
| Chromium | 0.01 | --[f] | --[e] | 2E-06 | 0.0002 | --[f] | 0.01 | 2E-06 | | |
| Lead | --[e] | --[g] | --[e] | --[g] | --[e] | --[g] | ND | ND | | |
| Pathway Totals | 0.05 | 9E-06 | --[e] | 2E-06 | 0.001 | 2E-07 | | | 0.05 | 9E-06 |
| Discolored Soil Site (UN-1100-6) | | | | | | | | | | |
| BEHP | 4.6 | 6E-04 | --[e] | 7E-07 | 0.5 | 7E-05 | 5.1 | 7E-04 | | |
| Chlordane | 0.1 | 4E-06 | --[e] | 5E-09 | 0.2 | 5E-06 | 0.3 | 9E-06 | | |
| Pathway Totals | 4.7 | 6E-04 | --[e] | 7E-07 | 0.7 | 8E-05 | | | 5.4 | 7E-04 |
| Ephemeral Pool | | | | | | | | | | |
| Chlordane | 0.2 | 4E-06 | --[e] | 2E-08 | 0.2 | 7E-06 | 0.4 | 1E-05 | | |
| PCB's | --[e] | 5E-04 | --[e] | 2E-06 | --[e] | 7E-04 | --[e] | 1E-03 | | |
| Pathway Totals | 0.2 | 5E-04 | --[e] | 2E-06 | 0.2 | 7E-04 | | | 0.4 | 1E-03 |

**Table 5-3** Summary of Baseline Residental Scenario Risk Assessment Based on Maximum Contaminant Concentrations for the Soil Ingestion, Fugitive Dust Inhalation, and Dermal Exposure Pathways, for Specific 1100-EM-1 Operable Subunits. (Sheet 2 of 2)

| Contaminant | Pathway | | | | | | Contaminant Totals | | Subunit Totals | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Soil Ingestion | | Fugitive Dust Inhalation | | Dermal Exposure | | | | | |
| | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[b] | ICR[b] | HI[c] | ICR[b] |
| Horn Rapids Landfill | | | | | | | | | | |
| Arsenic | 0.08 | 2E-05 | --[e] | 1E-06[d] | 0.002 | 4E-07 | 0.08 | 2E-05 | | |
| Beryllium | 0.001 | 9E-06 | --[e] | 1E-07 | 0.00002 | 2E-07 | 0.001 | 9E-06 | | |
| Chromium | 0.9 | --[f] | --[e] | 7E-04 | 0.02 | --[f] | 0.9 | 7E-04 | | |
| Lead | --[e] | --[g] | --[e] | --[g] | --[e] | --[g] | ND | ND | | |
| PCBs | --[e] | 1E-03 | --[e] | 1E-05 | --[e] | 2E-03 | --[e] | 3E-03 | | |
| Tetrachloroethene | 0.000002 | 5E-10 | --[e] | 2E-13 | 0.000003 | 6E-10 | 0.000005 | 1E-09 | | |
| Pathway Totals | 1 | 1E-03 | --[e] | 7E-04 | 0.02 | 2E-03 | | | 1 | 4E-03 |

[a]Hazard Quotient
[b]Lifetime Incremental Cancer Risk
[c]Hazard Index
[d]Based on 30% absorption of inhaled arsenic (EPA, 1992b)
[e]RfD not available to evaluate this pathway
[f]Not considered carcinogenic by this route of exposure
[g]SF not available to evaluate this pathway
ND Not determined
-- Indicates not applicable

**Table 5-4.** Summary of Baseline Residential Scenario Risk Assessment for the Garden Pathway at Specific 1100-EM-1 Operable Subunits Based on Maximum Contaminant Concentration.

| Contaminant | Pathway | |
|---|---|---|
| | Garden | |
| | HQ[b] | ICR[a] |
| **1100-3** | | |
| Arsenic | 0.01 | --[d] |
| Chromium | 0.04 | --[d] |
| Lead | --[e] | --[f] |
| Total Pathway ICR | -- | -- |
| Total Pathway HI[c] | 0.05 | -- |
| **UN-1100-6** | | |
| BEHP | 16.0 | 2E-03 |
| Chlordane | 2.0 | 7E-05 |
| Total Pathway ICR | -- | 2E-03 |
| Total Pathway HI[c] | 18 | -- |
| **Ephemeral Pool** | | |
| Chlordane | 3.2 | 1E-04 |
| PCBs | --[e] | 2E-03 |
| Total Pathway ICR | -- | 2E-03 |
| Total Pathway HI[c] | 3.2 | -- |
| **Horn Rapids Landfill** | | |
| Arsenic | 0.02 | --[d] |
| Beryllium | 0.005 | 4E-05 |
| Chromium | 3.6 | --[d] |
| PCBs | --[e] | 4E-03 |
| Lead | --[e] | --[f] |
| Total Pathway ICR | -- | 4E-03 |
| Total Pathway HI[c] | 3.6 | -- |

[a]Lifetime Incremental Cancer Risk
[b]Hazard Quotient
[c]Hazard Index
[d]Not considered carcinogenic by this route of exposure
[e]RfD not available to evaluate this pathway
[f]SF not available to evaluate this pathway
-- Indicates not applicable

**Table 5-5.** Summary of Baseline Residential Scenario Risk Assessment Based on the Maximum Contaminant Concentrations for the Groundwater Pathway

| Contaminant | Pathway | | | |
|---|---|---|---|---|
| | Groundwater Ingestion | | Groundwater Inhalation | |
| | HQ[a] | ICR[b] | HQ[a] | ICR[b] |
| Nitrate | 1 | --[c] | --[d] | --[c,d] |
| Trichloroethene | --[e] | 1E-05 | --[e] | 3E-05 |

[a]Hazard Quotient
[b]Lifetime Incremental Cancer Risk
[c]Not considered to be a carcinogen
[d]Not a volatile contaminant
[e]RfD not available to evaluate this pathway
-- Indicates not applicable

9 3 1 2 9 3 3 1 0 6 6

For the garden produce exposure pathway, the overall HI is 0.05, as presented in table 5-4. Adverse health effects from exposure to residents though this pathway are not likely.

The results of the UBK model for evaluating residential exposures for children indicate that adverse health effects from the exposure to lead, which was detected at the relatively low concentration of 26.4 mg/kg, would not occur. Based on soil ingestion, dust inhalation, and the ingestion of garden produce grown at the subunit, blood-lead levels are not likely to exceed 10 $\mu$g/dl for a 2-year old child (see appendix V).

**5.1.2.3 UN-1100-6 (Discolored Soil Site) BRSRA.** The HQ's for the COPC at this subunit are presented in tables 5-3 and 5-4. The HI for the soil ingestion pathway is 4.7 and is almost entirely due to the BEHP present in the soil at this site. The HI for the dermal exposure pathway is 0.7. Adverse systemic toxic effects in residents may occur if there were exposure to the COPC detected at this subunit. None of the COPC have published inhalation RfD's, so HQ's and HI's are not presented for the inhalation pathway.

For the garden produce exposure pathway, the overall HI is 18. As presented in table 5-4, the HI is based on a HQ of 16 for BEHP and a HQ of 2 for chlordane. The garden pathway risk is calculated by using a surrogate uptake factor for BEHP based on PCB's. As summarized in table 5-7, the subunit HI for all pathways evaluated is 23.

**5.1.2.4 Ephemeral Pool BRSRA.** The HQ's for the COPC at the Ephemeral Pool are presented in tables 5-3 and 5-4. The soil ingestion HI is 0.2 and the dermal exposure pathway HI is 0.2. Adverse systemic toxic effects in residents for these two exposure routes are not likely for the COPC detected at this subunit.

RfD's are not published for PCB's for the oral, inhalation, or dermal routes of exposure. Thus, the pathway and subunit HI's may be an underestimation of the likelihood of adverse systemic toxic effects because PCB's are not included in the overall evaluation.

The HQ's and HI for the garden produce exposure pathway are presented in table 5-4. The HI for the garden pathway is 3.2 and is due entirely to the chlordane detected on the site. PCB's are not quantitatively evaluated because there is no published oral RfD for PCB's. As summarized in table 5-7, the subunit HI is 3.6 indicating a potential for adverse effects based on the assumptions used for the residential scenario.

**5.1.2.5 HRL BRSRA.** The HQ's for the COPC at HRL are presented in tables 5-3 through 5-6. The soil ingestion HI is 1 and the dermal exposure pathway HI is 0.02. The HI of 1 for the soil ingestion pathway is due primarily to the potential exposure to chromium in the soil. Although the HI for the soil ingestion pathway is 1, adverse systemic toxic effects in residents are not likely because of the conservative assumptions used to assess potential exposures. For example, it is assumed that exposure to the maximum concentration detected in the soil occurs. Based on the spatial distribution for chromium presented in DOE/RL-90-18, only a very small area of the soil may be contaminated with the maximum concentration.

**Table 5-6.** Summary of Baseline Risk Assessment for the Residential-Related Recreational Pathways for the 1100-EM-1 Operable Unit.

| Contaminant | Pathway | | | |
|---|---|---|---|---|
| | Swimming | | Eating Fish | |
| | HQ[a] | ICR[b] | HQ[a] | ICR[b] |
| Trichloroethene | --[c] | 1E-10 | --[c] | 3E-10 |

[a]Hazard Quotient
[b]Lifetime Incremental Cancer Risk
[c]RfD not available to evaluate this pathway
-- Indicates not applicable

9 3 1 2 9 3 3 1 0 6 8

**Table 5-7.** Summary of the Baseline Residential Scenario Risk Assessment for Specific 1100-EM-1 Operable Subunits Based on Maximum Contaminant Concentrations.

| Subunit | Pathway | Pathway Totals | | Subunit Totals | |
|---|---|---|---|---|---|
| | | HI[a] | ICR[b] | HI[a] | ICR[b] |
| 1100-2 | Soil Ingestion | 0.00001 | 3E-09 | | |
| | Fugitive Dust Inhalation | – | 3E-13 | | |
| | Dermal Exposure | 0.00002 | 4E-09 | | |
| | Garden Produce | – | – | | |
| | | | | 0.00003 | 7E-09 |
| 1100-3 | Soil Ingestion | 0.05 | 9E-06 | | |
| | Fugitive Dust Inhalation | – | 2E-06 | | |
| | Dermal Exposure | 0.001 | 2E-07 | | |
| | Garden Produce | 0.05 | – | | |
| | | | | 0.1 | 1E-05 |
| UN-1100-6 | Soil Ingestion | 4.7 | 6E-04 | | |
| | Fugitive Dust Inhalation | – | 7E-07 | | |
| | Dermal Exposure | 0.7 | 8E-05 | | |
| | Garden Produce | 18 | 2E-03 | | |
| | | | | 23 | 3E-03 |
| Ephemeral Pool | Soil Ingestion | 0.2 | 5E-04 | | |
| | Fugitive Dust Inhalation | – | 2E-06 | | |
| | Dermal Exposure | 0.2 | 7E-04 | | |
| | Garden Produce | 3.2 | 2E-03 | | |
| | | | | 3.6 | 3E-03 |
| Horn Rapids Landfill | Soil Ingestion | 1 | 1E-03 | | |
| | Fugitive Dust Inhalation | – | 7E-04 | | |
| | Dermal Exposure | 0.02 | 2E-03 | | |
| | Garden Produce | 3.6 | 4E-03 | | |
| | Groundwater Ingestion | 1 | 1E-05 | | |
| | Inhalation of Volatiles from Groundwater | – | 3E-05 | | |
| | | | | 5.6 | 8E-03 |
| Recreational | Dermal Exposure while swimming | – | 1E-10 | | |
| | Ingestion of Fish | – | 3E-10 | | |
| | | | | – | 4E-10 |

[a]Hazard Index
[b]Lifetime Incremental Cancer Risk
– Indicates not applicable

For the garden produce pathway for residents at HRL, the estimated HI is 3.6. Chromium, with an HQ of 3.6, contributes the most to this value. Arsenic and beryllium all have HQ's much less than unity. PCB's and lead do not have published RfD's for the evaluation of oral ingestion. Thus, the pathway and subunit HI's may be an underestimation of the likelihood of adverse effects. However, it should be noted that PCB's are evaluated for carcinogenic effects (see paragraph 5.2). Lead is evaluated for adverse effects using the UBK model as discussed below. As discussed in chapter 3, paragraph 3.3.1, tetrachloroethene, although detected in soil, has a limited potential for uptake or accumulation in plants. Similarly, trichloroethene and 1,1,1-trichloroethane, detected in soil gas only, are not quantitatively evaluated for this pathway, and are not presented in table 5-4.

None of the COPC except 1,1,1-trichloroethane have published RfD's for the inhalation route of exposure. Therefore, neither HQ's nor HI's are provided for this potential exposure.

The results of the UBK model for evaluating residential exposures to lead for children are presented in appendix V. For the first scenario, based on the default model parameters and using the maximum concentration of lead detected in the soil at HRL (854 mg/kg), the geometric mean for a blood-lead level in 2-year old children (24 to 36 months) is predicted to be 5.8 $\mu$g/dl. As indicated in the graph presented in appendix V for the default parameters, based on the maximum concentration of lead detected at HRL and conservative UBK model parameters, the geometric mean and geometric standard deviation of the predicted blood-lead levels indicates that approximately 5 percent of the exposed children would be expected to have a blood-lead level greater than 10 $\mu$g/dl.

When the ingestion of lead, through the consumption of homegrown vegetables, is added to other intakes evaluated in this exposure pathway, the geometric mean for the blood-lead level in a 2-year old child is predicted to be 7.01 $\mu$g/dl. As indicated in the graph presented in appendix V for the default parameters, based on the maximum concentration of lead detected at HRL and conservative UBK model parameters, the geometric mean and geometric standard deviation indicates that approximately 14 percent of the 2-year old children would be expected to have a blood-lead level greater than 10 $\mu$g/dl. However, because of the conservatism in the analysis using the maximum concentration, the actual exposure is unlikely to produce toxic effects.

The results of the risk assessment for two contaminants detected in groundwater in the vicinity of HRL are presented in table 5-5. The HQ for nitrate, based on groundwater ingestion, is 1. No oral RfD is available for evaluating trichloroethene; therefore, a HQ is not presented for this compound. This may result in an underestimation of the HI for the groundwater pathway. As shown in table 5-7, the HI for HRL is 5.6.

**5.1.2.6 Residential-Related Recreational Activities.** As discussed in paragraph 3.2, modeling indicates that nitrate and trichloroethene, currently found in the groundwater in the vicinity of the 1100-EM-1 Operable Unit, would enter the Columbia River at concentrations less than their respective MCL's. Neither an oral nor a dermal RfD is published for trichloroethene. Trichloroethene, however, is evaluated quantitatively for potential carcinogenic effects, as discussed in paragraph 5.2. Nitrogen in the form of dissolved

Arsenic is approximately 30 percent absorbed when inhaled (EPA, 1991). The SF for arsenic is based on an absorbed intake, therefore, all intakes are adjusted by 30 percent to calculate the risks for arsenic inhalation exposures at 1100-1, 1100-4, and HRL.

The results of the risk characterization for carcinogenic effects are presented below by subunit and summarized in tables 5-1 and 5-2. These risk estimates are based on the maximum detected contaminant concentrations. EPA considers a 1E-06 risk level to be the point of departure for determining remediation goals for alternatives when applicable or relevant and appropriate requirements (ARAR's) are not available or not sufficiently protective [40 CFR §300.430(e)(2)(i)(A)(2)].

### 5.2.1 Summary of Carcinogenic Risk for BISRA

**5.2.1.1 1100-1 BISRA.** The carcinogenic risk estimates for this subunit are presented in table 5-1. The estimated ICR for the soil ingestion pathway is 4E-07, for the fugitive dust inhalation pathway it is 9E-11, and for the dermal exposure pathway it is 9E-09. The total subunit ICR is estimated at 4E-07. Potential ingestion of arsenic contaminated soil contributes solely to this estimated risk.

**5.2.1.2 1100-2 BISRA.** Chromium is the only carcinogenic COPC at the 1100-2 subunit. Chromium, as chromium(VI), is carcinogenic only by the inhalation route of exposure. The inhalation pathway ICR for chromium, and then the total ICR, at this subunit is 1E-06 (see table 5-1). This ICR may be an overestimate of the risk because it is conservatively assumed that all chromium present in the soil is chromium(VI) and that the entire subunit is uniformly contaminated at the maximum concentration detected.

**5.2.1.3 1100-3 BISRA.** Again, chromium is the only carcinogenic COPC at this subunit. The estimated ICR's associated with chromium exposure at this subunit is presented in table 5-1. The estimated ICR for the inhalation pathway and the total subunit ICR is 9E-07.

**5.2.1.4 1100-4 BISRA.** The estimated ICR's associated with exposures at 1100-4 are presented in table 5-1. Arsenic and beryllium are the only two COPC at this subunit. The ICR associated with the ingestion pathway is 8E-07 for arsenic and 3E-07 for beryllium. The dermal exposure pathway also results in negligible ICR's of 2E-08 for arsenic and 6E-09 for beryllium. The inhalation of fugitive dust is not evaluated, as discussed previously, because of the location of the contamination. The ICR for the scenario (*i.e.*, sum of all individual contaminant and pathway ICR's) is negligible (*i.e.*, 1E-06). Actual risk would be much less than the estimated risks because of the limited area of this subunit, the use of the maximum concentration of the COPC to calculate the ICR's, and the location of the contamination beneath a cement floor in an existing building.

### 5.2.2 Summary of Carcinogenic Risk for BRSRA

**5.2.2.1 1100-2 BRSRA.** Tetrachloroethene is the only COPC at the 1100-2 subunit. The ICR for the subunit, based on soil ingestion, inhalation of fugitive dust, and dermal exposures, is 7E-09 (table 5-3). As discussed in chapter 3, paragraph 3.2 and summarized in table 5-4, tetrachloroethene is not a COPC through the garden produce pathway and an ICR has not been calculated for this exposure pathway. As summarized in table 5-7, the subunit ICR is also 7E-09.

**5.2.2.2 1100-3 BRSRA.** The estimated ICR's associated with soil ingestion, fugitive dust inhalation, and dermal exposures at this subunit are presented in table 5-3. Chromium is only evaluated for the inhalation pathway because it is not known to be carcinogenic by other routes of exposure as discussed in chapter 4, paragraph 4.2. The estimated ICR for the soil ingestion pathway is 9E-06 and is primarily associated with arsenic detected in the soil. The ICR for arsenic is 1E-08 and for chromium is 2E-06. The estimated ICR for the inhalation pathway is 2E-07. The estimated ICR for the dermal exposure pathway is 2E-07. For these three exposure pathways, the subunit ICR is 1E-05.

For the garden produce pathway (see table 5-4), an ICR is not presented. As discussed in chapter 4, paragraph 4.2, arsenic in plants is usually the less toxic organic form that is noncarcinogenic and there is no evidence that chromium is carcinogenic by the oral route of exposure. SF's are not published for evaluating the potential carcinogenicity of lead. This could result in an underestimation of the overall subunit ICR. However, the very low concentrations of lead detected in the soil suggest lead exposures would be very low.

**5.2.2.3 UN-1100-6 (Discolored Soil Site) BRSRA.** The estimated ICR's associated with the exposure pathways at the Discolored Soil Site are presented in tables 5-3 and 5-4. The soil ingestion pathway ICR is 6E-04, the inhalation pathway ICR is 7E-07, and the dermal exposure pathway is 8E-05. Potential exposures to BEHP at the concentrations detected in the soil at this subunit yield the greatest estimated ICR. Chlordane total ICR's for the soil ingestion and dermal exposure pathways are 9E-06.

For the garden produce pathway at this subunit, the total ICR is 2E-03. BEHP is estimated to have an ICR of 2E-03 and chlordane is estimated to have an ICR of 7E-05, as presented in table 5-4.

Further discussion of the risks estimated for BEHP and chlordane is provided in paragraph 5.3. As summarized in table 5-5, the subunit ICR is 3E-03.

**5.2.2.4 Ephemeral Pool BRSRA.** The estimated ICR's associated with the COPC at the Ephemeral Pool are presented in tables 5-3 and 5-4. The soil ingestion pathway ICR is 5E-04, the fugitive dust inhalation pathway is 2E-06, and the dermal exposure pathway is 7E-04. The ICR's are primarily the result of potential exposures to PCB's. However, chlordane is also estimated to have an ICR of 4E-06 via soil ingestion and 7E-06 via dermal exposure to soil.

of the contaminants evaluated at any of the 1100-EM-1 operable subunits are estimated to have exposures resulting in HQ's that exceed 1 for the industrial scenario based on 95-percent UCL of the mean contaminant concentration. Therefore, discussion of HQ's is not provided below except for the residential scenario, although the HQ's based on the 95-percent UCL of the mean contaminant concentration are presented for both scenarios. The results of the evaluation of potential risks related to cancer (*i.e.*, ICR's) are discussed in this paragraph for each subunit or both the industrial and residential scenarios.

The sampling data from both the Phase I and Phase II site investigations were used to calculate the 95-percent UCL of the mean contaminant concentration at these subunits. The procedure and data used to calculate the 95-percent UCL are presented in appendix IV. Data was used to calculate the 95-percent UCL that best represented the spatial distribution of contaminants. This provides a conservative estimate of the mean concentrations since low values and nondefects are not used. The 95-percent UCL is used to estimate contaminant intakes, HQ's, and ICR's.

### 5.3.1 Summary of Risk Characterization Based on the 95-percent UCL for BISRA

**5.3.1.1 UN-1100-6 (Discolored Soil Site) BISRA.** BEHP detected in soil at the Discolored Soil Site is estimated to have an ICR greater than 1E-06 when using the maximum detected contaminant concentration to calculate the ICR (see table 5-1). Although chlordane did not exceed an ICR of 1E-06, it was retained for evaluation based on the 95-percent UCL value because its distribution is similar to that of BEHP in the soil. The 95-percent UCL's for BEHP and chlordane are presented in table 5-8; the associated estimated contaminant intakes for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-9; and the HQ's and ICR's for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-10.

Exposure to BEHP via the soil ingestion route is associated with an ICR of 2E-05. Dermal exposure to BEHP is estimated to have an ICR of 2E-06. For chlordane, the soil ingestion ICR is 2E-07 and the dermal exposure ICR is 2E-07. The fugitive dust pathway is associated with negligible cancer risks for both contaminants. All ICR's are the same order of magnitude as those estimated using the maximum detected contaminant concentrations. The total ICR subunit is 2E-05.

**5.3.1.2 Ephemeral Pool BISRA.** PCB's detected in soil at the Ephemeral Pool are estimated to have an ICR greater than 1E-06 when using the maximum detected contaminant concentration to calculate the ICR (see table 5-1). Chlordane, although it is not estimated to have an ICR greater than 1E-06 for any industrial scenario pathway, is also evaluated for this subunit.

The 95-percent UCL's for chlordane and PCB's are presented in table 5-8; the estimated contaminant intakes for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-9; and the HQ's and ICR's for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-10.

**Table 5-9.** Summary of Industrial Scenario Intakes Based on the 95-percent UCL for the Discolored Soil Site (UN-1100-6), the Ephemeral Pool, and the Horn Rapids Landfill.

| Contaminant | Pathway | | | | | |
|---|---|---|---|---|---|---|
| | Soil Ingestion (mg/kg-d) | | Fugitive Dust Inhalation (mg/kg-d) | | Dermal Exposure (mg/kg-d) | |
| | Noncarcinogenic | Carcinogenic | Noncarcinogenic | Carcinogenic | Noncarcinogenic | Carcinogenic |
| **Discolored Soil Site (UN-1100-6)** | | | | | | |
| BEHP | 5.3E-03 | 1.5E-03 | -- | 1.8E-05 | 6.0E-04 | 1.6E-04 |
| Chlordane | 4.5E-07 | 1.3E-07 | -- | 1.6E-09 | 5.4E-07 | 1.5E-07 |
| **Ephemeral Pool** | | | | | | |
| Chlordane | 5.5E-07 | 1.6E-07 | -- | 5.0E-09 | 6.5E-07 | 1.9E-07 |
| PCB's | -- | 1.2E-06 | -- | 4.0E-08 | -- | 1.5E-06 |
| **Horn Rapids Landfill** | | | | | | |
| Arsenic | 4.0E-07 | 1.1E-07 | -- | 2.7E-09[a] | 8.0E-09 | 2.3E-09 |
| Chromium | 2.4E-05 | -- | -- | 5.2E-07 | 4.7E-07 | -- |
| PCB's | -- | 3.1E-06 | -- | 2.4E-07 | -- | 3.7E-06 |

[a] Based on 30-percent absorption of inhaled arsenic (EPA, 1992b).
-- = Not Applicable

**Table 5-10.** Summary of the Baseline Industrial Scenario Risk Assessment
Based on the 95-percent UCL for the Discolored Soil Site (UN-1100-6), the Ephemeral Pool, and the Horn Rapids Landfill.

| Contaminant | Pathway | | | | | | Contaminant Totals | | Subunit Totals | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Soil Ingestion | | Fugitive Dust Inhalation | | Dermal Exposure | | | | | |
| | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HI[c] | ICR[b] |
| Discolored Soil Site (UN-1100-6) | | | | | | | | | | |
| BEHP | 0.3 | 2E-05 | -- | 2E-07 | 0.03 | 2E-06 | 0.3 | 2E-05 | | |
| Chlordane | 0.008 | 2E-07 | -- | 2E-09 | 0.009 | 2E-07 | 0.01 | 4E-07 | | |
| Pathway Totals | 0.3 | 2E-05 | -- | 2E-07 | 0.04 | 2E-06 | | | 0.3 | 2E-05 |
| Ephemeral Pool | | | | | | | | | | |
| Chlordane | 0.009 | 2E-07 | -- | 6E-09 | 0.01 | 2E-07 | 0.02 | 4E-07 | | |
| PCB's | -- | 9E-06 | -- | 3E-07 | -- | 1E-05 | -- | 2E-05 | | |
| Pathway Totals | 0.009 | 9E-06 | -- | 3E-07 | 0.01 | 1E-05 | | | 0.02 | 2E-05 |
| Horn Rapids Landfill | | | | | | | | | | |
| Arsenic | 0.001 | 2E-07 | -- | 1E-07[d] | 0.00003 | 4E-09 | 0.001 | 2E-07 | | |
| Chromium | 0.005 | -- | -- | 2E-05 | 0.00009 | -- | 0.005 | 2E-06 | | |
| PCB's | -- | 2E-05 | -- | 2E-06 | -- | 3E-05 | -- | 5E-05 | | |
| Pathway Totals | 0.007 | 2E-05 | -- | 2E-05 | 0.0001 | 3E-05 | | | 0.007 | 7E-05 |

[a]Hazard Quotient
[b]Lifetime Incremental Cancer Risk
[c]Hazard Index
[d]Based on 30-percent absorption of inhaled arsenic (EPA, 1992b)
-- = Not Applicable

The ICR's associated with the soil ingestion, fugitive dust, and dermal exposure pathways calculated using the 95-percent UCL for chlordane are 2E-07, 6E-09, and 2E-07, respectively. These are essentially the same as those estimated using the maximum detected contaminant concentrations. The ICR's for PCB's are 9E-06 and 1E-05 for the soil ingestion pathway and the dermal exposure pathway, respectively. The fugitive dust pathway is estimated to have an ICR of 3E-07 for PCB's. The total subunit ICR is 2E-05.

**5.3.1.3 HRL BISRA.** Three contaminants detected in the soil, arsenic, chromium, and PCB's, are estimated to have ICR's greater than 1E-06 when exposures are evaluated using the maximum detected concentrations of the contaminants. Further evaluation of these three contaminants is discussed below.

Arsenic, chromium, and PCB's, are evaluated using 95-percent UCL contaminant concentrations. As discussed in appendix IV, for arsenic, all Phase I and II sampling data are used to calculate the 95-percent UCL. The sampling for this contaminant indicates that it is evenly distributed throughout the subunit. Therefore, the 95-percent UCL represents the spatial distribution and frequency of detection for arsenic and should be representative of the potential contamination of the entire HRL. For chromium and PCB's, the site investigation and sampling data results identified some areas that appear to have generally higher concentrations of these two COPC's. Therefore, the 95-percent UCL's have been calculated based on only part of the sampling data collected at HRL. The use of the 95-percent UCL for estimating ICR's and HQ's associated with chromium and PCB's provides a hot spot evaluation.

The 95-percent UCL's for arsenic, chromium, and PCB's are presented in table 5-8; the estimated contaminant intakes for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-9; and the HQ's and ICR's for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-10.

For the soil ingestion pathway, ICR's are 2E-07 for arsenic and 2E-05 for PCB's using the 95-percent UCL. By comparison, based on the maximum detected contaminant concentration, the ICR for arsenic, and PCB are 9E-07 and 6E-05, respectively. Chromium is not considered carcinogenic by the oral route of exposure.

The ICR for chromium by the fugitive dust pathway is 2E-05 using the 95-percent UCL; whereas, for the maximum detected contaminant concentration the estimated ICR is 7E-04. The ICR's for all other COPC's are 1E-06 or less for the fugitive dust pathway.

The ICR for arsenic is less than 1E-06 for dermal exposure. PCB's are estimated to have an ICR of 3E-05 for the dermal exposure pathways, based on the 95-percent UCL, as compared to 8E-05 based on the maximum detected contaminant concentration. Chromium is not known to be carcinogenic by the dermal route. The total ICR, based on the 95-percent UCL's, is 7E-05 for HRL.

### 5.3.2 Summary of Risk Characterization Based on the 95-percent UCL for BRSRA

The results of risk characterization based on the 95-percent UCL are discussed in this paragraph.

As stated for BISRA, the sampling data from both the Phase I and Phase II site investigations were used to calculate the 95-percent UCL of the mean contaminant concentration at these subunits. The procedure and data used to calculate the 95-percent UCL are presented in appendix III. The 95-percent UCL provides a conservative estimate of the mean concentration. In order to provide an estimate of the potential risk due to the Discolored Soil Site and HRL, data from defined hot spots were used to develop a 95-percent UCL with a conservative bias. The 95-percent UCL contaminant concentration is used to estimate contaminant intakes, HQ's, and ICR's.

**5.3.2.1 1100-3 BRSRA.** The risk estimate for 1100-3 (9E-06) is associated with potential exposure to arsenic through the ingestion of soil, and is based on a maximum concentration of 3.4 mg/kg detected in a near surface sample. This is below the surface UTL of 3.99 mg/kg, and above the subsurface UTL of 2.92 mg/kg. All other concentrations of arsenic were approximately one-half of that detected in the maximum, and are likely to represent typical background concentrations of arsenic in soil at this subunit. Given that the estimated risk represents a significant contribution from background arsenic in the soil and that even background concentrations may pose an ICR greater than 1E-06, no further evaluation of arsenic is made at this subunit. A characterization of risk at 1100-3 based on the 95-percent UCL is, therefore, unnecessary.

**5.3.2.2 UN-1100-6 (Discolored Soil Site) BRSRA.** BEHP and chlordane detected in soil at the Discolored Soil Site are both estimated to have ICR's greater than 1E-06 when using the maximum contaminant concentrations to calculate the ICR's (table 5-3).

The 95-percent UCL's for BEHP and chlordane are presented in table 5-11; the associated estimated contaminant intakes for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-12; and the HQ's and ICR's for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-13.

Exposure to BEHP via the soil ingestion route is associated with a HQ of 3 and an ICR of 4E-04. Dermal exposure to BEHP is estimated to have an ICR of 5E-05. For chlordane, the soil ingestion ICR is 3E-06 and the dermal exposure ICR is 4E-06. The fugitive dust pathway is associated with negligible cancer risks for both contaminants. All ICR's are within one order of magnitude of those estimated using the maximum contaminant concentrations.

**Table 5-11.** 95-percent UCL Concentrations for Soil Contaminants Evaluated in the Baseline Residential Scenario Risk Assessment.

| Contaminants | Horn Rapids Landfill mg/kg | Discolored Soil Site (UN-1100-6) mg/kg | Ephemeral Pool mg/kg |
|---|---|---|---|
| Arsenic | 1.4 | -- | -- |
| Beryllium | 0.5 | -- | -- |
| Chromium | 83 | -- | -- |
| BEHP | -- | 18,000 | -- |
| Chlordane | -- | 1.6 | 1.9 |
| PCB's | 38 | -- | 15 |

UCL = Upper Confidence Limit
-- Indicates not applicable

9 3 1 2 9 3 3 1 0 8 2

**Table 5-12.** Summary of Residential Scenario Intakes Based on the 95-percent UCL for the Discolored Soil Site (UN-1100-6), the Ephemeral Pool, and the Horn Rapids Landfill.

| Contaminant | Pathway | | | | | |
|---|---|---|---|---|---|---|
| | Soil Ingestion (mg/kg-d) | | Fugitive Dust Inhalation (mg/kg-d) | | Dermal Exposure (mg/kg-d) | |
| | Noncarcinogenic | Carcinogenic | Noncarcinogenic | Carcinogenic | Noncarcinogenic | Carcinogenic |
| **Discolored Soil Site (UN-1100-6)** | | | | | | |
| BEHP | 6.7E-02 | 2.9E-02 | --[c] | 3.8E-05 | 8.0E-03 | 3.4E-03 |
| Chlordane | 5.8E-06 | 2.5E-06 | --[c] | 3.4E-09 | 7.5E-06 | 3.2E-06 |
| **Ephemeral Pool** | | | | | | |
| Chlordane | 7.0E-06 | 3.0E-06 | --[c] | 1.1E-08 | 9.0E-06 | 3.9E-06 |
| PCB's | -- | 2.4E-05 | --[c] | 8.5E-08 | --[c] | 3.1E-05 |
| **Horn Rapids Landfill** | | | | | | |
| Arsenic | 5.1E-06 | 2.2E-06 | --[c] | 5.8E-09 | 1.1E-08 | 4.8E-08 |
| Beryllium | 2.0E-06 | 8.6E-07 | --[c] | 6.7E-09 | 4.4E-08 | 1.9E-08 |
| Chromium | 3.0E-04 | --[b] | --[c] | 1.1E-06 | 6.6E-06 | --[b] |
| PCB's | --[c] | 6.0E-05 | --[c] | 5.0E-07 | --[c] | 7.8E-05 |

[a]Intakes adjusted based on 30% absorption of inhaled arsenic (EPA, 1992b)
[b]Not considered carcinogenic by this route of exposure or pathway
[c]RfD not available to evalute intake for this pathway
[d]SF not available to evaluate intake for this pathway
UCL = Upper Confidence Limit
-- Indicates not Applicable

**Table 5-13.** Summary of the Baseline Residential Scenario Risk Assessment Based on the 95-percent UCL for the Discolored Soil Site (UN-1100-6), the Ephemeral Pool, and the Horn Rapids Landfill.

| Contaminant | Pathway | | | | | | Contaminant Totals | | Subunit Totals | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Soil Ingestion | | Fugitive Dust Inhalation | | Dermal Exposure | | | | | |
| | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HQ[a] | ICR[b] | HI[c] | ICR[b] |
| Discolored Soil Site (UN-1100-6) | | | | | | | | | | |
| BEHP | 3 | 4E-04 | -- | 5E-07 | 0.4 | 5E-05 | 3.4 | 4E-04 | | |
| Chlordane | 0.1 | 3E-06 | -- | 4E-09 | 0.1 | 4E-06 | 0.2 | 7E-06 | | |
| Pathway Total | 3 | 4E-04 | -- | 5E-07 | 0.5 | 5E-05 | | | 4 | 4E-04 |
| Ephemeral Pool | | | | | | | | | | |
| Chlordane | 0.1 | 4E-06 | -- | 1E-08 | 0.2 | 5E-06 | 0.3 | 9E-06 | | |
| PCB's | -- | 2E-04 | -- | 6E-07 | -- | 2E-04 | -- | 4E-04 | | |
| Pathway Totals | 0.1 | 2E-04 | -- | 6E-07 | 0.2 | 2E-04 | | | 0.3 | 4E-04 |
| Horn Rapids Landfill | | | | | | | | | | |
| Arsenic | 0.02 | 4E-06 | --[e] | 3E-07[d] | 0.0004 | 9E-08 | 0.02 | 4E-06 | | |
| Beryllium | 0.0004 | 4E-06 | --[e] | 6E-08 | 0.000009 | 8E-08 | 0.0004 | 4E-06 | | |
| Chromium | 0.06 | --[f] | --[e] | 4E-05 | 0.001 | --[f] | 0.06 | 4E-05 | | |
| PCB's | --[e] | 5E-04 | --[e] | 4E-06 | --[e] | 6E-04 | --[e] | 1E-03 | | |
| Pathway Total | 0.08 | 5E-04 | --[e] | 4E-05 | 0.001 | 6E-04 | | | 0.08 | 1E-03 |

[a]Hazard Quotient
[b]Lifetime Incremental Cancer Risk
[c]Hazard Index
[d]Based on 30% absorption of inhaled arsenic (EPA, 1992b)
[e]RfD not available to evaluate this pathway
[f]Not considered carcinogenic by this route of exposure
[g]SF not available to evaluate this pathway
UCL = Upper Confidence Limit
-- Indicates not Applicable

**Table 5-14.** Summary of Contaminant Concentrations for the Garden Pathway at the Discolored Soil Site (UN-1100-6), the Ephemeral Pool, and the Horn Rapids Landfill Based on the 95-percent UCL.

| | Leafy (lettuce) (mg/kg) | Root (carrots) (mg/kg) | Garden Fruits (tomatoes) (mg/kg) | Potatoes (mg/kg) |
|---|---|---|---|---|
| **Discolored Soil Site (UN-1100-6)** | | | | |
| BEHP | 7E+03 | 6.6E+03 | 3.7E+02 | 3.7E+02 |
| Chlordane | 3.2E-02 | 3.2E+00 | 3.3E-01 | 4.8E-01 |
| **Ephemeral Pool** | | | | |
| Chlordane | 3.8E-02 | 3.8E+00 | 4.0E-01 | 5.7E-01 |
| PCB | 5.7E+00 | 5.4E+00 | 3.0E-01 | 3.0E-01 |
| **Horn Rapids Landfill** | | | | |
| Arsenic | 5.6E-02 | 2.8E-02 | 2.8E-03 | 8.4E-04 |
| Beryllium | 2.4E-01 | 1.4E-01 | 2.3E-02 | 3.3E-02 |
| Chromium | 1.7E+01 | 2.2E+01 | 3.4E+00 | 5E+00 |
| PCB | 1.4E+01 | 1.4E+01 | 7.6E-01 | 7.6E-01 |
| UCL = Upper Confidence Limit | | | | |

9 3 1 2 9 3 3 1 0 8 5

The 95-percent UCL's for BEHP and chlordane in soil are also used to calculate intakes, ICR's, and HQ's, associated with the garden produce pathway. Table 5-14 presents a summary of the estimated contaminant concentrations in garden produce based on soil contaminated with BEHP and chlordane at the 95-percent UCL. A summary of the associated contaminant intakes is provided in table 5-15. A summary of the associated estimated ICR's and HQ's are provided in table 5-16. The ICR's and HQ's for BEHP and chlordane are essentially the same whether the maximum contaminant concentration (table 5-3) or the 95-percent UCL (table 5-11) is used to evaluate potential garden produce exposures.

**5.3.2.3 Ephemeral Pool BRSRA.** Chlordane and PCB's detected in soil at the Ephemeral Pool are both estimated to have ICR's greater than 1E-06 when using the maximum contaminant concentrations to calculate the ICR's (table 5-3). Sampling data from both the Phase I and Phase II site investigations were used to calculate the 95-percent UCL for each contaminant at this subunit. The procedure and data used to calculate the 95-percent UCL are presented in appendix V.

The 95-percent UCL's for chlordane and PCB's are presented in table 5-11; the associated estimated contaminant intakes for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-12; and the HQ's and ICR's for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-13.

The ICR's associated with the soil ingestion, fugitive dust, and dermal exposure pathways calculated using the 95-percent UCL for chlordane are 4E-06, 1E-08, and 5E-06, respectively. These are essentially the same as those estimated using the maximum contaminant concentrations. The ICR's for PCB's are 2E-04 for both the soil ingestion pathway and the dermal exposure pathway. The fugitive dust pathway is estimated to have an ICR of 6E-07.

The 95-percent UCL's for chlordane and PCB's in soil are also used to calculate intakes, ICR's, and HQ's, associated with the garden produce pathway. Table 5-14 presents a summary of the estimated contaminant concentrations in garden produce based on soil contaminated with BEHP and chlordane at the 95-percent UCL. A summary of the contaminant intakes is provided in table 5-15. A summary of the associated estimated ICR's and associated HQ's are provided in table 5-16.

The overall garden pathway ICR, based on the 95-percent UCL is 8E-04. This is primarily attributable to the estimated ICR for PCB's, which is 7E-04.

**5.3.2.4 HRL BRSRA.** Contaminants detected in both the soil and the groundwater are associated with ICR's of greater than 1E-06 when exposures are evaluated using the maximum detected concentration of the contaminants (table 5-5). Further evaluation of these soil and groundwater contaminants are discussed below.

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**Table 5-15.** Summary of Contaminant Intakes for Homegrown Vegetables in the Garden Pathway at the Discolored Soil Site, the Ephemeral Pool, and HRL Based on the 95-percent UCL.

| | Leafy (lettuce)[a] (mg/kg-d) | | Root (carrots)[b] (mg/kg-d) | | Garden Fruits (tomatoes)[c] (mg/kg-d) | | Potatoes[d] (mg/kg-d) | | Total Contaminant Intake (mg/kg-d) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Non-Carcinogenic | Carcinogenic | Non-Carcinogenic | Carcinogenic | Non-Carcinogenic | Carcinogenic | Non-Carcinogenic | Carcinogenic | Non-Carcinogenic | Carcinogenic |
| **UN-1100-6** | | | | | | | | | | |
| BEHP | 1.1E-01 | 4.5E+02 | 8.1E-02 | 3.4E-02 | 1.1E-02 | 4.8E-03 | 4.7E-02 | 2.0E-02 | 2.5E-01 | 1.0E-01 |
| Chlordane | 5E-07 | 2.1E-07 | 3.9E-05 | 1.7E-05 | 1.0E-05 | 4.3E-06 | 6.1E-05 | 2.6E-05 | 1.1E-04 | 4.7E-05 |
| **Ephemeral Pool** | | | | | | | | | | |
| Chlordane | 5.8E-07 | 2.5E-07 | 4.7E-05 | 2.0E-05 | 1.2E-05 | 5.2E-06 | 7.3E-05 | 3.1E-05 | 1.3E-04 | 5.6E-05 |
| PCBs | --[f] | 3.7E-05 | --[f] | 2.8E-05 | --[f] | 3.9E-06 | --[f] | 1.6E-05 | --[f] | 8.5E-05 |
| **Horn Rapids Landfill** | | | | | | | | | | |
| Arsenic | 8.6E-07 | --[e] | 3.4E-07 | --[e] | 8.6E-08 | --[e] | 1.1E-07 | --[e] | 1.4E-06 | --[e] |
| Beryllium | 3.7E-06 | 1.6E-06 | 1.7E-06 | 7.3E-07 | 7.1E-07 | 3E-07 | 4.2E-06 | 1.8E-06 | 1.0E-05 | 4.4E-06 |
| Chromium | 2.6E-04 | --[e] | 2.7E-04 | --[e] | 1.0E-04 | --[e] | 6.4E-04 | --[e] | 1.3E-03 | --[e] |
| PCBs | --[f] | 9.1E-05 | --[f] | 7.3E-05 | --[f] | 9.9E-06 | --[f] | 4.1E-05 | --[f] | 2.2E-04 |

[a] Assumes intake of 0.88 g/d dry weight (EPA, 1986a)
[b] Assumes intake of 1.1 g/d dry weight (EPA, 1986a)
[c] Assumes intake of 2.2 g/d dry weight (EPA, 1986a)
[d] Assumes intake of 9.1 g/d dry weight (EPA, 1986a)
[e] Not considered carcinogenic by this route of exposure or pathway
[f] RfD not available to evaluate intake for this pathway
[g] SF not available to evaluate

UCL = Upper Condence Limit
-- Indicates not applicable

**Table 5-16.** Summary of Baseline Residential Scenario Risk Assessment for the Garden Pathway at the Discolored Soil Site, the Ephemeral Pool, and HRL Based on the 95-percent UCL.

| Contaminant | Pathway | |
|---|---|---|
| | Garden | |
| | HQ[b] | ICR[a] |
| **Discolored Soil Site** | | |
| BEHP | 13 | 2E-03 |
| Chlordane | 1.8 | 6E-05 |
| Total Pathway ICR | -- | 2E-03 |
| Total Pathway HI[c] | 15 | -- |
| **Ephemeral Pool** | | |
| Chlordane | 2.2 | 7E-05 |
| PCB's | --[e] | 7E-04 |
| Total Pathway ICR | -- | 8E-04 |
| Total Pathway HI[c] | 2.2 | -- |
| **HRL** | | |
| Arsenic | 0.005 | --[d] |
| Beryllium | 0.002 | 2E-05 |
| Chromium | 0.3 | --[d] |
| PCB's | --[e] | 2E-03 |
| Total Pathway ICR | -- | 2E-03 |
| Total Pathway HI[c] | 0.3 | -- |

[a]Lifetime Incremental Cancer Risk
[b]Hazard Quotient
[c]Hazard Index
[d]Not considered carcinogenic by this route of exposure
[e]RfD not available to evaluate this pathway
[f]SF not available to evaluate this pathway
UCL = Upper Confidence Limit
-- Indicates not applicable

5.3.2.4.1 Soil--Four contaminants detected in soil at HRL, arsenic, beryllium, chromium, and PCB's, are evaluated using 95-percent UCL contaminant concentrations.

For beryllium, all sampling data are used to calculate the 95-percent UCL. The sampling for this contaminant indicates that the contaminant is evenly distributed throughout the subunit. Therefore, the 95-percent UCL represents the spatial distribution and frequency of detection for this contaminant and should be representative of the potential contamination of the entire HRL.

The 95-percent UCL's for arsenic, beryllium, chromium, and PCB's are presented in table 5-11; the estimated associated contaminant intakes for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-12; and the associated HQ's and ICR's for the soil ingestion, fugitive dust inhalation, and dermal exposure pathways are presented in table 5-13.

For the soil ingestion pathway, the ICR for beryllium (4E-06) exceeds 1E-06 (Table 5-13). By comparison, based on the maximum detected contaminant concentration, the ICR for beryllium is (9E-06) (table 5-1). The ICR for beryllium is less than 1E-06 for the fugitive dust pathway.

The 95-percent UCL's in soil are also used to calculate intakes, ICR's, and HQ's, associated with the garden produce pathway. Table 5-14 presents a summary of the estimated contaminant concentrations in garden produce based on soil contaminated with arsenic, beryllium, chromium, and PCB's at the 95-percent UCL concentration. A summary of the associated contaminant intakes is provided in table 5-15. A summary of the associated estimated ICR's and HQ's are provided in table 5-16.

For the garden produce pathway, beryllium is estimated to have an ICR of 2E-05 and PCB's are estimated to have an ICR of 2E-03.

5.3.2.4.2 Groundwater--Two contaminants detected in the groundwater in the vicinity of HRL are trichloroethene and nitrate. In addition to these contaminants, gross alpha and gross beta activity were detected at levels that exceed the drinking water criteria during some sampling rounds. Therefore, additional evaluation of the trichloroethene, nitrate, and elevated radioactivity based on the 95-percent UCL is presented.

Data from a select group of wells has been used to calculate the 95-percent UCL's for the contaminants. Further information on the wells selected and the data are provided in appendix IV. For trichloroethene, data from wells that have trichloroethene consistently detected above the MCL of 5 $\mu$g/L are used for the statistical calculation of the 95-percent UCL. For nitrate, wells with data exceeding the nitrate MCL of 10 mg/L are used for the calculations. The selection of these wells incorporates a conservative bias in the calculation of the ICR's and HQ's. The frequency of detection and the spatial distribution used to provide a 95-percent UCL is representative of the groundwater quality within the contaminant plume.

The 95-percent UCL's for trichloroethene and nitrate in groundwater are presented in table 5-17. A summary of the associated estimated intakes for these contaminants based on the 95-percent UCL's is provided in table 5-18. The associated estimated ICR's and HQ's are presented in table 5-19. The HQ estimated for potential ingestion of nitrate at the 95-percent UCL is 0.8, as compared to a HQ of 1 based on the maximum detected concentration (table 5-3). Trichloroethene is estimated to have an ICR of 1E-05 for the ingestion pathway and an ICR of 2E-05 for the inhalation of trichloroethene during groundwater use in a residence. The ICR's are essentially the same as those estimated for exposures to the maximum detected concentration detected in the groundwater where the ICR for ingestion is also 1E-05 and for inhalation is 3E-05 (table 5-3).

Gross alpha and gross beta activity has also been detected in the groundwater in the vicinity of HRL, as previously indicated in paragraph 2.4. The 95-percent UCL's for both gross alpha and gross beta are 5 picoCurie/liter (pCi/L) and 65 pCi/L, respectively. The current MCL for gross alpha activity (excluding radon and uranium) is 15 pCi/L. In addition, since the gross alpha measurement does not exceed 5 pCi/L, compliance with the MCL's for Ra-226 and Ra-228 may be assumed without further analysis. An MCL for gross beta activity has not been developed. However, compliance with individual MCL's for beta emitters may be assumed without further analysis if the average annual concentration of gross beta activity is less than 50 pCi/L. Since the gross beta activity exceeds this concentration, an analysis of the sample to identify the major radioactive constituents present is required and was performed (see below).

Although gross alpha and gross beta measurements can provide an indication of radioactive contamination, such values are of limited usefulness in risk assessment. This is because slope factors are radionuclide-specific, and associated risks cannot be calculated from gross alpha and gross beta measurements when the relative proportions of various sediments are known.

More specific analysis of the potential beta-contributing radionuclides was conducted. Technetium-99 appears to account for most, if not all, of this beta activity, and no other significant contributors to the total beta activity have been detected (Prentice *et al.*, 1992). Other analyses performed were tritium, Sr-90, liquid scintillation, and gamma spectrometry. Tc-99 is a fission product released to the environment mainly from recycling of nuclear fuels, and is very persistent with a half-life of 2.1E+05 yr. It has a relatively small ingestion slope factor (1.3E-12/pCi), indicating that this radionuclide poses a relatively small internal hazard. This is also indicated by the high proposed MCL for Tc-99 (3,800 pCi/L). The average Tc-99 concentration measured in the plume was 120 pCi/L. Under a residential scenario, the lifetime incremental cancer risk associated with this concentration in drinking water is approximately 3E-06.

A summary of the pathway and subunit ICR's and HQ's based on the 95-percent UCL is presented for the Discolored Soil Site, the Ephemeral Pool, and HRL in table 5-20.

**Table 5-17.** 95-percent UCL Concentrations for Trichloroethane and Nitrate in Groundwater at the Horn Rapids Landfill.

| Contaminant | Concentration (mg/L) |
|---|---|
| Nitrate | 45 |
| Trichloroethene | 0.075 |
| UCL = Upper Confidence Level | |

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**Table 5-18.** Summary of Residential Scenario Intakes Based on the 95-percent UCL Concentrations for the Groundwater Pathway at the Horn Rapids Landfill.

| Contaminant | Pathway | | | |
|---|---|---|---|---|
| | Ingestion (mg/kg-d) | | Volatile Inhalation (mg/kg-d) | |
| | Noncarcinogenic | Carcinogenic | Noncarcinogenic | Carcinogenic |
| Nitrate | 1.23E+00 | --[a] | --[b] | --[a,b] |
| Trichloroethane | --[c] | 8.8E-04 | --[c] | 3.3E-03 |

[a]Not considered to be a carcinogen
[b]Not a volatile contaminant
[c]RfD not available to evaluate intake for this pathway
UCL = Upper Confidence Level
-- Indicates not applicable

**Table 5-19**. Summary of Baseline Residential Scenario Risk Assessment Based on the 95-percent UCL Concentrations for the Groundwater Pathway at the Horn Rapids Landfill.

| Contaminant | Pathway | | | |
|---|---|---|---|---|
| | Groundwater Ingestion | | Groundwater Inhalation | |
| | HQ[a] | ICR[b] | HQ[a] | ICR[b] |
| Nitrate | 0.8 | --[c] | --[d] | --[c,d] |
| Trichloroethane | --[e] | 1E-05 | --[e] | 2E-05 |

[a]Hazard Quotient
[b]Lifetime Incremental Cancer Risk
[c]Not considered to be a carcinogen
[d]Not a volatile contaminant
[e]RfD not available to evaluate this pathway
UCL = Upper Confidence Level
-- Indicates not applicable

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**Table 5-20.** Summary of the Baseline Residential Scenario Risk Assessment for the Discolored Soil Site (UN-1100-6), the Ephemeral Pool, and the Horn Rapids Landfill Based on the 95-percent UCL.

| Subunit | Pathway | Pathway Totals | | Subunit Totals | |
|---|---|---|---|---|---|
| | | HI[a] | ICR[b] | HI[a] | ICR[b] |
| Discolored Soil Site (UN-1100-6) | Soil Ingestion | 3.0 | 4E-04 | | |
| | Fugitive Dust Inhalation | - | 5E-07 | | |
| | Dermal Exposure | 0.5 | 5E-05 | | |
| | Garden Produce | 15 | 2E-03 | | |
| | | | | 18 | 2E-03 |
| Ephemeral Pool | Soil Ingestion | 0.1 | 2E-04 | | |
| | Fugitive Dust Inhalation | - | 6E-07 | | |
| | Dermal Exposure | 0.2 | 2E-04 | | |
| | Garden Produce | 2.2 | 8E-04 | | |
| | | | | 2.5 | 1E-03 |
| Horn Rapids Landfill | Soil Ingestion | 0.08 | 5E-04 | | |
| | Fugitive Dust Inhalation | - | 4E-05 | | |
| | Dermal Exposure | 0.001 | 6E-04 | | |
| | Garden Produce | 0.3 | 2E-03 | | |
| | Groundwater Ingestion | 0.8 | 1E-05 | | |
| | Inhalation of Volatiles from Groundwater | - | 2E-05 | | |
| | | | | 1.2 | 3E-03 |

[a]Hazard Index
[b]Lifetime Incremental Cancer Risk
- Indicates not applicable

The subunit ICR for the Discolored Soil Site is 2E-03 because of the potential risks associated with garden produce. At the Ephemeral Pool, the subunit ICR is 1E-03. The garden produce pathway contributes a pathway ICR of 8E-04. The soil ingestion and dermal exposure pathways are both estimated to have ICR's of 2E-04. The HRL subunit ICR is 3E-03. Again, the garden produce pathway (ICR = 2E-03) contributes most of the risk.

## 5.4 RISK CHARACTERIZATION UNCERTAINTY ANALYSIS

A human risk characterization examines the sources of the contaminant, its dispersion in the environment and resulting exposure to humans, and the toxicological effects of such exposure. The risks, both carcinogenic and noncarcinogenic, presented in this risk assessment are conditional estimates given multiple assumptions about exposures, toxicities, and other variables. This discussion focuses on the uncertainties surrounding the projected risks and hazards due to uncertainty in these variables.

### 5.4.1 Uncertainty Associated with the Identification of COPC's

The soil sampling conducted under the Phase I and Phase II RI's provides confidence that the COPC's at the 1100-EM-1 Operable Unit have been identified. Phase II sampling confirmed sampling data from the earlier remedial investigation activities except as noted below. Additional COPC's have been identified and evaluated in the BISRA because of the more conservative risk-based screening procedure used relative to DOE/RL-90-18 (*e.g.*, ICR = 1E-07 and HQ = 0.1), the availability of new toxicity information (*e.g.*, regarding beryllium), and additional sampling data and maximum concentrations (*e.g.*, regarding PCB's). However, overall results are consistent with the results of the Phase I RI Report.

Two parameters were detected in the Phase II soil sampling at HRL that require additional consideration for the residential risk assessment. Dieldrin has been detected at a maximum concentration of 1.2 mg/kg. Recent data validation has revealed that concentrations reported for Dieldrin are "qualified," which indicates that the case narrative from the lab should be consulted. Upon review, the analysts's opinion is that Dieldrin is actually a part of the Arochlor pattern. Therefore, Dieldrin has not been evaluated as a COPC.

Alpha chlordane has also been detected at a maximum concentration of 0.78 mg/kg in the Phase II sampling at HRL, but is also qualified. It has also been detected at 0.41 mg/kg without any qualifiers nearby. Although not evaluated as a contaminant of concern, chlordane, at either of these concentrations, would not be associated with a risk greater than 1E-06 based on the industrial scenario evaluated in the BISRA. By comparison, the risks for chlordane at the Discolored Soil Site (detected at about 1.9 mg/kg) are associated with a

contaminant-specific ICR of 4E-07 (summary of chlordane ICR's presented in table 5-1 for the Discolored Soil Site) for the soil ingestion, fugitive dust, and dermal exposure pathways. This would correspond approximately to an ICR of 2E-07 for a concentration of 0.78 mg/kg or 9E-08 for a concentration of 0.41 mg/kg. Consequently, there is uncertainty in the contribution of chlordane to the overall risk estimate for HRL, but it appears that the contribution to the overall subunit risk in the BISRA, would be low.

Although not evaluated as a contaminant of concern, chlordane at either of the above concentrations could be associated with a risk greater than 1E-06 based on the residential scenario evaluated in the BRSRA. As a comparison, the risks for chlordane at the Discolored Soil Site (detected at 1.9 mg/kg) are associated with a contaminant-specific ICR of 8E-05 (summary of chlordane ICR's presented in tables 5-1 and 5-2 for the Discolored Soil Site) for the soil ingestion, fugitive dust, dermal exposure, and garden pathways. This would correspond approximately to an ICR of 3E-05 for a concentration of 0.78 mg/kg or 2E-05 for a concentration of 0.41 mg/kg. Consequently, there is uncertainty in the contribution of chlordane to the overall risk in the BRSRA estimate for HRL.

Beryllium is a COPC that has been evaluated in the BRSRA for HRL because of new toxicity information that was not available when the Phase I RI was prepared.

### 5.4.2 Uncertainty Associated with the Exposure Assessment

The exposure assessment is based on a large number of assumptions regarding the physical setting of the 1100-EM-1 Operable Unit, and the exposure conditions of the receptor population. For the purpose of the BISRA, a conservative assumption is made that the COPC's being evaluated are readily accessible for worker contact via ingestion, inhalation and dermal exposure pathways. Actual site conditions, however, may substantially limit or preclude such exposures. In most cases, the maximum concentrations detected are not uniformly distributed in the soil and may be several feet below the surface. At subunit 1100-4, the contamination is located inside a building under a cement floor. For the purpose of the BRSRA, a conservative assumption is made that the COPC's being evaluated are readily accessible for receptor contact via ingestion, inhalation, dermal, and garden produce pathways. Actual site conditions, however, may substantially limit or preclude such exposures. For example, residential use of the area in the foreseeable future is unlikely.

The fugitive dust inhalation pathway utilizes a number of assumptions, including potential for soil erodibility, soil grain-size distribution, length of each operable subunit relative to the prevailing wind, and other climatic factors. Conservative parameter values are chosen when site-specific information is not available. In general, use of FDM should provide appropriate, but conservative, estimates of fugitive dust because the model incorporates actual site meteorological data.

Uncertainty in the fugitive dust inhalation pathway is also present because of the lack of information relating the concentration of a contaminant with the particle size fraction. Concentrations may be greater in the fine fractions because of the greater surface area of these particles, resulting in selective partitioning of contaminants to the fine fractions.

Exposure parameters (*i.e.*, body weight, averaging time, contact rate, exposure frequency, and exposure duration) are generally conservative default parameters that represent reasonable maximum values as defined by EPA (EPA-10, 1991) and in the HSBRAM (DOE/RL-91-45), but may not reflect actual exposure conditions. For example, the soil ingestion exposure pathway uses the assumption that a resident or worker is present and ingesting dirt from the same site 350 d/yr for 30 years (residential scenario) or 146 d/yr for 20 years (industrial scenario).

Another example of conservative exposure parameter assumptions is found in the fugitive dust pathway. It is assumed that for the industrial scenario that workers are outside during the entire working lifetime and inhaling the estimated fugitive dust concentrations presented in table 3-1. In reality, current 1100 Area employees are inside various facilities and not working outside for 250 d/yr for 20 yr. Climatic conditions at the Hanford site would also limit such conservative assumptions from actually occurring. The assumption for residential scenario is that residents are outside during the entire 30 years and inhaling the estimated airborne concentrations presented in table 3-1. In reality, residents would be inside homes, away at school or jobs, and not working or playing outside for a large portion of the 350 d/yr for 30 yr.

The choice of intake parameters for all exposure pathways is governed by the specific land use evaluated. Any land use change that would increase exposures by workers or indicate a different receptor population would result in a need to reevaluate the risks presented here.

The inhalation of volatile contaminants present in soil or soil gas has not been quantitatively evaluated in the BRSRA. Tetrachloroethene has been detected at very low concentrations in soil at 1100-2 and HRL. Tetrachloroethene, trichloroethene, and 1,1,1-trichloroethane have been detected in soil gas at HRL. Although inhalation of these volatile COPC's could occur if residents lived on the landfill, the low concentrations detected suggest that this would not result in unacceptable exposures. This is further supported by modelling performed in the Phase I RI report and the results of additional soil gas surveys during the Phase II RI. However, the lack of a quantified evaluation may result in an underestimate of the total site risk.

The garden produce pathway utilizes conservative uptake factors to estimate concentrations of contaminants in the plants. Actual subunit soil conditions could affect the uptake. In addition, the assumption that the garden is located at the site of the maximum contaminant concentration or the 95-percent UCL concentration is conservative since these areas usually represent only a portion of the entire subunit. The exceptions are the Discolored Soil Site and the Ephemeral Pool.

The choice of intake parameters for all exposure pathways is governed by the specific land use evaluated. This assessment considers only an onsite residential scenario which assumes that there will be major changes in current land use at the Operable Unit. This seems improbable based on current land use, zoning, and restrictions related to the Hanford Site.

The spatial distribution of chromium from the Phase I RI suggests that high concentrations are confined to a small area of HRL and are not uniformly distributed in the soil. Estimations based on maximum concentrations and 95-percent UCL in general would overestimate actual risks, where use of data collected over the entire landfill may underestimate risks from exposure to hot spots. Natural background conditions are not considered in the evaluation of the estimated ICR's for any of the COPC's. In some cases, for example arsenic, natural background concentrations may be associated with risks that would be potentially unacceptable at a remediated NPL site.

In the control-screening process, parameters detected below project-specific background (*i.e.*, UTL) were not considered background. This process was approved for use according to the version of HSBRAM (DOE/RL-91-45) followed for this risk assessment. The HSBRAM is currently undergoing revision, and the final form may not recommend control-screening in this manner for organic parameters. To determine if the organic parameters below UTL's would contribute significantly to the risk, EPA requested that maximum concentrations of these parameters be compared to risk-based concentrations for soil ingestion. This was presented at the October 1992 Hanford site unit manager's meeting. Risk calculations performed for contaminants below background showed that these contaminants would not contribute to the overall risk.

Absorption factors of contaminants from soil have been derived to evaluate the dermal absorption pathway. Limited data are available on the absorption of chemicals from a soil matrix. Therefore, the assessment of risks may be an overestimation or an underestimation of the actual risk.

### 5.4.3 Uncertainty Associated with the Toxicity Assessment

Uncertainty is also associated with the toxicity values and toxicity information available to assess potential adverse effects. This uncertainty in the information and the lack of specific toxicity values for some COPC's contribute to uncertainty in the toxicity assessment.

**5.3.4.1 Uncertainty in Toxicity Values and Information.** An understanding of the degree of uncertainty associated with toxicity values is an important part of interpreting and using those values. A high degree of uncertainty in the information used to derive a toxicity value contributes to less confidence in the assessment of risk associated with exposure to a substance.

The RfD's and SF's have multiple conservative calculations built into them that can contribute to overestimation of actual risk (*i.e.*, factors of 10 for up to four different levels of uncertainty for RfD's, and the use of a 95-percent upperbound confidence estimate derived from the linearized multi-stage carcinogenic model for SF's). For example, table 4-1 indicates that an uncertainty factor of 1,000 is used to calculate the RfD's for chlordane and

tetrachloroethene. Table 4-2 shows that, while beryllium, BEHP, chlordane, and PCB's are evaluated as human carcinogens, the available information indicates that there is inadequate evidence of carcinogenicity in humans. The extrapolation of data from high-dose animal studies to low-dose environmental human exposures may overestimate the risk in the human population because of metabolic differences, repair mechanisms, or different susceptibilities.

An underestimation of systemic toxicity could be associated with the inhalation pathway because only one COPC, barium, has a published inhalation RfD. The RfD for barium is an interim number based on short term reproductive studies in rats and is under review.

**5.4.3.2 Uncertainty in the Toxicity Assessment.** Uncertainty is also present in the overall toxicity assessment for several reasons. First, substances have been evaluated qualitatively when there is a lack of toxicity values. Second, route specific toxicity values have been extrapolated from one route to another (*e.g.*, oral to dermal). Additionally, surrogate values are used and potential synergistic or antagonistic interactions of substances have not been evaluated.

Conservative assumptions are provided regarding the species of the contaminant present. For example, all chromium is assumed to be chromium(VI) which is carcinogenic.

Toxicity values are not available for several contaminants detected at the subunits (*e.g.*, lead can have significant toxic effects. In addition, the form of lead present may also affect the toxicity because some compounds are more bioavailable than others. Because many of the effects for lead toxicity are apparently without a threshold, the EPA does not provided numerical toxicity values. Lead has been evaluated using the UBK model, which is based on conservative assumptions of the form of lead that may be present, and consequently, assumes a form of lead that is very bioavailable. Lead was not retained as a COPC at any of the subunits because the maximum concentrations detected are within the range of the recommended soil cleanup guideline of 500 to 1,000 mg/kg (EPA, 1989b). However, lead is retained as a contaminant of interest at HRL because it exceeds the soil concentration (500 mg/kg) associated with increased blood levels in children. Children are a sensitive subpopulation for lead exposures. Lead at the concentrations detected is unlikely to pose an unacceptable hazard to workers under the industrial scenario. However, if the expected land use at the 1100 Area were to change, it may require more extensive evaluation might be warranted.

Some contaminants, such as PCB's, only have toxicity values for carcinogenic effects (*i.e.*, SF's), but do not have toxicity values for noncarcinogenic effects (*i.e.*, RfD's). These contaminants are known to produce systemic toxic effects in addition to cancer. Without an RfD, quantitative evaluation of these other effects is limited. However, the potential to cause cancer is usually the effect of most concern and is usually the effect that drives risks at most sites. As indicated, surrogates are used to evaluate COPC's when numerical toxicity values are not available. For all COPC's, the level of confidence that key effects have been evaluated is high.

The uncertainty surrounding dermal exposures and absorption from dermal exposure is another significant source of uncertainty. The lack of toxicity information to adequately determine RfD's and SF's for dermal exposures forces extrapolation from oral toxicity values, and increases the conservative bias associated with these calculations. This conservatism is reflected in the significant estimated risks associated with this pathway for some compounds, most notably PCB's. Conversely, the assumption that dermal toxicity values are the same as oral toxicity values could underestimate the risk for contaminants that are poorly absorbed in the gastrointestinal tract, but might well be absorbed dermally.

## 6.0 SUMMARY OF THE BISRA AND THE BRSRA

The BISRA and the BRSRA have been conducted as recommended in the HSBRAM (DOE/RL-91-45), and the direction of EPA [Einan, 1991 (see appendix I)], respectively. The BISRA was prepared prior to completion of the Phase II RI for the 1100-EM-1 Operable Unit. The data from the Phase I RI, and additional sampling data from Phase II sampling at the Ephemeral Pool and HRL, were included in the BISRA. Contaminants have been determined by comparison of maximum detected concentrations of parameters to the UTL for that parameter. A BRSRA for an onsite residential scenario at each of five 1100-EM-1 subunits, as defined in letters [Einan, 1991, and Einan, 1992 (see appendix I)]. The scope of the BRSRA defined by these letters included evaluation of specific COPC and specific exposure pathways. The COPC derived from the comparisons for both the BISRA and the BRSRA are presented in table 2-1. The BISRA and the BRSRA initially were conducted independently and later were combined for the purposes of the RI/FS.

The maximum concentrations of COPC detected at each subunit are evaluated at each of the designated subunits. As discussed in chapter 5, paragraph 5.4, conservative assumptions have been made with respect to the species of the contaminant present. For three subunits, the Discolored Soil Site, the Ephemeral Pool, and HRL, soil contaminants that are estimated to have an ICR greater than 1E-06, based on the maximum detected contaminant concentration, are also evaluated using a 95-percent UCL concentration. An overall pathway and subunit comparison based on the specific COPC that exceeded 1E-06 using the maximum detected contaminant concentration and the 95-percent UCL is provided in table 5.3.

As discussed in appendix IV, the 95-percent UCL for COPC at the Ephemeral Pool are based on all data for that subunit. The 95-percent UCL is used to evaluate chlordane and BEHP at UN-1100-6 subunit. At HRL, the 95-percent UCL for arsenic is based on data collected throughout the landfill. For chromium and PCB's, the 95-percent UCL concentrations reflect data selected to evaluate the areas of maximum contamination (*i.e.*, hot spots). Therefore, the 95-percent UCL's are not directly comparable between contaminants. Consequently, although a quantitative comparison is presented, the results should be carefully interpreted and emphasis should be placed on the qualitative nature of the results.

### 6.1 BISRA

Currently, no workers are assigned to work at any of the subunits on an ongoing basis. For purposes of the BISRA, it is assumed, based on current land use and zoning in the 1100 Area, that industrial workers are likely potential receptors at the subunits. The current and future receptor population that has been evaluated is onsite industrial workers who are assumed to work full time at only one subunit where they could potentially be exposed to contaminants from that subunit. The BISRA also assumes that personnel are assigned to the 1100 Area for purposes other than remediation.

The exposure pathways are those indicated for the industrial scenario defined in the HSBRAM (DOE/RL-91-45). The BISRA evaluates only pathways associated with exposure to soils (*i.e.*, soil ingestion, dermal exposure to soil, and fugitive dust inhalation). Potential exposures associated with groundwater and surface water are not evaluated in the BISRA. As discussed in chapter 3, paragraph 3.2, neither groundwater use nor direct use of surface water occurs because of the availability of city of Richland water services.

The air inhalation pathway assumes exposure to contaminated dust directly at each subunit. The EPA FDM is used to estimate concentrations of airborne particulates at a site based on conservative estimations of soil and climatic conditions. Chromium present in the soil at HRL is the only contaminant that may be associated with risks greater than 1E-06. However, all chromium is assumed to be chromium(VI) which is a conservative assumption as discussed in chapter 5, paragraph 5.4

Given the above considerations, the BISRA identifies and evaluates the contaminants that are most likely to pose a potential human health risk. A review of the results presented in tables 5-1 through 5-5, and summarized in table 6-1, is discussed below for each subunit.

## 6.2 BRSRA

The BRSRA has been conducted as recommended in RAGS (EPA, 1989a) and by (EPA-10, 1991). Currently there is no residential use of any of the subunits. The 1100-EM-1 Operable Unit is used for industrial purposes and is surrounded by land zoned by the city of Richland for industrial or commercial uses. For purposes of the BRSRA, as directed by EPA, it is assumed that residents are living at 1100-2, 1100-3, UN-1100-6 subunit, HRL, and the Ephemeral Pool. It is assumed that such individuals live only at one subunit where they could potentially be exposed to contaminants from that subunit.

As defined by EPA (Einan 1991) and a follow up letter of clarification [Einan, 1992 (see appendix I)], the exposure pathways are focused on contaminated soil. The pathways include the ingestion of soil, dermal contact with soil, ingestion of garden produce, and inhalation of particulates (*i.e.*, fugitive dust). Other pathways evaluated as discussed below, include ingestion of groundwater and recreational exposures through swimming in the Columbia River or eating fish from the Columbia River.

The dermal contact with soil pathway utilizes absorption factors to estimate the absorption of contaminants from soil through the skin of the receptor. The garden produce pathway, similarly, uses plant uptake factors to estimate the transport of contaminants from the soil to the plant. Discussions of the conservative assumptions for these pathways are provided in chapters 3 and 5, paragraphs 3.3.2 and 5.4, respectively. Both pathways are associated with relatively high ICR's (see tables 5-1, 5-2, 5-15, and 6-2). These pathways have a great deal of uncertainty associated with them because the transport of soil-bound contaminants across skin and the uptake of contaminants by plants are not well understood.

**Table 6-1.** Comparison of the Baseline Industrial Incremental Cancer Risk Assessment Results using the Maximum Contaminant Concentrations and 95-percent UCL for the Discolored Soil Site (UN-1100-6), the Ephemeral Pool, and the Horn Rapids Landfill.

| Subunit | Pathway | 95-percent UCL Pathway Totals | Maximum Concentration Pathway Totals | 95-percent UCL Subunit Totals | Maximum Concentration Subunit Totals |
|---|---|---|---|---|---|
| | | ICR | ICR | ICR | ICR |
| Discolored Soil Site (UN-1100-6) | Soil Ingestion | 2E-05 | 3E-05 | | |
| | Fugitive Dust Inhalation | 2E-07 | 4E-07 | | |
| | Dermal Exposure | 2E-06 | 3E-06 | | |
| | | | | 2E-05 | 3E-05 |
| Ephemeral Pool | Soil Ingestion | 9E-06 | 3E-05 | | |
| | Fugitive Dust Inhalation | 3E-07 | 8E-07 | | |
| | Dermal Exposure | 1E-05 | 3E-05 | | |
| | | | | 2E-05 | 6E-05 |
| Horn Rapids Landfill | Soil Ingestion | 2E-05 | 6E-05 | | |
| | Fugitive Dust Inhalation | 2E-05 | 3E-04 | | |
| | Dermal Exposure | 3E-05 | 8E-05 | | |
| | | | | 7E-05 | 4E-04 |

**Table 6-2.** Comparison of the Baseline Residential Scenario Risk Assessment Results using the Maximum Contaminant Concentrations and 95-percent UCL for the Discolored Soil Site (UN-1100-6), the Ephemeral Pool, and the Horn Rapids Landfill.

| Subunit | Pathway | 95-percent UCL Pathway Totals | | Maximum Concentration Pathway Totals | | 95-percent UCL Subunit Totals | | Maximum Concentration Subunit Totals | |
|---|---|---|---|---|---|---|---|---|---|
| | | HI[a] | ICR[b] | HI[a] | ICR[b] | HI[a] | ICR[b] | HI[a] | ICR[b] |
| Discolored Soil Site (UN-1100-6) | Soil Ingestion | 3.0 | 4E-04 | 4.7 | 6E-04 | | | | |
| | Fugitive Dust Inhalation | -- | 5E-07 | -- | 7E-07 | | | | |
| | Dermal Exposure | 0.5 | 5E-05 | 0.7 | 8E-05 | | | | |
| | Garden Produce | 15 | 2E-03 | 18 | 2E-03 | | | | |
| | | | | | | 18 | 2E-03 | 23 | 3E-03 |
| Ephemeral Pool | Soil Ingestion | 0.1 | 2E-04 | 0.2 | 5E-04 | | | | |
| | Fugitive Dust Inhalation | -- | 6E-07 | -- | 2E-06 | | | | |
| | Dermal Exposure | 0.2 | 2E-04 | 0.2 | 7E-04 | | | | |
| | Garden Produce | 2.2 | 8E-04 | 3.2 | 2E-03 | | | | |
| | | | | | | 2.5 | 1E-03 | 3.6 | 3E-03 |
| Horn Rapids Landfill | Soil Ingestion | 0.08 | 5E-04 | 1 | 1E-03 | | | | |
| | Fugitive Dust Inhalation | -- | 4E-05 | -- | 7E-04 | | | | |
| | Dermal Exposure | 0.001 | 6E-04 | 0.02 | 2E-03 | | | | |
| | Garden Produce | 0.3 | 2E-03 | 3.6 | 4E-03 | | | | |
| | Groundwater Ingestion | 0.8 | 1E-05 | 1 | 1E-05 | | | | |
| | Inhalation of Volatiles from Groundwater | -- | 2E-05 | -- | 3E-05 | | | | |
| | | | | | | 1.2 | 3E-03 | 5.6 | 8E-03 |

[a]Hazard Index
[b]Lifetime Incremental Cancer Risk
UCL Upper Confidence Limit
-- Indicates not applicable

Consistent with the BISRA, the air inhalation pathway assumes exposure to contaminated dust directly at each subunit. The EPA FDM is used to estimate concentrations of airborne particulates at a site based on conservative estimations of soil and climatic conditions. Chromium present in the soil at HRL is the only contaminant that may be associated with risks greater than 1E-06. However, all chromium is assumed to be chromium(VI) which is a very conservative assumption as discussed in chapter 5, paragraph 5.4.

The EPA also directed that potential exposures through pathways associated with use of groundwater at HRL should be evaluated in the BRSRA. The evaluation of nitrate in the groundwater indicates a HQ of 0.8, if wells with nitrate detected over the MCL are evaluated, or a HQ of 1 if the maximum concentration of nitrate is evaluated for potential exposures through ingestion of groundwater. A HQ of unity indicates that there is a potential for adverse health effects. Because of the conservative assumptions used in the evaluation, however, the estimate of a HQ of 1 may be an overestimation of the actual hazard. Trichloroethene is present in the groundwater at concentrations that are estimated to have a ICR of 3E-05 (based on 95-percent UCL) or 4E-05 (based on maximum concentration) if lifetime exposures were to occur through ingestion of groundwater and inhalation of volatiles from groundwater use in the home.

Of the COPC specified, three are classified as volatile contaminants that would generally be evaluated via the inhalation of volatiles from soil. These are tetrachloroethene, trichloroethene, and 1,1,1-trichloroethane. Although the inhalation of volatile contaminants from soil was suggested as a potential exposure pathway. EPA directed [Einan, 1992 (see appendix I)] indicated that data generated from soil gas surveys should not be used in risk assessment. Because the majority of the volatile COPC from the specified subunits have only been detected in soil gas the potential exposures and associated risks are not quantitatively evaluated in the BRSRA. The volatilization of contaminants from soil is qualitatively addressed in chapter 5, paragraph 5.4.

Lead exposures, as directed by EPA [Einan, 1991 and Einan, 1992 (see appendix A)] are evaluated using the UBK model. The UBK model predicts blood-lead levels in children from potential exposure to lead through soil ingestion, dust inhalation, and dietary exposures. Lead exposures are evaluated at the 1100-3 subunit and HRL.

Recreational pathways associated with the Columbia River are also evaluated in the BRSRA. The two pathways considered are the dermal contact with potentially contaminated water through swimming and the ingestion of fish caught from the Columbia River.

Other pathways may also occur that have not been evaluated in the BRSRA, however, the potentially dominant risk driving pathways and those routinely evaluated for residential scenarios are included.

Given the above considerations, the BRSRA identifies and evaluates the contaminants that are most likely to pose a potential human health risk if residential use of the subunits were to occur. The COPC that pose a potential for noncarcinogenic systemic toxic effects (*i.e.*, HQ > 1) or ICR of >1E-06 for each subunit are discussed below.

## 6.3 1100-1 SUBUNIT

### 6.3.1 BISRA

Arsenic, nickel, and vanadium are the COPC at this subunit. The HI (0.008) and total ICR (4E-07) do not exceed unity or 1E-06, respectively, for the subunit. Consequently, potential worker exposures to the maximum detected COPC would not be likely to result in adverse health effects.

### 6.3.2 BRSRA

(Does not Apply)

## 6.4 1100-2 SUBUNIT

### 6.4.1 BISRA

Chromium and manganese are the only COPC's at this subunit. The HI (0.002) and the total ICR (1E-06), for the subunit do not exceed unity or 1E-06, respectively. Consequently, potential worker exposures to the maximum detected concentration of chromium would not be likely to result in adverse health effects.

### 6.4.2 BRSRA

Tetrachloroethene is the only contaminant of potential concern at this subunit. Residential exposure to the concentrations of tetrachloroethene detected at this subunit are not likely to result in adverse health effects. The subunit HI for the exposure pathways evaluated is 0.00003 and the ICR is 7E-09 (table 5-1). Based on the BRSRA, no contaminants of concern are identified at 1100-2.

## 6.5 1100-3 SUBUNIT

### 6.5.1 BISRA

The COPC's at the 1100-3 subunit are chromium and manganese. The HI (0.002) and total ICR (9E-07) for this subunit do not exceed unity or 1E-06, respectively. Therefore, adverse systemic health effects are not likely for industrial workers exposed to the maximum concentration of contaminants detected at this subunit.

### 6.5.2 BRSRA

Arsenic, chromium, and lead are the COPC at this subunit. The ICR for exposure to arsenic at this subunit is 9E-06, primarily due to the potential ingestion of arsenic-contaminated soil. This estimate, however, includes the contribution of potential risk from the background concentration of arsenic in the soil. The ICR for the inhalation of fugitive dust containing chromium is less than 1E-06. All individual HQ's and the HI for the subunit are less than unity.

An evaluation of lead using the UBK model indicates that children exposed to lead in the soil and ingestion of garden produce potentially contaminated with lead will not result in blood-lead levels that exceed the currently recommended level of concern.

Based on this BRSRA, arsenic is the only possible contaminant of concern for the 1100-3 subunit. The ingestion of soil is the exposure pathway associated with the greatest estimated risk. However, the background concentration of arsenic normally present in soil is included in the risk estimate and may contribute significantly to the overall ICR.

## 6.6 1100-4 SUBUNIT

### 6.6.1 BISRA

Arsenic and beryllium are the only two COPC identified at the 1100-4 subunit. The HI (0.006) for this subunit is less than unity. Therefore, adverse systemic health effects are not likely for industrial workers exposed to the maximum concentration of contaminants detected at this subunit.

Although individual contaminant ICR's are all negligible (*i.e.*, <1E-06), the soil ingestion pathway and subsequently the subunit-specific ICR is 1E-06. However, because the site of the subunit is located inside a building and under a cement floor, this risk estimate is considered to be an overestimation of actual risk. Hence, potential worker exposure to the maximum detected concentrations of contaminants are not likely to result in any adverse health effects.

### 6.6.2 BRSRA

(Does not Apply)

## 6.7 DISCOLORED SOIL SITE (UN-1100-6)

### 6.7.1 BISRA

BEHP, chlordane, and heptachlor are the COPC at this subunit. The HI (0.4) for this subunit is less than unity. Therefore, adverse systemic health effects are not likely for industrial workers exposed to the maximum concentration of contaminants detected at this subunit.

BEHP is the only COPC associated with ICR's greater than 1E-06. The ICR's for BEHP for the soil ingestion pathway, the fugitive dust pathway, and the dermal exposure pathway are 3E-05, 3E-07, and 3E-06, respectively, with a total ICR of 3E-05. Therefore, BEHP is the only contaminant of concern identified at the Discolored Soil Site.

An estimation of the ICR's for BEHP and chlordane using the 95-percent UCL indicates no significant difference when compared to the ICR's estimated for the maximum detected concentrations. The ICR's for BEHP based on the 95-percent UCL for the soil ingestion pathway, the fugitive dust pathway, and the dermal exposure pathway are 2E-05, 2E-07, and 2E-06, respectively. The ICR's for chlordane based on the 95-percent UCL for the soil ingestion pathway, the fugitive dust pathway, and the dermal exposure pathway are 2E-07, 2E-09, and 2E-07, respectively. The total ICR for the Discolored Soil Site is 3E-05 based on the maximum detected concentration, and 2E-05, based on the 95-percent UCL (see table 6-1).

### 6.7.2 BRSRA

The evaluation of potential exposures to BEHP and chlordane present in the soil at this subunit are associated with risks greater than 1E-06. The subunit HI for all pathways (table 6-1) is 23 (based on maximum contaminant concentrations) or 18 (based on the 95-percent UCL) indicating the potential for adverse systemic health effects in individuals that may ingest the soil from the site or eat produce grown at the site.

The subunit ICR is 3E-03 based on the maximum contaminant concentration and 2E-03 based on the 95-percent UCL. As with the HI, the potential ingestion of garden produce contributes the majority of the risk. Because of the conservative assumptions used in deriving the SF's and the conservative assumptions utilized in estimating the uptake of BEHP by plants, the actual risk may be less than the estimated risk.

The contaminants of concern at this subunit are:

Noncarcinogenic Effects:

- BEHP - Soil ingestion, Garden Produce Pathway
- Chlordane - Garden Produce Pathway

Carcinogenic Effects:

- BEHP - Soil ingestion, Dermal Exposure, Garden Produce Pathway
- Chlordane - Soil Ingestion, Dermal Exposure, Garden Produce Pathway

## 6.8 EPHEMERAL POOL

### 6.8.1 BISRA

Chlordane, heptachlor, and PCB's are COPC at the Ephemeral Pool. The estimated HI (= 0.01) for this subunit is less than unity. Therefore, adverse systemic health effects are not likely for industrial workers exposed to the maximum concentration of contaminants detected at this subunit.

PCB's are the only contaminant of potential concern associated with ICR's greater than 1E-06. The ICR's for PCB's are 3E-05, 8E-07, and 3E-05 for the soil ingestion pathway, the fugitive dust inhalation pathway, and the dermal exposure pathway, respectively, with a total subunit ICR of 3E-05 based on all COPC evaluated using the maximum contaminant concentrations.

An estimation of the ICR's for PCB's using the 95-percent UCL indicates similar results when compared to the ICR's estimated for the maximum detected concentrations. The ICR's for PCB's based on the 95-percent UCL for the soil ingestion pathway, the fugitive dust pathway, and the dermal exposure pathway are 9E-06, 3E-07, and 1E-05, respectively, with a total subunit ICR of 2E-05 (see table 6-1). Therefore, PCB's are the only contaminant of concern for the Ephemeral Pool.

### 6.8.2 BRSRA

Chlordane and PCB's are the COPC at this subunit. The subunit total HI is 3.6 (maximum contaminant concentration) or 2.5 (95-percent UCL concentration), related primarily to potential exposures to chlordane through the garden produce pathway. PCB's are not quantitatively evaluated for systemic toxic effects through the ingestion pathway because there are no published toxicity values for noncarcinogenic effects.

The subunit ICR is 3E-03 based on the maximum contaminant concentration and 1E-03 based on the 95-percent UCL. In both cases the risk is primarily due to the potential ingestion of PCB's through the garden produce pathway. Both chlordane and PCB's are contaminants of concern for this subunit as summarized below:

Noncarcinogenic Effects:

- Chlordane - Garden Produce Pathway

Carcinogenic Effects:

- Chlordane - Soil Ingestion, Dermal Exposure, Garden Produce Pathway
- PCB's - Soil ingestion, Dermal Exposure, Garden Produce Pathway

## 6.9 HRL

### 6.9.1 BISRA

Fourteen COPC have been identified at HRL. The subunit HI for all pathways is (0.2) less than unity. Therefore, adverse systemic toxic effects are not likely based on the assumptions and maximum detected concentrations evaluated for the subunit.

The following are COPC with individual pathway ICR's that exceeded 1E-06 based on maximum detected contaminant concentrations, and therefore may be associated with adverse carcinogenic effects:

- Chromium - Fugitive Dust Inhalation
- PCB's - Soil Ingestion, Dermal Exposure

The inhalation of fugitive dust is associated with the greatest ICR, with a pathway ICR of 3E-04 associated primarily with chromium at the maximum detected concentration. The assumption that the entire landfill is uniformly contaminated with the maximum concentration of chromium detected and that all chromium is chromium(VI) results in an overestimation of actual risk. When chromium is evaluated using a conservatively biased 95-percent UCL based on the area where the highest concentrations of chromium were detected, the ICR is estimated as 2E-05 (see table 5-10). This risk estimate, however, would overestimate actual risks for most of the landfill.

PCB's are associated with the greatest risks for the soil ingestion pathway and the dermal exposure pathway, with pathway ICR's of 6E-05 and 8E-05, respectively, at the maximum detected concentrations. When evaluating the potential risks for PCB's based on a 95-percent UCL determined from the areas of greatest PCB detection, the estimated ICR's for the soil ingestion and dermal contact pathways are reduced by approximately a third, although they still exceed 1E-06.

Therefore, chromium and PCB's are the only contaminants of concern identified at HRL.

### 6.9.2 BRSRA

The subunit HI for all pathways evaluated at HRL is 5.6 based on the maximum detected contaminant concentration and 1.2 based on the 95-percent UCL. The total ICR for the subunit is 8E-03 based on the maximum detected concentration and 3E-03 for 95-percent UCL. The COPC identified at this subunit are:

Noncarcinogenic Effects:

- Nitrate - Groundwater Ingestion (however, nitrate would not be considered a contaminant of concern based on the 95-percent UCL contaminant concentration).

Carcinogenic Effects:

- Arsenic - Soil Ingestion
- Beryllium - Soil Ingestion, garden produce
- PCB's - Soil Ingestion, Dermal Exposure, Garden Produce Pathway
- Trichloroethane - Groundwater ingestion
- Chromium - Fugitive Dust Inhalation

## 6.10 RESIDENTIAL-RELATED RECREATIONAL PATHWAYS

As indicated in table 5-6, it is unlikely that adverse effects from exposure to trichloroethane would occur in residents who may swim in the Columbia River or ingest fish caught in the Columbia River. As discussed in chapter 3, trichloroethane may migrate to the river via the groundwater. The ICR's for both potential exposures are estimated as less than 4E-10.

## 6.11 SUMMARY

### 6.11.1 BISRA

The contaminants of concern for the individual subunits in the 1100-EM-1 Operable Unit as determined in this BISRA are:

- Discolored Soil Site
  BEHP

- Ephemeral Pool
  PCB's

- HRL
  Chromium
  PCB's

As discussed above, this list does not consider background conditions, and has been developed based on conservative industrial exposure parameters. The list of contaminants of concern assume that current land and water use for the 1100 Area will remain the same in the future and that onsite industrial workers are the primary receptors.

### 6.11.2 BRSRA

The contaminants of concern for the individual subunits in the 1100-EM-1 Operable Unit, based on this BRSRA, are:

- 1100-3
  Arsenic

- Discolored Soil Site
  BEHP
  Chlordane

- Ephemeral Pool
  Chlordane
  PCB's

- HRL
  Arsenic
  Beryllium
  Chromium
  Nitrate
  PCB's
  Trichloroethene

The BRSRA has been conducted at the direction of EPA. It should be noted that the residential use of any of the subunits at the 1100-EM-1 Operable Unit in the foreseeable future is improbable. The 1100-EM-1 Operable Unit is located in an area designated for industrial or commercial use, as zoned by the city of Richland. The subunits themselves are located immediately adjacent to actively used industrial sites such as the 1171 Building, railroad tracks, or parking lots. For HRL, it is also extremely unlikely that homes would be built immediately adjacent to the subunit, based on current regulations in the state of Washington. Consequently, the onsite residential exposure pathways that have been evaluated are not probable. As a result, the estimated risks presented in the BRSRA are very conservative estimates based on an unlikely scenario.

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# APPENDIX I

# LETTERS AND MEMORANDA

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ATTACHMENT 1

United States
Environmental Protection
Agency

Region 10
Hanford Project Office
712 Swift Boulevard, Suite 5
Richland WA 99352

EPA

May 30, 1991

Robert K. Stewart
Unit Manager
U.S. Department of Energy
P.O. Box 550, A6-95
Richland, Washington 99352

Re: 1100-EM-1 Remedial Investigation

Dear Mr. Stewart:

This letter has several purposes. First, the enclosure to this letter should provide the clarifications requested by the U.S. Department of Energy (DOE) on February 28, 1991 (Ref: Letter, S. Wisness to P. Day).

Secondly, due to other commitments (e.g. Tri-Party Agreement negotiations) and internal communication problems, combined EPA and Ecology comments on the "Remedial Investigation Phase 2 Supplemental Work Plan for the Hanford Site 1100-EM-1 Operable Unit" and the "Phase I and II Feasibility Study Report for the Hanford Site 1100-EM-1 Operable Unit" will be delayed by not more than 30 days. I expect to send any comments on the above documents by June 28, 1991.

Finally, in response to the April 26, 1991 letter from Mr. Wisness to Mr. Day, I understand and agree that interim milestones M-15-01B (November 1991) and M-15-01C (April 1992) are in jeopardy. I will work with you to develop an aggressive and attainable schedule upon which to develop a change package.

If you have any questions, please call me at 376-3883.

Sincerely,

David R. Einan

David R. Einan
Unit Manager

cc: R. Hibbard, Ecology
J. Stewart, USACE
T. Veneziano, WHC
Administrative Record (1100-EM-1)

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# CLARIFICATION OF 1100-EM-1 REMEDIAL INVESTIGATION ISSUES RAISED BY U.S. DEPARTMENT OF ENERGY

May 24, 1991

## 1. Identification of land areas for agricultural/residential land use exposure scenarios

The 1100-EM-1 subunits that should be included in the evaluation of risk from residential exposures for the baseline risk assessment are shown in Table 1. The rationale for including or excluding each subunit is also presented in Table 1.

The quantitative risk assessment of a residential scenario will provide risk estimates that are protective of agricultural health threats because an exposure pathway including homegrown vegetables and fruits is required. Agricultural scenarios do not need to be included in the baseline risk assessment. In addition, the health risk to agricultural workers is adequately addressed in the industrial scenario as provided in the baseline risk assessment (U.S. DOE, 1990).

## 2. Residential exposure scenario for the 1100-EM-1 baseline risk assessment

A residence should be located directly adjacent to each subunit. For the Horn Rapids Landfill, the residence should be placed near monitoring well MW-12.

Receptor populations should include typical populations such as children, adults, and the elderly.

Table 2 shows each subunit with its associated contaminants, exposure medium, and exposure routes. The information presented in Table 2 assumes that exposure to contaminants includes the following pathways: inhalation of vapors and particulates, accidental ingestion of soil, ingestion of homegrown vegetables and fruits, ingestion of drinking water, dermal contact with potable water, inhalation of vapors during showering, and dermal contact with soil.

The existing data are sufficient for performing residential risk assessments for the subunits listed in Table 1. All subunits should address exposure pathways related to contaminated soil. The Horn Rapids Landfill, however, should also address exposure pathways related to groundwater. Potential groundwater health threats will be assessed for the other subunits in the Phase 2 remedial investigation if the data support the need to do so.

It is appropriate to present the residential risk assessment in the baseline risk assessment uncertainty section.

3. Reasonable maximum exposure

A table summarizing exposure parameters used, references for those parameters, and rationales for using each parameter should be included as part of the baseline risk assessment.

Example calculations for one contaminant in each pathway should be provided in an appendix. The appendix should include generic equations as well as example calculations.

Reasonable maximum exposure parameters as outlined in Region 10 guidance (U.S. EPA, 1990a) should be used. If Region 10 guidance for a particular parameter is not published or established, then reasonable maximum exposure parameters as provided by U.S. Environmental Protection Agency (EPA) headquarters (1989) should be used. If U.S. EPA guidance is not available, then exposure parameters found in open literature or developed using professional judgment should be used.

4. Toxicity screening

The preliminary toxicity screening first compares contaminant concentrations to background, then to calculated toxicity screening criteria. The first step is acceptable. The second step may eliminate chemicals that individually may not pose a health risk, but cumulatively might pose health risks. Not enough information is provided by U.S. Department of Energy (U.S. DOE) (1990) to determine this. A table summarizing critical effects for all potential contaminants of concern before implementing the screening should have been provided in the Phase 1 remedial investigation report. Therefore, the acceptability of the screening method cannot be determined at this time.

Based on available information, the preliminary toxicity screening contains the following technical flaws:

- It appears that the screening criteria for lead is an applicable or relevant and appropriate requirement (ARAR). It is not appropriate for screening purposes to use an ARAR. Therefore, lead should be included in the baseline risk assessment.

- The use of the Occupational Safety and Health Administration's permissible exposure limit for polynuclear aromatic hydrocarbons (PAHs) as the surrogate residential exposure limit development is not appropriate. U.S. EPA (1990b) recommends that critical toxicity values for benzo(a)pyrene be used in the absence of critical toxicity values for PAHs. However, because the sampled PAH level exceeds the surrogate residential exposure limit screening criterion, and PAHs were not eliminated from the risk assessment at that point, it is not necessary to develop a new preliminary toxicity screening criterion for PAHs based on benzo(a)pyrene information. In the future, the critical toxicity values for benzo(a)pyrene should be used for developing a PAH toxicity screening criterion.

TABLE 1
RATIONALE FOR INCLUDING 1100-EM-1 SUBUNITS
RESIDENTIAL SCENARIO RISK ASSESSMENT

| Subunit | Decision to Include | Rationale |
|---|---|---|
| Battery Acid Pit (1100-1) | No | The lead found in soil samples is most likely associated with backfill materials. The arsenic levels are not significantly elevated above background levels. |
| Paint and Solvent Pit (1100-2) | Yes | Significant levels of tetrachloroethene was found in soil. (Tetrachloroethene may also pose a groundwater health threat, but inclusion in the risk assessment will be based on Phase 2 RI results.) |
| Antifreeze and Degreaser Pit (1100-3) | Yes | Significant levels of lead, arsenic, and chromium were found in surface soil. (Chromium may pose a groundwater health threat, but inclusion in the risk assessment will be based on Phase 2 RI results.) |
| Antifreeze Tank Site (1100-4) | No | The tank has been removed and the subunit is located in a building. (Alpha and beta radiation may pose groundwater health threats, but inclusion in the risk assessment will be based on Phase 2 RI results.) |
| Radiation Contamination Incident (UN-1100-5) | No | Contamination no longer exists. |

TABLE 1
RATIONALE FOR INCLUDING 1100-EM-1 SUBUNITS
RESIDENTIAL SCENARIO RISK ASSESSMENT
(Continued)

| Subunit | Decision to Include | Rationale |
|---|---|---|
| Discolored Soil Site (UN-1100-6) | Yes | Significant levels of BEHP and chlordane were found in surface soil. (1,1,1-trichloroethane may pose a health threat in groundwater, but inclusion in the risk assessment will be based upon Phase 2 RI results.) |
| Horn Rapids Landfill | Yes | Significant levels of arsenic, chromium, lead, PCBs, tetrachloroethene, trichloroethene, and 1,1,1-trichloroethane were found in soil. Trichloroethane was found in groundwater. (Tetrachloroethene and 1,1,1-trichloroethane may pose groundwater health threats, but inclusion in the risk assessment will be based on Phase 2 RI results.) |
| Pit 1 | No | Pit 1 is an operational gravel pit. |
| Ephemeral Pool | Yes | Significant levels of PCB and chlordane were found in surface soil. |

Definitions:

RI = Remedial Investigation
BEHP = Bis(2-ethylhexyl)phthalate
PCB = Polychlorinated biphenyl

TABLE 2
EXPOSURE MEDIA AND EXPOSURE ROUTES FOR 1100-EM-1
RISK ASSESSMENT RESIDENTIAL SCENARIO

| Subunit | Contaminants of Concern | Exposure Medium | Exposure Route IHL | ING | D |
|---|---|---|---|---|---|
| Paint and Solvent Pit (1100-2) | Tetrachloroethene | Soil | C | | |
| Antifreeze and Degreaser Pit (1100-3) | Arsenic | Soil | C,S | C,S | C,S |
| | Chromium | Soil | C | S | S |
| | Lead | Soil | S | S | |
| Discolored Soil Site (UN-1100-6) | BEHP | Soil | C | C,S | C,S |
| | Chlordane | Soil | | C,S | C,S |
| Horn Rapids Landfill | Arsenic | Soil | C,S | C,S | C,S |
| | Chromium | Soil | C | S | S |
| | PCB | Soil | C | C | C |
| | Tetrachloroethene | Soil | C | | |
| | Trichloroethene | Soil | C | | |
| | | Groundwater | C | C | |
| | 1,1,1-Trichloroethane | Soil | S | | |
| | Lead | Soil | S | S | |
| Ephemeral Pool | Chlordane | Soil | | C,S | C,S |
| | PCB | Soil | | C | C |

Definitions:

IHL = Inhalation
ING = Ingestion
D = Dermal
C = Exhibits carcinogenic effects in exposure route indicated
S = Exhibits systemic noncarcinogenic effects in exposure route indicated
BEHP = Bis(2-ethylhexyl)phthalate
PCB = Polychlorinated biphenyl

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## REFERENCES

U.S. DOE, August 1990. Phase 1 Remedial Investigation Report for the Hanford Site 1100-EM-1 Operable Unit. U.S. Department of Energy, Richland, WA.

U.S. EPA, December 1989. Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual (Part A), Interim Final. EPA/540/1-89/002. U.S. Environmental Protection Agency, Washington, DC.

U.S. EPA, January 1990. Statement of Work RI/FS Risk Assessment Deliverables. U.S. Environmental Protection Agency, Region 10, Seattle, WA.

U.S. EPA, September 1990. Slope Factors for PAHs (American Cross Armory, Chehalis, WA). Memo from Pei-Fung Hurst, Chemical Mixtures Assessment Branch, to Dana Davoli, Environmental Services Division, U.S. Environmental Protection Agency, Region 10, Seattle, WA.

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United States
Environmental Protection
Agency

Region 10
Hanford Project Office
712 Swift Boulevard, Suite 5
Richland WA 99352

EPA

January 16, 1992

Robert K. Stewart
Unit Manager
U.S. Department of Energy
P.O. Box 550, A5-19
Richland, Washington 99352

Re: 1100-EM-1 Risk Assessment

Enclosed please find the additional clarifications requested by the U.S. Department of Energy in regards to the above subject. These clarifications were also informally transmitted to you by cc:Mail. Also transmitted informally was a copy of a Groundwater Risk Assessment for Hanford 1100-EM-1 Operable Unit, Richland, Washington prepared for the U.S. Environmental Protection Agency (EPA) by PRC Environmental Management, Inc. This document is provided to you for information, especially as an example for formatting the revised baseline risk assessment for 1100-EM-1.

If you have any questions, please call me at (509) 376-3883.

Sincerely

David R. Einan
Unit Manager

cc: D. Lacombe, PRC
R. Hibbard, Ecology (w/ Risk Assessment)
W. Greenwald, USACE
Administrative Record, 1100-EM-1

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ATTACHMENT 2

## 1100-EM-1 ON-SITE RESIDENTIAL BASELINE RISK ASSESSMENT ISSUES

What is the role of the Hanford Site Baseline Risk Assessment Methodology (DOE-RL-91-45)? If the residential scenario from DOE-RL-91-45 is used, we should have EPA specify which pathways will be evaluated at each operable subunit.

**EPA RESPONSE**

The 1100-EM-1 residential risk assessment should use the residential scenario and associated pathways presented in the Hanford Site Baseline Risk Assessment Methodology (DOE 1991).

The residential scenario should be used for the 1100-EM-1 operable unit. The residential scenario was originally chosen because 1) it is the most conservative, 2) residences are in close proximity, and 3) industrial zoning is not a permanent remedial solution. In addition, an agricultural worker scenario was not requested because the remedial investigation report (DOE 1990) dealt sufficiently with that type of risk.

Although the agricultural scenario as defined in DOE (1991) is the most conservative, an agricultural scenario does not need to be considered at this time because farm dwellings are not the typical residences in the immediate area.

### 1. GROUNDWATER QUESTIONS:

According to the May 30, 1991, EPA letter, the only groundwater contaminant to be evaluated under an on-site residential scenario is trichloroethene (TCE) at the Horn Rapids Landfill with a residence and water supply well located at MW-12.

a. Will we be considering other potential groundwater contaminants at the Horn Rapids Landfill? At least two additional rounds of groundwater monitoring data are now available. When this information is evaluated it may identify other contaminants of potential concern or may confirm that TCE is not a contaminant of potential concern attributable to the landfill.

b. Do we consider groundwater contaminants related to Siemens/ANF activities? This would be especially important for radionuclides, nitrates, and TCE. If specific radioactive isotopes are not yet available from the sampling, it may be prudent to defer evaluation of such substances until the Phase II

RI rather than make too many conservative assumptions at this time.

c. Do we assume groundwater use despite the fact that city service exists to industrial, commercial, and residential areas in the vicinity of 1100-EM-1?

d. There is a conflict between State law and the suggested location of the residence with respect to the Horn Rapids Landfill. Do we assume the presence of a drinking water well even though WAC 173-160-205(2) does not permit location of such a well within 1000 feet of solid waste landfills? A possibility may be that the site of the potential residence is moved at least 1000 feet from the landfill thus limiting the potential contact with Horn Rapids Landfill contamination by other pathways.

EPA RESPONSE TO ITEM 1

a. The additional rounds of groundwater data should be evaluated. If the data indicate that contaminants other than trichloroethene are of concern (e.g. nitrate), those contaminants should be included in the risk assessment.

b. The risk assessment should consider contaminants related to Siemens/ANF activities because the issue is to understand the potential human health and environmental risks posed by the 1100-EM-1 operable unit irrespective of the original contaminant source. The risk assessment should focus only on chemical contaminants until adequate data is available for radionuclides.

c. The risk assessment should assume groundwater use.

d. The risk assessment should assume a drinking water well is located adjacent to the Horn Rapids Landfill. For an intrusion scenario, 1000 feet will not make much of a difference.

2. EXPOSURE PATHWAYS:

a. Are the residential exposure pathways only those outlined in Section 2, p. 1 of the May 30 letter? Should potential contamination of City of Richland water from groundwater reaching the Columbia River be considered? Where are the activities occurring for the pathways? (e.g., see 4a. and 5a. below)

b. Given the size of the landfill, the restricted area, and the distribution of the potential contaminants, what specific

assumptions should be made regarding access to the landfill by the assumed family located in the residence near the landfill (e.g., if the residence is located at MW-12)?

EPA RESPONSE TO ITEM 2

a. The risk assessment should include the exposure pathways as outlined in EPA (1991a), Section 2, page 1. In addition, the risk assessment should include additional contaminants or exposure pathways if new data indicate the need to do so.

   The risk assessment should consider the impact of groundwater on the Columbia River and the city of Richland well field.

b. Unrestricted access to the landfill should be assumed in the risk assessment because closure cannot be assumed at this time.

3. TOXICITY VALUES:

a. Should we assume that all toxicity values be updated to current values?

b. What RFD and slope factor should be used for lead?

EPA RESPONSE TO ITEM 3

a. Current toxicity values from the Integrated Risk Information System (IRIS) or the Health Effects Summary Tables (HEAST) should be used in the risk assessment.

b. Since no reference dose or slope factor is available for lead, the risk assessment should use the EPA Uptake/Biokinetic Model for determining site-specific risks from exposure to lead (EPA 1991b,c). The model predicts blood lead levels in the most sensitive population (children) via inhalation or ingestion.

4. EXPOSURE PARAMETERS:

What exposure parameters should be used? The May 30, 1991, letter recommends outdated reasonable maximum exposure parameters and does not consider new national standard default exposure parameters recommended in OSWER Directive 9285.6-03, March 25,

1991. In addition, Region-10 now recommends new parameters in the EPA Region 10 Supplemental Risk Assessment Guidance for Superfund, August 16, 1991.

**EPA RESPONSE TO ITEM 4**

Current exposure parameters as specified by EPA headquarters or Region 10 should be used in the risk assessment.

**5. HOME GROWN FRUITS AND VEGETABLES:**

a. Where should gardens be located? Are supposed on-site residences to be placed directly adjacent to the subunits? Are the gardens on the subunits? Since some subunits are small, could all of the subunit be garden thus limiting any regular child exposure to the dirt?

b. What specific fruits and vegetables should be evaluated?

c. What bioaccumulation factors should be used?

**EPA RESPONSE TO ITEM 5**

a. Dwellings should be located adjacent to the subunit.

The Exposure Factors Handbook (EPA 1990) gives the median size of a vegetable garden as 325 square feet (approximately 18 feet by 18 feet). Therefore, assume gardens are also located adjacent to the subunit.

Even if the entire subunit is garden, a child's exposure would not be limited because a garden is not an impermeable cover.

b,c. The following strategy is presented for the selection of fruits and vegetables:

- Three plant categories should be included in the risk assessment: root, fruit, and leafy vegetable.
- The bioaccumulation factor for the contaminants of concern should be determined for the three categories listed above.
- At least one plant from each category should be included in the risk assessment. Additional

plants may be included based on information obtained from Pao, et al. (1982) or other informational sources.

The references below may be useful in locating bioaccumulation factors:

- A Review and Analysis of Parameters for Assessing Transport of Environmentally Released Radionuclides Through Agriculture. C.F. Base, R.D. Sharp, A.L. Sjoreen, and R.W. Shore. ORNL-5786. Oak Ridge National Laboratory. 1984.

- Bioconcentration of Organics in Beef, Milk, and Vegetation. 1988. C.C. Travis and A.D. Arms. Environmental Science and Technology 22: 271-274.

6. CONTAMINANT CONCENTRATIONS:

a. Will the residential scenario consider Model Toxics Control Act definition of surface soils as a depth of 15 ft?

b. Additional soil gas data are available for Horn Rapids Landfill, UN-1100-6, and the South Pit. Should these data be incorporated in the on-site residential risk assessment?

c. Additional soil data are available for Horn Rapids Landfill and the Ephemeral Pool. Should these data be incorporated?

EPA RESPONSE TO ITEM 6

a. The residential scenario should consider the Model Toxics Control Act (Ecology 1991) definition of surface soils as a depth of 15 feet inasmuch as the risk assessment needs to consider accessible soil contaminant concentrations. If it is determined that the site needs cleanup to residential levels, then the surface soil depth of 15 feet should be used in the calculation of cleanup levels.

b. Soil gas surveys are used for field screening. Data generated from soil gas surveys should not be used in the risk assessment.

c. Any available soil data should be evaluated. If the data indicate contaminants are of concern, those contaminants should be included in the risk assessment.

7. TIME OF FUTURE SCENARIO:

When should the residential scenario be applied, (i.e., now, 30 years in the future, etc.)?

EPA RESPONSE TO ITEM 7

- For the purposes of the "residence" located adjacent to the Horn Rapids Landfill, the time period should be now, i.e. use the concentrations found in the well.

REFERENCES

DOE 1990. Phase 1 Remedial Investigation Report for the Hanford Site 1100-EM-1 Operable Unit. DOE/RL-90-18. August 1990. U.S. Department of Energy.

DOE 1991. Hanford Site Baseline Risk Assessment Methodology. Decisional Draft. DOE/RL-91-45. September 1991. U.S. Department of Energy.

Ecology 1991. The Model Toxics Control Act Cleanup Regulations. Chapter 173-340 WAC. Department of Ecology. February 28, 1991.

EPA 1990. Exposure Factors Handbook. EPA 600/8-89/043. U.S. Environmental Protection Agency. March 1990.

EPA 1991a. 1100-EM-1 Remedial Investigation. Letter from Dave Einan, U.S. Environmental Protection Agency. May 30, 1991.

EPA 1991b. Update on OSWER Soil Lead Cleanup Guidance. Office of Solid Waste and Emergency Response. August 29, 1991. U.S. Environmental Protection Agency.

EPA 1991c. User's Guide for Lead: A PC Software Application of the Uptake/Biokinetic Model Version 0.50, First Draft. Environmental Criteria and Assessment Office, Office of Health and Environmental Assessment, U.S. Environmental Protection Agency. January 1991.

Pao, E.M., C.H. Fleming, P.M. Guenther, and S.J. Mickle. 1982. Foods Commonly Eaten by Individuals: Amount Per Day and Per Eating Occasion. Consumer Nutrition Center, Human Nutrition Information Service, U.S. Department of Agriculture, Hyatteville, MD 20782. Home Economics Research Report No. 44. March 1982.

DOE/RL-92-67

**Department of Energy**
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

OCT 30 1991

91-ERB-202

Mr. Paul T. Day
Hanford Project Manager
U. S. Environmental Protection Agency
712 Swift Boulevard, Suite 5
Richland, Washington 99352

Mr. Timothy L. Nord
Hanford Project Manager
State of Washington
Department of Ecology
Mail Stop PV-11
Olympia Washington 99504-8711

Dear Messrs. Day and Nord:

LAND USE/RISK ASSESSMENT FOR THE 1100-EM-1 OPERABLE UNIT (OU)

The purpose of this letter is to inform you that the DOE Field Office, Richland (RL), will comply with direction as provided by your letters regarding a revised baseline risk assessment for the 1100-EM-1 OU as discussed with you earlier. Specifically, we will perform the required risk assessment that evaluates residential and agricultural scenarios as directed by the letter of January 23, 1991, from Mr. Dave Einan, U.S. Environmental Protection Agency (EPA) to Mr. Bob Stewart, RL and the follow-up clarifications contained in the May 30, 1991, letter from Mr. Einan to Mr. Stewart.

Whether to conduct a baseline risk assessment for the 1100-EM-1 OU using residential and agricultural scenarios has been a long term issue. RL continues to believe that neither residential nor agricultural use is reasonably likely in the areas within the OU. Further we do not believe that the risk assessment is necessary nor appropriate under applicable requirements of the National Contingency Plan or regulatory guidance.

Particularly troublesome aspects of the proposed risk assessment are the assumed exposure pathways for groundwater. Neither RL nor Siemens Nuclear Power Corporation (Siemens) believes that there is any reasonable expectation for either residential or agricultural use of the groundwater which may have been influenced by contamination from the Horn Rapids Landfill and/or Siemens. We continue to believe that the risk assessment contained in the completed Remedial Investigation (RI) Phase 1 Report used appropriate Reasonable Maximum Exposure (RME) assumptions.

Notwithstanding our position, to show good faith in providing the requested information and to get on with the scheduled RI/ Feasibility Study (FS), RL will perform a revised baseline risk assessment as discussed in the first paragraph of this letter. However, our agreement to proceed with this assessment is premised on the understanding that we have reached agreement with EPA and the State of Washington Department of Ecology (Ecology) on two points:

1. That RL's performance of a revised baseline risk assessment, which includes evaluation of residential and agricultural scenarios, shall not be viewed as a concession by RL or be used as any evidence that residential or agricultural use of the property or groundwater is reasonable or foreseeable; and

2. That RL has the right under the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) to take to dispute and to obtain dispute resolution of any future regulatory direction to evaluate or investigate remedial alternatives based on assumed residential or agricultural use of the property or groundwater.

Because the EPA has the lead responsibility for the 1100-EM-1 OU, we have discussed these two points with you. We understand that both EPA and Ecology are in agreement with RL. This letter confirms those discussions. If we have misunderstood in any way the agencies' views, please inform us in writing within ten days of the date of this letter.

RL has begun to work on the revised baseline risk assessment. It is expected that the work to perform this assessment can be accomplished in about two months. However, we have not evaluated factors associated with the slightly elevated alpha or beta contamination in the groundwater and this could modify the amount of time required. Work on the assessment for these scenarios will be completed without prejudice to RL's right to express reservations about the accuracy of the assessment and the sufficiency of available data to support a meaningful assessment.

We have discussed with you a proposed procedure to bring any dispute over land use in the 1100-EM-1 OU to early formal Dispute Resolution. We have agreed that RL will provide the revised baseline risk assessment to EPA/Ecology promptly upon its completion. In transmitting the assessment, RL will request regulatory direction regarding the land use scenario(s) on which to base remedial alternatives selection for inclusion in the FS. After you have received the assessment, we request a response to this request as quickly as practicable.

It is our understanding that neither EPA nor Ecology has determined that remedial alternatives must be based in whole or in part on the assumption of residential or agricultural use of the land or groundwater. Thus, a dispute over land use assumptions may not develop. However, if EPA directs RL to develop remedial alternatives based on assumed residential or agricultural use or uses of the property or groundwater, then we will immediately invoke the dispute resolution process under the Tri-Party Agreement for a resolution of the appropriate land use assumptions.

Regarding the land use issue as discussed in the May 30, 1991, letter from Mr. Einan to Mr. Stewart, two technical issues related to the baseline risk assessment were carried forward; i.e., calculation of RME and use of the Golder toxicity screening technique. It is our understanding that these issues have been satisfactorily resolved through informal discussions and exchanges of information among the Unit Managers and respective support contractors. If these issues have not been resolved to your satisfaction, please communicate such to Mr. Stewart.

Should you have any questions about this letter, please call Mr. Bob Stewart on (509) 376-6192.

Sincerely,

Steven H. Wisness
Hanford Project Manager

ERD:RKS

cc:
D. Einan, EPA
L. Goldstein, Ecology
W. Greenwald, USACE
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R. Hibbard, Ecology
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M. Lauterbach, WHC
R. Lerch, WHC
C. Malody, Siemens
T. Nord, Ecology
J. Stewart, USACE
G. Welch, Siemens,
(Law Dept. Bellevue, WA)
T. Wintczak, WHC
S. Woodbury, EH-222
T. Veneziano/L. Powers, WHC
Administrative Record, 1100-EM-1,
H4-22

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Script for Superfund Technical Support Center Questions
on
Tetrachloroethylene, Trichloroethylene and Styrene

Tetrachloroethylene (perchloroethylene, PERC)

The carcinogenicity characterization has a long history. A July 1985 Health Assessment Document for Tetrachloroethylene (Perchloroethylene), EPA # 600/8-82/005F, classified the agent in Weight-of-Evidence Group "C - Possible Human Carcinogen" mentioning that this would be reevaluated because of new information. The 1985 document also provided upper bound inhalation and oral risk estimates. An April 1987 Addendum to the Health Assessment Document, EPA# 600/8-82/005FA, proposed that the Weight-of-Evidence be upgraded to "B2 - Probable Human Carcinogen" and provided a revised inhalation risk estimate. A February 1991 document titled Response to Issues and Data Submissions on the Carcinogenicity of Tetrachloroethylene, EPA# 600/6-91/002A discussed newer data relative to weight-of-evidence classification. The Agency's Science Advisory Board has reviewed these documents finding them to be technically adequate while offering an opinion that the weight-of-evidence is on C-B2 continuum (C=Possible Human Carcinogen, B2=Probable Human Carcinogen). At present time, the Agency has not adopted a final position on the weight-of-evidence classification.

The upper bound risk estimates from the 1985 Health Assessment Document as amended by updated inhalation values from the 1987 Addendum have not as yet been verified by the IRIS-CRAVE Workgroup. The estimates are viewed as useful information in the context of the information available in the 1985-1987 period.

ORAL: 1985 HAD; Unit risk = 1.5E-6 per ug/L

Slope Factor = 5.2E-2 per mg/kg/day

INHALATION: 1987 Addendum; Unit risk = range form 2.9E-7 to 9.5E-7 with a geometric mean of 5.8E-7 per ug/cu.m

Slope factor = 2.0E-3 per mg/kg/day

Those needing to make a choice about carcinogenicity have found the 1985, 1987 and 1991 EPA documents and the 1988 and 1991 Science Advisory Board letters of advice useful background information. When the Agency makes a decision about weight-of-evidence, the CRAVE-IRIS verification will be completed and the information put on IRIS.

Trichloroethylene (TCE)

The current phase of the carcinogenicity characterization for trichloroethylene started with a July 1985 Health Assessment Document for Trichloroethylene, EPA# 600/8-82/006F which classified trichloroethylene in Weight-of-Evidence Group "B2 - Probable Human Carcinogen". Inhalation and oral upper bound risk estimates were provided. This information was verified on IRIS from 3/87 through 7/89. A June 1987 Addendum to the Health Assessment Document for Trichloroethylene, EPA# 600/8-82/006FA proposed that the Weight-of-Evidence finding of "B2" was further supported by newly available animal bioassay data and offered a minor revision to the inhalation upper bound risk estimate. In 1988 the Agency's Science Advisory Board offered an opinion that the weight-of-evidence was on C-B2 continuum (C=Possible Human Carcinogen, B2=Probable Human Carcinogen). The Agency withdrew the IRIS carcinogenicity file in 7/89 and has not adopted a current position on the weight-of-evidence classification.

The quantitative risk estimates provided in the 1985 Health Assessment Document and 1987 Addendum have been reviewed by the IRIS-Crave Workgroup but are not verified as such pending resolution of the weight-of-evidence classification. The upper bound risk values in these documents are as follows:

ORAL: 1985 HAD; Unit Risk = 3.2E-7 per ug/L
Slope Factor = 1.1E-2 per mg/kg/day

INHALATION: 1987 Addendum; Unit Risk = 1.7E-6 per ug/cu.m.
Slope Factor = 6.0E-3 per mg/kg/day

When the Agency adopts a current position on weight-of-evidence classification, the trichloroethylene file will be reentered on IRIS.

# APPENDIX II

# TOXICITY PROFILES

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# 1.0 TOXICITY PROFILES

The purpose of appendix II is to present toxicological information used in the BISRA and BRSRA. Tables II-1 and II-2 present toxicity values for all contaminants evaluated in chapter 2. This appendix provides toxicity profiles for potential contaminants of concern identified at the 1100-EM-1 Operable Unit and carried through the risk assessment. This information supplements information discussed in chapter 4.0. The categories of information include:

- General background information
- Exposure routes
- Acute toxicity
- Chronic toxicity
- Carcinogenicity
- Toxicity values and supporting information.

Data sources for the information provided in the appendix are from EPA documents and standard reference texts. These sources are:

- EPA Integrated Risk Information System (IRIS)
- EPA Health Effects Assessment Summary Tables (HEAST)
- SRC, Toxicological Profile for Individual Compounds, Agency for Toxic Substances and Disease Registry (ATSDR)
- Casarett and Doull's Toxicology, The Basic Science of Poisons (Amdur et al. 1991)
- Patty's Industrial Hygiene and Toxicology (Clayton and Clayton, 1981)
- Threshold Limit Values and Biological Exposure Indices
- 29 CFR 1910.1000
- Recommendations for Occupational Safety and Health Standards.

## 1.1 ANTIMONY

Elemental antimony does not exist naturally in the environment, but is found in small amounts as part of the earth's crust. Antimony has been detected in air, water and soil in varying concentrations. Soil concentrations are usually less than 1 $\mu$g/kg. Concentrations up to 2550 $\mu$g/kg have been found at antimony-processing sites. Antimony at these sites is strongly attached to the soil.

Exposure to antimony can occur through inhalation of antimony-containing particles, ingestion of antimony-containing soils, and ingestion of foodstuffs containing antimony. It is not known if contamination through dermal contact with antimony-containing soils is a route of exposure.

**Table II-1.** Summary of Noncarcinogenic Toxicity Information for Contaminants at the 1100-EM-1 Operable Unit. (sheet 1 of 3)

| Contaminant | ORAL | | | | | | INHALATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Oral Rfd (mg/kg-day) | Oral Rfd (basis/source) | Confidence Level | Critical Effect | Uncertainty Factors | Modifying Factors | Inhalation Rfd (mg/kg-d) | Inhalation Rfd (basis/source) | Confidence level | Critical effect | Uncertainty Factor | Modifying Factor |
| Antimony | 4E-4 | Water/IRIS | low | longevity, blood gluc. | 1,000 | 1 | - | - | - | - | - | - |
| Arsenic | 3E-4 | Food/IRIS | medium | hyperpigmentati on keratosis | 3 | 1 | - | - | - | - | - | - |
| Barium | 7E-2 | Water/IRIS | medium | incr. blood press | 3 | 1 | 1E-4 | HEAST | - | - | 1,000 | - |
| Beryllium | 5E-3 | Water/IRIS | - | none observed | 100 | 1 | - | - | - | - | - | - |
| Cadmium | 1.0E-03 | Food/IRIS | high | significant proteinuria | 10 | 1 | - | - | - | - | - | - |
| Chromium VI | 5E-3 | Water/IRIS | low | none | 500 | 1 | - | - | - | - | - | - |
| Cobalt | 6E-02 | EPA Region 10 | - | - | - | - | - | - | - | - | - | - |
| Copper | 4E-02 | EPA Region 10 | - | GI irritation | - | - | - | - | - | - | - | - |
| Lead | ND | - | - | - | - | - | ND | - | - | - | - | - |
| Manganese | 1E-1 | Food/IRIS | medium | CNS effects | 1 | 1 | 1.1E-04 | IRIS | - | CNS and resp. symptom | 300 | 3 |
| Mercury (in organic) | 3E-4 | HEAST | - | kidney effects | 1,000 | - | 8.5E-05 | HEAST | - | - | 30 | - |
| Nickel | 2E-2 | Food/IRIS | medium | decrease body + organ weight | 300 | 1 | - | - | - | - | - | - |
| Selenium | 5.3E-3 | IRIS | - | hair + nail loss | 3 | 1 | - | - | - | - | - | - |
| Silver | 5E-3 | I.V./IRIS | low | argyria | 3 | 1 | - | - | - | - | - | - |
| Thallium | 7E-5 | -/IRIS | - | SGOT and serum LDH level | 3,000 | - | - | - | - | - | - | - |

**Table II-1.** Summary of Noncarcinogenic Toxicity Information for Contaminants at the 1100-EM-1 Operable Unit. (sheet 2 of 3)

| Contaminant | ORAL | | | | | | INHALATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Oral Rfd (mg/kg-day) | Oral Rfd (basis/source) | Confidence Level | Critical Effect | Uncertainty Factors | Modifying Factors | Inhalation Rfd (mg/kg-d) | Inhalation Rfd (basis/source) | Confidence level | Critical effect | Uncertainty Factor | Modifying Factor |
| Vanadium | 7E-3 | Water/HEAST | - | none | 100 | - | - | - | - | - | - | - |
| Zinc | 2E-1 | HEAST | - | anemia | 10 | - | - | - | - | - | - | - |
| BEHP | 2E-2 | IRIS | low | liver weight | 1000 | 1 | - | - | - | - | - | - |
| Beta-HCH (Hexachlorocyclo-hexane) | - | - | - | - | - | - | - | - | - | - | - | - |
| Chlordane | 6E-5 | Food/IRIS | low | liver hypertrophy in mice | 1,000 | 1 | - | - | - | - | - | - |
| Chlorobenezene | 2E-2 | Food/IRIS | medium | liver changes | 1,000 | 1 | 5E-3 | HEAST | - | liver, kidney effects | 10,000 | - |
| Cyanide | 2E-2 | Food/IRIS | medium | weight loss, thyroid effect, myelin deg. | 100 | 5 | - | - | - | - | - | - |
| DDT | 5E-4 | Food/IRIS | medium | liver lesions | 100 | 1 | - | - | - | - | - | - |
| Endosulfan II | 5E-5 | Diet/IRIS | medium | kidney toxicity | 3,000 | 1 | - | - | - | - | - | - |
| Endrin | 3E-4 | Diet/IRIS | low | mild changes liver | 100 | 1 | - | - | - | - | - | - |
| Heptachlor | 5E-4 | Food/IRIS | low | liver weight | 300 | 1 | - | - | - | - | - | - |
| 2-Hexanone | - | - | - | - | - | - | - | - | - | - | - | - |
| Naphthalene | 4.0E-02 | Gavage/HEAST | medium | decreased weight | 1,000 | - | - | - | - | - | - | - |
| PCBs | - | - | - | - | - | - | - | - | - | - | - | - |
| Tetrachloroethene | 1E-2 | Gavage/IRIS HEAST 1991 | medium | hepatotoxic in mice, weight gain rat | 1,000 | 1 | - | - | - | - | - | - |

**Table II-1.** Summary of Noncarcinogenic Toxicity Information for Contaminants at the 1100-EM-1 Operable Unit. (sheet 3 of 3)

| Contaminant | ORAL | | | | | | INHALATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Oral Rfd (mg/kg-day) | Oral Rfd (basis/source) | Confidence Level | Critical Effect | Uncertainty Factors | Modifying Factors | Inhalation Rfd (mg/kg-d) | Inhalation Rfd (basis/source) | Confidence level | Critical effect | Uncertainty Factor | Modifying Factor |
| 1,1,1-Trichloroethane | 9E-2 | Oral/HEAST | - | - | 1,000 | - | 3E-01 | Oral/HEAST | - | - | 1,000 | - |
| Trichloroethane | - | - | - | - | - | - | - | - | - | - | - | - |

Sources: Integrated Risk Information System Access: March 1992a
Health Effects Assessment Summary Tables (1992b) unless otherwise indicated
ND Not Determined
- Not Available

**Table II-2.** Summary of Carcinogenic Toxicity Information for Contaminants at the 1100-EM-1 Operable Unit. (sheet 2 of 3)

| Contaminant | Weight of Evidence Classification | Type of Cancer | Oral SF $(mg/kg\text{-}d)^{-1}$ | Oral SF (source) | Inhalation SF $(mg/kg\text{-}d)^{-1}$ | Inhalation SF (source) |
|---|---|---|---|---|---|---|
| Beta-HCH (Hexachlorocyclo-hexane) | C | - | 1.8E+0 | IRIS | 1.8E+0 | IRIS |
| Chlordane | B2 | - | 1.3E+0 | IRIS | 1.3E+0 | IRIS |
| Chlorobenezene | - | - | - | - | - | - |
| Cyanide | - | - | - | - | - | - |
| DDT | B2 | - | 3.4E-1 | IRIS | 3.4E-1 | IRIS |
| Endosulfan II | - | - | - | - | - | - |
| Endrin | - | - | - | - | - | - |
| Heptachlor | B2 | - | 4.5E+0 | IRIS | 4.5E+0 | IRIS |
| 2-Hexanone | - | - | - | - | - | - |
| Naphthalene | - | - | - | - | - | - |
| PCBs | B2 | - | 7.7E+0[a] | IRIS | 7.7E+0[b] | Surrogate |
| Tetrachloroethene | B2[c,d] | - | 5.2E-2 | Region-10[c] | 2E-03 | Region-10[c] |
| 1,1,1-Trichloroethane | - | - | - | - | - | - |

**Table II-2.** Summary of Carcinogenic Toxicity Information for Contaminants at the 1100-EM-1 Operable Unit. (sheet 1 of 3)

| Contaminant | Weight of Evidence Classification | Type of Cancer | Oral SF $(mg/kg\text{-}d)^{-1}$ | Oral SF (source) | Inhalation SF $(mg/kg\text{-}d)^{-1}$ | Inhalation SF (source) |
|---|---|---|---|---|---|---|
| Antimony | - | - | - | - | - | - |
| Arsenic | A | Skin, Lung | 1.75E+0[a] | Surrogate | 5.0E+1 | IRIS/HEAST |
| Barium | - | - | - | - | - | - |
| Beryllium | B2 | - | 4.3E+00 | IRIS | 8.4 | HEAST |
| Cadmium | B1 | - | ND | - | 6.1E+0 | IRIS/HEAST |
| Chromium VI | A | Lung | ND | - | 4.1E+01 | IRIS/HEAST |
| Cobalt | - | - | - | - | - | - |
| Copper | - | - | - | - | - | - |
| Lead | B2 | - | ND | - | ND | - |
| Manganese | - | - | - | - | - | - |
| Mercury (in organic) | - | - | - | - | - | - |
| Nickel | A | Lung | - | - | 8.4E-1 | IRIS |
| Selenium | - | - | - | - | - | - |
| Silver | - | - | - | - | - | - |
| Thallium | - | - | - | - | - | - |
| Vanadium | - | - | - | - | - | - |
| Zinc | - | - | - | - | - | - |
| BEHP | B2 | - | 1.4E-02 | IRIS | 1.4E-02[c] | Surrogate |

**Table II-2.** Summary of Carcinogenic Toxicity Information for Contaminants at the 1100-EM-1 Operable Unit. (sheet 3 of 3)

| Contaminant | Weight of Evidence Classification | Type of Cancer | Oral SF $(mg/kg\text{-}d)^{-1}$ | Oral SF (source) | Inhalation SF $(mg/kg\text{-}d)^{-1}$ | Inhalation SF (source) |
|---|---|---|---|---|---|---|
| Trichloroethene | B2[c,d] | | 1.1E-02 | Region-10[c] | 6.0E-03 | Region-10[c] |

[a]Based on proposed arsenic unit risk of 5E-05 $\mu g/L$ (EPA 1991)
[b]Surrogate; assumed same as oral SF
[c]As recommended by Superfund Technical Support Center, April 1992 (EPA-10, Personal Communication)
[d]Weight of evidence classification under review
ND Not determined
- Not available
Sources: Integrated Risk Information System Access: March 1992a
Health Effects Assessment Summary Tables (1992b unless otherwise indicated)

Antimony has been used in medical treatments for persons infected with parasites. Exposure to antimony for prolonged periods can cause eye, skin, and respiratory irritations. Other reported antimony-related symptoms include heart problems, vomiting, and diarrhea. The carcinogenicity and teratogenicity of antimony are currently unknown. High concentrations have caused animal mortality but it is not known if this would occur in humans. Human health effects (heart problems and stomach ulcers) have been observed following exposure to airborne antimony at a concentration of 2 $mg/m^3$ for 8 to 24 months. Lung, eye, and skin irritations were present following 9 years of exposure to 9 $mg/m^3$ of antimony.

Data from acute exposure indicate that the gastrointestinal (GI) tract is a target organ following inhalation of antimony. Respiratory and cardiovascular effects also occur, but at exposure levels lower than those associated with gastrointestinal effects. The GI tract is also targeted following oral exposure to antimony. There is no information on target organs following dermal exposures.

Chronic exposure to antimony indicates that the respiratory tract, heart, eyes, and skin are target organs. There is no evidence of increased cancers due to chronic airborne antimony exposure by humans. Studies have shown that chronic oral exposures result in accumulation of antimony in the liver and GI tract. No dermal cancer studies were located in the literature.

The EPA has set an oral chronic reference dose (RfD) of 4E-04 mg/kg-d (IRIS) for antimony with an uncertainty factor of 1000. The RfD confidence is low due to a lack of adequate oral exposure investigations. The critical effects in humans include altered blood chemistry, reduced longevity and changes in the blood glucose level.

The Occupational Health and Safety Administration (OSHA) has set a limit of 0.5 $mg/m^3$ of antimony in workroom air during an 8 hour time-weighted average (TWA). The National Institute of Occupational Health and Safety (NIOSH) recommends an identical limit. The American Conference of Governmental Industrial Hygienists (ACGIH) has a Threshold Limit Value (TLV) of 0.5 $mg/m^3$.

## 1.2 ARSENIC

Arsenic is a common element found in the earth's crust usually in the form of arsenic bearing minerals. It is difficult to characterize as a single element because its chemistry is very complex. Elemental (metallic) arsenic is a relatively non-toxic steel gray metal which is fairly rare in nature. Trivalent and pentavalent forms are widely distributed in nature as both inorganic and organic compounds. The trivalent form is more toxic than the pentavalent form, and the inorganic is typically more toxic than the organic form which is rapidly eliminated. Soil levels range from 1 to 50 mg/kg, but are usually less than 10 mg/kg. In the soil, compounds revert to arsenates which are held by clay soils and are not readily available for plant uptake. Arsenic compounds have found use as pesticides, herbicides, wood preservatives, pigments, and medicinal agents.

Depending on the chemical species, arsenic can be toxic via all routes of exposure. Acute arsenic poisoning is usually the result of homicidal, suicidal, or accidental ingestion of inorganic arsenical. Arsenic is well absorbed from the gastrointestinal tract. Symptoms include constriction of the throat, stomach pain, vomiting, fever, cardiac disturbances, and watery diarrhea usually within 4 h of exposure. If the amount is sufficiently high (100 to 200 mg), death as a result of severe fluid loss and shock may occur within 24 to 48 h. Toxicity in humans and animals results from the interaction of arsenic with sulfhydryl groups in essential proteins.

Chronic exposures can produce toxic reactions in the skin, mucous membranes, gastrointestinal tract (GI) tract, and central nervous system (CNS). Peripheral vascular disease (gangrene) related to a cumulative effect can occur. Liver injury has also been associated with chronic exposure. Arsenic has a predilection for skin and concentrates in hair and nails. Long term exposure to arsenic compounds can result in hyperpigmentation, hyperkeratosis (thickening, drying, and cracking of the skin and growth of warts), and skin cancer. Skin cancer has been primarily associated with ingestion of drinking water containing high levels of arsenic. Chronic exposure through inhalation of arsenic compounds can produce weakness, loss of appetite, nausea, occasional vomiting and diarrhea, and lung cancer.

The oral RfD for arsenic provided in HEAST is 3E-04 mg/kg-d and the adverse effects of concern are keratosis and hyperpigmentation. Arsenic is a confirmed human carcinogen (EPA weight-of-evidence-classification Group A) known to produce lung cancer from inhalation and skin cancer from ingestion of drinking water. The inhalation slope factor (SF) listed in IRIS is 5.0E+01 $(mg/kg\text{-}d)^{-1}$ and based on excellent exposure assessment, using air monitoring and some biomonitoring, in large populations of smelter workers. The carcinogenic risk associated with ingestion of inorganic arsenic has been the focus of much debate. A mean unit risk of 0.00005 $(ug/L)^{-1}$ has been recommended by EPA (IRIS, EPA 1992). The unit risk is defined as the risk associated with a lifetime consumption of inorganic arsenic in drinking water. Applying standard exposure assumptions, this unit risk corresponds to an estimated oral slope factor of 1.75 $(mg/kg\text{-}d)^{-1}$. This proposed value, reflecting the most recent opinions regarding the mechanism of action of ingested inorganic arsenic, is used to assess the carcinogenic oral exposure to arsenic. The unit risk is based on human studies showing a definite dose-response relationship between the consumption of drinking water and the development of skin cancer.

Recommended occupational air exposure limits of arsenic are also available. The ACGIH has established a TWA TLV of 0.2 $mg/m^3$ (as arsenic) for arsenic and soluble compounds, in situations other than the production of arsenic. OSHA has established a TWA permissible exposure limit (PEL) of 0.1 $mg/m^3$ for inorganic arsenic (29 CFR 1910.1018). The National Institute for Occupational Safety and Health (NIOSH) recommended exposure limit (REL) is 0.002 $mg/m^3$.

## 1.3 BARIUM

Barium is a silvery-white metal that occurs in nature in many different forms. It is found naturally in drinking water and food. Barium and barium compounds are commonly used in various industries and in human health care. For example, barium carbonate, barium chloride and barium hydroxide are used to make ceramics, pesticides and additives for oil and fuels. Barium sulfate is used by medical doctors for medical tests and X-ray photography. There is limited quantitative information regarding the extent of barium absorption following inhalation, oral or dermal exposure; however, as with other metals, barium is probably very poorly absorbed from gastrointestinal tract.

Occupational studies of workers exposed to barium dust have shown that workers have developed "baritosis". Affected workers did not show any clinical symptoms except a significantly higher incidence of hypertension (*i.e.*, high blood pressure). The most commonly observed cardiovascular effects in cases of acute ingestion of barium compounds are hypertension and abnormalities in heart rhythm, while respiratory weakness and paralysis is observed in cases of acute ingestion of barium salts by humans. Acute exposure in rats indicates a lethal $dose_{50}$ ($LD_{50}$) of 132 mg/kg-d for adult rats and 220 mg/kg-d for weanlings.

The EPA has set an RfD of 0.05 mg/kg-d for chronic oral exposures. Confidence in the oral RfD is medium. Increases in blood pressure have been observed as a critical effect in oral exposure studies. An inhalation RfD of 1E-04 mg/kg-d was derived by the EPA based on a short-term reproductive study in rats. This RfD is under review and subject to change as indicated in HEAST. There are no reliable data at present regarding the carcinogenicity of barium.

## 1.4 BERYLLIUM

Beryllium occurs in nature in rocks, soils and volcanic dust. It does not occur in its elemental form naturally. Beryllium compounds vary in water solubility. A major portion of beryllium will bind to soil and is not likely to migrate deeper into the ground and groundwater.

The primary exposure routes for beryllium are inhalation and ingestion. The dermal route is a minor one. Most ingested beryllium (>99 percent) is excreted. Inhaled beryllium that enters the lungs remain there for an extended period of time (months to years). Beryllium contact with open wounds can cause rashes or ulcers. Acute airborne exposure to beryllium can result in lung damage similar to pneumonia. Hypersensitivity to beryllium can also result from exposures. Chronic exposure at levels permitted under OSHA may result in lung damage to some workers.

The EPA has set an oral RfD of 5E-03 mg/kg-d (IRIS) with an accompanying uncertainty factor of 100. The confidence is low due to limited toxicity data by the oral route. There are no toxic effects reported for the reference dose. Beryllium is a B2 (probable) human carcinogen. The human epidemiology studies are considered inadequate. The oral slope factor (SF) for beryllium is 4.3E+00 $(mg/kg\text{-}d)^{-1}$ (IRIS) based on water

ingestion, and the inhalation SF is 8.4E+00 $(mg/kg\text{-}d)^{-1}$ (IRIS). Both slope factors were derived from experimental animal exposures to beryllium sulfate and other beryllium compounds. Lung and bone cancer are the most common cancers associated with beryllium exposure.

Airborne 8 hour TWA workplace exposures have been set as follows: OSHA, 0.002 $mg/m^3$; NIOSH, Ca (carcinogen)-lowest feasible concentration is 0.00005 $mg/m^3$; ACGIH, 0.002 $mg/m^3$.

## 1.5 BIS (2-ETHYLHEXYL)PHTHALATE

Bis (2-ethylhexyl)phthalate (BEHP) is a chemical used to make plastics more flexible. This compound is a constituent of numerous products including rainwear, flooring, shower curtains, and medical tubing. This substance and other phthalate-ester plasticizers have been found to be general contaminants in virtually all soil and water ecosystems. Insoluble phthalate esters complex with fulvic acid components of humic substances in soil. Fulvic acid functions as a solubilizer for the phthalates and thus serves to mediate the mobilization and transport of phthalates in soil and water. The widespread occurrence of phthalates such as BEHP has produced concern regarding their toxicity.

BEHP is well absorbed orally and there is evidence of some absorption through the dermal and inhalation routes of exposure. Acute toxicity is low by all routes of exposure. No effects have been observed from a single 5,000 mg oral dose in humans while 10,000 mgs produced only some gastrointestinal distress.

Animal studies indicate the liver and testes are target organs for adverse effects from chronic exposure to BEHP. This compound has also been reported to affect male and female reproductive capacity and oral ingestion has produced birth defects in laboratory animals. The chronic oral RfD is 2E-02 (mg/kg-d). A 1953 study is cited by IRIS in which the observed critical effect was an increase in relative liver weight. Confidence in the RfD is low to medium. Although sufficient numbers of animals were tested and multiple endpoints measured, only two dosages were utilized for less than lifetime exposures to determine RfD. Corroborating chronic animal bioassays, however, do support this RfD.

BEHP is considered to be a probable human carcinogen (EPA B2 classification) based on a 1982 National Toxicology Program (NTP) oral study in animals. A statistically significant, dose-dependent increase in liver tumors was observed in male and female mice and female rates receiving BEHP in food. The oral SF listed in IRIS is 1.4E-02 $(mg/kg\text{-}d)^{-1}$. A potential source of variation in the NTP study that could effect the slope factor in the use of an intake based on standard food consumption rates rather than administration of a known dose. Evidence for carcinogenicity of BEHP in exposed human populations is inadequate.

The ACGIH recommended TLV-TWA for BEHP is 5 $mg/m^3$ and a TLV short-term exposure limit (STEL) of 10 $mg/m^3$. The NIOSH REL is reduction of the exposure to the lowest feasible concentration because of the cancer-causing potential of BEHP. The OSHA PEL for BEHP is 5 $mg/m^3$.

## 1.6 CHLORDANE

Chlordane is man-made chemical used prior to 1983 as an agricultural pesticide and until 1988 for termite control. It is a multicomponent mixture with alpha- and gamma-chlordane as the primary components. Exposure to chlordane is possible via all routes including inhalation, ingestion, and dermal absorption. Chlordane is extremely persistent in the environment and can be toxic to wildlife.

In humans, acute toxicity from inhaling high concentrations of chlordane vapors is manifested as headache, irritation, confusion, and gastrointestinal complaints. Similar adverse effects have occurred after dermal contact and heavily contaminated soil for several hours. Suicidal or accidental ingestion of large quantities of chlordane have produced liver damage, seizures, and death. The acute lethal dose in man is not known, but has been estimated to be 25 to 50 mg/kg by ingestion.

Chronic toxic effects have not been identified in workers who produced or used chlordane. The critical effects in a 1983 chronic feeding study in rats was regional liver hypertrophy in female rats. Based on this study, the EPA oral RfD reported in IRIS is 6E-05 (mg/kg-d). Confidence in this RfD, however, is low. The database lacks adequate reproductive studies, testing in multiple mammalian species, and inadequate assessment of sensitive endpoints. Chlordane is known to biaccumulate in body fat with chronic exposure.

The EPA classifies chlordane as a B2 probable human carcinogen. Results of a 1977 National Cancer Institute (NCI) study indicate a significant dose-response increase in liver tumors in mice. These data are supported by additional animal studies. However, evidence from human studies to document the carcinogenicity of chlordane is insufficient. An oral SF for chlordane of 1.3E+00 $(mg/kg\text{-}d)^{-1}$ is reported in IRIS. The inhalation SF published in IRIS is 1.3E+00 $(mg/kg\text{-}d)^{-1}$.

The OSHA established TWA-PEL for chlordane is 0.5 $mg/m^3$ with a recommendation to protect skin in order to limit dermal absorption of chlordane. This occupational exposure limit is the same as that recommended by NIOSH and the ACGIH.

## 1.7 CHROMIUM

Elemental chromium does not exist naturally in the environment, but is found primarily as a part of chromite ore. In compounds, this element exists in one of three valence states, +2, +3, or +6. The trivalent form is an essential human micronutrient involved in carbohydrate metabolism. Adverse effects have not been associated with the trivalent form. The hexavalent form is important industrially (typically in the form of chromates) and has been associated with serious toxicities.

Hexavalent chromium is mobile in soil, but under aerobic and acidic soil conditions, it is reduced to trivalent chromium which readily precipitates with carbonates, hydroxides, and sulfides in the soil. Hexavalent chromium is toxic to plants; however, plants actually

tolerate relatively high levels of chromium in the soil and do not bioaccumulate significant amounts.

Human toxicity has been associated with hexavalent chromium by all routes of exposure. Hexavalent chromium is irritating and short-term high exposures can result in adverse effects at the site of contact, whether it is the skin, GI tract, or respiratory tract. Such contact can result in coughing, wheezing, irritation and perforation of the nasal mucosa, and pulmonary edema. Kidney and liver damage have also been associated with acute exposures. Hexavalent chromium is a potent sensitizer causing allergic reactions in the lungs, nasal passages, and skin. Long term exposure to airborne hexavalent chromium higher than natural background levels is known to produce lung and respiratory tract cancer in humans.

The EPA has determined the oral RfD for hexavalent chromium as 5E-03 mg/kg-d (IRIS) based on a drinking water study in rats. The confidence in this RfD is low and no critical effects were observed because of poor study design.

Hexavalent chromium is classified by EPA as a known human carcinogen (weight-of-evidence classification is Group A) by inhalation exposure. A number of studies, cited in IRIS, demonstrate dose-response relationships between hexavalent chromium exposure, and lung tumor production. The inhalation SF is 4.1 E+01 $(mg/kg\text{-}d)^{-1}$. No evidence exists to indicate that chromium is carcinogenic by the oral route.

Occupational air exposure limits for chromium are based on the toxicities associated with different forms. For carcinogenic forms of hexavalent chromium, the NIOSH TWA recommendation is 0.001 $mg/m^3$. The OSHA Permissible Exposure Level (PEL) for chromium metal is 1 $mg/m^3$, and the Immediately Dangerous to Life or Health (IDLH) level is 500 $mg/m^3$.

## 1.8 COPPER

Copper is a naturally occurring metal in rock, soil, water, sediment, and air. It also occurs in plants and animals. Copper compounds are not easily removed from the environment. Copper is an essential element for all known living organisms and is important for iron utilization in humans.

Exposure to copper can occur through the inhalation, ingestion, and dermal routes. Copper in concentrations over 1 mg/L has been found in household water supplies that utilize copper pipes. Dietary intakes of naturally occurring copper-containing foods amount to about 1 mg/day.

Acute copper exposure by ingestion can cause vomiting and diarrhea. The copper is excreted after several days. It is unknown how much exposure by inhalation and dermal routes occurs. Chronic exposure to high concentrations of copper can cause eye, nasal and oral irritations, headaches, dizziness and diarrhea. Liver and kidney damage can occur following high intakes of copper. Copper exposure is not known to cause cancer.

Workers exposed to airborne copper experienced respiratory irritation, hepatomegaly (enlargement of the liver), and ocular mucosal irritation. Metal fume fever has been associated with exposure to copper fumes. Gastrointestinal effects include anorexia, nausea, and occasional diarrhea.

An interim oral RfD of 4.0E-02 mg/kg-d has been recommended for copper by the EPA. Gastrointestinal irritation is the critical effect associated with copper exposure. Copper is not classified as a carcinogen.

The OSHA, NIOSH, and ACGIH occupational exposure limit is 1 $mg/m^3$ as copper dust.

## 1.9 DDT

DDT is a synthetic chemical produced for control of pests on crops and control of insects that act a vectors for diseases such as malaria and typhus. The abbreviation stands for 1,1,1-trichloro-2,2-bis-(p-chlorophenyl)ethane. It was one of the most widely used pesticides in the world. Technical DDT is primarily composed of three forms (p,p'-DDT, o,p'-DDT and o,o'-DDT), which are white, crystalline, tasteless and almost odorless solids. In addition, 1,1-dichloro-2,2-bis(p-chlorophenyl)ethylene (DDE) and 1,1-dichloro-2,2-bis (p-chlorophenyl)ethane (DDD) are found as contaminants and degradation products in technical DDT. DDT and its metabolites are persistent in the environment, bioaccumulate through the food chain and have been detected in human adipose tissues. The presence of DDT in the environment is generally as a result of past use of the insecticide and subsequent movement from sites of application to land, water and air.

The central nervous system is a major target organ in humans and animals; the liver is also a major target organ in animals. Occupational exposure by inhalation, skin absorption and dermal contact with liquid forms of DDT have shown some CNS effects such as cold moist skin, hypersensitivity to contact, tremor, and convulsions. The acute oral exposure in mice indicates lethal $dose_{50}$ ($LD_{50}$) that range from 237 to 325 mg/kg and in rats the $LD_{50}$ range from 113 to 800 mg/kg. Doses as high as 285 mg/kg have been ingested accidentally by humans with no fatal results.

Chronic exposure of experimental animals to DDT is associated with tremors and general hyperirritability. In one human study, DDT exposure for 12 to 18 months at 0.61 mg/kg have induced hepatic, hematological and cardiovascular responses. The EPA has set an oral RfD of 0.0005 mg/kg and slope factors of 0.34 $(mg/kg\text{-}day)^{-1}$ for both oral and inhalation exposures (HEAST). DDT is classified as probable human carcinogen by EPA weight-of-evidence classification (Group B2) based on positive cancer findings in animal studies.

The OSHA occupational exposure limit TWA is 1 $mg/m^3$ with indication for potential dermal absorption. NIOSH regards DDT as a potential carcinogen and recommended the exposure limit of 0.5 $mg/m^3$. ACGIH recommended TWA for DDT of 1 $mg/m^3$.

## 1.10 HEPTACHLOR

Heptachlor is a synthetic chemical produced as a component of the pesticide chlordane (approximately 10 percent by weight). Heptachlor is metabolized to heptachlor epoxide by humans, animals and bacteria in the environment. The EPA has banned the use of heptachlor as an insecticide for crops, for homes and buildings; however, it is still approved to kill fire ants in power transformers.

Human exposure to heptachlor or heptachlor epoxide commonly occurs by ingestion of contaminated water or food, and may occur by inhalation and skin absorption. The target organ affected by heptachlor and heptachlor epoxide are the central nervous system and the liver (seen as changes in the enzymes and cells).

In humans, signs of neurotoxicity (irritability, salivation, lethargy, dizziness, labored respiration, muscle tremors, and convulsions) are seen following exposure to technical grade chlordane which contains between 6 to 30 percent heptachlor. However, these effects can not be attributed solely to heptachlor. Heptachlor and heptachlor epoxide have long half-lives and because they are lipophilic, they bioaccumulate in the adipose (fat) tissues. Measurable levels of heptachlor and heptachlor epoxide have been detected in breast milk and serum without evidence of adverse health effects. Acute exposure in rodents and rabbits indicate lethal $dose_{50}$ ($LD_{50}$) that range from 40 to 162 mg/kg for heptachlor and 39 to 144 mg/kg for heptachlor epoxide.

The EPA has set an oral RfD of 0.0005 mg/kg and a slope factor of 4.5 $(mg/kg\text{-}day)^{-1}$ for both oral and inhalation exposures (IRIS). Heptachlor is classified as probable human carcinogen by EPA weight-of-evidence classification (Group B2) based on positive cancer findings in animal studies.

Both OSHA and the NIOSH recommended occupational exposure on TWA basis of 0.5 $mg/m^3$. Only NIOSH regarded heptachlor as potential human carcinogen. The dermal absorption is likely and should be prevented as necessary. The ACGIH TWA for heptachlor is also 0.5 $mg/m^3$.

## 1.11 Beta-HEXACHLOROCYCLOHEXANE

Beta-Hexachlorocyclohexane (HCH) is a synthetic chemical that exists in eight isomers. All HCH isomers are solids at room temperature. Gamma-HCH, commonly called lindane, has been used a an insecticide on fruit vegetable and other crops, and to treat head and body lice in humans. The general population can be exposed to lindane, alpha-, beta-, and delta-HCH in the air surrounding heptachlor manufacturing plants or agricultural fields where the pesticide is used, and through ingestion of contaminated food and water. Production of lindane in the U.S. was prohibited by 1976, and none of the isomers are currently produced in the U.S. It is currently imported from France, Germany, Japan and China. The primary health effects associated with exposure to HCH are hematological, hepatic, renal, immunological, neurological, reproductive and cancer.

Most available information in the literature is for the health effects of lindane or gamma-HCH. Typically, humans are not exposed to the individual isomers of HCH but to gamma-HCH or to technical-grade HCH which contains several HCH isomers. In rats hematological effects, specifically reduced numbers of red and white blood cells, were observed in rats fed beta-HCH in diet for 13 weeks.

The EPA has set a SF of $(1.8\ mg/kg\text{-}d)^{-1}$ for inhalation exposure (IRIS). It is classified as possible human carcinogen (Group C) since there is a limited evidence of carcinogenicity in animals, and no published human data is available.

Both OSHA and the NIOSH recommended exposure limits TWA of 0.025 $mg/m^3$ for gamma-hexachlorocyclohexane. The ACGIH determines exposure limit TWA of 0.5 $mg/m^3$. Skin precautions are also recommended to prevent dermal absorption.

## 1.12 LEAD

Lead is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. It is widely distributed in the environment, and can be transported long distances. Anthropogenic sources of lead come from gasoline additives, various metal products, ammunition, paint, and storage batteries. The biggest single source of lead in air is from automobile exhaust. Oral exposure occur from ingestion of contaminated food and beverages, in addition to incidental soil ingestion.

Acute exposure data for inorganic lead inhalation are not available. The reported lethal concentration$_{50}$ ($LC_{50}$) in rats for inhalation of tetramethyl and tetraethyl lead are 8,870 and 850 $mg/m^3$, respectively.

Children and pregnant women are the most sensitive populations to chronic effects from lead exposure. In children lead exposure is associated with frequent ingestion of dirt (pica) and inhalation of household dust from crawling and playing on floors. The effects of such exposure are reported as a decrease in IQ, neurobehavior impairment and hearing problems. Excessive exposures can result in serious neurological effects including changes in brain function (encephalopathy) which may progress to coma. The mortality rate for untreated lead encephalopathy in children was approximately 65 percent prior to the introduction of chelation therapy.

Transplacental transfer of lead from mother to fetus in humans has been demonstrated in several studies. This transfer can result in nervous system damage or changes. Lead also interferes with heme biosynthesis by altering the activity of three aminolevulinic acid (ALAD) enzymes. The result is a reduction of hemoglobin concentration in blood (anemia).

Although EPA has classified lead as a B2 carcinogen (probable human carcinogen based on adequate animal studies) there are no Agency-verified toxicological values that can be used to perform a risk assessment and to develop protective soil cleanup levels for lead. Studies relating soil lead to blood lead levels are difficult to compare. However, EPA has

recommended soil criteria for lead, as an interim guideline (EPA, 1989b) of 500 to 1,000 ppm total lead to be protective of sensitive populations.

## 1.13 NICKEL

Nickel is a naturally occurring metal found in the earth's crust. Nickel can also be found in wind-blown soil. Many nickel compounds are water-soluble, causing the water to have a green color. Nickel is released into the environment during metal working processes, and incineration and power production. Nickel will settle into the soil where it has an affinity for iron- or manganese-containing particles. Under acidic conditions, nickel may migrate into groundwater. Nickel does not appear to bioaccumulate in fish or plants. Food naturally contains nickel, and adult dietary intake of nickel is estimated to be in the range of 300 - 600 $\mu$g/day.

Exposure routes for nickel include inhalation, ingestion and dermal contact. Inhaled particles can enter the bloodstream, if small, or remain in the lungs if large. Ingested nickel will enter the body through the stomach and intestines. Small amounts of nickel can enter the bloodstream through dermal contact. The kidneys are the primary target organ. Nickel is excreted through feces and to a lesser extent through urine. Excretion is nearly completed in 4 to 5 days.

Exposure to nickel has been shown to cause lung and nasal sinus cancers. The heart, blood, and kidneys have also been shown to be effected by exposure to nickel. Dermal exposures can result in skin rashes and asthma. Allergic contact dermatitis from exposure to nickel is common in persons in the general population. Nickel's reproductive effects are unknown.

The EPA has established an oral RfD of 2E-02 mg/kg-d (IRIS) based on food consumption. Decreased body and organ weights have been reported as the critical effects of nickel exposure. An inhalation RfD has not been determined. There is inadequate evidence for carcinogenicity by the oral route to support the establishment of an oral SF.

Airborne occupational exposure limits are: OSHA, 0.1 mg/m$^3$ for soluble compounds and 1 mg/m$^3$ for insoluble compounds; NIOSH, 0.015 mg/m$^3$, based on a determination that nickel refinery dust is a carcinogen; ACGIH, 1 mg/m$^3$ for both soluble and insoluble compounds. The ACGIH is currently reviewing its limits.

## 1.14 NITRATE

As a class, nitrate compounds are a variety of chemicals used as explosives, medications, dyes, food additives, and as numerous other industrial products. Nitrate occurs naturally, and the majority of dietary intake is from vegetables. The dietary contribution from drinking water is usually quite small. The nitrate form of nitrogen is very water soluble and is highly mobile in water and soil contributing to concern over the presence of these compounds in the environment.

Exposure can result primarily from ingestion of contaminated water, but may also be associated with ingestion of soils and dermal contact with contaminated media. Toxicity is related to the specific nitrate compound. However, as a class, acute exposure to nitrates can produce headache, decrease blood pressure, abdominal pain, dilation of blood vessels, and methemoglobinemia, an impaired ability of the blood system to transport oxygen. Chronic exposure may result in weakness, general depression, headache, and mental impairment.

Human toxicity to nitrates in water is due to the conversion of nitrate to nitrite which results in the oxidation of hemoglobin to methemoglobin. Animals are a poor model for methemoglobin formation because many species lack nitrate-reducing bacteria. Infants, however, are particularly susceptible to nitrates due to their high gut content of nitrate-reducing bacteria, their lower enzymatic capacity to convert methemoglobin back to hemoglobin, and the presence of hemoglobin F, which is more susceptible to oxidation.

The chronic RfD for nitrate as nitrogen is 1.6E+00 mg/kg-d based on human infant studies of exposure to nitrate in drinking water. The observed adverse effect was methemoglobinemia. No uncertainty factors have been applied to this intake because of the RfD was determined from epidemiological studies in the most sensitive human population. Thus, confidence in the RfD is high. Nitrate has not been evaluated for carcinogenic potential.

## 1.15 POLYCHLORINATED BIPHENYLS

Polychlorinated biphenyls (PCB's) are very stable materials that contain 12 to 68 percent chlorine and are extremely persistent in the environment. Because of their low flammability and stability, PCB's have been used as insulating materials in electrical transformers and capacitors, as plasticizers in waxes, in paper manufacturing, and for a variety of other industrial purposes. The diversity of their use patterns, the large quantities used, and their stability has led to widespread occurrence of these compounds in soil and water. PCB's have been banned from use in the U.S. since 1978, but are still found in older electrical equipment and as contaminants in the environment. All PCB's are mixtures of chlorinated congeners, but the exact nature of these mixtures is unknown. Arochlor 1260 and Arochlor 1254 are commonly recognized PCB products. The last two digits in the number indicate the percentage of chlorine in the compound (*i.e.*, 60 and 54 percent, respectively).

Exposure to PCB's can occur from inhaling PCB-contaminated particulates, dermal absorption, or ingestion of contaminated food, soil, or water. Toxicity by all routes of exposure is similar. However, because of high public awareness of PCB's, in large part due to their extensive publicity, concern about exposure may far outweigh documented human toxicity.

Skin irritation can occur with acute and chronic exposure. A severe and disabling form of acne called chloracne is the primary dermal effect. Chronic toxicity studies in animals have suggested that PCB's can cause respiratory tract impairment, neurotoxicity, liver damage, birth defects, and cancer. PCB congeners vary in their potency for producing

biological effects, but little is known about which congeners may be responsible for the effects and to what extent the effects occur in humans.

PCB's as a group (not as specific congeners or total chlorine mixtures) are considered probable human carcinogens because of data in animals indicating increased liver cancer in exposed animals. However, the commercial preparations used may not be representative of actual mixtures of congeners found in the environment. There is inadequate but suggestive evidence that PCB's may also cause liver cancer in humans by all routes of exposure.

The EPA oral SF listed in IRIS is 7.7 $(mg/kg\text{-}d)^{-1}$. This slope factor is based on a study in rats showing a sequential progression of liver lesions to liver cancer during the natural life of the rat. The EPA carcinogenicity classification for PCB's is B2 (probable human carcinogen).

Occupational exposure limits for polychlorinated biphenyls are based on the chlorine content of the compound. Both OSHA and the ACGIH recommend a TWA of 0.5 $mg/M^3$ for 54 percent PCB's. The NIOSH recommendation for an occupational exposure limit is 0.001 $mg/M^3$. This level is the minimum reliably detectable concentration using the recommended sampling and analytical methods. Skin precautions are also recommended to prevent dermal absorption.

## 1.16 TETRACHLOROETHENE

Tetrachloroethene, also known as perchloroethylene and tetrachloroethylene, is a nonflammable liquid solvent used for dry cleaning fabrics and for metal degreasing operations. When tetrachloroethene evaporates, it produces an ether-like odor. However, it is relatively resistant to hydrolysis and biodegradation and thus persists in the environment. Tetrachloroethene is moderately to highly mobile in soil and susceptible to significant leaching.

The primary route of exposure to tetrachloroethene is through inhalation of vapors. Ingestion may occur from contaminated water. Dermal absorption is limited because tetrachloroethene does not penetrate intact skin to any great extent. The principal target organs are the CNS, liver, and kidney. Acute exposure to tetrachloroethene in confined, poorly ventilated areas, can produce dizziness, headache, confusion, nausea, and difficultly in walking. These effects are rapidly reversed when the individual is moved to clean air. The effect of long-term, low level exposure is not as well understood. Studies in animals suggest liver and kidney damage, birth defects, leukemia, and liver cancer may occur.

The oral RfD provided in IRIS for tetrachloroethene is 1E-02 (mg/kg-d). The critical adverse effects found in animal studies used to determine the RfD were liver damage in mice and weight gain in rats. No inhalation RfD is currently available. Confidence in this RfD is only medium; a good overall database of information is available, but insufficient reproductive studies have been conducted.

The carcinogenicity of tetrachloroethene is under review as is the classification of B2 (probable human carcinogen) or C (possible human carcinogen). Currently, epidemiological studies suggest an association between tetrachloroethene and an increased cancer risk but the human studies provide no good quantitative exposure information and involve exposure to other chemicals. Thus, the association is inconclusive. All SF's have been withdrawn form IRIS. The Superfund Technical Support Center recommends an oral SF of 5.2E-02 $(mg/kg\text{-}d)^{-1}$ and an inhalation SF of 2.0E-3 $(mg/kg\text{-}d)^{-1}$.

## 1.17 THALLIUM

Thallium is a bluish-white metal that is widely distributed in trace amounts in the earth crust. It is present in air, water and soil. It can be found in pure form or mixed alloys with other metals. Thallium can also be found combined with other substances such as bromine, chlorine, fluorine and iodine to form salts. Thallous is the most common form of thallium in the environment. Manufacturing industries of electronic devices, switches, and closures are significant users of this metal. Thallium compounds have limited use in the manufacture of special glasses and for medical procedures that evaluate heart disease. Thallium was used as a rat poison until 1972 when it was banned in the U.S. because of its potential to cause adverse health effects in exposed human populations.

Human exposure to thallium may occur by inhalation, ingestion or dermal absorption. The general population is exposed most frequently by ingestion of contaminated foods. Thallium compounds such as thallium oxide and thallium sulfate can be lethal at relatively low doses; however, typical human exposure levels are significantly below such doses. Thallium compounds affect the respiratory, cardiovascular, GI, and CNS systems. They are also toxic to the liver, kidneys, and the male reproductive system. Temporary hair loss has also been associated with ingestion of thallium in human.

The EPA has set an oral RfD of 0.00007 mg/kg-d for chronic oral exposure. No published inhalation RfD is available. There are no reliable data at present regarding the carcinogenicity of thallium.

The OSHA, NIOSH and ACGIH each recommend an occupational exposure limit TWA of 0.1 $mg/M^3$. There is a potential for dermal absorption and should be prevented when necessary.

## 1.18 1,1,1-TRICHLOROETHANE

1,1,1-trichloroethane (TCA), also known as methyl chloroform, is a halogenated hydrocarbon used primarily as a solvent because of a favorable combination of chemical, physical, flammability, and toxicologic properties. Although TCA is probably the least toxic chlorinated solvent, careless use, high volatility, and poor disposal practices have contributed to the potential human and environmental exposure.

Acute exposure to TCA can produce CNS depression. Inhalation of 1,600 mg/M$^3$ by humans produces no untoward response while inhalation of 5,400 to 10,800 mg/M$^3$ for 60 min can produce eye and nasal irritation and minor CNS impairment. The inhalation of 100,000 mg/M$^3$ for 60 min can produce anesthesia, cardiac sensitization to epinephrine, and possible death. Chronic, industrial exposure to TCA over 6 years did not demonstrate liver toxicity or cardiac toxicity in humans. Some studies have suggested that animals exposed to TCA may develop fatty livers and liver necrosis. However, no adverse effects were detected in a 6-month inhalation study in guinea pigs on which the IRIS oral RfD is based. An older supporting study noted only slight growth retardation in chronically exposed animals. The oral RfD is 9.0E-02 (mg/kg-d). Confidence in the RfD is medium to low because the number of animals at each dose level was limited, lengths of exposure were variable, and few toxic endpoints were examined. No inhalation RfD is published in IRIS, but HEAST lists an inhalation RfD for TCA of 3.0E-01 (mg/kg-d). The adverse effect noted for the inhalation RfD is hepatotoxicity.

Animal studies have not demonstrated carcinogenicity nor are there any human data reported to indicate that 1,1,1-trichloroethane is a human carcinogen.

## 1.19 TRICHLOROETHENE

Trichloroethene (also known as trichloroethylene) is a colorless liquid with an odor similar to ether or chloroform. This chemical is a man-made solvent used for degreasing metal parts, extracting caffeine from coffee, and in numerous consumer products such as typewriter correction fluid, paint removers, and spot removers.

Trichloroethene moves readily through soil and groundwater. Ingestion of contaminated water and inhalation of volatilized trichloroethene are the chief source of exposure. Absorption is not significant from skin contact with this solvent.

Acute oral toxicity in humans is low. Death has occurred from an ingested dose of 170 mg/kg. Acute effects from inhalation of trichloroethene are associated with the central nervous system (dizziness, headache, sleepiness) and occur at a threshold of 436 to 592 mg/M$^3$. Extremely high, acute exposures may produce cardiac rhythm disturbances. In animals, chronic exposure to trichloroethene by inhalation and ingestion has produced liver and kidney damage and may affect reproductivity toxicity.

Neither IRIS nor HEAST currently provide an RfD for trichloroethene and determination of an RfD is pending. Trichloroethene may induce lung cancer in animals when inhaled and may produce liver cancer in animals from oral administration. The EPA weight-of-evidence classification of B2 (probable human carcinogen) is under review. The oral and inhalation SF's for trichloroethene have also been withdrawn from IRIS pending further review of carcinogenicity studies. The Superfund Technical Support Center recommends an oral SF of 1.1E-2 (mg/kg-d)$^{-1}$ and an inhalation SF of 6.0E-3 (mg/kg-d)$^{-1}$.

## 1.20 VANADIUM

Vanadium is a metal found in compounds that are widely distributed at low concentrations in the earth's crust. Elemental vanadium does not occur in nature, but is associated with over 50 different mineral ores and in fossil fuels. Vanadium replaces other metals such as iron, titanium and aluminum in crystal structures. Natural releases of vanadium to soil result from the weathering of rock-bearing vanadium minerals, precipitation/deposition of vanadium from the atmosphere or water, and plant and animal wastes. Anthropogenic sources of vanadium are: fossil fuel combustion, mining, slag heaps, sewage sludge, and certain fertilizers.

The only significant effect of vanadium exposure in human is mild to moderate respiratory distress, and mucosal irritation from exposure to vanadium dust. Workers exposed to vanadium through inhalation may develop coughs, chest pain, sore throat or eye irritation that can last for several days, following the exposure. These effects are not specific to pure vanadium but are equally associated with other vanadium chemical forms, following inhalation exposure.

The EPA has set an oral RfD of 0.007 mg/kg-d for chronic exposure via drinking water ingestion. An assessment of carcinogenic potential in humans can not be made at present because of the inadequacy of human and animal data.

The OSHA, NIOSH and ACGIH recommend the same occupational exposure limit TWA of 0.05 mg/m$^3$ as respirable dust and fume. NIOSH recommends a ceiling exposure level (REL) for 15 minutes.

## 1.21 ZINC

Zinc is a common element in the earth's crust. It is detected in rock, soil, groundwater, surface water, and air. Zinc may be released by natural or anthropogenic activities. Major anthropogenic sources are metallurgic wastes from smelter and refining operations, mining drainage, electroplating, smelting, plastics, agricultural practices, and industrial and municipal waste effluents.

Zinc is an essential nutrient and is found in all foods. The average American daily intake is 12 to 15 mg, mostly from food. Zinc is important for the maintenance of healthy skin and hair, good healing, and resisting infections. Zinc does not accumulate with continued exposure, but the body regulates absorption and storage depending on body needs. It is often concentrated in the tissues of organisms even in the absence of abnormally high background concentrations.

Overexposure to zinc by oral ingestion can produce severe gastric and digestive problems. Inhalation of zinc dust or fumes from smelting or welding induced a syndrome called metal fume fever, characterized by difficulty in breathing and flu-like symptoms. The degree of adverse effects appears to be influenced by the associated compounds in zinc salt or oxides. The EPA has set an oral RfD of 0.2 mg/kg-d. The critical effect of zinc

exposure is anemia. No published inhalation RfD is available. Currently zinc is not classified as a human carcinogen.

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