Contaminant Name	Maximum Concentration (mg/L)	Average Concentration (mg/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (mg/kg)	Peak Time (years)
Lead	2.742E-07	2.740E-07	0.000E+00	0.000E+00	0.000E+00	7.607E+04

```
TIME OF RUN 17:51:06.2
DATE OF RUN 04/22/98
FILE NAME: c:\mydocu~1\WAG4\new\out\07a-rad.max
 ***************************************************
 *                                                 *
 *     This output was produced by the model:      *
 *                    GWMENU                       *
 *         Version 1.01: Beta Test Version         *
 * A menu-driven pre-processor for the groundwater *
 * pathway screening model GWSCREEN Version 2.5    *
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 *      GWMENU (C) Copyright 1996, K-Spar Inc.     *
 *                    09-15-97                     *
 *                  K-Spar Inc.                    *
 *         493 N 4154 E Rigby Idaho 83442          *
 *         (208) 745-8068 email asr@srv.net        *
 ***************************************************
 ====================================================================
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 ====================================================================

TITLE: CFA-07a max, rad
------------------ MODEL OPTIONS -------------------
Type of Output:        Limiting Conc
Integration Method:    Gaussian Quad
Source Model Type:     Surface/Buried
Dose Criteria:         MCL for Radionuclide
--------------- SOURCE PARAMETERS ------------------
X Coordinate (m):   -1.449E+03  Y Coordinate (m):    8.121E+02
Source Length (m):   2.700E+00  Source Width (m):    2.700E+00
Thickness (m):       3.500E+00  Bulk Density (g/cc): 1.500E+00
Percolation (m/y):   1.000E-01  Moisture Content:    3.000E-01
------------ UNSATURATED ZONE PARAMETERS -----------
Unsat Thickness (m): 4.630E+01  Moisture Content:    3.000E-01
Total Porosity:      4.870E-01  Bulk Density:        1.500E+00
---------------- AQUIFER PARAMETERS ----------------
Solution Type:    2D Averaged
Pore Velocity (m/y):        5.700E+02 Aquifer Porosity:          1.000E-01
Longitudinal Disp (m):      9.000E+00 Transverse Disp (m):       4.000E+00
Vertical Disp (m):         n/a        Well Screen Thickness (m):  1.500E+01
Bulk Density (g/cc):        1.900E+00 Number of Receptors:       11
--------------- EXPOSURE PARAMETERS ----------------
Dose Impacts Base on: MCL (Ci/L)
Body Weight (kg):           7.000E+01 Averaging Time (d):        2.556E+04
Water Ingestion Rate (L/d): 2.000E+00 Exposure Frequency (d/y):  3.500E+02
Exposure Duration (y):      3.000E+01
----------------------------------------------------- CONTAMINANT PARAMETERS -----------------------------------------------------
```

Contaminant Name	Inventory (Ci)	Dose Factor MCL (Ci/L)	Molar Weight (g/mole)	Half Life (years)	Kd Source (mL/g)	Kd Unsat (mL/g)	Kd Aquifer (mL/g)	Additional Loss Rate (1/y)	Solubility Limit (mg/L)
Ag-108m	1.646E-05	7.870E-12	1.080E+02	1.270E+02	9.000E+01	9.000E+01	9.000E+01	0.000E+00	1.000E+06
Cs-137	3.980E-03	1.510E-12	1.370E+02	3.020E+01	5.000E+02	5.000E+02	5.000E+02	0.000E+00	1.000E+06
U-234	1.275E-07	1.070E-12	2.340E+02	2.450E+05	6.000E+00	6.000E+00	6.000E+00	0.000E+00	1.000E+06
Th-230		5.300E+05		7.540E+03			1.000E+02		

Ra-226	1.100E+06	1.600E+03	1.000E+02
Pb-210	6.700E+06	2.230E+01	1.000E+02

---------- RESULTS ----------

* = Limiting pore water concentration exceeds solubility

Receptor Location X, Y, Z, (meters): -1.448E+03, 8.121E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234		2.818E-17	2.971E-17	0.000E+00	0.000E+00	1.200E-07	4.309E+03
	Th-230	5.607E-19	5.926E-19	0.000E+00	0.000E+00		
	Ra-226	3.219E-19	3.408E-19	0.000E+00	0.000E+00		
	Pb-210	3.186E-19	3.373E-19	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01,-2.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234		9.996E-34	7.059E-34	0.000E+00	0.000E+00	5.050E+09*	4.872E+03
	Th-230	2.197E-35	1.551E-35	0.000E+00	0.000E+00		
	Ra-226	1.351E-35	9.538E-36	0.000E+00	0.000E+00		
	Pb-210	1.339E-35	9.455E-36	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 0.000E+00, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234		5.706E-29	5.576E-29	0.000E+00	0.000E+00	6.393E+04*	4.770E+03
	Th-230	1.233E-30	1.205E-30	0.000E+00	0.000E+00		
	Ra-226	7.495E-31	7.324E-31	0.000E+00	0.000E+00		
	Pb-210	7.427E-31	7.258E-31	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234		8.685E-27	8.439E-27	0.000E+00	0.000E+00	4.224E+02*	4.742E+03
	Th-230	1.868E-28	1.815E-28	0.000E+00	0.000E+00		
	Ra-226	1.132E-28	1.100E-28	0.000E+00	0.000E+00		
	Pb-210	1.121E-28	1.090E-28	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 2.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234		8.350E-25	8.175E-25	0.000E+00	0.000E+00	4.360E+00	4.737E+03
	Th-230	1.794E-26	1.757E-26	0.000E+00	0.000E+00		
	Ra-226	1.086E-26	1.064E-26	0.000E+00	0.000E+00		
	Pb-210	1.077E-26	1.054E-26	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 3.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234		4.802E-23	4.723E-23	0.000E+00	0.000E+00	7.547E-02	4.715E+03

Th-230	1.028E-24	1.011E-24	0.000E+00	0.000E+00	
Ra-226	6.208E-25	6.107E-25	0.000E+00	0.000E+00	
Pb-210	6.151E-25	6.051E-25	0.000E+00	0.000E+00	

Receptor Location X, Y, Z, (meters): 7.550E+01, 4.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	1.543E-21	1.512E-21	0.000E+00	0.000E+00	2.357E-03	4.704E+03
Th-230	3.297E-23	3.232E-23	0.000E+00	0.000E+00		
Ra-226	1.988E-23	1.949E-23	0.000E+00	0.000E+00		
Pb-210	1.970E-23	1.932E-23	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 6.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	2.063E-19	2.039E-19	0.000E+00	0.000E+00	1.748E-05	4.682E+03
Th-230	4.391E-21	4.341E-21	0.000E+00	0.000E+00		
Ra-226	2.642E-21	2.611E-21	0.000E+00	0.000E+00		
Pb-210	2.617E-21	2.587E-21	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 8.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	1.280E-18	1.270E-18	0.000E+00	0.000E+00	2.806E-06	4.675E+03
Th-230	2.721E-20	2.701E-20	0.000E+00	0.000E+00		
Ra-226	1.636E-20	1.624E-20	0.000E+00	0.000E+00		
Pb-210	1.620E-20	1.609E-20	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+03, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	3.065E-19	3.023E-19	0.000E+00	0.000E+00	1.179E-05	4.682E+03
Th-230	6.525E-21	6.436E-21	0.000E+00	0.000E+00		
Ra-226	3.926E-21	3.872E-21	0.000E+00	0.000E+00		
Pb-210	3.890E-21	3.836E-21	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.200E+03, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	3.194E-21	3.175E-21	0.000E+00	0.000E+00	1.123E-03	4.698E+03
Th-230	6.819E-23	6.779E-23	0.000E+00	0.000E+00		
Ra-226	4.110E-23	4.086E-23	0.000E+00	0.000E+00		
Pb-210	4.073E-23	4.049E-23	0.000E+00	0.000E+00		

TIME OF RUN 17:51:20.2
DATE OF RUN 04/22/98
FILE NAME: c:\mydocu~1\WAG4\new\out\07b-nr.max

```
**************************************************
*                                                *
*     This output was produced by the model:     *
*                    GWMENU                      *
*         Version 1.01: Beta Test Version        *
```

```
 * A menu-driven pre-processor for the groundwater *
 * pathway screening model GWSCREEN Version 2.5    *
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 *   Lockheed Martin Idaho Technologies Company    *
 *      GWMENU (C) Copyright 1996, K-Spar Inc.     *
 *                   09-15-97                      *
 *                  K-Spar Inc.                    *
 *        493 N 4154 E Rigby Idaho 83442           *
 *        (208) 745-8068 email asr@srv.net         *
 ***************************************************
 ==================================================================
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 ==================================================================

TITLE: CFA-07b max, non-rad
----------------- MODEL OPTIONS -------------------
Type of Output:        Limiting Conc
Integration Method:    Gaussian Quad
Source Model Type:     Surface/Buried
Dose Criteria:         MCL for Non-radiological Contaminant
--------------- SOURCE PARAMETERS -----------------
X Coordinate (m):   -1.452E+03  Y Coordinate (m):    8.148E+02
Source Length (m):   2.700E+00  Source Width (m):    2.700E+00
Thickness (m):       3.500E+00  Bulk Density (g/cc): 1.500E+00
Percolation (m/y):   1.000E-01  Moisture Content:    3.000E-01
------------ UNSATURATED ZONE PARAMETERS -----------
Unsat Thickness (m): 4.630E+01  Moisture Content:    3.000E-01
Total Porosity:      4.870E-01  Bulk Density:        1.500E+00
---------------- AQUIFER PARAMETERS ----------------
Solution Type:    2D Averaged
Pore Velocity (m/y):        5.700E+02 Aquifer Porosity:          1.000E-01
Longitudinal Disp (m):      9.000E+00 Transverse Disp (m):       4.000E+00
Vertical Disp (m):         n/a        Well Screen Thickness (m):  1.500E+01
Bulk Density (g/cc):        1.900E+00 Number of Receptors:       11
--------------- EXPOSURE PARAMETERS ----------------
Dose Impacts Base on: MCL (mg/L)
Body Weight (kg):           7.000E+01 Averaging Time (d):        2.556E+04
Water Ingestion Rate (L/d): 2.000E+00 Exposure Frequency (d/y):  3.500E+02
Exposure Duration (y):      3.000E+01
---------------------------------------------------- CONTAMINANT PARAMETERS ----------------------------------------------------
Contaminant Name          Inventory     Dose       Molar    Half Life  Kd Source  Kd Unsat  Kd Aquifer Additional Solubility
                                       Factor     Weight                                                 Loss Rate    Limit
                            (mg)    MCL (mg/L)  (g/mole)    (years)    (mL/g)     (mL/g)     (mL/g)      (1/y)     (mg/L)
-------------------------------------------------------------------------------------------------------------------------------
Lead                      1.753E+08  0.000E+00  2.072E+02  9.000E+09  1.000E+02  1.000E+02  1.000E+02  0.000E+00  1.000E+06
------------------------------------------- RESULTS -----------------------------------------------
* = Limiting pore water concentration exceeds solubility
Receptor Location X, Y, Z, (meters): -1.451E+03, 8.148E+02, 1.500E+01
  Contaminant Name       Maximum        Average        Maximum        Average       Limiting      Peak Time
                       Concentration  Concentration     Impacts        Impacts     Concentration    (years)
                          (mg/L)         (mg/L)          (MCL)          (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------------
Lead                    2.426E-03      2.419E-03      0.000E+00      0.000E+00      0.000E+00      6.964E+04
Receptor Location X, Y, Z, (meters):  7.550E+01,-2.000E+02, 1.500E+01
  Contaminant Name       Maximum        Average        Maximum        Average       Limiting      Peak Time
                       Concentration  Concentration     Impacts        Impacts     Concentration    (years)
                          (mg/L)         (mg/L)          (MCL)          (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------------
Lead                    4.494E-20      4.255E-20      0.000E+00      0.000E+00      0.000E+00      8.255E+04
Receptor Location X, Y, Z, (meters):  7.550E+01, 0.000E+00, 1.500E+01
```

Contaminant Name	Maximum Concentration (mg/L)	Average Concentration (mg/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (mg/kg)	Peak Time (years)
Lead	4.355E-15	4.302E-15	0.000E+00	0.000E+00	0.000E+00	7.727E+04

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (mg/L)	Average Concentration (mg/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (mg/kg)	Peak Time (years)
Lead	6.677E-13	6.596E-13	0.000E+00	0.000E+00	0.000E+00	7.681E+04

Receptor Location X, Y, Z, (meters): 7.550E+01, 2.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (mg/L)	Average Concentration (mg/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (mg/kg)	Peak Time (years)
Lead	6.481E-11	6.399E-11	0.000E+00	0.000E+00	0.000E+00	7.681E+04

Receptor Location X, Y, Z, (meters): 7.550E+01, 3.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (mg/L)	Average Concentration (mg/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (mg/kg)	Peak Time (years)
Lead	3.765E-09	3.735E-09	0.000E+00	0.000E+00	0.000E+00	7.636E+04

Receptor Location X, Y, Z, (meters): 7.550E+01, 4.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (mg/L)	Average Concentration (mg/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (mg/kg)	Peak Time (years)
Lead	1.226E-07	1.212E-07	0.000E+00	0.000E+00	0.000E+00	7.618E+04

Receptor Location X, Y, Z, (meters): 7.550E+01, 6.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (mg/L)	Average Concentration (mg/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (mg/kg)	Peak Time (years)
Lead	1.692E-05	1.684E-05	0.000E+00	0.000E+00	0.000E+00	7.581E+04

Receptor Location X, Y, Z, (meters): 7.550E+01, 8.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (mg/L)	Average Concentration (mg/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (mg/kg)	Peak Time (years)
Lead	1.093E-04	1.092E-04	0.000E+00	0.000E+00	0.000E+00	7.569E+04

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+03, 1.500E+01

Contaminant Name	Maximum Concentration (mg/L)	Average Concentration (mg/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (mg/kg)	Peak Time (years)
Lead	2.733E-05	2.723E-05	0.000E+00	0.000E+00	0.000E+00	7.573E+04

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.200E+03, 1.500E+01

Contaminant Name	Maximum Concentration (mg/L)	Average Concentration (mg/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (mg/kg)	Peak Time (years)
Lead	2.991E-07	2.989E-07	0.000E+00	0.000E+00	0.000E+00	7.608E+04

TIME OF RUN 17:51:30.1
DATE OF RUN 04/22/98
FILE NAME: c:\mydocu~1\WAG4\new\out\07b-rad.max

```
**************************************************
*                                                *
*     This output was produced by the model:     *
*                    GWMENU                      *
*         Version 1.01: Beta Test Version        *
* A menu-driven pre-processor for the groundwater *
* pathway screening model GWSCREEN Version 2.5   *
*              GWSCREEN Copyright (C) 1992,      *
*   Lockheed Martin Idaho Technologies Company   *
*      GWMENU (C) Copyright 1996, K-Spar Inc.    *
```

```
*                    09-15-97                    *
*                   K-Spar Inc.                  *
*         493 N 4154 E Rigby Idaho 83442         *
*         (208) 745-8068 email asr@srv.net       *
*****************************************************
```


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```
TITLE: CFA-07b max. rad
----------------- MODEL OPTIONS ------------------
Type of Output:        Limiting Conc
Integration Method:    Gaussian Quad
Source Model Type:     Surface/Buried
Dose Criteria:         MCL for Radionuclide
-------------- SOURCE PARAMETERS -----------------
X Coordinate (m):   -1.452E+03  Y Coordinate (m):    8.148E+02
Source Length (m):   2.700E+00  Source Width (m):    2.700E+00
Thickness (m):       3.500E+00  Bulk Density (g/cc): 1.500E+00
Percolation (m/y):   1.000E-01  Moisture Content:    3.000E-01
------------ UNSATURATED ZONE PARAMETERS -----------
Unsat Thickness (m): 4.630E+01  Moisture Content:    3.000E-01
Total Porosity:      4.870E-01  Bulk Density:        1.500E+00
---------------- AQUIFER PARAMETERS ----------------
Solution Type:    2D Averaged
Pore Velocity (m/y):        5.700E+02 Aquifer Porosity:           1.000E-01
Longitudinal Disp (m):      9.000E+00 Transverse Disp (m):        4.000E+00
Vertical Disp (m):         n/a        Well Screen Thickness (m):  1.500E+01
Bulk Density (g/cc):        1.900E+00 Number of Receptors:       11
--------------- EXPOSURE PARAMETERS ----------------
Dose Impacts Base on: MCL (Ci/L)
Body Weight (kg):           7.000E+01 Averaging Time (d):         2.556E+04
Water Ingestion Rate (L/d): 2.000E+00 Exposure Frequency (d/y):   3.500E+02
Exposure Duration (y):      3.000E+01
---------------------------------------------- CONTAMINANT PARAMETERS ----------------------------------------------
Contaminant Name          Inventory     Dose      Molar    Half Life  Kd Source  Kd Unsat  Kd Aquifer Additional Solubility
                                        Factor    Weight                                                Loss Rate   Limit
                            (Ci)     MCL (Ci/L) (g/mole)    (years)    (mL/g)     (mL/g)     (mL/g)     (1/y)     (mg/L)
-------------------------------------------------------------------------------------------------------------------------
Ag-108m                   1.646E-05  7.870E-12 1.080E+02  1.270E+02  9.000E+01  9.000E+01  9.000E+01  0.000E+00  1.000E+06
Cs-137                    3.980E-03  1.510E-12 1.370E+02  3.020E+01  5.000E+02  5.000E+02  5.000E+02  0.000E+00  1.000E+06
U-234                     1.275E-07  1.070E-12 2.340E+02  2.450E+05  6.000E+00  6.000E+00  6.000E+00  0.000E+00  1.000E+06
  Th-230                             5.300E+05            7.540E+03                        1.000E+02
  Ra-226                             1.100E+06            1.600E+03                        1.000E+02
  Pb-210                             6.700E+06            2.230E+01                        1.000E+02
------------------------------------------- RESULTS ----------------------------------------------
* = Limiting pore water concentration exceeds solubility
Receptor Location X, Y, Z, (meters): -1.451E+03, 8.148E+02, 1.500E+01
  Contaminant Name       Maximum       Average       Maximum       Average       Limiting      Peak Time
                       Concentration Concentration   Impacts       Impacts     Concentration   (years)
                          (Ci/L)        (Ci/L)       (MCL)         (MCL)         (Ci/kg)
-------------------------------------------------------------------------------------------------------------
Ag-108m                0.000E+00     0.000E+00     0.000E+00     0.000E+00     0.000E+00*    0.000E+00
Cs-137                 0.000E+00     0.000E+00     0.000E+00     0.000E+00     0.000E+00*    0.000E+00
U-234                  2.818E-17     2.971E-17     0.000E+00     0.000E+00     1.200E-07     4.309E+03
            Th-230     5.607E-19     5.926E-19     0.000E+00     0.000E+00
            Ra-226     3.219E-19     3.408E-19     0.000E+00     0.000E+00
            Pb-210     3.186E-19     3.373E-19     0.000E+00     0.000E+00
Receptor Location X, Y, Z, (meters):  7.550E+01,-2.000E+02, 1.500E+01
```

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	5.344E-34	3.139E-34	0.000E+00	0.000E+00	1.135E+10*	5.090E+03
Th-230	1.216E-35	7.144E-36	0.000E+00	0.000E+00		
Ra-226	7.653E-36	4.495E-36	0.000E+00	0.000E+00		
Pb-210	7.590E-36	4.458E-36	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 0.000E+00, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	5.075E-29	4.963E-29	0.000E+00	0.000E+00	7.183E+04*	4.771E+03
Th-230	1.097E-30	1.073E-30	0.000E+00	0.000E+00		
Ra-226	6.667E-31	6.519E-31	0.000E+00	0.000E+00		
Pb-210	6.607E-31	6.461E-31	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	7.777E-27	7.556E-27	0.000E+00	0.000E+00	4.718E+02*	4.743E+03
Th-230	1.673E-28	1.625E-28	0.000E+00	0.000E+00		
Ra-226	1.014E-28	9.848E-29	0.000E+00	0.000E+00		
Pb-210	1.004E-28	9.759E-29	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 2.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	7.556E-25	7.346E-25	0.000E+00	0.000E+00	4.852E+00	4.743E+03
Th-230	1.625E-26	1.580E-26	0.000E+00	0.000E+00		
Ra-226	9.847E-27	9.574E-27	0.000E+00	0.000E+00		
Pb-210	9.758E-27	9.487E-27	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 3.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	4.386E-23	4.313E-23	0.000E+00	0.000E+00	8.264E-02	4.715E+03
Th-230	9.391E-25	9.236E-25	0.000E+00	0.000E+00		
Ra-226	5.672E-25	5.578E-25	0.000E+00	0.000E+00		
Pb-210	5.620E-25	5.527E-25	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 4.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	1.428E-21	1.399E-21	0.000E+00	0.000E+00	2.548E-03	4.705E+03
Th-230	3.052E-23	2.990E-23	0.000E+00	0.000E+00		
Ra-226	1.841E-23	1.804E-23	0.000E+00	0.000E+00		
Pb-210	1.824E-23	1.787E-23	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 6.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	1.971E-19	1.948E-19	0.000E+00	0.000E+00	1.830E-05	4.682E+03
Th-230	4.195E-21	4.147E-21	0.000E+00	0.000E+00		
Ra-226	2.524E-21	2.495E-21	0.000E+00	0.000E+00		
Pb-210	2.501E-21	2.472E-21	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 8.000E+02, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	1.275E-18	1.266E-18	0.000E+00	0.000E+00	2.817E-06	4.678E+03
Th-230	2.713E-20	2.692E-20	0.000E+00	0.000E+00		
Ra-226	1.632E-20	1.619E-20	0.000E+00	0.000E+00		
Pb-210	1.616E-20	1.604E-20	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+03, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	3.183E-19	3.148E-19	0.000E+00	0.000E+00	1.132E-05	4.677E+03
Th-230	6.771E-21	6.696E-21	0.000E+00	0.000E+00		
Ra-226	4.072E-21	4.026E-21	0.000E+00	0.000E+00		
Pb-210	4.034E-21	3.989E-21	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.200E+03, 1.500E+01

Contaminant Name	Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
U-234	3.485E-21	3.464E-21	0.000E+00	0.000E+00	1.029E-03	4.699E+03
Th-230	7.440E-23	7.396E-23	0.000E+00	0.000E+00		
Ra-226	4.485E-23	4.458E-23	0.000E+00	0.000E+00		
Pb-210	4.443E-23	4.417E-23	0.000E+00	0.000E+00		

TIME OF RUN 17:51:45.4
DATE OF RUN 04/22/98
FILE NAME: c:\mydocu~1\WAG4\new\out\08a-rad.max

```
*************************************************
*                                               *
*     This output was produced by the model:    *
*                    GWMENU                     *
*        Version 1.01: Beta Test Version        *
* A menu-driven pre-processor for the groundwater *
* pathway screening model GWSCREEN Version 2.5  *
*             GWSCREEN Copyright (C) 1992,      *
*   Lockheed Martin Idaho Technologies Company  *
*      GWMENU (C) Copyright 1996, K-Spar Inc.   *
*                    09-15-97                   *
*                   K-Spar Inc.                 *
*        493 N 4154 E Rigby Idaho 83442         *
*        (208) 745-8068 email asr@srv.net       *
*************************************************
```


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TITLE: CFA-08a max. rad

---------- MODEL OPTIONS ----------

Type of Output: Limiting Conc
Integration Method: Gaussian Quad
Source Model Type: Surface/Buried
Dose Criteria: MCL for Radionuclide

---------- SOURCE PARAMETERS ----------

X Coordinate (m): -1.288E+03 Y Coordinate (m): 1.002E+03
Source Length (m): 3.050E+02 Source Width (m): 6.100E+01
Thickness (m): 9.900E+00 Bulk Density (g/cc): 1.500E+00
Percolation (m/y): 1.000E-01 Moisture Content: 3.000E-01

---------- UNSATURATED ZONE PARAMETERS ----------

Unsat Thickness (m): 4.700E+01 Moisture Content: 3.000E-01
Total Porosity: 4.870E-01 Bulk Density: 1.500E+00

---------- AQUIFER PARAMETERS ----------

Solution Type: 2D Averaged
Pore Velocity (m/y): 5.700E+02 Aquifer Porosity: 1.000E-01
Longitudinal Disp (m): 9.000E+00 Transverse Disp (m): 4.000E+00
Vertical Disp (m): n/a Well Screen Thickness (m): 1.500E+01
Bulk Density (g/cc): 1.900E+00 Number of Receptors: 11

---------- EXPOSURE PARAMETERS ----------

Dose Impacts Base on: MCL (Ci/L)
Body Weight (kg): 7.000E+01 Averaging Time (d): 2.556E+04
Water Ingestion Rate (L/d): 2.000E+00 Exposure Frequency (d/y): 3.500E+02
Exposure Duration (y): 3.000E+01

---------- CONTAMINANT PARAMETERS ----------

Contaminant Name	Inventory (Ci)	Dose Factor MCL (Ci/L)	Molar Weight (g/mole)	Half Life (years)	Kd Source (mL/g)	Kd Unsat (mL/g)	Kd Aquifer (mL/g)	Additional Loss Rate (1/y)	Solubility Limit (mg/L)
Cs-137	7.570E+00	1.510E-12	1.370E+02	3.020E+01	5.000E+02	5.000E+02	5.000E+02	0.000E+00	1.000E+06
Pu-239/240	1.445E-02	1.510E-13	2.390E+02	2.410E+04	2.200E+01	2.200E+01	2.200E+01	0.000E+00	1.000E+06
U-235		3.885E+03		7.040E+08			6.000E+00		
Pa-231		1.340E+00		3.500E+04			8.000E+00		
Ac-227		2.490E+05		2.160E+01			7.000E+01		
U-235	4.117E-02	1.010E-12	2.350E+02	7.040E+08	6.000E+00	6.000E+00	6.000E+00	0.000E+00	1.000E+06
Pa-231		1.340E+00		3.500E+04			8.000E+00		
Ac-227		2.490E+05		2.160E+01			7.000E+01		

---------- RESULTS ----------

* = Limiting pore water concentration exceeds solubility

Receptor Location X, Y, Z, (meters): -1.136E+03, 1.002E+03, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Pu-239/240		3.191E-14	3.190E-14	0.000E+00	0.000E+00	2.476E-10	1.595E+04
	U-235	2.317E-18	2.317E-18	0.000E+00	0.000E+00		
	Pa-231	2.662E-19	2.661E-19	0.000E+00	0.000E+00		
	Ac-227	3.050E-20	3.049E-20	0.000E+00	0.000E+00		
U-235		5.156E-13	5.136E-13	0.000E+00	0.000E+00	2.930E-10	4.455E+03
	Pa-231	3.273E-14	3.260E-14	0.000E+00	0.000E+00		
	Ac-227	3.737E-15	3.722E-15	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01,-2.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Pu-239/240		6.560E-36	4.377E-36	0.000E+00	0.000E+00	1.804E+12*	1.796E+04
	U-235	5.533E-40	3.692E-40	0.000E+00	0.000E+00		
	Pa-231	7.122E-41	4.753E-41	0.000E+00	0.000E+00		
	Ac-227	8.163E-42	5.447E-42	0.000E+00	0.000E+00		

U-235		1.126E-34	6.070E-35	0.000E+00	0.000E+00	2.479E+12*	5.004E+03
	Pa-231	7.983E-36	4.306E-36	0.000E+00	0.000E+00		
	Ac-227	9.122E-37	4.920E-37	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 0.000E+00, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Pu-239/240		3.223E-30	3.201E-30	0.000E+00	0.000E+00	2.467E+06*	1.755E+04
	U-235	2.640E-34	2.622E-34	0.000E+00	0.000E+00		
	Pa-231	3.324E-35	3.301E-35	0.000E+00	0.000E+00		
	Ac-227	3.809E-36	3.783E-36	0.000E+00	0.000E+00		
U-235		5.460E-29	5.368E-29	0.000E+00	0.000E+00	2.804E+06*	4.893E+03
	Pa-231	3.790E-30	3.726E-30	0.000E+00	0.000E+00		
	Ac-227	4.330E-31	4.257E-31	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Pu-239/240		1.066E-27	1.066E-27	0.000E+00	0.000E+00	7.410E+03*	1.742E+04
	U-235	8.650E-32	8.646E-32	0.000E+00	0.000E+00		
	Pa-231	1.081E-32	1.081E-32	0.000E+00	0.000E+00		
	Ac-227	1.239E-33	1.239E-33	0.000E+00	0.000E+00		
U-235		1.798E-26	1.794E-26	0.000E+00	0.000E+00	8.390E+03*	4.857E+03
	Pa-231	1.240E-27	1.236E-27	0.000E+00	0.000E+00		
	Ac-227	1.416E-28	1.413E-28	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 2.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Pu-239/240		2.579E-25	2.577E-25	0.000E+00	0.000E+00	3.064E+01	1.734E+04
	U-235	2.079E-29	2.078E-29	0.000E+00	0.000E+00		
	Pa-231	2.588E-30	2.586E-30	0.000E+00	0.000E+00		
	Ac-227	2.965E-31	2.964E-31	0.000E+00	0.000E+00		
U-235		4.338E-24	4.327E-24	0.000E+00	0.000E+00	3.478E+01*	4.834E+03
	Pa-231	2.977E-25	2.969E-25	0.000E+00	0.000E+00		
	Ac-227	3.401E-26	3.392E-26	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 3.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Pu-239/240		4.267E-23	4.265E-23	0.000E+00	0.000E+00	1.852E-01	1.726E+04
	U-235	3.422E-27	3.420E-27	0.000E+00	0.000E+00		
	Pa-231	4.241E-28	4.238E-28	0.000E+00	0.000E+00		
	Ac-227	4.859E-29	4.857E-29	0.000E+00	0.000E+00		
U-235		7.160E-22	7.147E-22	0.000E+00	0.000E+00	2.106E-01*	4.818E+03
	Pa-231	4.898E-23	4.888E-23	0.000E+00	0.000E+00		
	Ac-227	5.595E-24	5.585E-24	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 4.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Pu-239/240		4.555E-21	4.553E-21	0.000E+00	0.000E+00	1.735E-03	1.720E+04
	U-235	3.636E-25	3.634E-25	0.000E+00	0.000E+00		
	Pa-231	4.490E-26	4.488E-26	0.000E+00	0.000E+00		
	Ac-227	5.146E-27	5.143E-27	0.000E+00	0.000E+00		

U-235		7.634E-20	7.616E-20	0.000E+00	0.000E+00	1.976E-03	4.796E+03
	Pa-231	5.199E-21	5.187E-21	0.000E+00	0.000E+00		
	Ac-227	5.939E-22	5.925E-22	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 6.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Pu-239/240		1.058E-17	1.058E-17	0.000E+00	0.000E+00	7.464E-07	1.706E+04
	U-235	8.362E-22	8.360E-22	0.000E+00	0.000E+00		
	Pa-231	1.025E-22	1.024E-22	0.000E+00	0.000E+00		
	Ac-227	1.174E-23	1.174E-23	0.000E+00	0.000E+00		
U-235		1.767E-16	1.763E-16	0.000E+00	0.000E+00	8.534E-07	4.763E+03
	Pa-231	1.196E-17	1.193E-17	0.000E+00	0.000E+00		
	Ac-227	1.366E-18	1.363E-18	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 8.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Pu-239/240		1.730E-15	1.729E-15	0.000E+00	0.000E+00	4.567E-09	1.698E+04
	U-235	1.359E-19	1.358E-19	0.000E+00	0.000E+00		
	Pa-231	1.657E-20	1.657E-20	0.000E+00	0.000E+00		
	Ac-227	1.899E-21	1.899E-21	0.000E+00	0.000E+00		
U-235		2.880E-14	2.875E-14	0.000E+00	0.000E+00	5.235E-09	4.738E+03
	Pa-231	1.939E-15	1.935E-15	0.000E+00	0.000E+00		
	Ac-227	2.215E-16	2.211E-16	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+03, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Pu-239/240		1.061E-14	1.061E-14	0.000E+00	0.000E+00	7.445E-10	1.695E+04
	U-235	8.316E-19	8.314E-19	0.000E+00	0.000E+00		
	Pa-231	1.013E-19	1.013E-19	0.000E+00	0.000E+00		
	Ac-227	1.161E-20	1.160E-20	0.000E+00	0.000E+00		
U-235		1.766E-13	1.762E-13	0.000E+00	0.000E+00	8.543E-10	4.730E+03
	Pa-231	1.187E-14	1.184E-14	0.000E+00	0.000E+00		
	Ac-227	1.356E-15	1.353E-15	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.200E+03, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Pu-239/240		1.869E-15	1.868E-15	0.000E+00	0.000E+00	4.227E-09	1.699E+04
	U-235	1.469E-19	1.468E-19	0.000E+00	0.000E+00		
	Pa-231	1.793E-20	1.792E-20	0.000E+00	0.000E+00		
	Ac-227	2.054E-21	2.053E-21	0.000E+00	0.000E+00		
U-235		3.113E-14	3.105E-14	0.000E+00	0.000E+00	4.847E-09	4.738E+03
	Pa-231	2.096E-15	2.090E-15	0.000E+00	0.000E+00		
	Ac-227	2.394E-16	2.388E-16	0.000E+00	0.000E+00		

TIME OF RUN 17:52:04.0
DATE OF RUN 04/22/98
FILE NAME: c:\mydocu~1\WAG4\new\out\08b-rad.max

```
*****************************************************
*                                                   *
*     This output was produced by the model:        *
*                    GWMENU                         *
*         Version 1.01; Beta Test Version           *
* A menu-driven pre-processor for the groundwater   *
* pathway screening model GWSCREEN Version 2.5      *
*              GWSCREEN Copyright (C) 1992,         *
```

```
*   Lockheed Martin Idaho Technologies Company   *
*      GWMENU (C) Copyright 1996, K-Spar Inc.     *
*                    09-15-97                     *
*                   K-Spar Inc.                   *
*         493 N 4154 E Rigby Idaho 83442          *
*         (208) 745-8068 email asr@srv.net        *
*************************************************
```


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```
TITLE: CFA-08b max, rad
----------------- MODEL OPTIONS -------------------
Type of Output:        Limiting Conc
Integration Method:    Gaussian Quad
Source Model Type:     Surface/Buried
Dose Criteria:         MCL for Radionuclide
--------------- SOURCE PARAMETERS -----------------
X Coordinate (m):   -1.768E+03  Y Coordinate (m):    1.284E+03
Source Length (m):   6.240E+01  Source Width (m):    8.920E+01
Thickness (m):       7.600E+00  Bulk Density (g/cc): 1.500E+00
Percolation (m/y):   1.000E-01  Moisture Content:    3.000E-01
------------ UNSATURATED ZONE PARAMETERS -----------
Unsat Thickness (m): 4.900E+01  Moisture Content:    3.000E-01
Total Porosity:      4.870E-01  Bulk Density:        1.500E+00
---------------- AQUIFER PARAMETERS ----------------
Solution Type:    2D Averaged
Pore Velocity (m/y):        5.700E+02 Aquifer Porosity:          1.000E-01
Longitudinal Disp (m):      9.000E+00 Transverse Disp (m):       4.000E+00
Vertical Disp (m):         n/a        Well Screen Thickness (m):  1.500E+01
Bulk Density (g/cc):        1.900E+00 Number of Receptors:       11
--------------- EXPOSURE PARAMETERS ----------------
Dose Impacts Base on: MCL (Ci/L)
Body Weight (kg):           7.000E+01 Averaging Time (d):        2.556E+04
Water Ingestion Rate (L/d): 2.000E+00 Exposure Frequency (d/y):  3.500E+02
Exposure Duration (y):      3.000E+01
------------------------------------------------ CONTAMINANT PARAMETERS ------------------------------------------------
Contaminant Name          Inventory    Dose      Molar    Half Life  Kd Source  Kd Unsat  Kd Aquifer Additional Solubility
                                       Factor    Weight                                               Loss Rate   Limit
                            (Ci)     MCL (Ci/L) (g/mole)   (years)    (mL/g)     (mL/g)     (mL/g)     (1/y)     (mg/L)
-----------------------------------------------------------------------------------------------------------------------
Ra-226                    1.650E-01  2.000E-11  2.260E+02  1.600E+03  1.000E+02  1.000E+02  1.000E+02  0.000E+00  1.000E+06
  Pb-210                             6.700E+06             2.230E+01                        1.000E+02
U-235                     9.645E-03  1.010E-12  2.350E+02  7.040E+08  6.000E+00  6.000E+00  6.000E+00  0.000E+00  1.000E+06
  Pa-231                             1.340E+00             3.500E+04                        8.000E+00
  Ac-227                             2.490E+05             2.160E+01                        7.000E+01
------------------------------------------ RESULTS ------------------------------------------
* = Limiting pore water concentration exceeds solubility
Receptor Location X, Y, Z, (meters): -1.737E+03, 1.284E+03, 1.500E+01
  Contaminant Name        Maximum        Average        Maximum        Average        Limiting       Peak Time
                        Concentration  Concentration     Impacts        Impacts     Concentration    (years)
                           (Ci/L)         (Ci/L)         (MCL)          (MCL)         (Ci/kg)
-----------------------------------------------------------------------------------------------------------
Ra-226                  1.985E-27      1.985E-27      0.000E+00      0.000E+00      2.621E+07*     7.404E+04
            Pb-210      2.013E-27      2.013E-27      0.000E+00      0.000E+00
U-235                   1.644E-13      1.627E-13      0.000E+00      0.000E+00      9.434E-10      4.593E+03
            Pa-231      1.074E-14      1.063E-14      0.000E+00      0.000E+00
            Ac-227      1.227E-15      1.214E-15      0.000E+00      0.000E+00
Receptor Location X, Y, Z, (meters):  7.550E+01,-2.000E+02, 1.500E+01
  Contaminant Name        Maximum        Average        Maximum        Average        Limiting       Peak Time
                        Concentration  Concentration     Impacts        Impacts     Concentration    (years)
                           (Ci/L)         (Ci/L)         (MCL)          (MCL)         (Ci/kg)
```

Ra-226		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
	Pb-210	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
U-235		1.447E-41	5.336E-42	0.000E+00	0.000E+00	2.877E+19*	5.443E+03
	Pa-231	1.111E-42	4.106E-43	0.000E+00	0.000E+00		
	Ac-227	1.275E-43	4.624E-44	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 0.000E+00, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ra-226		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
	Pb-210	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
U-235		7.946E-34	5.405E-34	0.000E+00	0.000E+00	2.841E+11*	5.188E+03
	Pa-231	5.832E-35	3.966E-35	0.000E+00	0.000E+00		
	Ac-227	6.665E-36	4.533E-36	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ra-226		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
	Pb-210	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
U-235		4.961E-31	4.068E-31	0.000E+00	0.000E+00	3.774E+08*	5.286E+03
	Pa-231	3.706E-32	3.039E-32	0.000E+00	0.000E+00		
	Ac-227	4.236E-33	3.474E-33	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 2.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ra-226		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
	Pb-210	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
U-235		1.403E-28	1.387E-28	0.000E+00	0.000E+00	1.107E+06*	5.150E+03
	Pa-231	1.022E-29	1.011E-29	0.000E+00	0.000E+00		
	Ac-227	1.168E-30	1.155E-30	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 3.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ra-226		9.261E-42	9.260E-42	0.000E+00	0.000E+00	5.616E+21*	8.205E+04
	Pb-210	9.392E-42	9.392E-42	0.000E+00	0.000E+00		
U-235		2.769E-26	2.761E-26	0.000E+00	0.000E+00	5.560E+03*	5.119E+03
	Pa-231	2.007E-27	2.001E-27	0.000E+00	0.000E+00		
	Ac-227	2.293E-28	2.287E-28	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 4.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ra-226		1.516E-39	1.516E-39	0.000E+00	0.000E+00	3.430E+19*	8.176E+04
	Pb-210	1.538E-39	1.538E-39	0.000E+00	0.000E+00		
U-235		3.969E-24	3.961E-24	0.000E+00	0.000E+00	3.876E+01*	5.101E+03
	Pa-231	2.866E-25	2.860E-25	0.000E+00	0.000E+00		
	Ac-227	3.275E-26	3.269E-26	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 6.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ra-226		1.246E-35	1.246E-35	0.000E+00	0.000E+00	4.175E+15*	8.122E+04
	Pb-210	1.264E-35	1.263E-35	0.000E+00	0.000E+00		
U-235		2.586E-20	2.580E-20	0.000E+00	0.000E+00	5.950E-03	5.067E+03
	Pa-231	1.856E-21	1.851E-21	0.000E+00	0.000E+00		
	Ac-227	2.121E-22	2.116E-22	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 8.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ra-226		1.577E-32	1.577E-32	0.000E+00	0.000E+00	3.298E+12*	8.082E+04
	Pb-210	1.599E-32	1.599E-32	0.000E+00	0.000E+00		
U-235		2.728E-17	2.720E-17	0.000E+00	0.000E+00	5.645E-06	5.038E+03
	Pa-231	1.947E-18	1.941E-18	0.000E+00	0.000E+00		
	Ac-227	2.225E-19	2.218E-19	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+03, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ra-226		2.176E-30	2.176E-30	0.000E+00	0.000E+00	2.390E+10*	8.052E+04
	Pb-210	2.206E-30	2.206E-30	0.000E+00	0.000E+00		
U-235		3.317E-15	3.307E-15	0.000E+00	0.000E+00	4.642E-08	5.019E+03
	Pa-231	2.359E-16	2.352E-16	0.000E+00	0.000E+00		
	Ac-227	2.696E-17	2.688E-17	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.200E+03, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ra-226		2.473E-29	2.473E-29	0.000E+00	0.000E+00	2.103E+09*	8.039E+04
	Pb-210	2.508E-29	2.508E-29	0.000E+00	0.000E+00		
U-235		3.545E-14	3.535E-14	0.000E+00	0.000E+00	4.343E-09	5.010E+03
	Pa-231	2.517E-15	2.510E-15	0.000E+00	0.000E+00		
	Ac-227	2.876E-16	2.868E-16	0.000E+00	0.000E+00		

TIME OF RUN 17:52:20.8
DATE OF RUN 04/22/98
FILE NAME: c:\mydocu~1\WAG4\new\out\10-nr.max

```
 ***************************************************
 *                                                 *
 *     This output was produced by the model:      *
 *                    GWMENU                       *
 *         Version 1.01: Beta Test Version         *
 * A menu-driven pre-processor for the groundwater *
 * pathway screening model GWSCREEN Version 2.5    *
 *              GWSCREEN Copyright (C) 1992.       *
 *   Lockheed Martin Idaho Technologies Company   *
 *      GWMENU (C) Copyright 1996, K-Spar Inc.     *
 *                    09-15-97                     *
 *                   K-Spar Inc.                   *
 *         493 N 4154 E Rigby Idaho 83442          *
 *         (208) 745-8068 email asr@srv.net        *
 ***************************************************
```


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TITLE: CFA-10 max, non-rad

```
----------------- MODEL OPTIONS -------------------
Type of Output:        Limiting Conc
Integration Method:    Gaussian Quad
Source Model Type:     Surface/Buried
Dose Criteria:         MCL for Non-radiological Contaminant
--------------- SOURCE PARAMETERS -----------------
X Coordinate (m):   -4.298E+02  Y Coordinate (m):    4.474E+02
Source Length (m):   4.071E+01  Source Width (m):    1.985E+01
Thickness (m):       3.050E+00  Bulk Density (g/cc): 1.500E+00
```

```
Percolation (m/y):   1.000E-01  Moisture Content:    3.000E-01
------------ UNSATURATED ZONE PARAMETERS -----------
Unsat Thickness (m): 1.900E+01  Moisture Content:    3.000E-01
Total Porosity:      4.870E-01  Bulk Density:        1.500E+00
---------------- AQUIFER PARAMETERS ----------------
Solution Type:    2D Averaged
Pore Velocity (m/y):        5.700E+02 Aquifer Porosity:           1.000E-01
Longitudinal Disp (m):      9.000E+00 Transverse Disp (m):        4.000E+00
Vertical Disp (m):          n/a       Well Screen Thickness (m):  1.500E+01
Bulk Density (g/cc):        1.900E+00 Number of Receptors:        11
--------------- EXPOSURE PARAMETERS ----------------
Dose Impacts Base on: MCL (mg/L)
Body Weight (kg):           7.000E+01 Averaging Time (d):         2.556E+04
Water Ingestion Rate (L/d): 2.000E+00 Exposure Frequency (d/y):   3.500E+02
Exposure Duration (y):      3.000E+01
------------------------------------------------- CONTAMINANT PARAMETERS -------------------------------------------------
Contaminant Name          Inventory     Dose      Molar    Half Life  Kd Source  Kd Unsat  Kd Aquifer Additional Solubility
                                        Factor    Weight                                                Loss Rate    Limit
                            (mg)      MCL (mg/L) (g/mole)   (years)    (mL/g)     (mL/g)     (mL/g)     (1/y)      (mg/L)
--------------------------------------------------------------------------------------------------------------------------
Lead                      6.096E+08  0.000E+00  2.072E+02  9.000E+09  1.000E+02  1.000E+02  1.000E+02  0.000E+00  1.000E+06
---------------------------------------------- RESULTS ----------------------------------------------
* = Limiting pore water concentration exceeds solubility
Receptor Location X, Y, Z, (meters): -4.094E+02, 4.474E+02, 1.500E+01
  Contaminant Name      Maximum       Average       Maximum       Average       Limiting      Peak Time
                      Concentration Concentration   Impacts       Impacts     Concentration    (years)
                         (mg/L)        (mg/L)        (MCL)         (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------
Lead                  3.807E-03     3.807E-03     0.000E+00     0.000E+00     0.000E+00     2.892E+04
Receptor Location X, Y, Z, (meters):  7.550E+01,-2.000E+02, 1.500E+01
  Contaminant Name      Maximum       Average       Maximum       Average       Limiting      Peak Time
                      Concentration Concentration   Impacts       Impacts     Concentration    (years)
                         (mg/L)        (mg/L)        (MCL)         (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------
Lead                  3.631E-18     3.628E-18     0.000E+00     0.000E+00     0.000E+00     3.305E+04
Receptor Location X, Y, Z, (meters):  7.550E+01, 0.000E+00, 1.500E+01
  Contaminant Name      Maximum       Average       Maximum       Average       Limiting      Peak Time
                      Concentration Concentration   Impacts       Impacts     Concentration    (years)
                         (mg/L)        (mg/L)        (MCL)         (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------
Lead                  5.633E-12     5.630E-12     0.000E+00     0.000E+00     0.000E+00     3.215E+04
Receptor Location X, Y, Z, (meters):  7.550E+01, 1.000E+02, 1.500E+01
  Contaminant Name      Maximum       Average       Maximum       Average       Limiting      Peak Time
                      Concentration Concentration   Impacts       Impacts     Concentration    (years)
                         (mg/L)        (mg/L)        (MCL)         (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------
Lead                  3.391E-09     3.389E-09     0.000E+00     0.000E+00     0.000E+00     3.176E+04
Receptor Location X, Y, Z, (meters):  7.550E+01, 2.000E+02, 1.500E+01
  Contaminant Name      Maximum       Average       Maximum       Average       Limiting      Peak Time
                      Concentration Concentration   Impacts       Impacts     Concentration    (years)
                         (mg/L)        (mg/L)        (MCL)         (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------
Lead                  8.711E-07     8.706E-07     0.000E+00     0.000E+00     0.000E+00     3.137E+04
Receptor Location X, Y, Z, (meters):  7.550E+01, 3.000E+02, 1.500E+01
  Contaminant Name      Maximum       Average       Maximum       Average       Limiting      Peak Time
                      Concentration Concentration   Impacts       Impacts     Concentration    (years)
                         (mg/L)        (mg/L)        (MCL)         (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------
Lead                  5.993E-05     5.992E-05     0.000E+00     0.000E+00     0.000E+00     3.110E+04
Receptor Location X, Y, Z, (meters):  7.550E+01, 4.000E+02, 1.500E+01
  Contaminant Name      Maximum       Average       Maximum       Average       Limiting      Peak Time
                      Concentration Concentration   Impacts       Impacts     Concentration    (years)
                         (mg/L)        (mg/L)        (MCL)         (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------
Lead                  6.092E-04     6.092E-04     0.000E+00     0.000E+00     0.000E+00     3.094E+04
Receptor Location X, Y, Z, (meters):  7.550E+01, 6.000E+02, 1.500E+01
  Contaminant Name      Maximum       Average       Maximum       Average       Limiting      Peak Time
```

```
                    Concentration  Concentration     Impacts        Impacts     Concentration    (years)
                       (mg/L)         (mg/L)         (MCL)          (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------------
Lead                 5.015E-05      5.014E-05      0.000E+00      0.000E+00      0.000E+00      3.110E+04
Receptor Location X, Y, Z, (meters):  7.550E+01, 8.000E+02, 1.500E+01
  Contaminant Name     Maximum        Average        Maximum        Average       Limiting       Peak Time
                    Concentration  Concentration     Impacts        Impacts     Concentration    (years)
                       (mg/L)         (mg/L)         (MCL)          (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------------
Lead                 2.475E-09      2.473E-09      0.000E+00      0.000E+00      0.000E+00      3.176E+04
Receptor Location X, Y, Z, (meters):  7.550E+01, 1.000E+03, 1.500E+01
  Contaminant Name     Maximum        Average        Maximum        Average       Limiting       Peak Time
                    Concentration  Concentration     Impacts        Impacts     Concentration    (years)
                       (mg/L)         (mg/L)         (MCL)          (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------------
Lead                 3.727E-15      3.727E-15      0.000E+00      0.000E+00      0.000E+00      3.263E+04
Receptor Location X, Y, Z, (meters):  7.550E+01, 1.200E+03, 1.500E+01
  Contaminant Name     Maximum        Average        Maximum        Average       Limiting       Peak Time
                    Concentration  Concentration     Impacts        Impacts     Concentration    (years)
                       (mg/L)         (mg/L)         (MCL)          (MCL)        (mg/kg)
-----------------------------------------------------------------------------------------------------------
Lead                 1.307E-21      1.254E-21      0.000E+00      0.000E+00      0.000E+00      3.347E+04

TIME OF RUN 17:52:31.4
DATE OF RUN 04/22/98
FILE NAME: c:\mydocu~1\WAG4\new\out\12-rad.max
  ***************************************************
  *                                                 *
  *     This output was produced by the model:      *
  *                    GWMENU                       *
  *         Version 1.01: Beta Test Version         *
  * A menu-driven pre-processor for the groundwater *
  * pathway screening model GWSCREEN Version 2.5    *
  *              GWSCREEN Copyright (C) 1992,       *
  *   Lockheed Martin Idaho Technologies Company   *
  *      GWMENU (C) Copyright 1996, K-Spar Inc.     *
  *                    09-15-97                     *
  *                   K-Spar Inc.                   *
  *         493 N 4154 E Rigby Idaho 83442          *
  *         (208) 745-8068 email asr@srv.net        *
  ***************************************************
 ==================================================================
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 ==================================================================

TITLE: CFA-12 max, rad
------------------ MODEL OPTIONS ------------------
Type of Output:        Limiting Conc
Integration Method:    Gaussian Quad
Source Model Type:     Surface/Buried
Dose Criteria:         MCL for Radionuclide
--------------- SOURCE PARAMETERS ------------------
X Coordinate (m):   -9.687E+02  Y Coordinate (m):   -6.527E+00
Source Length (m):   3.660E+00  Source Width (m):    3.660E+00
Thickness (m):       2.600E+00  Bulk Density (g/cc): 1.500E+00
Percolation (m/y):   1.000E-01  Moisture Content:    3.000E-01
------------ UNSATURATED ZONE PARAMETERS -----------
Unsat Thickness (m): 1.290E+01  Moisture Content:    3.000E-01
Total Porosity:      4.870E-01  Bulk Density:        1.500E+00
---------------- AQUIFER PARAMETERS ----------------
Solution Type:    2D Averaged
Pore Velocity (m/y):        5.700E+02 Aquifer Porosity:          1.000E-01
```

Longitudinal Disp (m): 9.000E+00 Transverse Disp (m): 4.000E+00
Vertical Disp (m): n/a Well Screen Thickness (m): 1.500E+01
Bulk Density (g/cc): 1.900E+00 Number of Receptors: 11

---------- EXPOSURE PARAMETERS ----------

Dose Impacts Base on: MCL (Ci/L)
Body Weight (kg): 7.000E+01 Averaging Time (d): 2.556E+04
Water Ingestion Rate (L/d): 2.000E+00 Exposure Frequency (d/y): 3.500E+02
Exposure Duration (y): 3.000E+01

---------- CONTAMINANT PARAMETERS ----------

Contaminant Name	Inventory (Ci)	Dose Factor MCL (Ci/L)	Molar Weight (g/mole)	Half Life (years)	Kd Source (mL/g)	Kd Unsat (mL/g)	Kd Aquifer (mL/g)	Additional Loss Rate (1/y)	Solubility Limit (mg/L)
Ag-108m	1.509E-05	7.870E-12	1.080E+02	1.270E+02	9.000E+01	9.000E+01	9.000E+01	0.000E+00	1.000E+06
Np-237	2.996E-08	1.500E-11	2.370E+02	2.100E+06	5.000E+00	5.000E+00	5.000E+00	0.000E+00	1.000E+06
U-233		2.700E+05		1.590E+05			6.000E+00		
Th-229		3.910E+06		7.340E+03			1.000E+02		
Ba-133	4.729E-06	1.730E-11	1.330E+02	1.050E+01	5.000E+01	5.000E+01	5.000E+01	0.000E+00	1.000E+06
Cs-137	6.577E-03	1.510E-12	1.370E+02	3.020E+01	5.000E+02	5.000E+02	5.000E+02	0.000E+00	1.000E+06
Eu-152	6.525E-05	8.310E-12	1.520E+02	1.360E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	1.000E+06
U-235	1.472E-05	1.010E-12	2.350E+02	7.040E+08	6.000E+00	6.000E+00	6.000E+00	0.000E+00	1.000E+06
Pa-231		1.340E+00		3.500E+04			8.000E+00		
Ac-227		2.490E+05		2.160E+01			7.000E+01		
U-238	1.122E-04	7.680E-13	2.380E+02	4.470E+09	6.000E+00	6.000E+00	6.000E+00	0.000E+00	1.000E+06
U-234		2.600E+05		2.450E+05			6.000E+00		
Th-230		5.300E+05		7.540E+03			1.000E+02		
Ra-226		1.100E+06		1.600E+03			1.000E+02		
Pb-210		6.700E+06		2.230E+01			1.000E+02		

---------- RESULTS ----------

* = Limiting pore water concentration exceeds solubility

Receptor Location X, Y, Z, (meters): -9.669E+02,-6.527E+00, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Np-237		9.913E-18	1.000E-17	0.000E+00	0.000E+00	8.600E-07	1.010E+03
	U-233	3.636E-20	3.710E-20	0.000E+00	0.000E+00		
	Th-229	1.017E-22	1.049E-22	0.000E+00	0.000E+00		
Ba-133		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Eu-152		7.882E-14	1.394E-14	0.000E+00	0.000E+00	7.445E-07	3.874E+01
U-235		4.086E-15	4.129E-15	0.000E+00	0.000E+00	6.893E-08	1.204E+03
	Pa-231	7.237E-17	7.379E-17	0.000E+00	0.000E+00		
	Ac-227	8.106E-18	8.267E-18	0.000E+00	0.000E+00		
U-238		3.115E-14	3.147E-14	0.000E+00	0.000E+00	5.241E-08	1.204E+03
	U-234	1.059E-16	1.080E-16	0.000E+00	0.000E+00		
	Th-230	3.421E-19	3.519E-19	0.000E+00	0.000E+00		
	Ra-226	5.293E-20	5.489E-20	0.000E+00	0.000E+00		
	Pb-210	4.909E-20	5.094E-20	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01,-2.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Np-237		6.294E-20	6.200E-20	0.000E+00	0.000E+00	1.387E-04	1.228E+03
	U-233	2.807E-22	2.765E-22	0.000E+00	0.000E+00		
	Th-229	9.485E-25	9.345E-25	0.000E+00	0.000E+00		
Ba-133		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Eu-152		5.205E-16	1.105E-16	0.000E+00	0.000E+00	9.392E-05	4.118E+01
U-235		2.592E-17	2.564E-17	0.000E+00	0.000E+00	1.110E-05	1.466E+03
	Pa-231	5.575E-19	5.513E-19	0.000E+00	0.000E+00		
	Ac-227	6.274E-20	6.204E-20	0.000E+00	0.000E+00		

U-238		1.976E-16	1.954E-16	0.000E+00	0.000E+00	8.441E-06	1.466E+03
	U-234	8.177E-19	8.086E-19	0.000E+00	0.000E+00		
	Th-230	3.190E-21	3.155E-21	0.000E+00	0.000E+00		
	Ra-226	5.863E-22	5.799E-22	0.000E+00	0.000E+00		
	Pb-210	5.514E-22	5.454E-22	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 0.000E+00, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Np-237		5.787E-19	5.704E-19	0.000E+00	0.000E+00	1.508E-05	1.221E+03
	U-233	2.566E-21	2.529E-21	0.000E+00	0.000E+00		
	Th-229	8.625E-24	8.503E-24	0.000E+00	0.000E+00		
Ba-133		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Eu-152		4.790E-15	1.027E-15	0.000E+00	0.000E+00	1.011E-05	4.108E+01
U-235		2.383E-16	2.358E-16	0.000E+00	0.000E+00	1.207E-06	1.458E+03
	Pa-231	5.097E-18	5.043E-18	0.000E+00	0.000E+00		
	Ac-227	5.735E-19	5.674E-19	0.000E+00	0.000E+00		
U-238		1.817E-15	1.797E-15	0.000E+00	0.000E+00	9.178E-07	1.458E+03
	U-234	7.476E-18	7.396E-18	0.000E+00	0.000E+00		
	Th-230	2.901E-20	2.870E-20	0.000E+00	0.000E+00		
	Ra-226	5.306E-21	5.250E-21	0.000E+00	0.000E+00		
	Pb-210	4.988E-21	4.936E-21	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Np-237		2.933E-19	2.899E-19	0.000E+00	0.000E+00	2.968E-05	1.228E+03
	U-233	1.307E-21	1.292E-21	0.000E+00	0.000E+00		
	Th-229	4.417E-24	4.366E-24	0.000E+00	0.000E+00		
Ba-133		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Eu-152		2.429E-15	5.188E-16	0.000E+00	0.000E+00	2.000E-05	4.118E+01
U-235		1.208E-16	1.197E-16	0.000E+00	0.000E+00	2.378E-06	1.465E+03
	Pa-231	2.597E-18	2.573E-18	0.000E+00	0.000E+00		
	Ac-227	2.922E-19	2.895E-19	0.000E+00	0.000E+00		
U-238		9.207E-16	9.121E-16	0.000E+00	0.000E+00	1.808E-06	1.465E+03
	U-234	3.809E-18	3.773E-18	0.000E+00	0.000E+00		
	Th-230	1.486E-20	1.472E-20	0.000E+00	0.000E+00		
	Ra-226	2.730E-21	2.704E-21	0.000E+00	0.000E+00		
	Pb-210	2.567E-21	2.543E-21	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 2.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Np-237		4.649E-20	4.577E-20	0.000E+00	0.000E+00	1.879E-04	1.228E+03
	U-233	2.073E-22	2.041E-22	0.000E+00	0.000E+00		
	Th-229	7.005E-25	6.899E-25	0.000E+00	0.000E+00		
Ba-133		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Eu-152		3.849E-16	8.154E-17	0.000E+00	0.000E+00	1.273E-04	4.118E+01
U-235		1.915E-17	1.893E-17	0.000E+00	0.000E+00	1.503E-05	1.466E+03
	Pa-231	4.117E-19	4.070E-19	0.000E+00	0.000E+00		
	Ac-227	4.634E-20	4.581E-20	0.000E+00	0.000E+00		
U-238		1.459E-16	1.443E-16	0.000E+00	0.000E+00	1.143E-05	1.466E+03
	U-234	6.039E-19	5.971E-19	0.000E+00	0.000E+00		
	Th-230	2.356E-21	2.329E-21	0.000E+00	0.000E+00		
	Ra-226	4.331E-22	4.282E-22	0.000E+00	0.000E+00		
	Pb-210	4.073E-22	4.027E-22	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 3.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Np-237		2.566E-21	2.521E-21	0.000E+00	0.000E+00	3.412E-03	1.244E+03
	U-233	1.159E-23	1.138E-23	0.000E+00	0.000E+00		
	Th-229	3.964E-26	3.894E-26	0.000E+00	0.000E+00		
Ba-133		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Eu-152		2.112E-17	4.387E-18	0.000E+00	0.000E+00	2.366E-03	4.124E+01
U-235		1.057E-18	1.042E-18	0.000E+00	0.000E+00	2.732E-04	1.484E+03
	Pa-231	2.301E-20	2.268E-20	0.000E+00	0.000E+00		
	Ac-227	2.591E-21	2.553E-21	0.000E+00	0.000E+00		
U-238		8.056E-18	7.940E-18	0.000E+00	0.000E+00	2.077E-04	1.484E+03
	U-234	3.376E-20	3.328E-20	0.000E+00	0.000E+00		
	Th-230	1.333E-22	1.314E-22	0.000E+00	0.000E+00		
	Ra-226	2.478E-23	2.442E-23	0.000E+00	0.000E+00		
	Pb-210	2.332E-23	2.298E-23	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 4.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Np-237		5.542E-23	5.486E-23	0.000E+00	0.000E+00	1.568E-01	1.252E+03
	U-233	2.519E-25	2.494E-25	0.000E+00	0.000E+00		
	Th-229	8.675E-28	8.588E-28	0.000E+00	0.000E+00		
Ba-133		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Eu-152		4.587E-19	9.293E-20	0.000E+00	0.000E+00	1.117E-01	4.143E+01
U-235		2.283E-20	2.263E-20	0.000E+00	0.000E+00	1.257E-02	1.495E+03
	Pa-231	5.003E-22	4.961E-22	0.000E+00	0.000E+00		
	Ac-227	5.633E-23	5.586E-23	0.000E+00	0.000E+00		
U-238		1.740E-19	1.725E-19	0.000E+00	0.000E+00	9.561E-03*	1.495E+03
	U-234	7.341E-22	7.279E-22	0.000E+00	0.000E+00		
	Th-230	2.917E-24	2.893E-24	0.000E+00	0.000E+00		
	Ra-226	5.453E-25	5.408E-25	0.000E+00	0.000E+00		
	Pb-210	5.135E-25	5.092E-25	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 6.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Np-237		2.965E-27	2.901E-27	0.000E+00	0.000E+00	2.965E+03*	1.279E+03
	U-233	1.377E-29	1.348E-29	0.000E+00	0.000E+00		
	Th-229	4.840E-32	4.738E-32	0.000E+00	0.000E+00		
Ba-133		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Eu-152		2.424E-23	4.809E-24	0.000E+00	0.000E+00	2.158E+03	4.176E+01
U-235		1.221E-24	1.196E-24	0.000E+00	0.000E+00	2.380E+02*	1.527E+03
	Pa-231	2.734E-26	2.678E-26	0.000E+00	0.000E+00		
	Ac-227	3.080E-27	3.016E-27	0.000E+00	0.000E+00		
U-238		9.309E-24	9.116E-24	0.000E+00	0.000E+00	1.809E+02*	1.527E+03
	U-234	4.013E-26	3.930E-26	0.000E+00	0.000E+00		
	Th-230	1.628E-28	1.594E-28	0.000E+00	0.000E+00		
	Ra-226	3.100E-29	3.036E-29	0.000E+00	0.000E+00		
	Pb-210	2.923E-29	2.863E-29	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 8.000E+02, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00

Np-237		1.943E-32	1.901E-32	0.000E+00	0.000E+00	4.525E+08*	1.335E+03
	U-233	9.414E-35	9.209E-35	0.000E+00	0.000E+00		
	Th-229	3.447E-37	3.371E-37	0.000E+00	0.000E+00		
Ba-133		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Eu-152		1.568E-28	3.342E-29	0.000E+00	0.000E+00	3.106E+08*	4.223E+01
U-235		8.001E-30	7.845E-30	0.000E+00	0.000E+00	3.628E+07*	1.593E+03
	Pa-231	1.868E-31	1.832E-31	0.000E+00	0.000E+00		
	Ac-227	2.106E-32	2.065E-32	0.000E+00	0.000E+00		
U-238		6.098E-29	5.980E-29	0.000E+00	0.000E+00	2.758E+07*	1.593E+03
	U-234	2.743E-31	2.689E-31	0.000E+00	0.000E+00		
	Th-230	1.159E-33	1.136E-33	0.000E+00	0.000E+00		
	Ra-226	2.289E-34	2.244E-34	0.000E+00	0.000E+00		
	Pb-210	2.164E-34	2.121E-34	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.000E+03, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Np-237		4.762E-38	1.175E-38	0.000E+00	0.000E+00	7.322E+14*	1.502E+03
	U-233	2.595E-40	6.402E-41	0.000E+00	0.000E+00		
	Th-229	1.064E-42	2.620E-43	0.000E+00	0.000E+00		
Ba-133		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Eu-152		5.623E-34	4.146E-35	0.000E+00	0.000E+00	2.504E+14*	4.387E+01
U-235		1.955E-35	6.259E-36	0.000E+00	0.000E+00	4.547E+13*	1.794E+03
	Pa-231	5.128E-37	1.642E-37	0.000E+00	0.000E+00		
	Ac-227	5.794E-38	1.856E-38	0.000E+00	0.000E+00		
U-238		1.490E-34	4.771E-35	0.000E+00	0.000E+00	3.457E+13*	1.794E+03
	U-234	7.543E-37	2.416E-37	0.000E+00	0.000E+00		
	Th-230	3.566E-39	1.143E-39	0.000E+00	0.000E+00		
	Ra-226	7.785E-40	2.495E-40	0.000E+00	0.000E+00		
	Pb-210	7.408E-40	2.374E-40	0.000E+00	0.000E+00		

Receptor Location X, Y, Z, (meters): 7.550E+01, 1.200E+03, 1.500E+01

Contaminant Name		Maximum Concentration (Ci/L)	Average Concentration (Ci/L)	Maximum Impacts (MCL)	Average Impacts (MCL)	Limiting Concentration (Ci/kg)	Peak Time (years)
Ag-108m		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Np-237		1.401E-45	0.000E+00	0.000E+00	0.000E+00	1.581E+22*	1.461E+03
	U-233	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
	Th-229	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
Ba-133		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Cs-137		0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00*	0.000E+00
Eu-152		1.023E-41	3.840E-42	0.000E+00	0.000E+00	2.703E+21*	4.344E+01
U-235		6.390E-43	2.046E-43	0.000E+00	0.000E+00	1.389E+21*	1.745E+03
	Pa-231	1.682E-44	5.605E-45	0.000E+00	0.000E+00		
	Ac-227	1.401E-45	0.000E+00	0.000E+00	0.000E+00		
U-238		4.865E-42	1.561E-42	0.000E+00	0.000E+00	1.056E+21*	1.745E+03
	U-234	2.382E-44	7.006E-45	0.000E+00	0.000E+00		
	Th-230	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
	Ra-226	0.000E+00	0.000E+00	0.000E+00	0.000E+00		
	Pb-210	0.000E+00	0.000E+00	0.000E+00	0.000E+00		

TIME OF RUN 17:52:59.2
DATE OF RUN 04/22/98
FILE NAME: c:\mydocu~1\WAG4\new\out\13-nr.max

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*************************************************
*                                               *
*     This output was produced by the model:    *
*                    GWMENU                     *
*         Version 1.01: Beta Test Version        *
* A menu-driven pre-processor for the groundwater *
* pathway screening model GWSCREEN Version 2.5   *
*              GWSCREEN Copyright (C) 1992.      *
*   Lockheed Martin Idaho Technologies Company   *
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