

<b><u>Row Name</u></b>	<b><u>Sources Included</u></b>
S-101Row	241-S-101 241-S-102 241-S-103
S-104 Row	241-S-104 241-S-105 241-S-106
S-107 Row	241-S-107 241-S-108 241-S-109
S-110 Row	241-S-110 241-S-111 241-S-112
SX-101 Row	241-SX-101 241-SX-102 241-SX-103
SX-101 Row +MUSTs	241-SX-101 241-SX-102 241-SX-103 241-SX-302
SX-104 Row	241-SX-104 241-SX-105 241-SX-106
SX-107 Row	241-SX-107 241-SX-108 241-SX-109
SX-110 Row	241-SX-110 241-SX-111 241-SX-112
SX-113 Row	241-SX-113 241-SX-114 241-SX-115

CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.04E-15	2281	0	0
14C	Carbon-14	1.18E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	8.28E-01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	7.98E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	9.29E-06	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	7.64E-06	8201		0
16887-00-6	Chloride	3.66E-05	8201		0
18540-29-9	Chromium	7.74E-04	8201	0	0
7440-48-4	Cobalt	3.71E-08	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	2.44E-06	8201		0
OHDEMAND	Hydroxide OH	3.48E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	2.82E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	8.19E-06	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.49E-03	8201	0	0
14797-65-0	Nitrite	5.17E-04	8201	0	0
338-70-5	Oxalate	7.10E-04	8201		0
14265-44-2	Phosphate	1.53E-04	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	7.20E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	2.74E-04	8201		0
7440-28-0	Thallium	0		71	5
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:55:39 PM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33  
5730 241-S-101 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	9.07E-16	2281	0	0
14C	Carbon-14	2.61E-01	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	7.19E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	1.75E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	6.44E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	1.75E-04	8201		0
16887-00-6	Chloride	8.77E-05	8201		0
18540-29-9	Chromium	7.37E-03	8201	0	0
7440-48-4	Cobalt	7.48E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	1.18E-05	8201		0
OHDEMAND	Hydroxide OH	1.56E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	3.92E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	1.83E-04	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	5.92E-03	8201	0	0
14797-65-0	Nitrite	1.19E-03	8201	0	0
338-70-5	Oxalate	1.54E-02	8201		0
14265-44-2	Phosphate	1.92E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	3.49E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	7.98E-05	8201		0
7440-28-0	Thallium	0		71	5
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:55:51 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-S-102 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	7.51E-16	2281	0	0
14C	Carbon-14	2.33E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	8.69E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	1.35E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	4.93E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	7.85E-05	8201		0
18540-29-9	Chromium	8.84E-03	8201	0	0
16984-48-8	Fluoride	8.31E-06	8201		0
OHDEMAND	Hydroxide OH	2.64E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	3.71E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	3.95E-03	8201	0	0
14797-65-0	Nitrite	9.02E-04	8201	0	0
338-70-5	Oxalate	7.09E-03	8201		0
14265-44-2	Phosphate	1.47E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	3.40E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.57E-04	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:55:58 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-S-103 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	2.29E-16	2281	0	0
14C	Carbon-14	6.15E-03	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	3.43E-01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	2.69E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	5.77E-07	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	2.80E-06	8201		0
16887-00-6	Chloride	2.46E-05	8201		0
18540-29-9	Chromium	9.42E-05	8201	0	0
7440-48-4	Cobalt	7.92E-09	12032	0.1	0.1
7440-50-8	Copper	0		35	5
57-12-5	Cyanide	0		9.9	5
16984-48-8	Fluoride	1.90E-06	8201		0
OHDEMAND	Hydroxide OH	3.60E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	2.78E-07	8201		0
7439-92-1	Lead	0		5.2	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.73E-03	8201	0	0
14797-65-0	Nitrite	1.85E-04	8201	0	0
338-70-5	Oxalate	2.71E-04	8201		0
14265-44-2	Phosphate	7.98E-06	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	5.60E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	8.91E-06	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:56:05 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-S-104 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.15E-15	2281	0	0
14C	Carbon-14	3.12E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	2.63E+01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	1.62E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	5.51E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	2.38E-05	8201		0
18540-29-9	Chromium	4.07E-03	8201	0	0
16984-48-8	Fluoride	7.06E-06	8201		0
OHDEMAND	Hydroxide OH	2.92E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.12E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	8.85E-03	8201	0	0
14797-65-0	Nitrite	1.87E-04	8201	0	0
338-70-5	Oxalate	3.52E-03	8201		0
14265-44-2	Phosphate	4.23E-04	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	8.21E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.06E-04	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6

## Half-Life

Years

Report Generated on: 5/25/2005, 12:56:16 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-S-105 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.53E-15	2281	0	0
14C	Carbon-14	4.16E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	8.89E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	2.09E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	1.95E-04	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	1.16E-04	8201		0
16887-00-6	Chloride	8.55E-05	8201		0
18540-29-9	Chromium	9.06E-03	8201	0	0
7440-48-4	Cobalt	5.62E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	3.99E-04	8201		0
OHDEMAND	Hydroxide OH	2.68E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.22E-09	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	1.16E-04	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.14E-02	8201	0	0
14797-65-0	Nitrite	8.35E-04	8201	0	0
338-70-5	Oxalate	6.11E-03	8201		0
14265-44-2	Phosphate	3.40E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	8.15E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.27E-03	8201		0
7440-28-0	Thallium	0		71	5
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:56:22 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-S-106 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.91E-15	2281	0	0
14C	Carbon-14	5.36E-03	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.20E-01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	8.52E-09	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	4.67E-06	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	4.00E-06	8201		0
16887-00-6	Chloride	1.32E-05	8201		0
18540-29-9	Chromium	2.83E-04	8201	0	0
7440-48-4	Cobalt	1.86E-08	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	1.12E-04	8201		0
OHDEMAND	Hydroxide OH	3.64E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.89E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	7.27E-06	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	3.65E-04	8201	0	0
14797-65-0	Nitrite	1.92E-04	8201	0	0
338-70-5	Oxalate	3.10E-04	8201		0
14265-44-2	Phosphate	2.06E-04	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	1.20E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	9.43E-06	8201		0
7440-28-0	Thallium	0		71	5
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:56:29 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-S-107 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.58E-15	2281	0	0
14C	Carbon-14	4.25E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	8.57E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	2.02E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	2.90E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.03E-04	8201		0
18540-29-9	Chromium	8.32E-03	8201	0	0
16984-48-8	Fluoride	1.34E-04	8201		0
OHDEMAND	Hydroxide OH	2.68E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	6.62E-07	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	9.88E-03	8201	0	0
14797-65-0	Nitrite	1.31E-03	8201	0	0
338-70-5	Oxalate	7.52E-03	8201		0
14265-44-2	Phosphate	1.62E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	8.23E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.70E-03	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:56:37 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-S-108 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.47E-15	2281	0	0
14C	Carbon-14	3.77E-01	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.49E+01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	1.90E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	8.47E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	2.51E-04	8201		0
16887-00-6	Chloride	1.56E-05	8201		0
18540-29-9	Chromium	5.15E-03	8201	0	0
7440-48-4	Cobalt	1.21E-06	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	5.83E-06	8201		0
OHDEMAND	Hydroxide OH	1.78E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	3.91E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	2.51E-04	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	2.04E-02	8201	0	0
14797-65-0	Nitrite	2.51E-04	8201	0	0
338-70-5	Oxalate	6.76E-03	8201		0
14265-44-2	Phosphate	5.49E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	1.93E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	4.30E-04	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:56:44 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-S-109 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.57E-15	2281	0	0
14C	Carbon-14	2.90E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	2.58E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	1.51E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	4.17E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	1.54E-05	8201		0
16887-00-6	Chloride	4.01E-05	8201		0
18540-29-9	Chromium	1.21E-03	8201	0	0
7440-48-4	Cobalt	7.44E-08	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	3.16E-05	8201		0
OHDEMAND	Hydroxide OH	3.79E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	6.70E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	1.69E-05	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	8.15E-03	8201	0	0
14797-65-0	Nitrite	4.78E-04	8201	0	0
338-70-5	Oxalate	1.72E-03	8201		0
14265-44-2	Phosphate	1.89E-04	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	4.20E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	3.53E-04	8201		0
7440-28-0	Thallium	0		71	5
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:56:51 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-S-110 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.84E-15	2281	0	0
14C	Carbon-14	6.66E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	4.02E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	2.10E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	1.02E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	2.17E-05	8201		0
16887-00-6	Chloride	9.11E-05	8201		0
18540-29-9	Chromium	2.00E-03	8201	0	0
7440-48-4	Cobalt	1.06E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	4.02E-05	8201		0
OHDEMAND	Hydroxide OH	3.59E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	2.09E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	2.17E-05	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	7.46E-03	8201	0	0
14797-65-0	Nitrite	1.05E-03	8201	0	0
338-70-5	Oxalate	1.79E-03	8201		0
14265-44-2	Phosphate	1.59E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	1.29E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	8.21E-04	8201		0
7440-28-0	Thallium	0		71	5
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:57:00 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-S-111 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	7.90E-17	2281	0	0
14C	Carbon-14	4.26E-01	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	5.92E-02	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	9.99E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	3.31E-04	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	2.93E-06	8201		0
18540-29-9	Chromium	2.27E-04	8201	0	0
16984-48-8	Fluoride	3.16E-05	8201		0
OHDEMAND	Hydroxide OH	2.09E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	2.74E-04	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.67E-04	8201	0	0
14797-65-0	Nitrite	4.43E-05	8201	0	0
338-70-5	Oxalate	8.05E-03	8201		0
14265-44-2	Phosphate	1.90E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	8.26E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.52E-02	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6

## Half-Life

Years

Report Generated on: 5/25/2005, 12:57:09 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-S-112 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-S: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	3.16E-15	2281	0	0
14C	Carbon-14	2.92E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	2.37E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	1.76E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	5.40E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	1.56E-04	8201		0
16887-00-6	Chloride	2.21E-04	8201		0
18540-29-9	Chromium	1.47E-02	8201	0	0
7440-48-4	Cobalt	6.58E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	3.26E-05	8201		0
OHDEMAND	Hydroxide OH	2.79E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	4.16E-05	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	1.74E-04	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.16E-02	8201	0	0
14797-65-0	Nitrite	9.58E-04	8201	0	0
338-70-5	Oxalate	4.60E-03	8201		0
14265-44-2	Phosphate	1.28E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	8.29E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	2.35E-04	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:57:26 PM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33 241-SX-101 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

5730

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.50E-15	2281	0	0
14C	Carbon-14	3.65E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.20E+01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	2.11E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	3.08E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	9.85E-05	8201		0
16887-00-6	Chloride	1.62E-04	8201		0
18540-29-9	Chromium	7.94E-03	8201	0	0
7440-48-4	Cobalt	4.67E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	5.04E-05	8201		0
OHDEMAND	Hydroxide OH	2.82E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	6.92E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	9.80E-05	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	8.04E-03	8201	0	0
14797-65-0	Nitrite	2.55E-03	8201	0	0
338-70-5	Oxalate	8.97E-03	8201		0
14265-44-2	Phosphate	7.14E-04	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	7.64E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.13E-03	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

**Half-Life**

Years

**Report Generated on: 5/25/2005, 12:57:36 PM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**  
241-SX-102 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp  
**Major Assumptions Used:**  
Dilution factor for WMA-SX: 40  
Compliance Monitoring Start Year :2001

12.33  
5730  
74999  
100.1  
5.2713  
805000  
28.149  
16.13

1530000  
211097  
1.01736  
14.1  
246000  
2.7299  
15700000  
2.0619  
29.999  
89.997  
13.33  
8.5919  
4.68  
1600  
5.7498  
21.769  
7340

1405000000  
32759  
69.799  
159198  
245694  
703700000  
23420000  
4468000000  
2140000  
87.697  
24110  
6563  
14.35  
373507  
432.7  
7370  
0.44611  
28.499  
18.1

Infinity  
Infinity  
Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.68E-15	2281	0	0
14C	Carbon-14	3.45E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	2.56E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	1.79E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	9.86E-06	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	3.23E-05	8201		0
16887-00-6	Chloride	1.01E-04	8201		0
18540-29-9	Chromium	2.24E-03	8201	0	0
7440-48-4	Cobalt	1.46E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	1.89E-05	8201		0
OHDEMAND	Hydroxide OH	3.74E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	3.00E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	3.47E-05	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	8.66E-03	8201	0	0
14797-65-0	Nitrite	1.55E-03	8201	0	0
338-70-5	Oxalate	3.11E-03	8201		0
14265-44-2	Phosphate	2.98E-04	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	5.71E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	7.99E-04	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

**Half-Life**

Years

**Report Generated on: 5/25/2005, 12:57:44 PM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**  
241-SX-103 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp  
**Major Assumptions Used:**  
Dilution factor for WMA-SX: 40  
Compliance Monitoring Start Year :2001

12.33  
5730  
74999  
100.1  
5.2713  
805000  
28.149  
16.13  
1530000  
211097  
1.01736  
14.1  
246000  
2.7299  
15700000  
2.0619  
29.999  
89.997  
13.33  
8.5919  
4.68  
1600  
5.7498  
21.769  
7340  
1405000000  
32759  
69.799  
159198  
245694  
703700000  
23420000  
4468000000  
2140000  
87.697  
24110  
6563  
14.35  
373507  
432.7  
7370  
0.44611  
28.499  
18.1

Infinity  
Infinity  
Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.25E-15	2281	0	0
14C	Carbon-14	1.69E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.66E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	8.77E-09	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	1.68E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	5.77E-05	8201		0
18540-29-9	Chromium	8.36E-04	8201	0	0
16984-48-8	Fluoride	1.78E-05	8201		0
OHDEMAND	Hydroxide OH	3.84E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	3.99E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	4.12E-03	8201	0	0
14797-65-0	Nitrite	6.40E-04	8201	0	0
338-70-5	Oxalate	8.24E-04	8201		0
14265-44-2	Phosphate	1.22E-04	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	3.06E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.38E-04	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:57:51 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-SX-104 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.60E-15	2281	0	0
14C	Carbon-14	3.65E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	5.23E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	2.04E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	5.53E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	6.81E-05	8201		0
16887-00-6	Chloride	1.38E-04	8201		0
18540-29-9	Chromium	3.45E-03	8201	0	0
7440-48-4	Cobalt	3.36E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	4.17E-05	8201		0
OHDEMAND	Hydroxide OH	3.38E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	6.84E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	7.04E-05	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	7.43E-03	8201	0	0
14797-65-0	Nitrite	2.37E-03	8201	0	0
338-70-5	Oxalate	5.11E-03	8201		0
14265-44-2	Phosphate	1.27E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	7.25E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	8.20E-04	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:57:58 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-SX-105 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.84E-15	2281	0	0
14C	Carbon-14	1.95E-01	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	8.98E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	2.75E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	3.73E-05	8201		0

7440-43-9	Cadmium	0	1.26	1
7440-70-2	Calcium	0	4	5
16887-00-6	Chloride	2.21E-04	8201	0
18540-29-9	Chromium	6.99E-03	8201	0
16984-48-8	Fluoride	1.80E-05	8201	0
OHDEMAND	Hydroxide OH	2.18E-02	8201	0
7439-89-6	Iron	0	25	5
7439-91-0	Lanthanum	1.04E-09	8201	0
7439-92-1	Lead	0	5.2	5
7439-96-5	Manganese	0	1	1
7439-97-6	Mercury	0	5.2	5
7440-02-0	Nickel	0	48	5
14797-55-8	Nitrate	8.73E-03	8201	0
14797-65-0	Nitrite	2.78E-03	8201	0
338-70-5	Oxalate	6.96E-03	8201	0
14265-44-2	Phosphate	3.91E-03	8201	0
7440-21-3	Silicon	0	30	5
7440-23-5	Sodium	2.32E-02	8201	0
7440-24-6	Strontium	0	16.1	5
14808-79-8	Sulfate	4.51E-04	8201	0
7440-29-1	Thorium	0	1	1
7440-61-1	Uranium	0	0.6	0.6
7440-67-7	Zirconium	0	500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:58:04 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-SX-106 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	4.56E-16	2281	0	0
14C	Carbon-14	4.22E-03	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.86E-01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	1.56E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	1.63E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.68E-05	8201		0
18540-29-9	Chromium	1.04E-04	8201	0	0
16984-48-8	Fluoride	9.72E-07	8201		0
OHDEMAND	Hydroxide OH	3.67E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	3.62E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	8.69E-04	8201	0	0
14797-65-0	Nitrite	1.77E-04	8201	0	0
338-70-5	Oxalate	1.75E-04	8201		0
14265-44-2	Phosphate	9.40E-05	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	3.27E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.41E-05	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:58:11 PM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33 241-SX-107 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

5730

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	3.10E-15	2281	0	0
14C	Carbon-14	2.51E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	8.76E-01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	4.82E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	2.36E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	7.17E-05	8201		0
16887-00-6	Chloride	8.76E-05	8201		0
18540-29-9	Chromium	1.10E-03	8201	0	0
7440-48-4	Cobalt	1.64E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	1.75E-05	8201		0
OHDEMAND	Hydroxide OH	3.64E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	4.39E-05	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	1.28E-04	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.51E-02	8201	0	0
14797-65-0	Nitrite	6.34E-04	8201	0	0
338-70-5	Oxalate	3.61E-04	8201		0
14265-44-2	Phosphate	1.37E-04	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	1.13E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	9.01E-05	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:58:18 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-SX-108 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.50E-15	2281	0	0
14C	Carbon-14	1.17E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	7.36E-01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	6.53E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	7.97E-06	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	6.08E-05	8201		0
18540-29-9	Chromium	2.23E-04	8201	0	0
16984-48-8	Fluoride	5.00E-07	8201		0
OHDEMAND	Hydroxide OH	3.53E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	5.47E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	3.53E-03	8201	0	0
14797-65-0	Nitrite	2.12E-04	8201	0	0
338-70-5	Oxalate	3.05E-04	8201		0
14265-44-2	Phosphate	4.72E-05	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	9.45E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	2.67E-05	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:58:30 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-SX-109 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.34E-15	2281	0	0
14C	Carbon-14	9.23E-03	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	5.75E-01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	4.71E-09	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	1.51E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	5.35E-05	8201		0
18540-29-9	Chromium	1.97E-04	8201	0	0
16984-48-8	Fluoride	1.19E-06	8201		0
OHDEMAND	Hydroxide OH	3.84E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	5.22E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	3.03E-03	8201	0	0
14797-65-0	Nitrite	2.84E-04	8201	0	0
338-70-5	Oxalate	2.75E-04	8201		0
14265-44-2	Phosphate	9.98E-05	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	2.00E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.48E-05	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:58:38 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-SX-110

TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	7.57E-16	2281	0	0
14C	Carbon-14	8.36E-03	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	3.16E-01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	2.56E-09	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	1.69E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	2.78E-05	8201		0
18540-29-9	Chromium	1.39E-04	8201	0	0
16984-48-8	Fluoride	1.02E-06	8201		0
OHDEMAND	Hydroxide OH	3.79E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	4.38E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.47E-03	8201	0	0
14797-65-0	Nitrite	2.28E-04	8201	0	0
338-70-5	Oxalate	2.18E-04	8201		0
14265-44-2	Phosphate	1.06E-04	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.16E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.05E-05	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:58:50 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-SX-111 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	6.19E-16	2281	0	0
14C	Carbon-14	7.25E-03	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	2.57E-01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	2.03E-09	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	1.74E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	2.27E-05	8201		0
18540-29-9	Chromium	1.26E-04	8201	0	0
16984-48-8	Fluoride	1.05E-06	8201		0
OHDEMAND	Hydroxide OH	3.78E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	4.16E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.19E-03	8201	0	0
14797-65-0	Nitrite	2.10E-04	8201	0	0
338-70-5	Oxalate	2.04E-04	8201		0
14265-44-2	Phosphate	1.09E-04	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	9.90E-04	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	9.22E-06	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:59:00 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-SX-112 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





<b>CAS Number</b>	<b>Analyte Name</b>	<b>Concentration</b> pCi/L (Rad) or mg/L (Non-rad)	<b>Peak Year</b>	<b>Kd</b>	<b>Kd Bin</b>
3H	Tritium	2.63E-17	2281	0	0
14C	Carbon-14	1.35E-03	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	9.21E-03	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	7.31E-11	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	3.99E-07	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	4.28E-07	8201		0
16887-00-6	Chloride	9.75E-07	8201		0
18540-29-9	Chromium	5.47E-06	8201	0	0
7440-48-4	Cobalt	2.24E-09	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	8.80E-08	8201		0
OHDEMAND	Hydroxide OH	4.02E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	2.86E-07	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-00-8	Neodymium	4.66E-07	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	4.88E-05	8201	0	0
14797-65-0	Nitrite	1.38E-05	8201	0	0
338-70-5	Oxalate	1.40E-05	8201		0
14265-44-2	Phosphate	1.03E-05	8201		0
7440-16-6	Rhodium	5.58E-08	8201		0
7440-18-8	Ruthenium	0		1	1
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	5.41E-05	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	5.22E-07	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-65-5	Yttrium	8.54E-07	8201		0
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:59:08 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-SX-113 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	1.61E-15	2281	0	0
14C	Carbon-14	1.17E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	7.18E-01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	5.62E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	9.73E-06	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	5.89E-05	8201		0
18540-29-9	Chromium	2.05E-04	8201	0	0
16984-48-8	Fluoride	6.07E-07	8201		0
OHDEMAND	Hydroxide OH	3.59E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	5.09E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	3.20E-03	8201	0	0
14797-65-0	Nitrite	3.11E-04	8201	0	0
338-70-5	Oxalate	2.78E-04	8201		0
14265-44-2	Phosphate	5.72E-05	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	8.43E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	2.96E-05	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/25/2005, 12:59:17 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-SX-114 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	2.83E-15	2281	0	0
14C	Carbon-14	4.36E-03	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	5.20E-01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	3.99E-09	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-70-2	Calcium	0		4	5
16887-00-6	Chloride	1.42E-05	8201		0

18540-29-9	Chromium	3.65E-03	8201	0	0
OHDEMAND	Hydroxide OH	3.23E-02	8201		0
7439-89-6	Iron	0		25	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	3.39E-13	8201	0	0
14797-65-0	Nitrite	2.13E-05	8201	0	0
338-70-5	Oxalate	3.16E-04	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	2.90E-04	8201		0
14808-79-8	Sulfate	1.25E-05	8201		0
7440-61-1	Uranium	0		0.6	0.6

## Half-Life

Years

Report Generated on: 5/25/2005, 12:59:34 PM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-SX-115

TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-SX: 40

28.149 Compliance Monitoring Start Year :2001

16.13

1530000

211097

1.01736

14.1

246000

2.7299

15700000

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	2.70E-15	2281	0	0
14C	Carbon-14	2.96E-01	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.67E+01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	1.11E-07	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	1.23E-04	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	1.83E-04	8201		0
16887-00-6	Chloride	2.03E-04	8201		0
18540-29-9	Chromium	1.70E-02	8201	0	0
7440-48-4	Cobalt	7.85E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	2.26E-05	8201		0
OHDEMAND	Hydroxide OH	7.68E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.04E-05	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	1.91E-04	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.14E-02	8201	0	0
14797-65-0	Nitrite	2.61E-03	8201	0	0
338-70-5	Oxalate	2.32E-02	8201		0
14265-44-2	Phosphate	3.54E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	1.41E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	5.11E-04	8201		0
7440-28-0	Thallium	0		71	5
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

**Report Generated on: 5/25/2005, 1:06:32 PM**

**Report Generated by H0098416 ( David J. Watson )**

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-S-101 TanksSFarm\_Jan01\_HTWOS.txt case02.stp  
74999

100.1 241-S-102 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-S-103 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

28.149

16.13

1530000 **Major Assumptions Used:**

211097 Dilution factor for WMA-S: 40

1.01736 Compliance Monitoring Start Year :2001

14.1

246000

2.7299

15700000 Verified by John Middleton 6/15/05

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	2.91E-15	2281	0	0
14C	Carbon-14	7.89E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	3.55E+01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	6.40E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	2.51E-04	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	1.18E-04	8201		0
16887-00-6	Chloride	1.34E-04	8201		0
18540-29-9	Chromium	1.32E-02	8201	0	0
7440-48-4	Cobalt	5.70E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
57-12-5	Cyanide	0		9.9	5
16984-48-8	Fluoride	4.08E-04	8201		0
OHDEMAND	Hydroxide OH	9.21E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.40E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	1.16E-04	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	2.19E-02	8201	0	0
14797-65-0	Nitrite	1.21E-03	8201	0	0
338-70-5	Oxalate	9.90E-03	8201		0
14265-44-2	Phosphate	3.83E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	2.20E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.38E-03	8201		0
7440-28-0	Thallium	0		71	5
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

**Report Generated on: 5/25/2005, 1:06:42 PM**

**Report Generated by H0098416 ( David J. Watson )**

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-S-104 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999  
100.1 241-S-105 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-S-106 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

28.149  
16.13

1530000 **Major Assumptions Used:**

211097 Dilution factor for WMA-S: 40

1.01736 Compliance Monitoring Start Year :2001

14.1

246000

2.7299

15700000 Verified by John Middleton 6/15/05

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	4.95E-15	2281	0	0
14C	Carbon-14	4.25E-01	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	2.35E+01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	4.76E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	1.18E-04	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	2.55E-04	8201		0
16887-00-6	Chloride	1.31E-04	8201		0
18540-29-9	Chromium	1.38E-02	8201	0	0
7440-48-4	Cobalt	1.23E-06	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	2.52E-04	8201		0
OHDEMAND	Hydroxide OH	8.09E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	6.46E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	2.58E-04	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	3.06E-02	8201	0	0
14797-65-0	Nitrite	1.76E-03	8201	0	0
338-70-5	Oxalate	1.46E-02	8201		0
14265-44-2	Phosphate	7.32E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	2.87E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	2.14E-03	8201		0
7440-28-0	Thallium	0		71	5
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

**Report Generated on: 5/25/2005, 1:06:51 PM**

**Report Generated by H0098416 ( David J. Watson )**

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-S-107 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999  
100.1 241-S-108 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-S-109 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

28.149  
16.13

1530000 **Major Assumptions Used:**

211097 Dilution factor for WMA-S: 40

1.01736 Compliance Monitoring Start Year :2001

14.1

246000

2.7299

15700000 Verified by John Middleton 6/15/05

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





<b>CAS Number</b>	<b>Analyte Name</b>	<b>Concentration</b> pCi/L (Rad) or mg/L (Non-rad)	<b>Peak Year</b>	<b>Kd</b>	<b>Kd Bin</b>
3H	Tritium	3.49E-15	2281	0	0
14C	Carbon-14	5.22E-01	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	6.66E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	1.36E-07	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	3.83E-04	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	3.72E-05	8201		0
16887-00-6	Chloride	1.34E-04	8201		0
18540-29-9	Chromium	3.44E-03	8201	0	0
7440-48-4	Cobalt	1.80E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	1.03E-04	8201		0
OHDEMAND	Hydroxide OH	9.47E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	2.83E-04	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	3.86E-05	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.58E-02	8201	0	0
14797-65-0	Nitrite	1.57E-03	8201	0	0
338-70-5	Oxalate	1.16E-02	8201		0
14265-44-2	Phosphate	3.67E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	2.54E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.64E-02	8201		0
7440-28-0	Thallium	0		71	5
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

**Report Generated on: 5/25/2005, 1:07:02 PM**

**Report Generated by H0098416 ( David J. Watson )**

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-S-110 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

74999  
100.1 241-S-111 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-S-112 TanksSFarm\_Jan01\_HTWOS.txt case02.stp

28.149

16.13

1530000 **Major Assumptions Used:**

211097 Dilution factor for WMA-S: 40

1.01736 Compliance Monitoring Start Year :2001

14.1

246000

2.7299

15700000 Verified by John Middleton 6/15/05

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	6.34E-15	2281	0	0
14C	Carbon-14	1.00E-01	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.69E+01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	5.66E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	9.46E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	2.87E-04	8201		0
16887-00-6	Chloride	4.84E-04	8201		0
18540-29-9	Chromium	2.49E-02	8201	0	0
7440-48-4	Cobalt	1.27E-06	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	1.02E-04	8201		0
OHDEMAND	Hydroxide OH	9.35E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	5.15E-05	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	3.07E-04	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	2.83E-02	8201	0	0
14797-65-0	Nitrite	5.06E-03	8201	0	0
338-70-5	Oxalate	1.67E-02	8201		0
14265-44-2	Phosphate	2.29E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	2.16E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	2.17E-03	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

**Report Generated on: 5/25/2005, 1:04:14 PM**

**Report Generated by H0098416 ( David J. Watson )**

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-SX-101 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp  
74999

100.1 241-SX-102 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-SX-103 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

28.149

16.13

1530000 **Major Assumptions Used:**

211097 Dilution factor for WMA-SX: 40

1.01736 Compliance Monitoring Start Year :2001

14.1

246000

2.7299

15700000 Verified by John Middleton 6/15/05

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	6.38E-15	2281	0	0
14C	Carbon-14	1.01E-01	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.70E+01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	5.71E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	9.51E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	2.88E-04	8201		0
16887-00-6	Chloride	4.86E-04	8201		0
18540-29-9	Chromium	2.49E-02	8201	0	0
7440-48-4	Cobalt	1.27E-06	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	1.02E-04	8201		0
OHDEMAND	Hydroxide OH	9.44E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	5.17E-05	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	3.08E-04	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	2.85E-02	8201	0	0
14797-65-0	Nitrite	5.09E-03	8201	0	0
338-70-5	Oxalate	1.67E-02	8201		0
14265-44-2	Phosphate	2.30E-03	8201		0
7440-16-6	Rhodium	9.97E-11	8201		0
7440-18-8	Ruthenium	0		1	1
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	2.18E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	2.17E-03	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-65-5	Yttrium	1.53E-09	8201		0
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

**Half-Life**

Years

<b>Report Generated on: 5/31/2005, 3:29:26 PM</b>		
<b>Report Generated by H0098416 ( David J. Watson )</b>		
<b>Decision Management Tool Version 4.0.0.37</b>		
12.33	241-SX-101	TanksSXFarm_Jan01_HTWOS.txt case02.stp
5730		
74999		
100.1	241-SX-102	TanksSXFarm_Jan01_HTWOS.txt case02.stp
5.2713		
805000	241-SX-103	TanksSXFarm_Jan01_HTWOS.txt case02.stp
28.149		
16.13	241-SX-302	TanksSXFarm_MUST.txt case02.stp
1530000		
211097		
1.01736	<b>Major Assumptions Used:</b>	
14.1	Dilution factor for WMA-SX: 40	
246000	Compliance Monitoring Start Year :2001	
2.7299		

15700000

2.0619

29.999 Verified by John Middleton 6/15/05

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	4.69E-15	2281	0	0
14C	Carbon-14	2.48E-01	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.59E+01	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	5.67E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	1.09E-04	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	6.81E-05	8201		0
16887-00-6	Chloride	4.18E-04	8201		0
18540-29-9	Chromium	1.13E-02	8201	0	0
7440-48-4	Cobalt	3.36E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	7.74E-05	8201		0
OHDEMAND	Hydroxide OH	9.40E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.08E-05	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	7.04E-05	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	2.03E-02	8201	0	0
14797-65-0	Nitrite	5.78E-03	8201	0	0
338-70-5	Oxalate	1.29E-02	8201		0
14265-44-2	Phosphate	5.31E-03	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	3.35E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.41E-03	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

**Report Generated on: 5/25/2005, 1:04:24 PM**

**Report Generated by H0098416 ( David J. Watson )**

**Decision Management Tool Version 4.0.0.37**

12.33			
5730	241-SX-104	TanksSXFarm_Jan01_HTWOS.txt	case02.stp
74999			
100.1	241-SX-105	TanksSXFarm_Jan01_HTWOS.txt	case02.stp
5.2713			
805000	241-SX-106	TanksSXFarm_Jan01_HTWOS.txt	case02.stp
28.149			
16.13			

**Major Assumptions Used:**

211097 Dilution factor for WMA-SX: 40

1.01736 Compliance Monitoring Start Year :2001

14.1

246000

2.7299

15700000 Verified by John Middleton 6/15/05

2.0619

29.999

89.997

13.33

8.5919

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159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	5.05E-15	2281	0	0
14C	Carbon-14	4.10E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.80E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	1.29E-07	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	4.79E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	7.17E-05	8201		0
16887-00-6	Chloride	1.65E-04	8201		0
18540-29-9	Chromium	1.42E-03	8201	0	0
7440-48-4	Cobalt	1.64E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	1.90E-05	8201		0
OHDEMAND	Hydroxide OH	1.08E-01	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	5.30E-05	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	1.28E-04	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.95E-02	8201	0	0
14797-65-0	Nitrite	1.02E-03	8201	0	0
338-70-5	Oxalate	8.40E-04	8201		0
14265-44-2	Phosphate	2.78E-04	8201		0
7782-49-2	Selenium	0		5	5
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	2.40E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.31E-04	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

**Report Generated on: 5/25/2005, 1:04:33 PM**

**Report Generated by H0098416 ( David J. Watson )**

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-SX-107 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999  
100.1 241-SX-108 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-SX-109 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

28.149  
16.13

1530000 **Major Assumptions Used:**

211097 Dilution factor for WMA-SX: 40

1.01736 Compliance Monitoring Start Year :2001

14.1

246000

2.7299

15700000 Verified by John Middleton 6/15/05

2.0619

29.999

89.997

13.33

8.5919

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1600

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32759

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159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	2.71E-15	2281	0	0
14C	Carbon-14	2.48E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.15E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	9.30E-09	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	4.93E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.04E-04	8201		0
18540-29-9	Chromium	4.62E-04	8201	0	0
16984-48-8	Fluoride	3.26E-06	8201		0
OHDEMAND	Hydroxide OH	1.14E-01	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.38E-05	8201		0
7439-92-1	Lead	0		5.2	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	5.69E-03	8201	0	0
14797-65-0	Nitrite	7.22E-04	8201	0	0
338-70-5	Oxalate	6.97E-04	8201		0
14265-44-2	Phosphate	3.15E-04	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	4.15E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	3.45E-05	8201		0
7440-29-1	Thorium	0		1	1
7440-61-1	Uranium	0		0.6	0.6
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

**Report Generated on: 5/25/2005, 1:04:43 PM**

**Report Generated by H0098416 ( David J. Watson )**

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-SX-110 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999  
100.1 241-SX-111 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-SX-112 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

28.149

16.13

1530000 **Major Assumptions Used:**

211097 Dilution factor for WMA-SX: 40

1.01736 Compliance Monitoring Start Year :2001

14.1

246000

2.7299

15700000 Verified by John Middleton 6/15/05

2.0619

29.999

89.997

13.33

8.5919

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1600

5.7498

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1405000000

32759

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159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity





CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	4.47E-15	2281	0	0
14C	Carbon-14	1.74E-02	7831	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	0		0.1	0.1
79Se	Selenium-79	0		3.1	2
90Sr	Strontium-90 + D	0		16.1	5
93mNb	Niobium-93m	0		100	5
93Zr	Zirconium-93	0		600	5
99Tc	Technetium-99	1.25E+00	8191	0	0
106Ru	Ruthenium-106	0		1	1
113mCd	Cadmium-113m	0		1	1
126Sn	Tin-126	0		1	1
125Sb	Antimony-125	0		1	1
129I	Iodine-129	6.03E-08	12032	0.2	0.2
134Cs	Cesium-134	0		25	5
137Cs	Cesium-137 + Daughters	0		25	5
151Sm	Samarium-151	0		1	1
152Eu	Europium-152	0		1	1
154Eu	Europium-154	0		1	1
155Eu	Europium-155	0		1	1
226Ra	Radium-226 + D	0		1	1
228Ra	Radium-228 + D	0		1	1
227Ac	Actinium-227 + D	0		67	5
229Th	Thorium-229 + D	0		3	2
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-36-0	Antimony	0		1	1
7440-38-2	Arsenic	0		39	5

7440-39-3	Barium	0		60	5
7440-41-7	Beryllium	0		70	5
7440-69-9	Bismuth	1.01E-05	8201		0
7440-42-8	Boron	0		3	2
7440-43-9	Cadmium	0		1.26	1
7440-70-2	Calcium	0		4	5
7440-45-1	Cerium	4.28E-07	8201		0
16887-00-6	Chloride	7.41E-05	8201		0
18540-29-9	Chromium	3.86E-03	8201	0	0
7440-48-4	Cobalt	2.24E-09	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	6.95E-07	8201		0
OHDEMAND	Hydroxide OH	1.08E-01	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	5.37E-06	8201		0
7439-92-1	Lead	0		5.2	5
7439-93-2	Lithium	0		300	5
7439-95-4	Magnesium	0		4.5	5
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-00-8	Neodymium	4.66E-07	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	3.25E-03	8201	0	0
14797-65-0	Nitrite	3.47E-04	8201	0	0
338-70-5	Oxalate	6.08E-04	8201		0
14265-44-2	Phosphate	6.76E-05	8201		0
7440-16-6	Rhodium	5.58E-08	8201		0
7440-18-8	Ruthenium	0		1	1
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	8.78E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	4.26E-05	8201		0
7440-29-1	Thorium	0		1	1
7440-32-6	Titanium	0		1000	5
7440-61-1	Uranium	0		0.6	0.6
7440-62-2	Vanadium	0		50	5
7440-65-5	Yttrium	8.54E-07	8201		0
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

**Report Generated on: 5/25/2005, 1:04:55 PM**

**Report Generated by H0098416 ( David J. Watson )**

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-SX-113 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

74999  
100.1 241-SX-114 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-SX-115 TanksSXFarm\_Jan01\_HTWOS.txt case02.stp

28.149  
16.13

1530000 **Major Assumptions Used:**

211097 Dilution factor for WMA-SX: 40

1.01736 Compliance Monitoring Start Year :2001

14.1

246000

2.7299

15700000 Verified by John Middleton 6/15/05

2.0619

29.999

89.997

13.33

8.5919

4.68

1600

5.7498

21.769

7340

1405000000

32759

69.799

159198

245694

703700000

23420000

4468000000

2140000

87.697

24110

6563

14.35

373507

432.7

7370

0.44611

28.499

18.1

Infinity

Infinity

Infinity

