

<b><u>Row Name</u></b>	<b><u>Sources Included</u></b>
TXR Vault Row	None
TX-101 Row	241-TX-101 241-TX-102 241-TX-103 241-TX-104
TX-101 Row + MUSTs	241-TX-101 241-TX-102 241-TX-103 241-TX-104 241-TX-302XB
TX-105 Row	241-TX-105 241-TX-106 241-TX-107 241-TX-108
TX-109 Row	241-TX-109 241-TX-110 241-TX-111 241-TX-112
TX-113 Row	241-TX-113 241-TX-114 241-TX-115
TX-116 Row	241-TX-116 241-TX-117 241-TX-118
TY-101 Row	241-TY-101 241-TY-102
TY-101 Row + MUSTs	241-TY-101 241-TY-102 241-TY-302B
TY-103 Row	241-TY-103 241-TY-104
TY-105 Row	241-TY-105 241-TY-106
TY-105 Row + MUSTs	241-TY-105 241-TY-106 241-TY-302A

CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	3.24E-15	2281	0	0
14C	Carbon-14	3.16E-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	2.05E+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	5.65E-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	5.60E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.36E-04	8201		0
18540-29-9	Chromium	6.87E-04	8201	0	0
16984-48-8	Fluoride	2.98E-05	8201		0
OHDEMAND	Hydroxide OH	4.40E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.09E-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	7.93E-03	8201	0	0
14797-65-0	Nitrite	1.76E-03	8201	0	0
338-70-5	Oxalate	6.32E-04	8201		0
14265-44-2	Phosphate	8.63E-04	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.47E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	4.38E-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, 11:03:16 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

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

### Major Assumptions Used:

Dilution factor for WMA-TX-TY: 40

Compliance Monitoring Start Year :2001

241-TX-101 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

Infinity

Infinity

Infinity



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	2.06E-15	2281	0	0
14C	Carbon-14	8.68E-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	4.29E+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	2.15E-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	2.84E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.14E-04	8201		0
18540-29-9	Chromium	5.50E-04	8201	0	0
16984-48-8	Fluoride	7.81E-05	8201		0
OHDEMAND	Hydroxide OH	2.97E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	6.85E-15	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	1.14E-02	8201	0	0
14797-65-0	Nitrite	1.15E-03	8201	0	0
338-70-5	Oxalate	1.55E-03	8201		0
14265-44-2	Phosphate	2.41E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.64E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.67E-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, 11:03:22 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33

5730

241-TX-102

TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713

**Major Assumptions Used:**

805000 Dilution factor for WMA-TX-TY: 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	2.07E-15	2281	0	0
14C	Carbon-14	9.00E-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	4.52E+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	2.05E-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	3.83E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.09E-04	8201		0
18540-29-9	Chromium	5.64E-04	8201	0	0
16984-48-8	Fluoride	8.47E-05	8201		0
OHDEMAND	Hydroxide OH	2.94E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	9.53E-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	1.16E-02	8201	0	0
14797-65-0	Nitrite	1.09E-03	8201	0	0
338-70-5	Oxalate	1.64E-03	8201		0
14265-44-2	Phosphate	2.85E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.72E-02	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, 11:03:29 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33

5730

241-TX-103

TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713

**Major Assumptions Used:**

805000

Dilution factor for WMA-TX-TY: 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	2.25E-15	2281	0	0
14C	Carbon-14	4.05E-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	1.28E+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	1.92E-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	8.31E-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	4.03E-05	8201		0
16887-00-6	Chloride	1.43E-04	8201		0
18540-29-9	Chromium	8.09E-04	8201	0	0
7440-48-4	Cobalt	1.75E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	7.23E-05	8201		0
OHDEMAND	Hydroxide OH	4.28E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.06E-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	4.03E-05	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.30E-02	8201	0	0
14797-65-0	Nitrite	1.40E-03	8201	0	0
338-70-5	Oxalate	1.36E-03	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	1.00E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.17E-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, 11:03:37 AM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**  
241-TX-104 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
**Major Assumptions Used:**  
Dilution factor for WMA-TX-TY: 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	2.23E-15	2281	0	0
14C	Carbon-14	8.76E-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	4.15E+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
7440-69-9	Bismuth	2.78E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.02E-04	8201		0
18540-29-9	Chromium	5.38E-04	8201	0	0
16984-48-8	Fluoride	8.42E-05	8201		0
OHDEMAND	Hydroxide OH	2.91E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	6.67E-15	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-02	8201	0	0
14797-65-0	Nitrite	9.57E-04	8201	0	0
338-70-5	Oxalate	1.52E-03	8201		0
14265-44-2	Phosphate	2.42E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.62E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.71E-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, 11:03:45 AM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**  
241-TX-105 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
**Major Assumptions Used:**  
Dilution factor for WMA-TX-TY: 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	2.03E-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	2.40E+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	1.97E-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	4.07E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.05E-04	8201		0
18540-29-9	Chromium	8.46E-04	8201	0	0
16984-48-8	Fluoride	7.62E-05	8201		0
OHDEMAND	Hydroxide OH	3.53E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	7.08E-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	1.04E-02	8201	0	0
14797-65-0	Nitrite	9.78E-04	8201	0	0
338-70-5	Oxalate	2.33E-03	8201		0
14265-44-2	Phosphate	1.54E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	6.36E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	7.06E-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, 11:03:55 AM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**  
241-TX-106 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
**Major Assumptions Used:**  
Dilution factor for WMA-TX-TY: 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	2.95E-15	2281	0	0
14C	Carbon-14	1.03E-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	5.83E+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	2.23E-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	3.03E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.43E-04	8201		0
18540-29-9	Chromium	1.74E-03	8201	0	0
16984-48-8	Fluoride	5.52E-05	8201		0
OHDEMAND	Hydroxide OH	2.89E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	8.93E-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	1.17E-02	8201	0	0
14797-65-0	Nitrite	1.17E-03	8201	0	0
338-70-5	Oxalate	2.17E-03	8201		0
14265-44-2	Phosphate	2.33E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	2.09E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.53E-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, 11:04:02 AM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**  
241-TX-107 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
**Major Assumptions Used:**  
Dilution factor for WMA-TX-TY: 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	2.14E-15	2281	0	0
14C	Carbon-14	8.25E-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	3.89E+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	1.96E-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	4.07E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.06E-04	8201		0
18540-29-9	Chromium	5.04E-04	8201	0	0
16984-48-8	Fluoride	8.11E-05	8201		0
OHDEMAND	Hydroxide OH	2.77E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.04E-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	1.16E-02	8201	0	0
14797-65-0	Nitrite	1.02E-03	8201	0	0
338-70-5	Oxalate	1.42E-03	8201		0
14265-44-2	Phosphate	2.72E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.56E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.66E-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, 11:04:12 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33

5730

241-TX-108

TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713

**Major Assumptions Used:**

805000

Dilution factor for WMA-TX-TY: 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-16	2281	0	0
14C	Carbon-14	6.85E-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	1.47E+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	2.40E-10	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	1.30E-02	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	6.96E-05	8201		0
18540-29-9	Chromium	4.80E-04	8201	0	0
16984-48-8	Fluoride	6.28E-04	8201		0
OHDEMAND	Hydroxide OH	2.71E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.16E-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	7.76E-03	8201	0	0
14797-65-0	Nitrite	5.98E-04	8201	0	0
338-70-5	Oxalate	6.75E-04	8201		0
14265-44-2	Phosphate	5.18E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	6.86E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	8.25E-04	8201		0
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, 11:04:19 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33

5730

241-TX-109

TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713

**Major Assumptions Used:**

805000

Dilution factor for WMA-TX-TY: 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	2.20E-15	2281	0	0
14C	Carbon-14	8.44E-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	4.03E+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	1.79E-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
7440-69-9	Bismuth	1.38E-03	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	9.94E-05	8201		0
18540-29-9	Chromium	5.44E-04	8201	0	0
16984-48-8	Fluoride	1.07E-04	8201		0
OHDEMAND	Hydroxide OH	2.85E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.21E-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	1.19E-02	8201	0	0
14797-65-0	Nitrite	9.17E-04	8201	0	0
338-70-5	Oxalate	1.48E-03	8201		0
14265-44-2	Phosphate	3.00E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.59E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.67E-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, 11:04:27 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33

5730

241-TX-110

TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713

**Major Assumptions Used:**

805000

Dilution factor for WMA-TX-TY: 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

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1600

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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	2.17E-15	2281	0	0
14C	Carbon-14	8.04E-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	3.78E+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	1.73E-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	1.96E-03	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	9.77E-05	8201		0
18540-29-9	Chromium	5.30E-04	8201	0	0
16984-48-8	Fluoride	1.19E-04	8201		0
OHDEMAND	Hydroxide OH	2.77E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.73E-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	1.18E-02	8201	0	0
14797-65-0	Nitrite	8.91E-04	8201	0	0
338-70-5	Oxalate	1.39E-03	8201		0
14265-44-2	Phosphate	3.23E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.54E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.62E-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, 11:04:35 AM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**  
241-TX-111 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
**Major Assumptions Used:**  
Dilution factor for WMA-TX-TY: 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	2.18E-15	2281	0	0
14C	Carbon-14	9.11E-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	4.48E+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	1.81E-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	4.45E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	9.82E-05	8201		0
18540-29-9	Chromium	5.63E-04	8201	0	0
16984-48-8	Fluoride	9.36E-05	8201		0
OHDEMAND	Hydroxide OH	3.01E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.68E-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	1.20E-02	8201	0	0
14797-65-0	Nitrite	9.22E-04	8201	0	0
338-70-5	Oxalate	1.64E-03	8201		0
14265-44-2	Phosphate	3.21E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.73E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.75E-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, 11:04:44 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33

5730

241-TX-112

TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713

**Major Assumptions Used:**

805000

Dilution factor for WMA-TX-TY: 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	2.14E-15	2281	0	0
14C	Carbon-14	1.02E-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	5.46E+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	1.67E-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
7440-69-9	Bismuth	2.83E-03	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.89E-05	8201		0
18540-29-9	Chromium	1.22E-04	8201	0	0
16984-48-8	Fluoride	1.47E-04	8201		0
OHDEMAND	Hydroxide OH	2.95E-04	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	2.50E-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	1.27E-02	8201	0	0
14797-65-0	Nitrite	1.21E-04	8201	0	0
338-70-5	Oxalate	1.26E-03	8201		0
14265-44-2	Phosphate	5.89E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.99E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	3.94E-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, 11:04:57 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33

5730

241-TX-113

TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713

**Major Assumptions Used:**

805000

Dilution factor for WMA-TX-TY: 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

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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	2.07E-15	2281	0	0
14C	Carbon-14	6.60E-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	2.75E+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	1.63E-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	1.35E-04	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	9.03E-05	8201		0
18540-29-9	Chromium	3.65E-04	8201	0	0
16984-48-8	Fluoride	1.12E-04	8201		0
OHDEMAND	Hydroxide OH	1.71E-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
7439-96-5	Manganese	0		1	1
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.17E-02	8201	0	0
14797-65-0	Nitrite	7.97E-04	8201	0	0
338-70-5	Oxalate	1.01E-03	8201		0
14265-44-2	Phosphate	3.16E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.35E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.35E-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, 11:05:03 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33

5730

241-TX-114

TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713

**Major Assumptions Used:**

805000

Dilution factor for WMA-TX-TY: 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	2.23E-15	2281	0	0
14C	Carbon-14	9.27E-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	4.54E+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
7440-69-9	Bismuth	3.77E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.03E-04	8201		0
18540-29-9	Chromium	5.71E-04	8201	0	0
16984-48-8	Fluoride	8.45E-05	8201		0
OHDEMAND	Hydroxide OH	3.07E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	5.18E-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	1.20E-02	8201	0	0
14797-65-0	Nitrite	9.71E-04	8201	0	0
338-70-5	Oxalate	1.66E-03	8201		0
14265-44-2	Phosphate	2.67E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.71E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.77E-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, 11:05:10 AM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**  
241-TX-115 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
**Major Assumptions Used:**  
Dilution factor for WMA-TX-TY: 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	9.96E-16	2281	0	0
14C	Carbon-14	3.11E-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	1.89E+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	1.01E-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	1.57E-04	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	5.89E-05	8201		0
18540-29-9	Chromium	1.59E-04	8201	0	0
16984-48-8	Fluoride	9.29E-05	8201		0
OHDEMAND	Hydroxide OH	3.92E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.71E-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	1.32E-02	8201	0	0
14797-65-0	Nitrite	3.74E-04	8201	0	0
338-70-5	Oxalate	4.45E-04	8201		0
14265-44-2	Phosphate	3.30E-04	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	9.64E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.23E-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, 11:05:17 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33

5730

241-TX-116

TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713

**Major Assumptions Used:**

805000

Dilution factor for WMA-TX-TY: 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	1.42E-15	2281	0	0
14C	Carbon-14	4.78E-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	2.08E+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	1.05E-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	1.34E-04	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	6.01E-05	8201		0
18540-29-9	Chromium	2.79E-04	8201	0	0
16984-48-8	Fluoride	1.77E-04	8201		0
OHDEMAND	Hydroxide OH	2.21E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.39E-05	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	1.12E-02	8201	0	0
14797-65-0	Nitrite	5.30E-04	8201	0	0
338-70-5	Oxalate	7.58E-04	8201		0
14265-44-2	Phosphate	7.95E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.46E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.16E-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, 11:05:24 AM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**  
241-TX-117 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
**Major Assumptions Used:**  
Dilution factor for WMA-TX-TY: 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	1.61E-15	2281	0	0
14C	Carbon-14	6.82E-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	3.40E+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	1.77E-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-04	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	6.76E-05	8201		0
18540-29-9	Chromium	1.35E-03	8201	0	0
16984-48-8	Fluoride	5.17E-04	8201		0
OHDEMAND	Hydroxide OH	7.84E-03	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	3.22E-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	2.65E-03	8201	0	0
14797-65-0	Nitrite	7.79E-04	8201	0	0
338-70-5	Oxalate	1.03E-02	8201		0
14265-44-2	Phosphate	2.92E-02	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.66E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	4.25E-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, 11:05:33 AM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-TX-118 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-TX-TY: 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	1.12E-17	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	3.52E-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	5.45E-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
7440-39-3	Barium	0		60	5
7440-69-9	Bismuth	2.90E-03	8201		0

7440-43-9	Cadmium	0	1.26	1
7440-70-2	Calcium	0	4	5
16887-00-6	Chloride	4.05E-06	8201	0
18540-29-9	Chromium	2.83E-04	8201	0
16984-48-8	Fluoride	2.19E-05	8201	0
OHDEMAND	Hydroxide OH	1.81E-02	8201	0
7439-89-6	Iron	0	25	5
7439-91-0	Lanthanum	1.36E-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	1.24E-02	8201	0
14797-65-0	Nitrite	5.98E-05	8201	0
338-70-5	Oxalate	1.30E-05	8201	0
14265-44-2	Phosphate	6.56E-03	8201	0
7440-21-3	Silicon	0	30	5
7440-22-4	Silver	0	2.7	2
7440-23-5	Sodium	5.44E-03	8201	0
7440-24-6	Strontium	0	16.1	5
14808-79-8	Sulfate	1.88E-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, 11:05:51 AM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**  
241-TY-101 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
**Major Assumptions Used:**  
Dilution factor for WMA-TX-TY: 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	1.15E-15	2281	0	0
14C	Carbon-14	2.02E-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	1.14E+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	6.85E-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	3.38E-05	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	7.60E-05	8201		0
18540-29-9	Chromium	3.41E-05	8201	0	0
16984-48-8	Fluoride	1.71E-04	8201		0
OHDEMAND	Hydroxide OH	4.68E-03	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	2.07E-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	1.50E-02	8201	0	0
14797-65-0	Nitrite	7.34E-04	8201	0	0
338-70-5	Oxalate	1.96E-04	8201		0
14265-44-2	Phosphate	3.19E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	1.31E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.21E-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, 11:06:01 AM

Report Generated by H0098416 ( David J. Watson )

12.33 Decision Management Tool Version 4.0.0.37

5730 241-TY-102 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-TX-TY: 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	2.36E-16	2281	0	0
14C	Carbon-14	2.72E-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	1.69E+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	2.83E-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	7.31E-03	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	2.23E-05	8201		0
18540-29-9	Chromium	1.63E-04	8201	0	0
16984-48-8	Fluoride	2.37E-05	8201		0
OHDEMAND	Hydroxide OH	1.26E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	3.96E-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	3.97E-03	8201	0	0
14797-65-0	Nitrite	2.87E-04	8201	0	0
338-70-5	Oxalate	1.21E-04	8201		0
14265-44-2	Phosphate	1.55E-02	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	6.76E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	2.63E-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, 11:06:11 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

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

241-TY-103 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

### Major Assumptions Used:

Dilution factor for WMA-TX-TY: 40

Compliance Monitoring Start Year :2001



CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	2.96E-17	2281	0	0
14C	Carbon-14	1.20E-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	2.13E+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	1.16E-10	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
7440-39-3	Barium	0		60	5
7440-69-9	Bismuth	4.32E-03	8201		0

7440-43-9	Cadmium	0	1.26	1
7440-70-2	Calcium	0	4	5
16887-00-6	Chloride	7.47E-06	8201	0
18540-29-9	Chromium	9.96E-05	8201	0
16984-48-8	Fluoride	5.02E-05	8201	0
OHDEMAND	Hydroxide OH	2.18E-02	8201	0
7439-89-6	Iron	0	25	5
7439-91-0	Lanthanum	2.29E-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	1.02E-03	8201	0
14797-65-0	Nitrite	2.62E-04	8201	0
338-70-5	Oxalate	5.28E-05	8201	0
14265-44-2	Phosphate	5.28E-03	8201	0
7440-21-3	Silicon	0	30	5
7440-22-4	Silver	0	2.7	2
7440-23-5	Sodium	6.75E-03	8201	0
7440-24-6	Strontium	0	16.1	5
14808-79-8	Sulfate	1.68E-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, 11:06:19 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33

5730

241-TY-104

TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713

**Major Assumptions Used:**

805000

Dilution factor for WMA-TX-TY: 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	1.49E-16	2281	0	0
14C	Carbon-14	6.64E-04	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	5.77E-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	4.68E-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	1.33E-04	8201		0
7440-43-9	Cadmium	0		1.26	1

7440-70-2	Calcium	0		4	5
16887-00-6	Chloride	3.07E-05	8201		0
18540-29-9	Chromium	3.90E-05	8201	0	0
16984-48-8	Fluoride	1.17E-04	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.53E-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	3.18E-03	8201	0	0
14797-65-0	Nitrite	2.80E-04	8201	0	0
338-70-5	Oxalate	1.67E-04	8201		0
14265-44-2	Phosphate	3.85E-02	8201		0
7440-21-3	Silicon	0		30	5
7440-22-4	Silver	0		2.7	2
7440-23-5	Sodium	1.01E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	9.59E-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, 11:06:27 AM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33

5730

241-TY-105

TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999

100.1

5.2713

**Major Assumptions Used:**

805000

Dilution factor for WMA-TX-TY: 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	1.02E-17	2281	0	0
14C	Carbon-14	5.94E-05	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	2.06E-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	9.32E-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	2.81E-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	1.82E-06	8201		0
16887-00-6	Chloride	6.99E-06	8201		0
18540-29-9	Chromium	4.82E-06	8201	0	0
7440-48-4	Cobalt	1.02E-08	12032	0.1	0.1
7440-50-8	Copper	0		35	5
57-12-5	Cyanide	0		9.9	5
16984-48-8	Fluoride	2.76E-06	8201		0
OHDEMAND	Hydroxide OH	3.51E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	9.41E-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
7439-98-7	Molybdenum	0		4	5
7440-00-8	Neodymium	2.08E-06	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	1.24E-03	8201	0	0
14797-65-0	Nitrite	5.08E-05	8201	0	0
338-70-5	Oxalate	2.82E-05	8201		0
14265-44-2	Phosphate	3.24E-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	2.10E-03	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.18E-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
7440-65-5	Yttrium	2.47E-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, 11:06:35 AM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**  
241-TY-106 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
**Major Assumptions Used:**  
Dilution factor for WMA-TX-TY: 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





<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	9.62E-15	2281	0	0
14C	Carbon-14	2.49E-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	1.03E+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	1.18E-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	2.06E-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	4.03E-05	8201		0
16887-00-6	Chloride	5.03E-04	8201		0
18540-29-9	Chromium	2.61E-03	8201	0	0
7440-48-4	Cobalt	1.75E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	2.65E-04	8201		0
OHDEMAND	Hydroxide OH	1.46E-01	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	2.24E-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	4.03E-05	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	4.39E-02	8201	0	0
14797-65-0	Nitrite	5.39E-03	8201	0	0
338-70-5	Oxalate	5.18E-03	8201		0
14265-44-2	Phosphate	8.04E-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	5.82E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	3.93E-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, 11:11:35 AM**

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

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-TX-101 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
74999

100.1 241-TX-102 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-TX-103 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

28.149  
16.13 241-TX-104 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

1530000

211097

1.01736 **Major Assumptions Used:**

14.1 Dilution factor for WMA-TX-TY: 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	9.67E-15	2281	0	0
14C	Carbon-14	2.51E-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	1.04E+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	1.18E-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	2.37E-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	4.04E-05	8201		0
16887-00-6	Chloride	5.05E-04	8201		0
18540-29-9	Chromium	2.63E-03	8201	0	0
7440-48-4	Cobalt	1.75E-07	12032	0.1	0.1
7440-50-8	Copper	0		35	5
16984-48-8	Fluoride	2.69E-04	8201		0
OHDEMAND	Hydroxide OH	1.47E-01	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	2.25E-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	4.04E-05	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	4.42E-02	8201	0	0
14797-65-0	Nitrite	5.42E-03	8201	0	0
338-70-5	Oxalate	5.23E-03	8201		0
14265-44-2	Phosphate	8.17E-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	5.86E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	3.97E-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

<b>Report Generated on: 5/31/2005, 3:37:21 PM</b>		
<b>Report Generated by H0098416 ( David J. Watson )</b>		
<b>Decision Management Tool Version 4.0.0.37</b>		
12.33		
5730	241-TX-101	TanksTX-TYFarm_Jan01_HTWOS.txt case02.stp
74999		
100.1	241-TX-102	TanksTX-TYFarm_Jan01_HTWOS.txt case02.stp
5.2713		
805000	241-TX-103	TanksTX-TYFarm_Jan01_HTWOS.txt case02.stp
28.149		
16.13	241-TX-104	TanksTX-TYFarm_Jan01_HTWOS.txt case02.stp
1530000		
211097	241-TX-302XB	TanksTX-TYFarm_MUST.txt case02.stp
1.01736		
14.1		
246000	<b>Major Assumptions Used:</b>	
2.7299	Dilution factor for WMA-TX-TY: 40	
15700000	Compliance Monitoring Start Year :2001	
2.0619		

13.33 Verified by John Middleton 6/15/05

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	9.36E-15	2281	0	0
14C	Carbon-14	3.04E-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	1.41E+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	8.06E-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	1.39E-04	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	4.56E-04	8201		0
18540-29-9	Chromium	3.63E-03	8201	0	0
16984-48-8	Fluoride	2.97E-04	8201		0
OHDEMAND	Hydroxide OH	1.21E-01	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.07E-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	4.56E-02	8201	0	0
14797-65-0	Nitrite	4.13E-03	8201	0	0
338-70-5	Oxalate	7.44E-03	8201		0
14265-44-2	Phosphate	9.02E-03	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	5.91E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	5.61E-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, 11:11:52 AM**

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

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-TX-105 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
74999

100.1 241-TX-106 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-TX-107 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

28.149  
16.13 241-TX-108 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

1530000

211097

1.01736 **Major Assumptions Used:**

14.1 Dilution factor for WMA-TX-TY: 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	6.66E-15	2281	0	0
14C	Carbon-14	2.63E-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	1.24E+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	5.37E-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-02	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	3.65E-04	8201		0
18540-29-9	Chromium	2.12E-03	8201	0	0
16984-48-8	Fluoride	9.47E-04	8201		0
OHDEMAND	Hydroxide OH	1.13E-01	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	3.14E-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	4.35E-02	8201	0	0
14797-65-0	Nitrite	3.33E-03	8201	0	0
338-70-5	Oxalate	5.18E-03	8201		0
14265-44-2	Phosphate	1.46E-02	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	5.55E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	5.86E-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, 11:12:13 AM**

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

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-TX-109 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
74999

100.1 241-TX-110 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-TX-111 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
28.149

16.13 241-TX-112 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
1530000

211097  
1.01736 **Major Assumptions Used:**

14.1 Dilution factor for WMA-TX-TY: 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

14050000000

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	6.44E-15	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	1.28E+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	5.19E-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	3.01E-03	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	2.12E-04	8201		0
18540-29-9	Chromium	1.06E-03	8201	0	0
16984-48-8	Fluoride	3.43E-04	8201		0
OHDEMAND	Hydroxide OH	4.80E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	3.77E-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	3.64E-02	8201	0	0
14797-65-0	Nitrite	1.89E-03	8201	0	0
338-70-5	Oxalate	3.93E-03	8201		0
14265-44-2	Phosphate	1.17E-02	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	5.05E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	7.06E-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

12.33	<b>Report Generated on: 5/25/2005, 11:12:31 AM</b>	
5730	<b>Report Generated by H0098416 ( David J. Watson )</b>	
74999	<b>Decision Management Tool Version 4.0.0.37</b>	
100.1	241-TX-113	TanksTX-TYFarm_Jan01_HTWOS.txt case02.stp
5.2713	241-TX-114	TanksTX-TYFarm_Jan01_HTWOS.txt case02.stp
805000	241-TX-115	TanksTX-TYFarm_Jan01_HTWOS.txt case02.stp
28.149	<b>Major Assumptions Used:</b>	
16.13	Dilution factor for WMA-TX-TY: 40	
1530000	Compliance Monitoring Start Year :2001	
211097		
1.01736		
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	4.02E-15	2281	0	0
14C	Carbon-14	1.47E-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	7.37E+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	3.83E-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	4.54E-04	8201		0
7440-70-2	Calcium	0		4	5

16887-00-6	Chloride	1.87E-04	8201		0
18540-29-9	Chromium	1.79E-03	8201	0	0
16984-48-8	Fluoride	7.87E-04	8201		0
OHDEMAND	Hydroxide OH	6.92E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	6.33E-05	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	2.71E-02	8201	0	0
14797-65-0	Nitrite	1.68E-03	8201	0	0
338-70-5	Oxalate	1.15E-02	8201		0
14265-44-2	Phosphate	3.74E-02	8201		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	4.08E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	2.82E-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, 11:12:51 AM**

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

**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-TX-116 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

74999  
100.1 241-TX-117 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000 241-TX-118 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

28.149  
16.13

1530000 **Major Assumptions Used:**

211097 Dilution factor for WMA-TX-TY: 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	1.16E-15	2281	0	0
14C	Carbon-14	3.71E-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	1.50E+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	6.90E-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
7440-39-3	Barium	0		60	5
7440-69-9	Bismuth	2.94E-03	8201		0

7440-43-9	Cadmium	0	1.26	1
7440-70-2	Calcium	0	4	5
16887-00-6	Chloride	8.01E-05	8201	0
18540-29-9	Chromium	3.17E-04	8201	0
16984-48-8	Fluoride	1.93E-04	8201	0
OHDEMAND	Hydroxide OH	2.28E-02	8201	0
7439-89-6	Iron	0	25	5
7439-91-0	Lanthanum	2.21E-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	2.73E-02	8201	0
14797-65-0	Nitrite	7.94E-04	8201	0
338-70-5	Oxalate	2.09E-04	8201	0
14265-44-2	Phosphate	9.75E-03	8201	0
7440-21-3	Silicon	0	30	5
7440-22-4	Silver	0	2.7	2
7440-23-5	Sodium	1.85E-02	8201	0
7440-24-6	Strontium	0	16.1	5
14808-79-8	Sulfate	1.23E-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, 11:13:21 AM**  
**Report Generated by H0098416 ( David J. Watson )**  
**Decision Management Tool Version 4.0.0.37**

12.33  
5730 241-TY-101 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp  
74999  
100.1 241-TY-102 TanksTX-TYFarm\_Jan01\_HTWOS.txt case02.stp

5.2713  
805000  
28.149 **Major Assumptions Used:**  
16.13 Dilution factor for WMA-TX-TY: 40  
1530000 Compliance Monitoring Start Year :2001

211097  
1.01736  
14.1  
246000 Verified by John Middleton 6/15/05

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	1.16E-15	2281	0	0
14C	Carbon-14	3.78E-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	1.52E+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	6.96E-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	2.99E-03	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	6.75E-09	8201		0
16887-00-6	Chloride	8.06E-05	8201		0
18540-29-9	Chromium	3.19E-04	8201	0	0
7440-48-4	Cobalt	3.77E-11	12032	0.1	0.1
7440-50-8	Copper	0		35	5
57-12-5	Cyanide	0		9.9	5
16984-48-8	Fluoride	1.94E-04	8201		0
OHDEMAND	Hydroxide OH	2.32E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	2.22E-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	7.69E-09	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	2.75E-02	8201	0	0
14797-65-0	Nitrite	8.00E-04	8201	0	0
338-70-5	Oxalate	2.11E-04	8201		0
14265-44-2	Phosphate	1.00E-02	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	1.87E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.24E-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
7440-65-5	Yttrium	9.15E-10	8201		0
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

Report Generated on: 5/31/2005, 3:39:45 PM

Report Generated by H0098416 ( David J. Watson )

Decision Management Tool Version 4.0.0.37

12.33			
5730	241-TY-101	TanksTX-TYFarm_Jan01_HTWOS.txt	case02.stp
74999			
100.1	241-TY-102	TanksTX-TYFarm_Jan01_HTWOS.txt	case02.stp
5.2713			
805000	241-TY-302B	TanksTX-TYFarm_MUST.txt	case02.stp
28.149			
16.13			

### Major Assumptions Used:

211097	Dilution factor for WMA-TX-TY: 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	2.66E-16	2281	0	0
14C	Carbon-14	1.48E-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	3.82E+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	2.95E-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
7440-39-3	Barium	0		60	5
7440-69-9	Bismuth	1.16E-02	8201		0

7440-43-9	Cadmium	0	1.26	1
7440-70-2	Calcium	0	4	5
16887-00-6	Chloride	2.98E-05	8201	0
18540-29-9	Chromium	2.63E-04	8201	0
16984-48-8	Fluoride	7.40E-05	8201	0
OHDEMAND	Hydroxide OH	3.44E-02	8201	0
7439-89-6	Iron	0	25	5
7439-91-0	Lanthanum	6.25E-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	4.98E-03	8201	0
14797-65-0	Nitrite	5.49E-04	8201	0
338-70-5	Oxalate	1.74E-04	8201	0
14265-44-2	Phosphate	2.08E-02	8201	0
7440-21-3	Silicon	0	30	5
7440-22-4	Silver	0	2.7	2
7440-23-5	Sodium	1.35E-02	8201	0
7440-24-6	Strontium	0	16.1	5
14808-79-8	Sulfate	4.31E-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

<b>Report Generated on: 5/25/2005, 11:13:32 AM</b>		
<b>Report Generated by H0098416 ( David J. Watson )</b>		
<b>Decision Management Tool Version 4.0.0.37</b>		
12.33	241-TY-103	TanksTX-TYFarm_Jan01_HTWOS.txt case02.stp
5730		
74999		
100.1	241-TY-104	TanksTX-TYFarm_Jan01_HTWOS.txt case02.stp
5.2713		
805000		
28.149	<b>Major Assumptions Used:</b>	
16.13	Dilution factor for WMA-TX-TY: 40	
1530000	Compliance Monitoring Start Year :2001	
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	1.59E-16	2281	0	0
14C	Carbon-14	7.23E-04	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	7.82E-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	4.77E-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
7440-36-0	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	1.61E-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	1.82E-06	8201		0
16887-00-6	Chloride	3.77E-05	8201		0
18540-29-9	Chromium	4.39E-05	8201	0	0
7440-48-4	Cobalt	1.02E-08	12032	0.1	0.1
7440-50-8	Copper	0		35	5
57-12-5	Cyanide	0		9.9	5
16984-48-8	Fluoride	1.19E-04	8201		0
OHDEMAND	Hydroxide OH	3.51E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.62E-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	2.08E-06	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	4.43E-03	8201	0	0
14797-65-0	Nitrite	3.31E-04	8201	0	0
338-70-5	Oxalate	1.95E-04	8201		0
14265-44-2	Phosphate	4.18E-02	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	1.22E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.08E-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
7440-65-5	Yttrium	2.47E-07	8201		0
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

**Half-Life**

Years

<b>Report Generated on: 5/25/2005, 11:13:43 AM</b>		
<b>Report Generated by H0098416 ( David J. Watson )</b>		
<b>Decision Management Tool Version 4.0.0.37</b>		
12.33	241-TY-105	TanksTX-TYFarm_Jan01_HTWOS.txt case02.stp
5730		
74999		
100.1	241-TY-106	TanksTX-TYFarm_Jan01_HTWOS.txt case02.stp
5.2713		
805000		
28.149	<b>Major Assumptions Used:</b>	
16.13	Dilution factor for WMA-TX-TY: 40	
1530000	Compliance Monitoring Start Year :2001	
211097		

1.01736

14.1

246000 Verified by John Middleton 6/15/05

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	1.66E-16	2281	0	0
14C	Carbon-14	1.58E-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	8.11E-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	4.84E-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	2.30E-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-06	8201		0
16887-00-6	Chloride	3.83E-05	8201		0
18540-29-9	Chromium	4.68E-05	8201	0	0
7440-48-4	Cobalt	1.02E-08	12032	0.1	0.1
7440-50-8	Copper	0		35	5
57-12-5	Cyanide	0		9.9	5
16984-48-8	Fluoride	1.21E-04	8201		0
OHDEMAND	Hydroxide OH	3.55E-02	8201		0
7439-89-6	Iron	0		25	5
7439-91-0	Lanthanum	1.64E-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	2.09E-06	8201		0
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	4.60E-03	8201	0	0
14797-65-0	Nitrite	3.39E-04	8201	0	0
338-70-5	Oxalate	1.98E-04	8201		0
14265-44-2	Phosphate	4.21E-02	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	1.24E-02	8201		0
7440-24-6	Strontium	0		16.1	5
14808-79-8	Sulfate	1.09E-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
7440-65-5	Yttrium	2.48E-07	8201		0
7440-66-6	Zinc	0		62	5
7440-67-7	Zirconium	0		500	5

## Half-Life

Years

**Report Generated on: 5/31/2005, 3:43:10 PM**

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

**Decision Management Tool Version 4.0.0.37**

12.33			
5730	241-TY-105	TanksTX-TYFarm_Jan01_HTWOS.txt	case02.stp
74999			
100.1	241-TY-106	TanksTX-TYFarm_Jan01_HTWOS.txt	case02.stp
5.2713			
805000	241-TY-302A	TanksTX-TYFarm_MUST.txt	case02.stp
28.149			
16.13			

1530000 **Major Assumptions Used:**

211097 Dilution factor for WMA-TX-TY: 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

