

Row Name **Sources Included**

CR-Vault Row	244-CR-Vault
C-101 Row	None
C-102 Row	None
C-103 Row	C-301 Catch Tank Pipeline
C-201 Row	None

CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd
3H	Tritium	0		0
14C	Carbon-14	4.42E-04	9781	0
59Ni	Nickel-59	0		48
63Ni	Nickel-63	0		48
60Co	Cobalt-60	0		0.1
79Se	Selenium-79	0		3.1
90Sr	Strontium-90 + D	0		16.1
93mNb	Niobium-93m	0		100
93Zr	Zirconium-93	0		600
99Tc	Technetium-99	4.99E-02	10461	0
106Ru	Ruthenium-106	0		1
113mCd	Cadmium-113m	0		1
126Sn	Tin-126	0		1
125Sb	Antimony-125	0		1
129I	Iodine-129	3.35E-10	12032	0.2
134Cs	Cesium-134	0		25
137Cs	Cesium-137 + Daughters	0		25
151Sm	Samarium-151	0		1
152Eu	Europium-152	0		1
154Eu	Europium-154	0		1
155Eu	Europium-155	0		1
226Ra	Radium-226 + D	0		1
228Ra	Radium-228 + D	0		1
227Ac	Actinium-227 + D	0		67
229Th	Thorium-229 + D	0		3
232Th	Thorium-232	0		3
231Pa	Protactinium-231	0		550
232U	Uranium-232	0		0.6
233U	Uranium-233	0		0.6
234U	Uranium-234	0		0.6
235U	Uranium-235 + D	0		0.6
236U	Uranium-236	0		0.6
238U	Uranium-238 + D	0		0.6
237Np	Neptunium-237 + D	0		2
238Pu	Plutonium-238	0		3
239Pu	Plutonium-239	0		3
240Pu	Plutonium-240	0		3
241Pu	Plutonium-241 + D	0		3
242Pu	Plutonium-242	0		3
241Am	Americium-241	0		3
243Am	Americium-243 + D	0		3
242Cm	Curium-242	0		3
243Cm	Curium-243	0		3
244Cm	Curium-244	0		3
7429-90-5	Aluminum	0		1
7664-41-7	Ammonia -- (a)	1.72E-08	10481	0.00093
7440-36-0	Antimony	0		1

7440-38-2	Arsenic	0		39
7440-39-3	Barium	0		60
7440-41-7	Beryllium	0		70
7440-69-9	Bismuth	1.75E-05	10481	
7440-42-8	Boron	0		3
7440-43-9	Cadmium	0		1.26
7440-70-2	Calcium	0		4
7440-45-1	Cerium	4.09E-07	10481	
16887-00-6	Chloride	7.98E-07	10481	
18540-29-9	Chromium	1.88E-06	10481	0
7440-48-4	Cobalt	1.95E-10	12032	0.1
7440-50-8	Copper	0		35
57-12-5	Cyanide	0		9.9
16984-48-8	Fluoride	6.88E-06	10481	
OHDEMAND	Hydroxide OH	5.13E-04	10481	
7439-89-6	Iron	0		25
7439-91-0	Lanthanum	2.24E-07	10481	
7439-92-1	Lead	0		5.2
7439-93-2	Lithium	0		300
7439-95-4	Magnesium	0		4.5
7439-96-5	Manganese	0		1
7439-97-6	Mercury	0		5.2
7439-98-7	Molybdenum	0		4
7440-00-8	Neodymium	3.41E-07	10481	
7440-02-0	Nickel	0		48
14797-55-8	Nitrate	4.93E-05	10481	0
14797-65-0	Nitrite	1.96E-05	10481	0
338-70-5	Oxalate	1.10E-05	10481	
14265-44-2	Phosphate	8.12E-05	10481	
7440-10-0	Praseodymium	1.55E-07	10481	
7440-16-6	Rhodium	8.01E-08	10481	
7440-17-7	Rubidium	4.88E-07	10481	
7440-18-8	Ruthenium	0		1
7782-49-2	Selenium	0		5
7440-21-3	Silicon	0		30
7440-22-4	Silver	0		2.7
7440-23-5	Sodium	1.20E-04	10481	
7440-24-6	Strontium	0		16.1
14808-79-8	Sulfate	5.63E-06	10481	
7440-25-7	Tantalum	4.75E-08	10481	
13494-80-9	Tellurium	8.59E-08	10481	
7440-28-0	Thallium	0		71
7440-29-1	Thorium	0		1
7440-32-6	Titanium	0		1000
7440-33-7	Tungsten	2.63E-07	10481	
7440-61-1	Uranium	0		0.6
7440-62-2	Vanadium	0		50
7440-65-5	Yttrium	5.09E-08	10481	
7440-66-6	Zinc	0		62
7440-67-7	Zirconium	0		500

Kd Bin Half-Life

Years
0 12.33
0 5730
5 74999
5 100.1
0.1 5.2713
2 805000
5 28.149
5 16.13
5 1530000
0 211097
1 1.01736
1 14.1
1 246000
1 2.7299
0.2 15700000
5 2.0619
5 29.999
1 89.997
1 13.33
1 8.5919
1 4.68
1 1600
1 5.7498
5 21.769
2 7340
2 1405000000
5 32759
0.6 69.799
0.6 159198
0.6 245694
0.6 703700000
0.6 23420000
0.6 4468000000
2 2140000
2 87.697
2 24110
2 6563
2 14.35
2 373507
2 432.7
2 7370
2 0.44611
2 28.499
2 18.1
1 Infinity
0 Infinity
1 Infinity

Report Generated on: 5/25/2005, 12:52:46 PM
Report Generated by H0098416 (David J. Watson)
Decision Management Tool Version 4.0.0.37
241-C-301 TanksCFarm_MUST.txt case02.stp
Major Assumptions Used:
Dilution factor for WMA-C: 40
Compliance Monitoring Start Year :2001

5 Infinity
5 Infinity
5 Infinity
0 Infinity
2 Infinity
1 Infinity
5 Infinity
0 Infinity
0 Infinity
0 Infinity
0.1 Infinity
5 Infinity
5 Infinity
0 Infinity
0 Infinity
5 Infinity
0 Infinity
5 Infinity
5 Infinity
5 Infinity
1 Infinity
5 Infinity
5 Infinity
0 Infinity
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0 Infinity
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0 Infinity
0 Infinity
0 Infinity
0 Infinity
0 Infinity
0 Infinity
1 Infinity
5 Infinity
5 Infinity
2 Infinity
0 Infinity
5 Infinity
0 Infinity
0 Infinity
0 Infinity
5 Infinity
1 Infinity
5 Infinity
0 Infinity
0.6 Infinity
5 Infinity
0 Infinity
5 Infinity
5 Infinity

CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd
3H	Tritium	0		0
14C	Carbon-14	1.63E-03	9781	0
59Ni	Nickel-59	0		48
63Ni	Nickel-63	0		48
60Co	Cobalt-60	0		0.1
79Se	Selenium-79	0		3.1
90Sr	Strontium-90 + D	0		16.1
93mNb	Niobium-93m	0		100
93Zr	Zirconium-93	0		600
99Tc	Technetium-99	1.84E-01	10461	0
106Ru	Ruthenium-106	0		1
113mCd	Cadmium-113m	0		1
126Sn	Tin-126	0		1
125Sb	Antimony-125	0		1
129I	Iodine-129	1.24E-09	12032	0.2
134Cs	Cesium-134	0		25
137Cs	Cesium-137 + Daughters	0		25
151Sm	Samarium-151	0		1
152Eu	Europium-152	0		1
154Eu	Europium-154	0		1
155Eu	Europium-155	0		1
226Ra	Radium-226 + D	0		1
228Ra	Radium-228 + D	0		1
227Ac	Actinium-227 + D	0		67
229Th	Thorium-229 + D	0		3
232Th	Thorium-232	0		3
231Pa	Protactinium-231	0		550
232U	Uranium-232	0		0.6
233U	Uranium-233	0		0.6
234U	Uranium-234	0		0.6
235U	Uranium-235 + D	0		0.6
236U	Uranium-236	0		0.6
238U	Uranium-238 + D	0		0.6
237Np	Neptunium-237 + D	0		2
238Pu	Plutonium-238	0		3
239Pu	Plutonium-239	0		3
240Pu	Plutonium-240	0		3
241Pu	Plutonium-241 + D	0		3
242Pu	Plutonium-242	0		3
241Am	Americium-241	0		3
243Am	Americium-243 + D	0		3
242Cm	Curium-242	0		3
243Cm	Curium-243	0		3
244Cm	Curium-244	0		3
7429-90-5	Aluminum	0		1
7664-41-7	Ammonia -- (a)	6.34E-08	10481	0.00093
7440-36-0	Antimony	0		1

7440-38-2	Arsenic	0		39
7440-39-3	Barium	0		60
7440-41-7	Beryllium	0		70
7440-69-9	Bismuth	6.44E-05	10481	
7440-42-8	Boron	0		3
7440-43-9	Cadmium	0		1.26
7440-70-2	Calcium	0		4
7440-45-1	Cerium	1.51E-06	10481	
16887-00-6	Chloride	2.94E-06	10481	
18540-29-9	Chromium	6.92E-06	10481	0
7440-48-4	Cobalt	7.17E-10	12032	0.1
7440-50-8	Copper	0		35
57-12-5	Cyanide	0		9.9
16984-48-8	Fluoride	2.53E-05	10481	
OHDEMAND	Hydroxide OH	1.89E-03	10481	
7439-89-6	Iron	0		25
7439-91-0	Lanthanum	8.24E-07	10481	
7439-92-1	Lead	0		5.2
7439-93-2	Lithium	0		300
7439-95-4	Magnesium	0		4.5
7439-96-5	Manganese	0		1
7439-97-6	Mercury	0		5.2
7439-98-7	Molybdenum	0		4
7440-00-8	Neodymium	1.25E-06	10481	
7440-02-0	Nickel	0		48
14797-55-8	Nitrate	1.82E-04	10481	0
14797-65-0	Nitrite	7.21E-05	10481	0
338-70-5	Oxalate	4.05E-05	10481	
14265-44-2	Phosphate	2.99E-04	10481	
7440-10-0	Praseodymium	5.71E-07	10481	
7440-16-6	Rhodium	2.95E-07	10481	
7440-17-7	Rubidium	1.80E-06	10481	
7440-18-8	Ruthenium	0		1
7782-49-2	Selenium	0		5
7440-21-3	Silicon	0		30
7440-22-4	Silver	0		2.7
7440-23-5	Sodium	4.42E-04	10481	
7440-24-6	Strontium	0		16.1
14808-79-8	Sulfate	2.07E-05	10481	
7440-25-7	Tantalum	1.75E-07	10481	
13494-80-9	Tellurium	3.17E-07	10481	
7440-28-0	Thallium	0		71
7440-29-1	Thorium	0		1
7440-32-6	Titanium	0		1000
7440-33-7	Tungsten	9.69E-07	10481	
7440-61-1	Uranium	0		0.6
7440-62-2	Vanadium	0		50
7440-65-5	Yttrium	1.87E-07	10481	
7440-66-6	Zinc	0		62
7440-67-7	Zirconium	0		500

Kd Bin Half-Life

Years
0 12.33
0 5730
5 74999
5 100.1
0.1 5.2713
2 805000
5 28.149
5 16.13
5 1530000
0 211097
1 1.01736
1 14.1
1 246000
1 2.7299
0.2 15700000
5 2.0619
5 29.999
1 89.997
1 13.33
1 8.5919
1 4.68
1 1600
1 5.7498
5 21.769
2 7340
2 1405000000
5 32759
0.6 69.799
0.6 159198
0.6 245694
0.6 703700000
0.6 23420000
0.6 4468000000
2 2140000
2 87.697
2 24110
2 6563
2 14.35
2 373507
2 432.7
2 7370
2 0.44611
2 28.499
2 18.1
1 Infinity
0 Infinity
1 Infinity

Report Generated on: 5/25/2005, 12:52:58 PM
Report Generated by H0098416 (David J. Watson)
Decision Management Tool Version 4.0.0.37
244-CR-Vault TanksCFarm_MUST.txt case02.stp
Major Assumptions Used:
Dilution factor for WMA-C: 40
Compliance Monitoring Start Year :2001

5 Infinity
5 Infinity
5 Infinity
0 Infinity
2 Infinity
1 Infinity
5 Infinity
0 Infinity
0 Infinity
0 Infinity
0.1 Infinity
5 Infinity
5 Infinity
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5 Infinity
2 Infinity
0 Infinity
5 Infinity
0 Infinity
0 Infinity
0 Infinity
5 Infinity
1 Infinity
5 Infinity
0 Infinity
0.6 Infinity
5 Infinity
0 Infinity
5 Infinity
5 Infinity

CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd	Kd Bin
3H	Tritium	9.82E-05	2071	0	0
14C	Carbon-14	3.35E-03	2192	0	0
59Ni	Nickel-59	0		48	5
63Ni	Nickel-63	0		48	5
60Co	Cobalt-60	2.55E-16	2073	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
99Tc	Technetium-99	9.11E-04	5701	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	2.36E-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
232Th	Thorium-232	0		3	2
231Pa	Protactinium-231	0		550	5
232U	Uranium-232	0		0.6	0.6
233U	Uranium-233	0		0.6	0.6
234U	Uranium-234	0		0.6	0.6
235U	Uranium-235 + D	0		0.6	0.6
236U	Uranium-236	0		0.6	0.6
238U	Uranium-238 + D	0		0.6	0.6
237Np	Neptunium-237 + D	0		2	2
238Pu	Plutonium-238	0		3	2
239Pu	Plutonium-239	0		3	2
240Pu	Plutonium-240	0		3	2
241Pu	Plutonium-241 + D	0		3	2
242Pu	Plutonium-242	0		3	2
241Am	Americium-241	0		3	2
243Am	Americium-243 + D	0		3	2
242Cm	Curium-242	0		3	2
243Cm	Curium-243	0		3	2
244Cm	Curium-244	0		3	2
7429-90-5	Aluminum	0		1	1
7440-69-9	Bismuth	1.69E-06	5711		0
7440-70-2	Calcium	0		4	5
16887-00-6	Chloride	1.24E-06	5711		0
18540-29-9	Chromium	2.70E-07	5711	0	0

16984-48-8	Fluoride	2.83E-06	5711		0
7439-89-6	Iron	0		25	5
7439-97-6	Mercury	0		5.2	5
7440-02-0	Nickel	0		48	5
14797-55-8	Nitrate	8.06E-05	5711	0	0
14797-65-0	Nitrite	1.84E-06	5711	0	0
14265-44-2	Phosphate	1.92E-05	5711		0
7440-21-3	Silicon	0		30	5
7440-23-5	Sodium	5.36E-05	5711		0
7440-24-6	Strontium	0		16.1	5
7440-29-1	Thorium	0		1	1
7440-67-7	Zirconium	0		500	5

Half-Life

Years

Report Generated on: 5/25/2005, 12:53:08 PM

Report Generated by H0098416 (David J. Watson)

Decision Management Tool Version 4.0.0.37

12.33
5730 Pipe System Pipe System_C.txt case04.stp

74999

100.1

5.2713 **Major Assumptions Used:**

805000 Dilution factor for WMA-C: 40

28.149 Compliance Monitoring Start Year :2001

16.13

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

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

Infinity

Infinity

CAS Number	Analyte Name	Concentration pCi/L (Rad) or mg/L (Non-rad)	Peak Year	Kd
3H	Tritium	9.82E-05	2071	0
14C	Carbon-14	3.35E-03	2192	0
59Ni	Nickel-59	0		48
63Ni	Nickel-63	0		48
60Co	Cobalt-60	2.55E-16	2073	0.1
79Se	Selenium-79	0		3.1
90Sr	Strontium-90 + D	0		16.1
93mNb	Niobium-93m	0		100
93Zr	Zirconium-93	0		600
99Tc	Technetium-99	5.00E-02	10441	0
106Ru	Ruthenium-106	0		1
113mCd	Cadmium-113m	0		1
126Sn	Tin-126	0		1
125Sb	Antimony-125	0		1
129I	Iodine-129	2.39E-08	12032	0.2
134Cs	Cesium-134	0		25
137Cs	Cesium-137 + Daughters	0		25
151Sm	Samarium-151	0		1
152Eu	Europium-152	0		1
154Eu	Europium-154	0		1
155Eu	Europium-155	0		1
226Ra	Radium-226 + D	0		1
228Ra	Radium-228 + D	0		1
227Ac	Actinium-227 + D	0		67
229Th	Thorium-229 + D	0		3
232Th	Thorium-232	0		3
231Pa	Protactinium-231	0		550
232U	Uranium-232	0		0.6
233U	Uranium-233	0		0.6
234U	Uranium-234	0		0.6
235U	Uranium-235 + D	0		0.6
236U	Uranium-236	0		0.6
238U	Uranium-238 + D	0		0.6
237Np	Neptunium-237 + D	0		2
238Pu	Plutonium-238	0		3
239Pu	Plutonium-239	0		3
240Pu	Plutonium-240	0		3
241Pu	Plutonium-241 + D	0		3
242Pu	Plutonium-242	0		3
241Am	Americium-241	0		3
243Am	Americium-243 + D	0		3
242Cm	Curium-242	0		3
243Cm	Curium-243	0		3
244Cm	Curium-244	0		3
7429-90-5	Aluminum	0		1
7664-41-7	Ammonia -- (a)	1.72E-08	10481	0.00093
7440-36-0	Antimony	0		1

7440-38-2	Arsenic	0		39
7440-39-3	Barium	0		60
7440-41-7	Beryllium	0		70
7440-69-9	Bismuth	1.78E-05	10411	
7440-42-8	Boron	0		3
7440-43-9	Cadmium	0		1.26
7440-70-2	Calcium	0		4
7440-45-1	Cerium	4.09E-07	10481	
16887-00-6	Chloride	1.24E-06	5801	
18540-29-9	Chromium	1.92E-06	10371	0
7440-48-4	Cobalt	1.95E-10	12032	0.1
7440-50-8	Copper	0		35
57-12-5	Cyanide	0		9.9
16984-48-8	Fluoride	7.35E-06	10141	
OHDEMAND	Hydroxide OH	5.13E-04	10481	
7439-89-6	Iron	0		25
7439-91-0	Lanthanum	2.24E-07	10481	
7439-92-1	Lead	0		5.2
7439-93-2	Lithium	0		300
7439-95-4	Magnesium	0		4.5
7439-96-5	Manganese	0		1
7439-97-6	Mercury	0		5.2
7439-98-7	Molybdenum	0		4
7440-00-8	Neodymium	3.41E-07	10481	
7440-02-0	Nickel	0		48
14797-55-8	Nitrate	8.10E-05	5801	0
14797-65-0	Nitrite	1.99E-05	10411	0
338-70-5	Oxalate	1.10E-05	10481	
14265-44-2	Phosphate	8.43E-05	10291	
7440-10-0	Praseodymium	1.55E-07	10481	
7440-16-6	Rhodium	8.01E-08	10481	
7440-17-7	Rubidium	4.88E-07	10481	
7440-18-8	Ruthenium	0		1
7782-49-2	Selenium	0		5
7440-21-3	Silicon	0		30
7440-22-4	Silver	0		2.7
7440-23-5	Sodium	1.29E-04	10111	
7440-24-6	Strontium	0		16.1
14808-79-8	Sulfate	5.63E-06	10481	
7440-25-7	Tantalum	4.75E-08	10481	
13494-80-9	Tellurium	8.59E-08	10481	
7440-28-0	Thallium	0		71
7440-29-1	Thorium	0		1
7440-32-6	Titanium	0		1000
7440-33-7	Tungsten	2.63E-07	10481	
7440-61-1	Uranium	0		0.6
7440-62-2	Vanadium	0		50
7440-65-5	Yttrium	5.09E-08	10481	
7440-66-6	Zinc	0		62
7440-67-7	Zirconium	0		500

Kd Bin Half-Life

Years
0 12.33
0 5730
5 74999
5 100.1
0.1 5.2713
2 805000
5 28.149
5 16.13
5 1530000
0 211097
1 1.01736
1 14.1
1 246000
1 2.7299
0.2 15700000
5 2.0619
5 29.999
1 89.997
1 13.33
1 8.5919
1 4.68
1 1600
1 5.7498
5 21.769
2 7340
2 1405000000
5 32759
0.6 69.799
0.6 159198
0.6 245694
0.6 703700000
0.6 23420000
0.6 4468000000
2 2140000
2 87.697
2 24110
2 6563
2 14.35
2 373507
2 432.7
2 7370
2 0.44611
2 28.499
2 18.1
1 Infinity
0 Infinity
1 Infinity

Report Generated on: 6/13/2005, 1:30:51 PM		
Report Generated by H0098416 (David J. Watson)		
Decision Management Tool Version 4.0.0.37		
241-C-301	TanksCFarm_MUST.txt	case02.stp
Pipe System	Pipe System_C.txt	case04.stp
Major Assumptions Used:		
Dilution factor for WMA-C: 40		
Compliance Monitoring Start Year :2001		

Verified by John Middleton 6/15/05

5 Infinity
5 Infinity
5 Infinity
0 Infinity
2 Infinity
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