92-645

Department of Energy
Oak Ridge Operations
P.O. Box 2001
Oak Ridge, Tennessee 37831— 8723

August 27, 1992

Mr. Gregory D. McCabe
Superfund Federal Facilities Unit Leader
United States Environmental Protection Agency
Region VIII
726 Minnesota Avenue
Kansas City, Kansas

Dear Mr. McCabe:

Enclosed are two copies of the Supplemental Sediment Data - Radiological Characterization Report for the St. Louis Site. This analytical data was not included in the Characterization Report, Revision 1, August 1990. This data will be included in the RI Addendum expected in early FY93.

If you have any questions, please contact me at FTS (615) 576-5724.

Sincerely,

David G. Adler, Missouri Site Manager
Former Sites Restoration Division

Supplemental Sediment Data for Coldwater Creek

This data summary has been compiled after a review of the Radiological Characterization Report for FUSRAP Properties in the St. Louis Area revealed some missing analytical data. The data enclosed is from the characterization of Coldwater Creek conducted in 1989. This study area extended from Pershall Road northward for 2.4 km. The results of these samples have been summarized in the Radiological Characterization Report. This analytical data will be included in the Radiological Characterization Addendum expected in early FY93.

The data presented here is has been separated out by depth intervals. Radiological values greater than the DOE remedial action guideline levels of 5/15 pCi/g for Radium and Thorium have been highlighted. There were no Uranium values above the remedial action guideline of 35 pCi/g. Figure 1 shows the sampling locations for all samples taken during this characterization. Table 1 lists the analytical data for the 0.0 to 0.5 foot interval. Figure 2 shows the location of the near surface samples (0.0 - 0.5 foot) above DOE action guideline of 5 pCi/g for Radium and Thorium. Tables 2 through 5 lists the analytical data for the remaining depth intervals of 0.5 to 1.0 foot, 1.0 to 2.0 foot, 2.0 to 3.0 foot, and 3.0 to 4.0 foot, respectively. Figure 3 shows the location of the subsurface samples (deeper than 0.5 feet) above the DOE action guideline of 15 pCi/g for Radium and Thorium.

Table 1: Supplemental Sediment Data for Coldwater Creek for the 0.0 to 0.5 foot Interval*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
0	LEFT	< 6.0 ± 0.0	0.9 ± 0.5	3.0 ± 1.0	1.0 ± 1.0
0	RIGHT	< 6.0 ± 0.0	2.0 ± 1.0	3.0 ± 2.0	**6.9 ± 2.2**
50	LEFT	< 6.8 ± 0.0	1.7 ± 1.2	1.8 ± 1.4	**5.9 ± 1.2**
50	RIGHT	< 4.7 ± 0.0	1.5 ± 0.7	< 1.5 ± 0.0	2.6 ± 0.8
100	LEFT	< 9.0 ± 0.0	1.2 ± 0.9	2.0 ± 1.0	3.3 ± 1.6
100	RIGHT	< 8.0 ± 0.0	1.9 ± 0.9	3.0 ± 2.0	**50.0 ± 6.0**
200	LEFT	< 9.0 ± 0.0	0.8 ± 0.8	4.0 ± 2.0	4.5 ± 1.8
200	RIGHT	< 5.0 ± 0.0	1.0 ± 1.0	2.0 ± 1.0	**29.0 ± 4.0**
250	LEFT	< 5.0 ± 0.0	2.3 ± 0.8	3.2 ± 1.1	**6.5 ± 1.2**
250	RIGHT	< 7.0 ± 0.0	3.2 ± 1.0	3.1 ± 1.3	2.1 ± 0.8
300	LEFT	< 11.0 ± 0.0	< 1.0 ± 0.0	2.0 ± 2.0	2.8 ± 1.5
300	RIGHT	< 7.0 ± 0.0	1.1 ± 0.5	< 1.0 ± 0.0	3.8 ± 1.7
400	LEFT	< 7.0 ± 0.0	1.5 ± 0.7	2.0 ± 1.0	2.2 ± 1.3
400	RIGHT	< 12.0 ± 0.0	< 1.0 ± 0.0	4.0 ± 3.0	2.8 ± 1.5
450	LEFT	5.6 ± 5.1	2.5 ± 0.9	< 2.0 ± 0.0	1.0 ± 0.6
450	RIGHT	< 6.8 ± 0.0	1.8 ± 1.1	2.2 ± 1.6	0.8 ± 0.5
500	LEFT	< 5.0 ± 0.0	1.6 ± 0.5	0.9 ± 0.7	**5.0 ± 2.1**
500	RIGHT	< 6.0 ± 0.0	< 1.0 ± 0.0	< 1.0 ± 0.0	**9.9 ± 2.6**
600	LEFT	< 6.0 ± 0.0	1.0 ± 0.7	2.0 ± 1.0	1.5 ± 1.2
600	RIGHT	< 5.0 ± 0.0	1.4 ± 0.9	< 1.0 ± 0.0	**20.0 ± 4.0**
650	LEFT	< 6.3 ± 0.0	2.7 ± 1.1	1.3 ± 0.5	< 0.4 ± 0.0
650	RIGHT	< 7.2 ± 0.0	2.5 ± 1.1	2.2 ± 1.0	**25.0 ± 2.0**
700	LEFT	< 5.0 ± 0.0	1.3 ± 0.6	2.0 ± 1.0	**6.1 ± 2.1**
700	RIGHT	< 7.0 ± 0.0	1.6 ± 0.8	2.0 ± 1.0	**16.0 ± 3.0**

*This data is currently not present in the St. Louis Radiological Characterization Report, it will be included in the RI Addendum Report issued in FY93.

Table 1: Supplemental Sediment Data for Coldwater Creek for the 0.0 to 0.5 foot Interval (Continued)*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
800	LEFT	< 5.0 ± 0.0	1.2 ± 0.5	0.8 ± 0.6	1.0 ± 1.0
800	RIGHT	< 7.0 ± 0.0	1.0 ± 0.6	1.0 ± 1.0	2.2 ± 1.3
850	LEFT	< 5.7 ± 0.0	1.7 ± 0.9	2.6 ± 1.3	0.8 ± 0.5
850	RIGHT	< 4.6 ± 0.0	2.1 ± 0.7	1.8 ± 1.5	0.6 ± 0.5
900	LEFT	< 5.0 ± 0.0	1.4 ± 0.7	2.0 ± 1.0	1.9 ± 1.3
900	RIGHT	< 6.0 ± 0.0	2.0 ± 1.0	< 2.0 ± 0.0	37.0 ± 5.0
1000	LEFT	< 6.0 ± 0.0	0.7 ± 0.5	1.0 ± 1.0	1.4 ± 1.1
1000	RIGHT	< 7.0 ± 0.0	0.9 ± 0.7	2.0 ± 1.0	16.0 ± 3.0
1050	LEFT	< 5.1 ± 0.0	1.5 ± 0.9	1.6 ± 1.5	1.9 ± 0.7
1050	RIGHT	< 5.5 ± 0.0	2.2 ± 1.1	1.5 ± 1.1	12.0 ± 2.0
1100	LEFT	< 5.0 ± 0.0	1.2 ± 0.6	< 1.0 ± 0.0	< 0.8 ± 0.0
1100	RIGHT	< 7.0 ± 0.0	2.0 ± 1.0	4.0 ± 2.0	7.9 ± 2.4
1200	LEFT	< 6.0 ± 0.0	2.2 ± 0.8	1.0 ± 1.0	1.4 ± 1.1
1200	RIGHT	< 8.0 ± 0.0	1.2 ± 0.7	3.0 ± 2.0	9.4 ± 2.5
1250	LEFT	< 5.6 ± 0.0	2.3 ± 0.8	3.0 ± 1.4	2.1 ± 0.8
1250	RIGHT	< 5.4 ± 0.0	1.8 ± 0.7	2.5 ± 1.2	1.5 ± 0.7
1300	LEFT	< 17.0 ± 0.0	3.0 ± 1.0	3.0 ± 2.0	5.8 ± 2.0
1300	RIGHT	<10.0 ± 0.0	1.4 ± 0.7	2.0 ± 1.0	1.4 ± 1.1
1400	LEFT	< 5.0 ± 0.0	2.0 ± 1.0	< 1.0 ± 0.0	5.1 ± 1.9
1400	RIGHT	< 6.0 ± 0.0	1.2 ± 0.7	2.0 ± 1.0	1.9 ± 1.3
1450	LEFT	< 6.3 ± 0.0	3.0 ± 1.1	2.5 ± 1.8	1.3 ± 0.6
1450	RIGHT	< 5.0 ± 0.0	2.4 ± 1.0	2.7 ± 1.1	2.4 ± 0.8
1500	LEFT	< 8.0 ± 0.0	1.3 ± 0.8	1.0 ± 1.0	5.1 ± 1.9
1500	RIGHT	< 6.0 ± 0.0	2.0 ± 1.0	< 1.0 ± 0.0	8.7 ± 2.5

*This data is currently not present in the St. Louis Radiological Characterization Report, it will be included in the RI Addendum Report issued in FY93.

Table 1: Supplemental Sediment Data for Coldwater Creek for the 0.0 to 0.5 foot Interval (Continued)*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
1600	LEFT	< 8.0 ± 0.0	1.0 ± 1.0	3.0 ± 2.0	**6.6 ± 2.2**
1600	RIGHT	< 7.0 ± 0.0	2.1 ± 0.8	3.0 ± 1.0	1.0 ± 1.0
1650	LEFT	6.1 ± 5.9	2.7 ± 1.6	2.9 ± 1.6	2.5 ± 0.8
1650	RIGHT	< 4.8	3.2 ± 0.9	2.0 ± 1.2	1.2 ± 0.6
1700	LEFT	< 5.0 ± 0.0	1.2 ± 0.9	< 1.0 ± 0.0	**20.0 ± 4.0**
1700	RIGHT	< 6.0 ± 0.0	1.4 ± 1.0	3.0 ± 2.0	1.7 ± 1.2
1800	LEFT	< 11.0 ± 0.0	1.8 ± 0.9	3.0 ± 1.0	**13.0 ± 3.0**
1800	RIGHT	< 6.0 ± 0.0	1.0 ± 0.5	< 1.0 ± 0.0	2.5 ± 1.4
1850	LEFT	< 5.5	2.0 ± 0.7	1.9 ± 1.1	4.3 ± 1.0
1850	RIGHT	< 5.6	2.3 ± 1.2	2.3 ± 1.8	4.4 ± 1.0
1900	LEFT	< 12.0 ± 0.0	< 1.0 ± 0.0	< 2.0 ± 0.0	4.3 ± 1.8
1900	RIGHT	< 6.0 ± 0.0	2.3 ± 0.9	2.0 ± 1.0	2.0 ± 1.3
1990	RIGHT	< 5.0 ± 0.0	1.1 ± 0.5	1.7 ± 0.8	< 1.0 ± 0.0
2000	LEFT	< 7.0 ± 0.0	2.0 ± 1.0	2.0 ± 2.0	**26.0 ± 4.0**
2050	LEFT	< 5.5	1.7 ± 0.9	4.2 ± 1.3	**6.6 ± 1.2**
2050	RIGHT	< 3.0	2.4 ± 0.8	1.5 ± 1.2	2.3 ± 0.8
2100	LEFT	< 16.0 ± 0.0	< 1.0 ± 0.0	< 2.0 ± 0.0	**7.6 ± 2.3**
2100	RIGHT	< 7.0 ± 0.0	1.6 ± 0.8	3.0 ± 1.0	< 1.0 ± 0.0
2200	LEFT	< 6.0 ± 0.0	3.0 ± 1.0	2.0 ± 2.0	**7.3 ± 2.3**
2200	RIGHT	< 5.0 ± 0.0	1.1 ± 0.8	1.3 ± 0.8	< 0.8 ± 0.0
2250	LEFT	< 3.0	2.4 ± 0.8	1.5 ± 1.2	< 0.2
2250	RIGHT	< 5.2	2.0 ± 0.7	2.3 ± 1.4	4.4 ± 1.0
2300	LEFT	< 9.0 ± 0.0	1.6 ± 0.9	3.0 ± 1.0	**14.0 ± 3.0**
2300	RIGHT	< 11.0 ± 0.0	1.0 ± 1.0	4.0 ± 2.0	1.4 ± 1.1

*This data is currently not present in the St. Louis Radiological Characterization Report, it will be included in the RI Addendum Report issued in FY93.

Table 1: Supplemental Sediment Data for Coldwater Creek for the 0.0 to 0.5 foot Interval (Continued)*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
2400	LEFT	< 8.0 ± 0.0	2.0 ± 1.0	2.0 ± 2.0	12.0 ± 3.0
2400	RIGHT	< 8.0 ± 0.0	1.2 ± 0.9	2.0 ± 1.0	< 1.0 ± 0.0
2450	LEFT	< 5.5	2.1 ± 0.9	2.8 ± 1.4	19 ± 2
2450	RIGHT	< 4.2	1.1 ± 0.7	2.0 ± 1.1	3.4 ± 0.9
2500	LEFT	< 16.0 ± 0.0	2.0 ± 1.0	3.0 ± 2.0	8.2 ± 2.4
2500	RIGHT	< 6.0 ± 0.0	1.7 ± 0.6	2.1 ± 0.9	< 0.8 ± 0.0
2600	LEFT	< 8.0 ± 0.0	1.1 ± 0.8	1.0 ± 1.0	6.1 ± 2.1
2600	RIGHT	< 5.0 ± 0.0	1.1 ± 0.6	1.7 ± 0.8	1.7 ± 1.2
2650	LEFT	< 5.1	3.5 ± 0.9	< 1.7	2.5 ± 0.8
2650	RIGHT	< 3.2	1.7 ± 0.7	2.7 ± 1.2	3.4 ± 0.9
2700	LEFT	< 9.0 ± 0.0	1.0 ± 0.9	2.0 ± 1.0	2.4 ± 1.4
2700	RIGHT	< 12.0 ± 0.0	< 1.0 ± 0.0	3.0 ± 2.0	16.0 ± 3.0
2750	LEFT	< 5.6	4.1 ± 0.9	2.3 ± 1.3	4.2 ± 1.0
2750	RIGHT	< 17.	11. ± 3.	8.8 ± 4.3	7.3 ± 1.3
2900	LEFT	< 6.0 ± 0.0	1.5 ± 0.8	1.0 ± 1.0	< 0.9 ± 0.0
2900	RIGHT	< 7.0 ± 0.0	2.0 ± 1.0	3.0 ± 2.0	2.7 ± 1.5
3000	LEFT	< 12.	4.7 ± 2.0	4.6 ± 1.7	6.8 ± 1.3
3000	RIGHT	< 4.3	1.8 ± 0.7	1.9 ± 1.1	2.3 ± 0.8
3100	LEFT	< 5.0 ± 0.0	1.4 ± 0.7	2.0 ± 1.0	5.5 ± 2.0
3100	RIGHT	< 5.0 ± 0.0	1.2 ± 0.6	2.0 ± 1.0	< 0.7 ± 0.0
3200	LEFT	< 6.3	1.8 ± 1.0	2.2 ± 1.4	40. ± 3
3200	RIGHT	< 5.7	6.4 ± 1.1	3.6 ± 1.3	1.4 ± 0.7
3300	LEFT	< 10.0 ± 0.0	5.0 ± 2.0	2.0 ± 2.0	120.0 ± 10.0
3300	RIGHT	< 9.0 ± 0.0	< 1.0 ± 0.0	2.0 ± 2.0	1.4 ± 1.1

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Table 1: Supplemental Sediment Data for Coldwater Creek for the 0.0 to 0.5 foot Interval (Continued)*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
3400	LEFT	< 4.4	1.6 ± 1.0	2.4 ± 1.6	7.3 ± 1.3
3400	RIGHT	< 5.0	1.5 ± 0.7	3.0 ± 1.2	2.8 ± 0.9
3500	LEFT	< 11.0 ± 0.0	2.0 ± 1.0	2.0 ± 2.0	8.9 ± 2.5
3500	RIGHT	< 12.0 ± 0.0	1.5 ± 1.0	3.0 ± 2.0	1.2 ± 1.1
3600	LEFT	< 5.4	2.1 ± 1.2	2.8 ± 1.3	1.2 ± 0.6
3600	RIGHT	11. ± 6.	2.7 ± 1.1	2.5 ± 1.6	22. ± 2.
3700	LEFT	< 10.0 ± 0.0	2.0 ± 0.9	< 1.0 ± 0.0	< 0.9 ± 0.0
3700	RIGHT	< 9.0 ± 0.0	3.0 ± 1.0	2.0 ± 1.0	2.2 ± 1.3
3800	LEFT	< 7.9	3.0 ± 1.5	< 2.3	0.6 ± 0.5
3800	RIGHT	< 6.6	2.7 ± 1.0	< 2.1	1.5 ± 0.7
3900	LEFT	< 8.0 ± 0.0	2.2 ± 0.8	1.0 ± 1.0	1.0 ± 1.0
3900	RIGHT	< 4.0 ± 0.0	1.1 ± 0.6	1.3 ± 0.9	7.3 ± 2.3
4000	LEFT	9.0 ± 5.1	3.1 ± 1.3	2.9 ± 1.1	30 ± 3
4000	RIGHT	< 6.8	2.5 ± 1.3	< 2.1	1.5 ± 0.7
4100	LEFT	< 13.0 ± 0.0	< 1.0 ± 0.0	3.0 ± 2.0	< 0.9 ± 0.0
4100	RIGHT	< 7.0 ± 0.0	1.5 ± 0.7	1.0 ± 1.0	1.5 ± 1.2
4200	LEFT	< 4.7	1.8 ± 1.1	2.3 ± 1.4	0.8 ± 0.5
4200	RIGHT	< 6.9	2.3 ± 1.3	< 2.4	8.8 ± 1.4
4300	LEFT	< 5.0 ± 0.0	0.9 ± 0.5	2.0 ± 1.0	2.7 ± 1.5
4300	RIGHT	< 10.0 ± 0.0	1.8 ± 0.8	2.0 ± 1.0	10.0 ± 3.0
4400	LEFT	< 13	3.1 ± 1.6	4.5 ± 3.1	0.7 ± 0.5
4400	RIGHT	< 4.3	1.9 ± 0.9	2.2 ± 1.1	7.5 ± 1.3
4500	LEFT	< 8.0 ± 0.0	1.2 ± 0.7	2.0 ± 1.0	1.2 ± 1.1
4500	RIGHT	< 5.0 ± 0.0	2.0 ± 1.0	2.0 ± 2.0	5.3 ± 2.0

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Table 1: Supplemental Sediment Data for Coldwater Creek for the 0.0 to 0.5 foot Interval (Continued)*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
5800	LEFT	< 5.0	1.4 ± 0.6	1.8 ± 1.4	8.7 ± 1.4
5800	RIGHT	10 ± 7	2.3 ± 0.7	2.4 ± 1.1	2.0 ± 0.7
5900	LEFT	< 9.0 ± 0.0	2.0 ± 1.0	< 1.0 ± 0.0	6.4 ± 2.1
5900	RIGHT	< 11.0 ± 0.0	4.0 ± 2.0	< 3.0 ± 0.0	5.5 ± 2.0
6000	LEFT	8.4 ± 7.8	4.4 ± 1.6	4.8 ± 1.7	1.2 ± 0.6
6000	RIGHT	< 6.3	2.5 ± 1.1	2.1 ± 1.5	1.8 ± 0.7
6100	LEFT	< 6.0 ± 0.0	2.0 ± 0.7	2.0 ± 1.0	2.5 ± 1.4
6100	RIGHT	< 9.0 ± 0.0	< 1.0 ± 0.0	4.0 ± 2.0	4.8 ± 1.9
6200	LEFT	< 6.2	1.1 ± 0.9	2.0 ± 1.4	1.6 ± 0.7
6200	RIGHT	< 7.2	3.1 ± 0.9	2.5 ± 1.5	34 ± 3
6300	LEFT	< 19.0 ± 0.0	3.0 ± 2.0	5.0 ± 4.0	5.9 ± 2.1
6300	RIGHT	< 16.0 ± 0.0	3.0 ± 2.0	5.0 ± 3.0	6.4 ± 2.1
6400	LEFT	< 4.7	1.6 ± 1.2	2.6 ± 1.2	1.2 ± 0.6
6400	RIGHT	< 4.4	1.9 ± 0.9	2.5 ± 1.3	4.6 ± 1.1
6500	LEFT	< 14.0 ± 0.0	2.0 ± 1.0	3.0 ± 2.0	6.9 ± 2.2
6500	RIGHT	< 5.0 ± 0.0	1.3 ± 0.7	2.0 ± 1.0	2.2 ± 1.3
6600	LEFT	< 6.3	14 ± 1	2.3 ± 0.8	3.3 ± 0.9
6600	RIGHT	< 5.9	2.1 ± 1..2	3.2 ± 1.2	0.5 ± 0.5
6700	LEFT	< 13.0 ± 0.0	2.0 ± 1.0	5.0 ± 2.0	3.2 ± 1.6
6700	RIGHT	< 9.0 ± 0.0	2.0 ± 1.0	< 2.0 ± 0.0	6.6 ± 2.2
6800	LEFT	6.5 ± 5.9	3.0 ± 1.1	4.1 ± 1.8	1.9 ± 0.7
6800	RIGHT	8.4 ± 7.6	1.8 ± 1.1	2.9 ± 1.6	0.8 ± 0.5
6900	LEFT	< 11.0 ± 0.0	1.5 ± 0.8	3.0 ± 1.0	1.9 ± 1.3
6900	RIGHT	< 8.0 ± 0.0	2.0 ± 1.0	2.0 ± 2.0	1.0 ± 1.0

*This data is currently not present in the St. Louis Radiological Characterization Report, it will be included in the RI Addendum Report issued in FY93.

Table 1: Supplemental Sediment Data for Coldwater Creek for the 0.0 to 0.5 foot Interval (Continued)*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
7000	LEFT	< 7.5	2.3 ± 0.8	2.7 ± 1.5	1.3 ± 0.6
7000	RIGHT	< 6.6	1.8 ± 1.2	2.2 ± 2.1	1.4 ± 0.6
7100	LEFT	< 3.0 ± 0.0	1.1 ± 0.7	2.0 ± 1.0	1.7 ± 1.2
7100	RIGHT	< 15.0 ± 0.0	2.0 ± 1.0	2.0 ± 2.0	16.0 ± 3.0
7200	LEFT	< 7.2	2.0 ± 1.3	2.1 ± 1.6	0.7 ± 0.5
7200	RIGHT	< 5.5	2.3 ± 0.9	2.4 ± 1.3	1.1 ± 0.6
7300	LEFT	< 6.0 ± 0.0	1.4 ± 0.8	2.0 ± 1.0	1.7 ± 1.2
7300	RIGHT	< 7.0 ± 0.0	3.0 ± 1.0	< 2.0 ± 0.0	3.3 ± 1.6
7400	LEFT	< 6.7	2.8 ± 1.4	2.7 ± 1.4	3.7 ± 1.0
7400	RIGHT	< 7.9	5.2 ± 1.3	3.6 ± 1.8	86 ± 4
7500	LEFT	< 9.0 ± 0.0	1.4 ± 0.7	2.0 ± 1.0	4.3 ± 1.8
7500	RIGHT	< 12.0 ± 0.0	3.0 ± 2.0	4.0 ± 3.0	6.9 ± 2.2
7600	LEFT	< 5.8	2.3 ± 0.8	3.0 ± 1.2	49 ± 3
7600	RIGHT	< 5.3	2.3 ± 1.0	< 2.2	6.6 ± 1.2
7700	LEFT	< 6.0 ± 0.0	< 1.0 ± 0.0	2.0 ± 1.0	2.2 ± 1.3
7700	RIGHT	< 9.0 ± 0.0	1.6 ± 0.9	3.0 ± 2.0	1.7 ± 1.2
7800	LEFT	< 9.2	5.0 ± 1.8	< 2.6	120. ± 10.
7800	RIGHT	6.6 ± 6.5	2.3 ± 1.1	2.7 ± 1.5	3.3 ± 0.9
7900	LEFT	< 17.0 ± 0.0	< 1.0 ± 0.0	3.0 ± 2.0	5.3 ± 2.0
7900	RIGHT	< 5.0 ± 0.0	< 1.0 ± 0.0	2.0 ± 1.0	1.4 ± 1.1

*This data is currently not present in the St. Louis Radiological Characterization Report, it will be included in the RI Addendum Report issued in FY93.

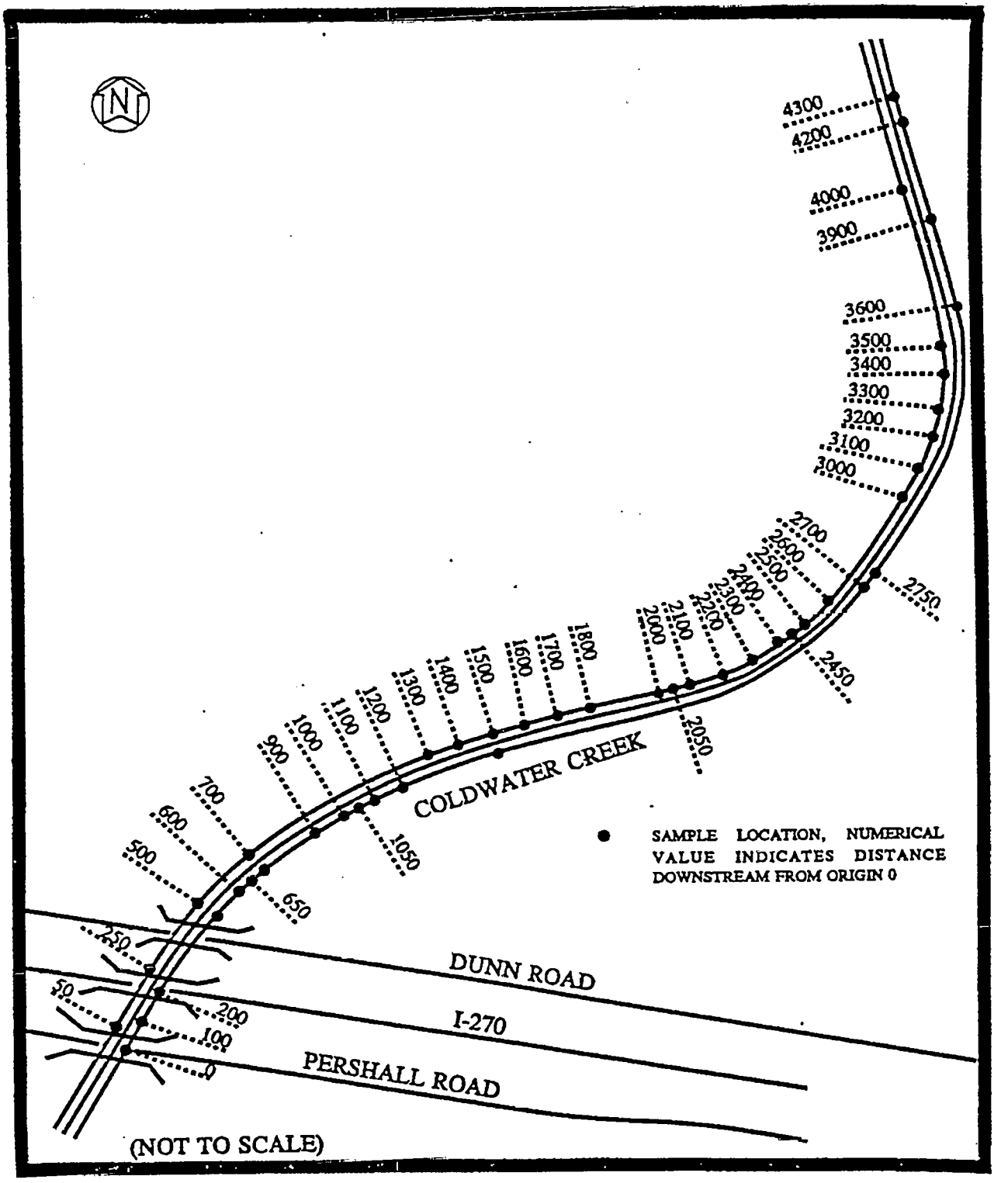

FIGURE 2 SOIL SAMPLING LOCATIONS ABOVE 5 pCi/g IN THE 0.0 TO 0.5 FOOT DEPTH INTERVAL FOR THE RADIOLOGICAL CHARACTERIZATION OF 1.5 MILES OF COLDWATER CREEK NORTH OF PERSHALL ROAD

Table 2: Supplemental Sediment Data for Coldwater Creek for the 0.5 to 1.0 foot Interval*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
200	LEFT	< 7.0 ± 0.0	1.6 ± 0.6	1.0 ± 1.0	1.9 ± 0.7
400	RIGHT	< 7.0 ± 0.0	< 1.0 ± 0.0	< 2.0 ± 0.0	1.5 ± 0.7
500	RIGHT	< 4.0 ± 0.0	3.0 ± 1.0	3.0 ± 2.0	3.3 ± 0.9
700	LEFT	< 12.0 ± 0.0	1.5 ± 0.9	< 2.0 ± 0.0	1.2 ± 0.6
1100	RIGHT	< 7.0 ± 0.0	2.0 ± 1.0	2.0 ± 2.0	40.0 ± 3.0
1200	RIGHT	< 5.0 ± 0.0	1.1 ± 0.8	2.0 ± 2.0	5.9 ± 1.2
1300	LEFT	< 3.0 ± 0.0	1.3 ± 0.8	2.0 ± 1.0	8.3 ± 1.4
1400	LEFT	< 10.0 ± 0.0	4.0 ± 2.0	< 2.0 ± 0.0	4.9 ± 1.1
1500	LEFT	< 3.0 ± 0.0	0.9 ± 0.5	2.0 ± 1.0	1.3 ± 0.6
1500	RIGHT	< 7.0 ± 0.0	< 1.0 ± 0.0	2.0 ± 2.0	8.1 ± 1.4
1600	LEFT	< 4.0 ± 0.0	0.9 ± 0.6	< 1.0 ± 0.0	2.8 ± 0.9
1900	LEFT	< 9.0 ± 0.0	< 2.0 ± 0.0	< 3.0 ± 0.0	9.0 ± 1.4
2100	LEFT	< 4.0 ± 0.0	1.6 ± 0.8	< 1.0 ± 0.0	4.4 ± 1.0
2200	LEFT	< 5.0 ± 0.0	< 1.0 ± 0.0	< 1.0 ± 0.0	1.8 ± 0.7
2500	LEFT	< 5.0 ± 0.0	1.6 ± 0.9	2.0 ± 1.0	5.8 ± 1.2
2700	RIGHT	< 8.0 ± 0.0	1.4 ± 0.6	< 1.0 ± 0.0	3.9 ± 1.0
2900	RIGHT	< 7.0 ± 0.0	3.0 ± 1.0	< 2.0 ± 0.0	1.1 ± 0.6
3100	LEFT	< 7.0 ± 0.0	0.7 ± 0.6	2.0 ± 1.0	0.5 ± 0.5
3900	RIGHT	< 4.0 ± 0.0	< 1.0 ± 0.0	2.0 ± 1.0	1.9 ± 0.7
4200	RIGHT	< 3.7	2.3 ± 0.9	1.7 ± 1.1	9.2 ± 1.5
4300	RIGHT	< 3.0 ± 0.0	< 1.0 ± 0.0	0.9 ± 0.6	3.3 ± 0.9
4400	RIGHT	< 8.5	2.2 ± 1.5	2.0 ± 1.5	< 0.5
4500	RIGHT	< 5.0 ± 0.0	< 1.0 ± 0.0	3.0 ± 2.0	3.7 ± 1.0
4700	RIGHT	< 4.0 ± 0.0	0.9 ± 0.7	3.0 ± 2.0	0.8 ± 0.5

*This data is currently not present in the St. Louis Radiological Characterization Report, it will be included in the RI Addendum Report issued in FY93.

Table 2: Supplemental Sediment Data for Coldwater Creek for the 0.5 to 1.0 foot Interval (Continued)*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
4800	LEFT	< 4.7	0.9 ± 0.7	1.6 ± 1.2	4.7 ± 1.1
4900	LEFT	< 9.0 ± 0.0	3.0 ± 1.0	3.0 ± 3.0	6.7 ± 1.3
4900	RIGHT	< 5.0 ± 0.0	2.0 ± 0.8	2.0 ± 1.0	0.8 ± 0.5
5300	LEFT	< 3.0 ± 0.0	0.7 ± 0.6	< 1.0 ± 0.0	1.6 ± 0.7
5600	RIGHT	< 3.7	1.6 ± 0.7	1.8 ± 1.1	5.0 ± 1.1
5800	LEFT	< 3.8	1.7 ± 0.6	< 0.8	5.3 ± 1.1
5900	LEFT	< 2.0 ± 0.0	0.5 ± 0.3	0.8 ± 0.5	2.1 ± 0.8
5900	RIGHT	< 11.0 ± 0.0	2.0 ± 2.0	2.0 ± 2.0	10.0 ± 2.0
6100	RIGHT	< 3.0 ± 0.0	0.9 ± 0.6	2.0 ± 1.0	4.1 ± 1.0
6300	LEFT	< 7.0 ± 0.0	< 1.0 ± 0.0	3.0 ± 2.0	3.0 ± 0.9
6300	RIGHT	< 5.0 ± 0.0	2.0 ± 1.0	< 2.0 ± 0.0	4.5 ± 1.1
6500	LEFT	< 6.0 ± 0.0	2.0 ± 1.0	2.0 ± 1.0	3.2 ± 0.9
6700	LEFT	< 4.0 ± 0.0	< 1.0 ± 0.0	1.5 ± 0.8	1.0 ± 0.6
6700	RIGHT	< 8.0 ± 0.0	2.0 ± 1.0	< 2.0 ± 0.0	11.0 ± 2.0
7100	RIGHT	< 9.0 ± 0.0	< 1.0 ± 0.0	4.0 ± 2.0	45.0 ± 4.0
7300	RIGHT	< 7.0 ± 0.0	< 1.0 ± 0.0	2.0 ± 2.0	3.9 ± 1.0
7500	LEFT	< 3.0 ± 0.0	0.8 ± 0.5	1.4 ± 0.8	0.9 ± 0.6
7500	RIGHT	< 5.0 ± 0.0	1.6 ± 0.9	2.0 ± 1.0	29.0 ± 3.0
7600	RIGHT	< 4.3	1.3 ± 0.8	< 1.3	4.7 ± 1.1
7900	LEFT	< 7.0 ± 0.0	1.0 ± 1.0	< 2.0 ± 0.0	2.8 ± 0.9

*This data is currently not present in the St. Louis Radiological Characterization Report, it will be included in the RI Addendum Report issued in FY93.

Table 2: Supplemental Sediment Data for Coldwater Creek for the 0.5 to 1.0 foot Interval (Continued)*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
4800	LEFT	< 4.7	0.9 ± 0.7	1.6 ± 1.2	4.7 ± 1.1
4900	LEFT	< 9.0 ± 0.0	3.0 ± 1.0	3.0 ± 3.0	6.7 ± 1.3
4900	RIGHT	< 5.0 ± 0.0	2.0 ± 0.8	2.0 ± 1.0	0.8 ± 0.5
5300	LEFT	< 3.0 ± 0.0	0.7 ± 0.6	< 1.0 ± 0.0	1.6 ± 0.7
5600	RIGHT	< 3.7	1.6 ± 0.7	1.8 ± 1.1	5.0 ± 1.1
5800	LEFT	< 3.8	1.7 ± 0.6	< 0.8	5.3 ± 1.1
5900	LEFT	< 2.0 ± 0.0	0.5 ± 0.3	0.8 ± 0.5	2.1 ± 0.8
5900	RIGHT	< 11.0 ± 0.0	2.0 ± 2.0	2.0 ± 2.0	10.0 ± 2.0
6100	RIGHT	< 3.0 ± 0.0	0.9 ± 0.6	2.0 ± 1.0	4.1 ± 1.0
6300	LEFT	< 7.0 ± 0.0	< 1.0 ± 0.0	3.0 ± 2.0	3.0 ± 0.9
6300	RIGHT	< 5.0 ± 0.0	2.0 ± 1.0	< 2.0 ± 0.0	4.5 ± 1.1
6500	LEFT	< 6.0 ± 0.0	2.0 ± 1.0	2.0 ± 1.0	3.2 ± 0.9
6700	LEFT	< 4.0 ± 0.0	< 1.0 ± 0.0	1.5 ± 0.8	1.0 ± 0.6
6700	RIGHT	< 8.0 ± 0.0	2.0 ± 1.0	< 2.0 ± 0.0	11.0 ± 2.0
7100	RIGHT	< 9.0 ± 0.0	< 1.0 ± 0.0	4.0 ± 2.0	45.0 ± 4.0
7300	RIGHT	< 7.0 ± 0.0	< 1.0 ± 0.0	2.0 ± 2.0	3.9 ± 1.0
7500	LEFT	< 3.0 ± 0.0	0.8 ± 0.5	1.4 ± 0.8	0.9 ± 0.6
7500	RIGHT	< 5.0 ± 0.0	1.6 ± 0.9	2.0 ± 1.0	29.0 ± 3.0
7600	RIGHT	< 4.3	1.3 ± 0.8	< 1.3	4.7 ± 1.1
7900	LEFT	< 7.0 ± 0.0	1.0 ± 1.0	< 2.0 ± 0.0	2.8 ± 0.9

*This data is currently not present in the St. Louis Radiological Characterization Report, it will be included in the RI Addendum Report issued in FY93.

Table 3: Supplemental Sediment Data for Coldwater Creek for the 1.0 to 2.0 foot Interval*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
100	RIGHT	< 8.0 ± 0.0	1.4 ± 0.6	2.0 ± 1.0	0.8 ± 0.5
200	RIGHT	< 10.0 ± 0.0	2.0 ± 0.9	2.0 ± 1.0	32.0 ± 3.0
500	RIGHT	< 15.0 ± 0.0	< 1.0 ± 0.0	< 2.0 ± 0.0	1.5 ± 0.7
600	RIGHT	< 14.0 ± 0.0	1.6 ± 0.8	< 1.0 ± 0.0	1.3 ± 0.6
700	RIGHT	< 8.0 ± 0.0	1.0 ± 0.7	2.0 ± 2.0	1.0 ± 0.6
900	RIGHT	< 7.0 ± 0.0	3.0 ± 1.0	3.0 ± 2.0	180.0 ± 10.0
1000	RIGHT	< 11.0 ± 0.0	3.0 ± 1.0	3.0 ± 2.0	1.8 ± 0.7
1200	RIGHT	< 11.0 ± 0.0	< 1.0 ± 0.0	1.4 ± 0.9	3.0 ± 0.9
1600	LEFT	< 6.0 ± 0.0	< 1.0 ± 0.0	3.0 ± 2.0	1.6 ± 0.7
1700	LEFT	< 3.0 ± 0.0	< 1.0 ± 0.0	1.0 ± 1.0	2.5 ± 0.8
1800	LEFT	< 6.0 ± 0.0	2.0 ± 1.0	3.0 ± 1.0	63.0 ± 4.0
2000	LEFT	< 6.0 ± 0.0	2.0 ± 1.0	3.0 ± 2.0	200.0 ± 10.0
2300	LEFT	< 6.0 ± 0.0	3.0 ± 1.0	2.0 ± 1.0	8.2 ± 1.4
2400	LEFT	< 4.0 ± 0.0	1.6 ± 0.7	< 1.0 ± 0.0	20.0 ± 2.0
2500	LEFT	< 5.0 ± 0.0	1.7 ± 0.9	2.0 ± 1.0	13.0 ± 2.0
2600	LEFT	< 7.0 ± 0.0	0.6 ± 0.5	< 0.5 ± 0.0	4.3 ± 1.0
2700	RIGHT	< 9.0 ± 0.0	1.3 ± 0.7	< 1.0 ± 0.0	0.6 ± 0.5
3300	LEFT	< 9.0 ± 0.0	1.5 ± 0.7	2.0 ± 1.0	1.8 ± 0.7
3500	LEFT	< 12.0 ± 0.0	2.0 ± 0.0	< 1.0 ± 0.0	5.0 ± 1.1
4000	LEFT	< 4.3	1.7 ± 0.9	1.2 ± 1.0	5.0 ± 1.1
4300	RIGHT	< 10.0 ± 0.0	< 1.0 ± 0.0	3.0 ± 2.0	1.7 ± 0.7
4900	LEFT	< 11.0 ± 0.0	2.0 ± 1.0	< 1.0 ± 0.0	1.7 ± 0.7
5900	LEFT	< 5.0 ± 0.0	< 0.7 ± 0.0	1.1 ± 1.1	1.2 ± 0.6
6200	RIGHT	5.1 ± 4.1	4.1 ± 0.6	0.9 ± 0.5	130 ± 10
7100	RIGHT	< 2.0 ± 0.0	0.6 ± 0.4	1.2 ± 0.9	28.0 ± 3.0

*This data is currently not present in the St. Louis Radiological Characterization Report, it will be included in the RI Addendum Report issued in FY93.

Table 4: Supplemental Sediment Data for Coldwater Creek for the 2.0 to 3.0 foot Interval*

Distance feet	Creek Bank	U^{238} pCi/g	Ra^{226} pCi/g	Th^{232} pCi/g	Th^{230} pCi/g
100	RIGHT	< 3.0 ± 0.0	1.4 ± 0.7	2.0 ± 1.0	6.4 ± 1.2
200	RIGHT	< 11.0 ± 0.0	1.5 ± 0.8	3.0 ± 2.0	5.9 ± 1.2
900	RIGHT	< 2.0 ± 0.0	1.4 ± 0.8	1.3 ± 0.9	57.0 ± 4.0
1100	RIGHT	< 3.0 ± 0.0	< 0.4 ± 0.0	< 0.4 ± 0.0	< 0.4 ± 0.0
1800	LEFT	< 8.0 ± 0.0	0.8 ± 0.7	< 0.8 ± 0.0	26.0 ± 2.0
2000	LEFT	< 11.0 ± 0.0	1.5 ± 0.7	< 1.1 ± 0.0	69.0 ± 4.0
2400	LEFT	< 6.0 ± 0.0	< 0.9 ± 0.0	< 1.1 ± 0.0	6.2 ± 1.2
3300	LEFT	< 6.0 ± 0.0	2.0 ± 1.0	< 2.0 ± 0.0	0.6 ± 0.5
7100	LEFT	< 8.0 ± 0.0	< 0.6 ± 0.0	< 0.8 ± 0.0	1.4 ± 0.7
7100	RIGHT	< 8.0 ± 0.0	< 0.6 ± 0.0	< 0.8 ± 0.0	1.4 ± 0.7
7400	RIGHT	1.8 ± 1.6	1.0 ± 0.3	0.8 ± 0.4	2.8 ± 0.9
7500	LEFT	< 10.0 ± 0.0	1.6 ± 1.2	< 1.8 ± 0.0	65.0 ± 4.0
7500	RIGHT	< 10.0 ± 0.0	1.6 ± 1.2	< 1.8 ± 0.0	65.0 ± 4.0
7600	LEFT	< 3.9	2.3 ± 0.8	< 1.1	1.3 ± 0.6
7800	LEFT	< 7.7	1.5 ± 1.4	2.4 ± 2.3	1.3 ± 0.6

*This data is currently not present in the St. Louis Radiological Characterization Report, it will be included in the RI Addendum Report issued in FY93.

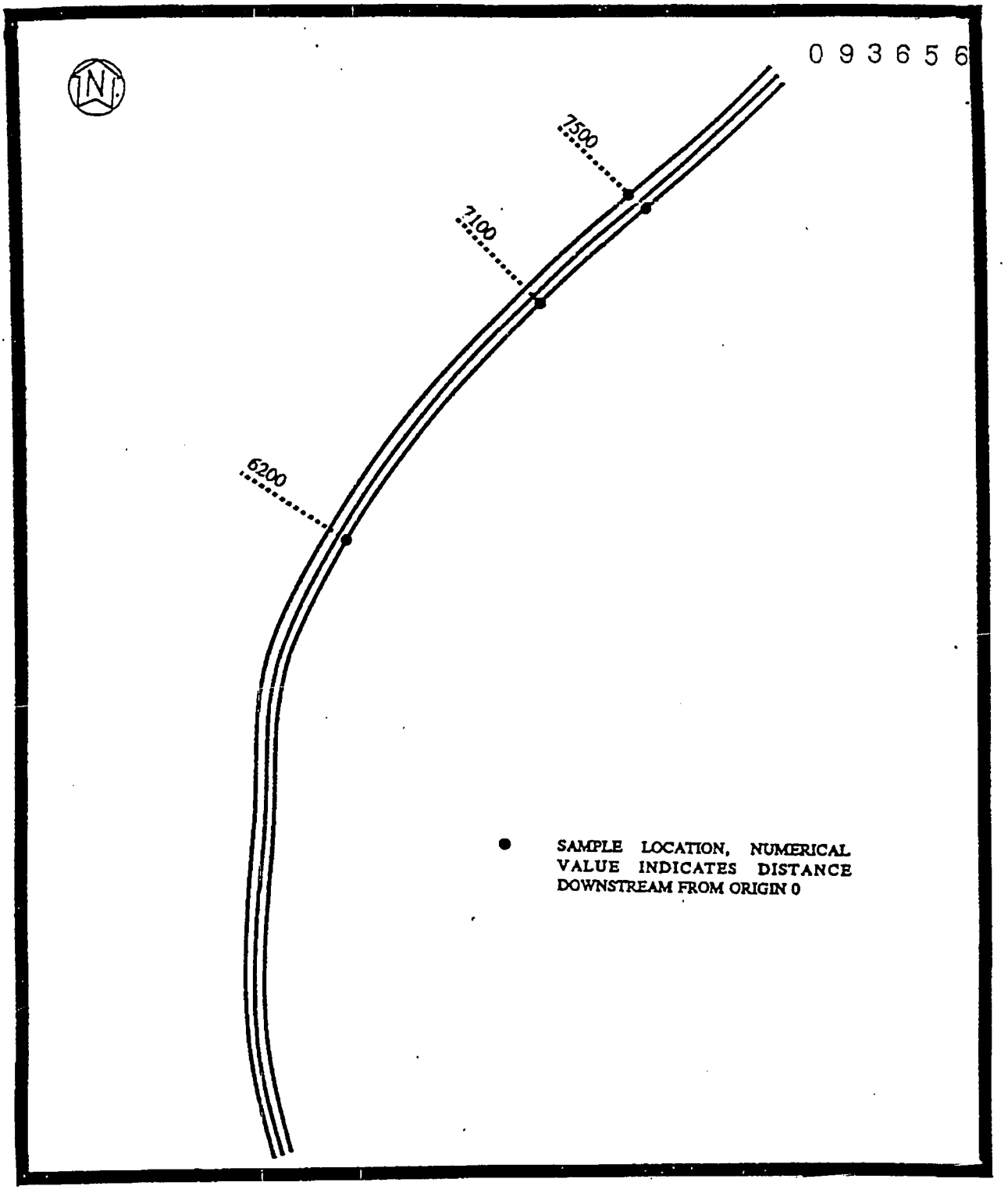

FIGURE 3 SOIL SAMPLING LOCATIONS ABOVE 15 pCi/g IN THE 0.5 TO 3.0 FOOT DEPTH INTERVAL FOR THE RADIOLOGICAL CHARACTERIZATION OF 1.5 MILES OF COLDWATER CREEK NORTH OF PERSHALL ROAD (CONT)

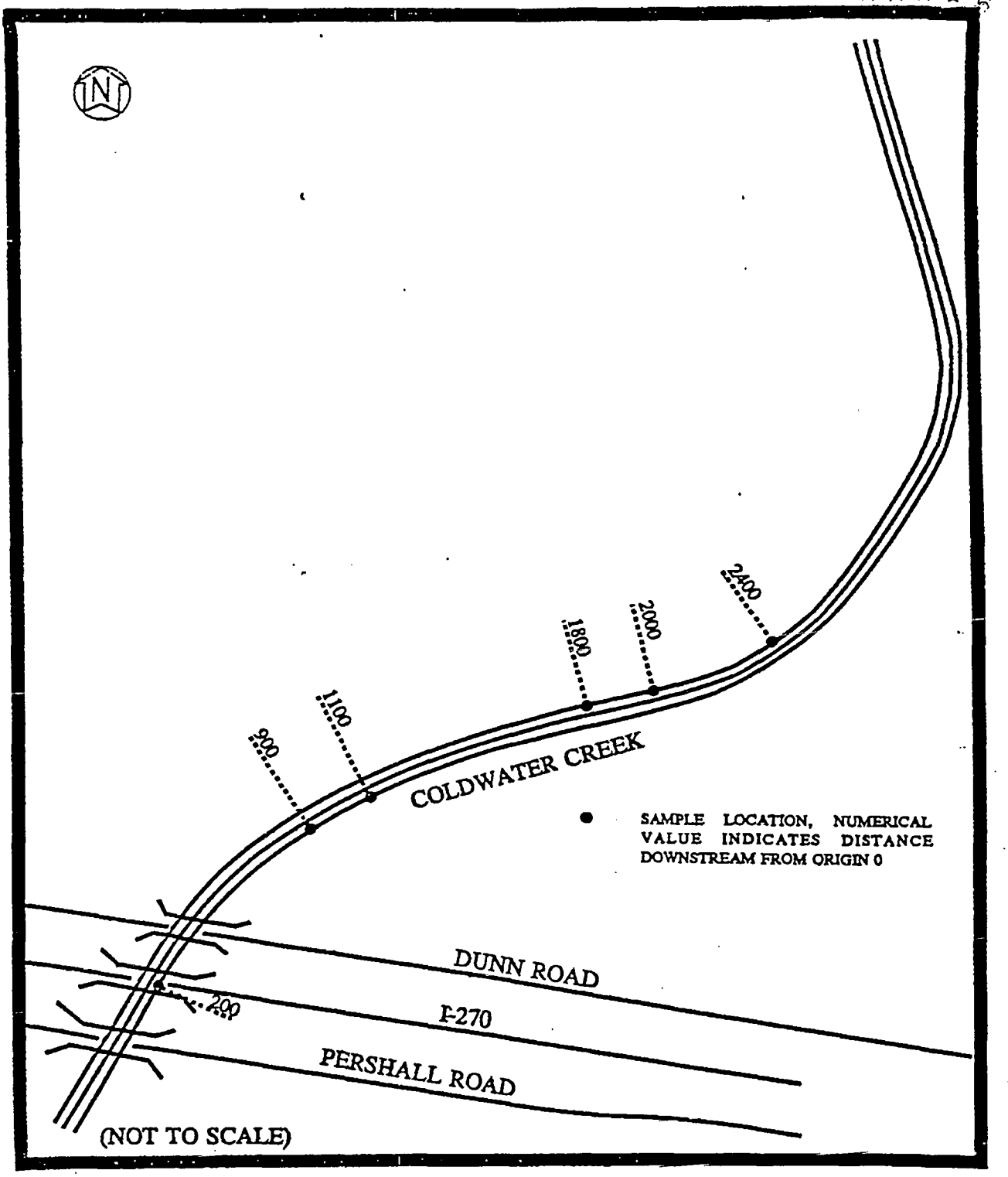

FIGURE 3 SOIL SAMPLING LOCATIONS ABOVE 15 pCi/g IN THE 0.5 TO 3.0 FOOT DEPTH INTERVAL FOR THE RADIOLOGICAL CHARACTERIZATION OF 1.5 MILES OF COLDWATER CREEK NORTH OF PERSHALL ROAD

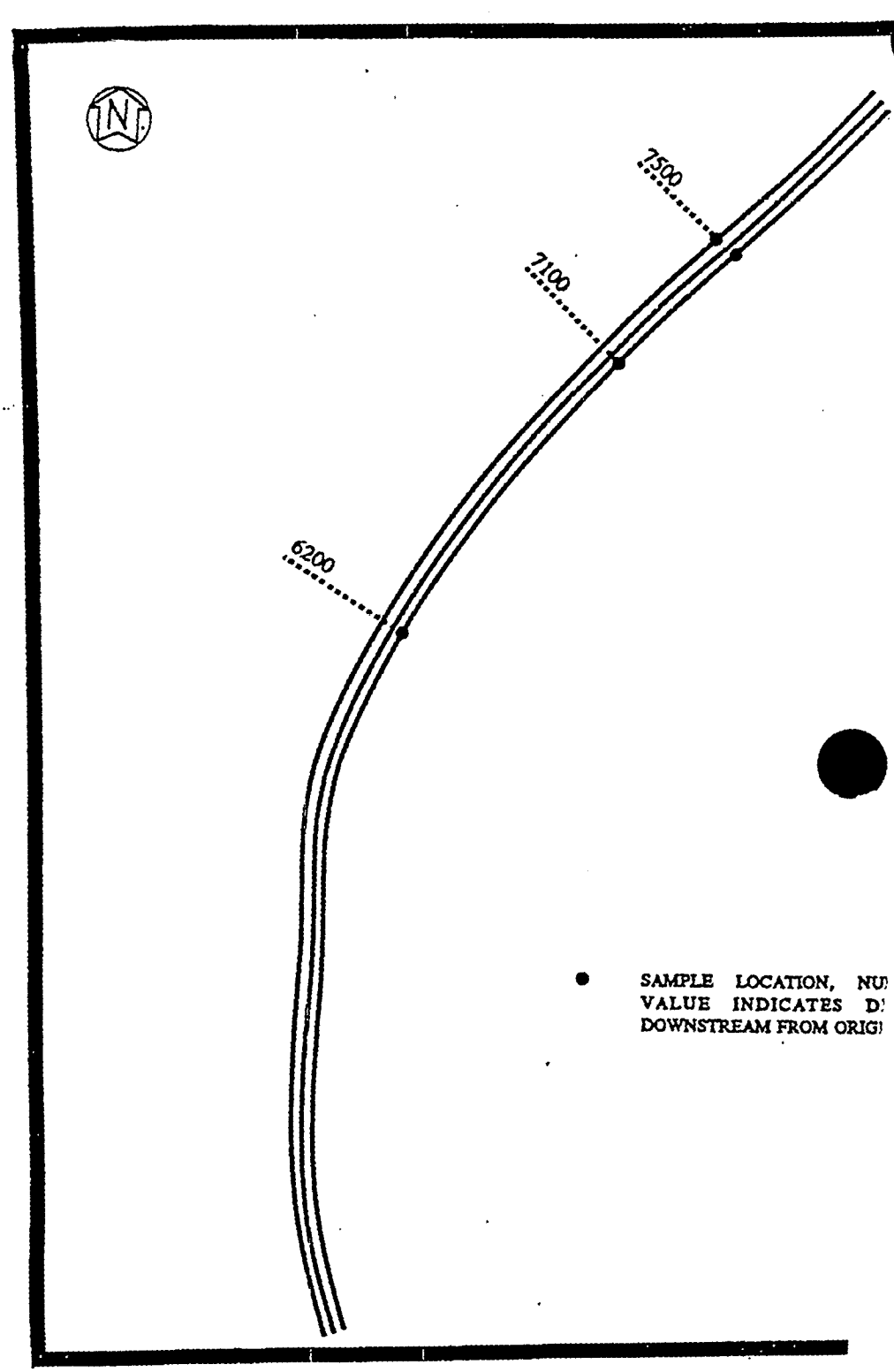

FIGURE 3 SOIL SAMPLING LOCATIONS ABOVE 15 pCi/g
FOOT DEPTH INTERVAL FOR THE
CHARACTERIZATION OF 1.5 MILES
NORTH OF PERSHALL ROAD (CONT)

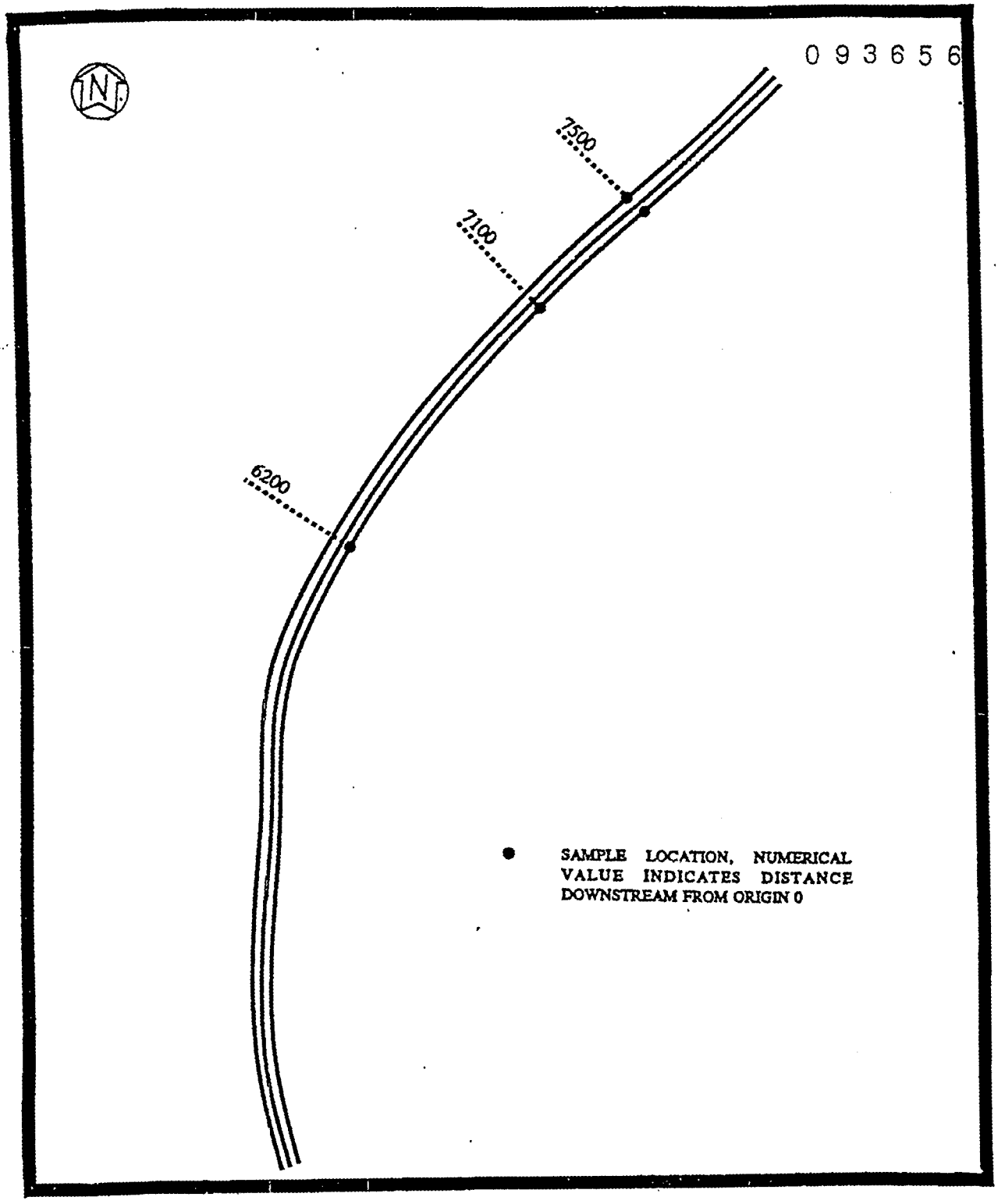

FIGURE 3 SOIL SAMPLING LOCATIONS ABOVE 15 pCi/g IN THE 0.5 TO 3.0 FOOT DEPTH INTERVAL FOR THE RADIOLOGICAL CHARACTERIZATION OF 1.5 MILES OF COLDWATER CREEK NORTH OF PERSHALL ROAD (CONT)