APPENDIX M

Quality Assurance/Quality Control Evaluation Results

QUALITY ASSURANCE/ QUALITY CONTROL EVALUATION RESULTS
FUSRAP DUPONT CHAMBERS WORKS
SITEWIDE REMEDIAL INVESTIGATION

1. INTRODUCTION

The Sitewide Remedial Investigation (RI) included medium-specific environmental sampling events at the DuPont Chambers Work Sites, Deepwater, New Jersey between September 2004 and July 2007. All sampling activities followed USACE-approved Sampling and Analysis Plans (SAP) (Cabrera, 2004a, 2004b, 2005a, and 2005b). These field investigations were conducted for the USACE and adhered to CERCLA guidelines. The goals of data collection during the RI phase were to investigate the presence of radioactive contamination, determine the nature and extent of radioactive contamination, obtain data in support of response action selection and development (if needed), confirm completion of response actions, and characterize waste for disposal. As a part of the SAP, Quality Assurance/Quality Control (QA/QC) activities were performed in accordance with applicable technical standards, EPA regulations, government regulations and guidelines, and specific project goals and requirements. The objectives for these QA/QC activities are to demonstrate that environmental data generated during these sampling events can withstand scientific scrutiny, are appropriate for their intended purpose, are technically defensible, and are of known and acceptable precision and accuracy. This report presents the results of QA/QC evaluation performed for the Sitewide RI by utilizing the sampling results of radiological isotopes that have been evaluated in a Baseline Human Health and Ecological Risk Assessment and are considered potential radiological contaminants of concern (RCOCs) for the site.

2. FIELD SAMPLING COLLECTION AND MEASUREMENT

Prior to beginning each field sampling investigation, field personnel were given instruction, as necessary, and participated in a project-related readiness review. These activities ensured that standard procedures were followed in sample collection and in completing field logbooks, chain-of-custody forms, labels, and custody seals.

The master field investigation documents are the site field logbooks and the field forms. Copies of the field forms are included in the QAPP. The primary purpose of these documents is to record every day's field activities, personnel on each sampling team; and any administrative occurrences, conditions, or activities that may have affected the fieldwork or data quality of any environmental samples for any given day.

3. CONTRACTED LABORATORY PROGRAMS

Paragon Analytics, Inc (Paragon) of Fort Collins, Colorado was the laboratory selected to perform sampling analyses for primary samples collected from various environmental media during the Sitewide RI. In addition to the primary samples, QC samples were also collected for groundwater and soil, as part of field and laboratory QC requirements. Paragon maintains statements of qualifications including a QA Plan and suite of SOPs.

4. FIELD DUPLICATE QC SAMPLES

QC samples, consisting of duplicates, trip blanks, equipment blanks, and matrix spike and matrix spike duplicates, were collected by the sampling teams and submitted for analysis to Paragon. The identity of duplicate QC samples is not revealed to the analytical laboratory. The purpose of these samples is to provide activity-specific, field-originated information regarding the homogeneity of the sampled matrix and the consistency of the sampling effort. These samples were collected concurrently with the primary environmental samples and equally represent the medium at a given time and location. Duplicate samples were collected from each medium addressed by this project.

The radiological analyses for soil and groundwater duplicate samples are presented in Table 1 and Table 2, respectively. Results with reported negative values, or that include a "U" flag (result is less than the minimum detectable concentration), were not included in QC analyses.

5. MATRIX SPIKE/MATRIX SPIKE DUPLICATES

Only those techniques requiring radiochemistry preparation have been analyzed as MS/MSDs. The precision, RPD (Relative Percent Difference = 20) acceptance criterion was established in the various work management plans referenced above.

6. USACE QA SPLIT SAMPLES

In some instances, QA split samples for radiological analysis were collected by the sampling team and sent to a USACE QA laboratory for analysis to provide an independent assessment of contractor laboratory performance.

7. DATA VALIDATION

Data evaluations are conducted as a part of laboratory operations, and the project-related data assessment process after the data have been reported. The data evaluation procedures, calculations and applications used for the DuPont Chambers Works project are based on the *Guidance for Data Quality Assessment Process: Practical Methods for Data Analyses* (USEPA 1996). The routine quality control procedures conducted in the laboratory include proper instrument maintenance, calibration and continuing calibration checks, and internal quality control analyses at the required frequencies. One of the additional ongoing data assessment processes is maintaining control charts for representative QC sample analyses to monitor system performance. This provides verification that the system is in statistical control, and indicates when performance problems occur, so that the problems can be corrected as soon as possible. When reporting the sample data, the laboratory also provides the results of associated QC sample analyses.

Analytical data generated for this project have been subjected to a process of data verification and review. USACE utilized Automated Data Review (ADR) software to verify and review the analytical data generated in the laboratory. The ADR software:

- Verifies compliance with data deliverable requirements
    - Method/Analyte list
    - QC data provided and linked to sample
    - Correct surrogate and spike analyte added

    - Calibration data for all analytes provided and linked to samples
- Evaluates data against project requirements
    - Identifies QC outliers (holding times, Precision, Accuracy)
    - Identifies calibration outliers
    - Identifies field and laboratory contamination
    - Identifies results below the reporting limits
- Applies data review qualifiers

The primary objective of this phase was to assess and summarize the quality and reliability of the data for the intended use and to document factors that may affect the usability of the data. Qualifiers were applied to each field and analytical result to indicate the usability of the data for its intended purpose. The majority of estimated values were assigned to analyte concentrations observed between the reporting level and method detection levels. All data have been appropriately identified and qualified.

8. DATA EVALUATION

Analytical data generated for this project have been subjected to a process of data verification and review. All data packages received from the analytical laboratory were reviewed, and evaluated, verified by data management personnel. The following section of the report summarized QC processes that were conducted in order to verify and review the analytical data generated in the laboratory.

8.1. Precision

Precision was determined through the use of spike analyses conducted on duplicate pairs of environmental samples (matrix spike/ matrix spike duplicate) or comparison of positive duplicate pair responses. For site and laboratory duplicate result pairs, a normalized absolute difference (NAD) was calculated between the values by using the following equation:

$$NAD = \frac{\left|R_s - R_d\right|}{\sqrt{(0.5 \times TPU_s)^2 + (0.5 \times TPU_d)^2}}$$

where

NAD = Normalized Absolute Difference

R_s = Result of sample

R_d = Result of duplicate

TPU = Total propogated uncertainty (based on 2σ, or 95% uncertainty)

TPU_s = TPU of sample

TPU_d = TPU of duplicate

The calculated NAD results were compared to a performance criteria of less than or equal to 1.96. Calculated NAD values less than 1.96 are considered acceptable and values greater than

1.96 will be investigated for possible discrepancies in analytical precision, or for sources of disagreement with the following assumptions of the test:

- The sample measurement and duplicate or replicate measurement are of the same normally distributed population.
- The standard deviations ($0.5*TPU_s$ and $0.5*TPU_d$) represent the true standard deviation of the measured population

Tables 1 and 2 present the results of field duplicate precision in terms of NAD among laboratory analyses for soil and groundwater samples. The results showed that for soil samples, the NAD values are less than 1.96 for 95 percent of sample pairs (147 of 155 sample pairs, Table 1). For groundwater, the NAD values are less than 1.96 for 74 percent of sample pairs (95 of 129 sample pairs, Table 2). The overall internal laboratory reproducibility is considered acceptable, resulting in no limitations to the analytical results.

Tables 3 and 4 present results of the matrix spike/matrix spike duplicate (MS/MSD) in terms of NAD and RPD among laboratory analyses for soil and groundwater samples. The results showed that for soil samples, both parameters are within acceptable limits (Table 3). For groundwater, the NAD values pass (are less than 1.96) for 96 percent of sample pairs (47 of 49 sample pairs, Table 4). For RPD, 92% (47 of 51 sample pairs) were within acceptable limits. The overall internal laboratory reproducibility is considered acceptable, resulting in no limitations to the analytical results.

8.2. Representativeness and Comparability

Representativeness expresses the degree to which data accurately reflect the analyte or parameter of interest for an environmental site and is the qualitative term most concerned with the proper design of a sampling program. Factors that affect the representativeness of analytical data include proper preservation, holding times, use of standard sampling and analytical methods, and determination of matrix or analyte interferences. Sample preservation, analytical methodologies, and groundwater sampling methodologies were documented to be adequate and consistently applied.

Comparability, like representativeness, is a qualitative term relative to a project data set as an individual. These investigations employed appropriate sampling methodologies, site surveillance, use of standard sampling devices, uniform training, documentation of sampling, standard analytical protocols/procedures, QC checks with standard control limits, and universally accepted data reporting units to ensure comparability to other data sets. Through the proper implementation and documentation of these standard practices, the project has established the confidence that the data will be comparable to other project and programmatic information.

8.3. Completeness

Usable data are defined as those data, which pass individual scrutiny during the verification and validation process and are accepted for unrestricted use. The project produced acceptable results for 100 % of the sample analyses performed.

9. CONCLUSION

The overall quality of the soil and groundwater sampling information meets the established project objectives. Through proper implementation of the project data verification and assessment process, project information has been determined to be acceptable for use.

Data, as presented, have been qualified as usable, but estimated when necessary. Data that have been estimated have concentrations/activities that are below the quantitation limit or are indicative of accuracy, precision, or sensitivity being less than desired but adequate for interpretation.

Data produced for this characterization demonstrates that it can withstand scientific scrutiny, is appropriate for its intended purpose, is technically defensible, and is of known and acceptable sensitivity, precision, and accuracy. Data integrity has been documented through proper implementation of QA/QC measures. The environmental information presented has an established confidence, which allows utilization for the project objectives and provides data for future needs.

REFERENCES

Cabrera Services, Inc., Work Management Plan, Part II, Field Sampling Plan, Operable Unit 3 Phase II Soil Investigation, DuPont Chambers Works FUSRAP Site, Deepwater, New Jersey, prepared for U.S. Army Corps of Engineers, Philadelphia District, Philadelphia, PA, June 2005

Cabrera Services, Inc., Work Management Plan, Part II, Field Sampling Plan, For Remedial Investigation at Operable Unit 2: AOC 3, Central Drainage Ditch, and AOC 5, Building J-26 (Former Location of Building J-16, DuPont Chambers Works Site, Deepwater, New Jersey, prepared for U.S. Army Corps of Engineers, Baltimore District, Baltimore, MD, January 2005

Cabrera Services, Inc., Work Management Plan, Part II, Field Sampling Plan, For Remedial Investigation at Operable Unit 3: AOC 4, Lagoon A, AOC 6, East Burial Area, DuPont Chambers Works FUSRAP Site, Deepwater, New Jersey, prepared for U.S. Army Corps of Engineers, Baltimore District, Baltimore, MD, September 2004

Cabrera Services, Inc., Work Management Plan, Part I, Field Sampling Plan, Groundwater Investigation at OU 1 and OU 2, Building 845, F Corral, and Vicinity, DuPont Chambers Works Site, Deepwater, New Jersey, prepared for U.S. Army Corps of Engineers, Philadelphia District, Philadelphia, PA, September 2004

Tables

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	RA-226					Th-230				
					OffsiteGammaSpec					OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
1	1BH002	SMP	1BH002-BS-080-0	6/26/02						0.38	J	0.66	0.10	0.09
1	1BH002	DUP	1BH002-BS-080-0D	6/26/02						0.34	J		0.09	0.08
1	1BH006	SMP	1BH006-BS-085-0	7/2/02						1.14	J	0.23	0.25	0.09
1	1BH006	DUP	1BH006-BS-085-0DUP	7/2/02						1.18			0.24	0.08
1	1BH011	SMP	1BH011-BS-050-0	7/8/02										
1	1BH011	DUP	1BH011-BS-050-1	7/8/02										
1	1BH011	SMP	1BH011-SS-000-0	7/8/02										
1	1BH011	DUP	1BH011-SS-000-1	7/8/02										
1	1BH022	SMP	1BH022-CC-000-0	6/14/02										
1	1BH022	DUP	1BH022-CC-000-1	6/14/02										
1	1CPT-06-B	DUP	1CPT-06-B-D-1	11/16/04	0.75			0.25	0.32					
1	1CPT-06-B	SMP	1CPT-06-B-P-1	11/16/04	0.39	U		0.19	0.46					
1	1-MW-08A	SMP	1-MW-08-B-P-01	9/17/04										
1	1-MW-08A	DUP	1-MW-08-B-P-01DUP	9/17/04										
1	1-MW-21A	SMP	1-MW-21-B-P-01	7/14/05	0.99		0.05	0.28	0.59					
1	1-MW-21A	DUP	1-MW-21-B-P-01DUP	7/14/05	1.00			0.26	0.47					
1	1-SB-01	DUP	1-SB-01-SS-DUP-00	6/25/07	1.30	G	*4.48*	0.28	0.37	5.23		*10.67*	0.83	0.08
1	1-SB-01	SMP	1-SB-01-SS-P-00	6/25/07	0.53	G		0.20	0.42	0.73			0.15	0.08
1	1TP007	SMP	1TP007-BS-015-0	8/23/02										
1	1TP007	DUP	1TP007-BS-015-1	8/23/02										
1	1TP022	SMP	1TP022-BS-010-0	8/26/02										
1	1TP022	DUP	1TP022-BS-010-1	8/26/02										
1	ElevatorShaft	SMP	Elevator Shaft (0-2)	8/18/03						8.70	J	0.66	1.40	0.10
1	ElevatorShaft	DUP	Elevator Shaft (0-2)DUP	8/18/03						9.40			1.60	0.10
2	2BH004	SMP	2BH004-BS-085-0	7/26/02						0.19	J	1.59	0.07	0.08
2	2BH004	DUP	2BH004-BS-085-0D	7/26/02						0.28	J		0.08	0.07
2	2BH006	SMP	2BH006-BS-050-0	7/22/02						0.79	J	0.60	0.17	0.08
2	2BH006	DUP	2BH006-BS-050-0DUP	7/22/02						0.72			0.16	0.08
2	2BH042	SMP	2BH042-SS-000-0	7/18/02										
2	2BH042	DUP	2BH042-SS-000-1	7/18/02										
2	2-MW-02A	SMP	2-MW-02-B-P-02	9/21/04										
2	2-MW-02A	DUP	2-MW-02-B-P-02DUP	9/21/04										
2	2-MW-12A	SMP	2-MW-12-B-P-01	9/16/04										
2	2-MW-12A	DUP	2-MW-12-B-P-01DUP	9/16/04										
2	2-MW-19A	SMP	2-MW-19-B-P-02	8/23/05	1.29		1.57	0.24	0.36					
2	2-MW-19A	DUP	2-MW-19-B-P-02DUP	8/23/05	1.63			0.36	0.61					

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AOC	LocCode	QC Type	Sample ID	Sample Date	RA-226					Th-230				
					OffsiteGammaSpec					OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
2	2-MW-20A	SMP	2-MW-20-B-P-02	7/18/05	1.82		1.68	0.37	0.53					
2	2-MW-20A	DUP	2-MW-20-B-P-02DUP	7/18/05	1.38			0.37	0.56					
2	2-SB-06	DUP	2-SB-06-SS-DUP-00	6/26/07	0.45	LT,G,TI	0.59	0.22	0.39	0.30		0.31	0.09	0.10
2	2-SB-06	SMP	2-SB-06-SS-P-00	6/26/07	0.37	LT,TI		0.16	0.28	0.28	M3		0.10	0.10
3	3-SB-01	SMP	3-SB-01-B-0-02	8/13/03	1.03		0.81	0.21	0.23					
3	3-SB-01	DUP	3-SB-01-B-0-02DUP	8/13/03	0.91			0.21	0.33					
3	3-SB-04	SMP	3-SB-04-B-0-01	8/12/03	0.49			0.13	0.24					
3	3-SB-04	DUP	3-SB-04-B-0-01DUP	8/12/03										
3	3-SB-05	SMP	3-SB-05-B-0-01	8/11/03						0.34	J	0.97	0.08	0.06
3	3-SB-05	DUP	3-SB-05-B-0-01DUP	8/11/03						0.28			0.08	0.07
3	3-SB-15	DUP	3-SB-15-B-1-04	8/20/03	1.11		1.01	0.30	0.46					
3	3-SB-15	DUP	3-SB-15-B-1-04DUP	8/20/03	1.32			0.29	0.38					
3	3-SB-20	SMP	3-SB-20-B-0-01	8/22/03						0.47	J	0.13	0.11	0.07
3	3-SB-20	DUP	3-SB-20-B-0-01DUP	8/22/03						0.46			0.11	0.07
3	3-SB-20	SMP	3-SB-20-B-0-04	8/22/03	1.18			0.26	0.30					
3	3-SB-20	DUP	3-SB-20-B-0-04DUP	8/22/03										
3	3-SB-20	SMP	3-SB-20-B-0-05	8/22/03	0.57		1.26	0.17	0.29					
3	3-SB-20	DUP	3-SB-20-B-0-05DUP	8/22/03	0.74			0.21	0.31					
3	3-SB-21	SMP	3-SB-21-B-0-02	8/20/03						0.39	J	0.46	0.10	0.07
3	3-SB-21	DUP	3-SB-21-B-0-02DUP	8/20/03						0.42			0.09	0.05
3	3-SB-25	SMP	3-SB-25-B-0-05	8/26/03	0.55		0.38	0.17	0.33					
3	3-SB-25	DUP	3-SB-25-B-0-05DUP	8/26/03	0.60			0.20	0.31					
3	3-SB-33	DUP	3-SB-33-SS-DUP-00	6/28/07	0.57		1.36	0.17	0.29	0.35		0.87	0.10	0.07
3	3-SB-33	SMP	3-SB-33-SS-P-00	6/28/07	0.42	LT		0.14	0.29	0.41			0.11	0.08
4	4-MW-01B	SMP	4-MW-01-B-P-17	5/8/06	2.73			0.42	0.42	1.74		0.76	0.37	0.10
4	4-MW-01B	DUP	4-MW-01-B-P-17DUP	5/8/06						1.95			0.41	0.11
4	4-MW-02A	SMP	4-MW-02-B-P-09	5/8/06	0.66		0.96	0.24	0.49	0.59			0.15	0.09
4	4-MW-02A	DUP	4-MW-02-B-P-09DUP	5/8/06	0.82			0.23	0.46					
4	4-MW-06A	SMP	4-MW-06-B-P-01	5/9/06	0.93		1.35	0.23	0.36	0.56			0.15	0.10
4	4-MW-06A	DUP	4-MW-06-B-P-01DUP	5/9/06	0.71			0.23	0.43					
4	4-SB-23	SMP	4-SB-23-B-P-09	11/9/05	1.92			0.46	0.77					
4	4-SB-23	DUP	4-SB-23-B-P-09DUP	11/9/05										
4	4-SB-23	SMP	4-SB-23-B-P-10	11/9/05	0.43	U		0.22	0.50					
4	4-SB-23	DUP	4-SB-23-B-P-10DUP	11/9/05										
4	4-SB-26	SMP	4-SB-26-B-P-02	11/9/05	0.96		0.41	0.31	0.60					
4	4-SB-26	DUP	4-SB-26-B-P-02DUP	11/9/05	1.05			0.31	0.47					

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AOC	LocCode	QC Type	Sample ID	Sample Date	RA-226					Th-230				
					OffsiteGammaSpec					OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
4	4-SB-27	DUP	4-SB-27-B-DUP-06	11/10/05	0.98		*3.18*	0.33	0.45					
4	4-SB-27	DUP	4-SB-27-B-DUP-09	11/10/05	0.34			0.23	0.34					
4	4-SB-27	SMP	4-SB-27-B-P-06	11/10/05	0.73		1.08	0.24	0.46					
4	4-SB-27	SMP	4-SB-27-B-P-09	11/10/05	0.55			0.23	0.50					
4	4-SB-31	DUP	4-SB-31-BS-DUP-05	7/3/07	0.11	U		0.17	0.28	0.21	Y2,M3	*2.01*	0.11	0.15
4	4-SB-31	SMP	4-SB-31-BS-P-05	7/3/07	0.21	U		0.12	0.30	0.09	LT		0.05	0.07
4	4-SB-33	DUP	4-SB-33-BS-DUP-05	6/29/07	0.94	G	0.19	0.21	0.32	0.85		0.78	0.17	0.06
4	4-SB-33	SMP	4-SB-33-BS-P-05	6/29/07	0.97	G		0.24	0.36	0.95			0.19	0.07
5	5-SB-03	SMP	5-SB-03-B-0-02	9/4/03	0.63		0.87	0.19	0.27					
5	5-SB-03	DUP	5-SB-03-B-0-02DUP	9/4/03	0.51			0.20	0.32					
5	5-SB-09	SMP	5-SB-09-B-0-02	9/8/03						0.44	J	0.68	0.11	0.08
5	5-SB-09	DUP	5-SB-09-B-0-02DUP	9/8/03						0.39			0.10	0.07
5	5-SB-13	SMP	5-SB-13-B-0-05	9/2/03	0.70		1.86	0.21	0.38					
5	5-SB-13	DUP	5-SB-13-B-0-05DUP	9/2/03	0.43			0.20	0.34					
6	6-CPT-21	SMP	6CPT-21-B-P-2	11/15/04	0.85			0.11	0.10					
6	6-CPT-21	DUP	6CPT-21-B-P-2DUP	11/15/04										
6	6CPT-62A	SMP	6CPT-62A-B-P-0.5	10/25/04	1.70		*3.79*	0.42	0.68					
6	6CPT-62A	DUP	6CPT-62A-B-P-0.5DUP	10/25/04	2.91			0.48	0.69					
6	6-MW-06B	SMP	6-MW-06-B-P-19	5/10/06	1.16			0.30	0.47	0.76		0.43	0.17	0.08
6	6-MW-06B	DUP	6-MW-06-B-P-19DUP	5/10/06						0.71			0.16	0.08
6	6-MW-07B	SMP	6-MW-07-B-P-17	5/9/06	0.73			0.22	0.36	0.17		*2.74*	0.07	0.09
6	6-MW-07B	DUP	6-MW-07-B-P-17DUP	5/9/06						0.34			0.10	0.08
6	6-SB-02	SMP	6-SB-02-B-P-11	11/12/05	0.85		0.30	0.25	0.49					
6	6-SB-02	DUP	6-SB-02-B-P-11DUP	11/12/05	0.80			0.22	0.33					
6	6-SB-03	SMP	6-SB-03-B-P-03	11/12/05	0.81			0.27	0.56					
6	6-SB-03	DUP	6-SB-03-B-P-03DUP	11/12/05										
6	6-SB-04	SMP	6-SB-04-B-P-06	11/12/05	0.79		0.27	0.25	0.53					
6	6-SB-04	DUP	6-SB-04-B-P-06DUP	11/12/05	0.84			0.28	0.49					
6	6-SB-06	SMP	6-SB-06-B-P-10	11/11/05	0.97		0.49	0.25	0.35					
6	6-SB-06	DUP	6-SB-06-B-P-10DUP	11/11/05	1.05			0.21	0.33					
6	6-SB-11	SMP	6-SB-11-B-P-01	11/11/05	0.89			0.30	0.56					
6	6-SB-11	DUP	6-SB-11-B-P-01DUP	11/11/05										
6	6-SB-11	SMP	6-SB-11-B-P-10	11/11/05	1.46		1.30	0.34	0.50					
6	6-SB-11	DUP	6-SB-11-B-P-10DUP	11/11/05	1.17			0.29	0.50					
6	6-SB-14	SMP	6-SB-14-B-P-06	11/12/05	0.62		0.24	0.25	0.45					
6	6-SB-14	DUP	6-SB-14-B-P-06DUP	11/12/05	0.58			0.22	0.37					

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					OffsiteGammaSpec					OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
6	6-SB-17A	DUP	6-SB-17A-B-DUP-04	11/13/05	0.80		0.38	0.28	0.54					
6	6-SB-17A	SMP	6-SB-17A-B-P-04	11/13/05	0.88			0.31	0.56					
6	6-SB-17	DUP	6-SB-17-B-DUP-02	11/16/05	1.05		0.25	0.29	0.44					
6	6-SB-17	SMP	6-SB-17-B-P-02	11/16/05	0.99			0.39	0.63					
6	6-SB-18A	SMP	6-SB-18A-B-P-06	11/13/05	1.13		0.43	0.25	0.43					
6	6-SB-18A	DUP	6-SB-18A-B-P-06DUP	11/13/05	1.21			0.28	0.42					
6	6-SB-21	SMP	6-SB-21-B-P-11	11/10/05	0.56		0.61	0.22	0.37					
6	6-SB-21	DUP	6-SB-21-B-P-11DUP	11/10/05	0.47			0.20	0.42					
6	6-SB-33	DUP	6-SB-33-BS-DUP-03	7/4/07	1.55	G	***3.21***	0.31	0.36	0.76	M3	1.13	0.22	0.16
6	6-SB-33	SMP	6-SB-33-BS-P-03	7/4/07	0.93	G		0.23	0.40	0.61	M3		0.15	0.11
6	6-SB-40	DUP	6-SB-40-BS-DUP-05	7/4/07	0.43	LT,G,TI	0.44	0.21	0.41	0.23	Y2,M3	1.24	0.13	0.19
6	6-SB-40	SMP	6-SB-40-BS-P-05	7/4/07	0.37	LT,G		0.17	0.34	0.34	M3		0.12	0.13
BG	7-SB-04	DUP	7-SB-04-SS-DUP-00	7/3/07	0.74	G,TI	0.07	0.23	0.32	0.41	M3	0.45	0.13	0.12
BG	7-SB-04	SMP	7-SB-04-SS-P-00	7/3/07	0.75	G		0.18	0.31	0.45	M3		0.12	0.10
BG	7-SB-07	DUP	7-SB-07-BS-DUP-03	7/3/07	1.18		0.96	0.24	0.33	0.68		0.68	0.14	0.08
BG	7-SB-07	SMP	7-SB-07-BS-P-03	7/3/07	1.02			0.23	0.36	0.75			0.15	0.08

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	Th-234 OffsiteGammaSpec					U-234 OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
1	1BH002	SMP	1BH002-BS-080-0	6/26/02										
1	1BH002	DUP	1BH002-BS-080-0D	6/26/02										
1	1BH006	SMP	1BH006-BS-085-0	7/2/02										
1	1BH006	DUP	1BH006-BS-085-0DUP	7/2/02										
1	1BH011	SMP	1BH011-BS-050-0	7/8/02	0.62	J	*3.36*	0.57	0.64					
1	1BH011	DUP	1BH011-BS-050-1	7/8/02	3.16			1.40	1.51					
1	1BH011	SMP	1BH011-SS-000-0	7/8/02	1.54	J	1.72	0.82	0.89					
1	1BH011	DUP	1BH011-SS-000-1	7/8/02	2.80			1.22	1.16					
1	1BH022	SMP	1BH022-CC-000-0	6/14/02	13.55	J	0.52	2.08	1.21	16.83	L	0.94	5.09	0.59
1	1BH022	DUP	1BH022-CC-000-1	6/14/02	12.84			1.73	0.96	14.09			2.79	0.10
1	1CPT-06-B	DUP	1CPT-06-B-D-1	11/16/04	8.40		0.14	2.10	2.30					
1	1CPT-06-B	SMP	1CPT-06-B-P-1	11/16/04	8.70			3.90	5.60					
1	1-MW-08A	SMP	1-MW-08-B-P-01	9/17/04	132.00		1.22	17.00	5.00					
1	1-MW-08A	DUP	1-MW-08-B-P-01DUP	9/17/04	149.00			22.00	12.00					
1	1-MW-21A	SMP	1-MW-21-B-P-01	7/14/05	0.78	U		0.90	1.46					
1	1-MW-21A	DUP	1-MW-21-B-P-01DUP	7/14/05										
1	1-SB-01	DUP	1-SB-01-SS-DUP-00	6/25/07	120.00	M3,G	*15.11*	15.00	5.00	113.00	M3	*10.29*	21.00	0.00
1	1-SB-01	SMP	1-SB-01-SS-P-00	6/25/07	2.50	U,M,G		4.10	6.90	4.89	M3		0.91	0.11
1	1TP007	SMP	1TP007-BS-015-0	8/23/02	63.85		*2.13*	7.32	2.42	58.76		1.55	16.27	5.66
1	1TP007	DUP	1TP007-BS-015-1	8/23/02	76.06			8.82	3.21	77.97			18.75	2.96
1	1TP022	SMP	1TP022-BS-010-0	8/26/02	208.60		*7.63*	22.54	3.63	166.50		1.43	42.79	12.37
1	1TP022	DUP	1TP022-BS-010-1	8/26/02	398.00			44.27	9.20	212.40			48.03	6.30
1	ElevatorShaft	SMP	Elevator Shaft (0-2)	8/18/03										
1	ElevatorShaft	DUP	Elevator Shaft (0-2)DUP	8/18/03										
2	2BH004	SMP	2BH004-BS-085-0	7/26/02										
2	2BH004	DUP	2BH004-BS-085-0D	7/26/02										
2	2BH006	SMP	2BH006-BS-050-0	7/22/02										
2	2BH006	DUP	2BH006-BS-050-0DUP	7/22/02										
2	2BH042	SMP	2BH042-SS-000-0	7/18/02	126.30		*8.51*	13.80	3.56					
2	2BH042	DUP	2BH042-SS-000-1	7/18/02	266.10			29.83	6.61					
2	2-MW-02A	SMP	2-MW-02-B-P-02	9/21/04	1070.00		0.73	130.00	10.00					
2	2-MW-02A	DUP	2-MW-02-B-P-02DUP	9/21/04	1140.00			140.00	50.00					
2	2-MW-12A	SMP	2-MW-12-B-P-01	9/16/04	4.60		1.87	2.70	4.10					
2	2-MW-12A	DUP	2-MW-12-B-P-01DUP	9/16/04	8.10			2.60	3.20					
2	2-MW-19A	SMP	2-MW-19-B-P-02	8/23/05	1.60	U		1.10	1.70					
2	2-MW-19A	DUP	2-MW-19-B-P-02DUP	8/23/05										

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	Th-234 OffsiteGammaSpec					U-234 OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
2	2-MW-20A	SMP	2-MW-20-B-P-02	7/18/05	2.80	U		2.30	3.70					
2	2-MW-20A	DUP	2-MW-20-B-P-02DUP	7/18/05	2.00	U		1.50	2.30					
2	2-SB-06	DUP	2-SB-06-SS-DUP-00	6/26/07	14.70	M3,G	*3.05*	7.40	10.20	13.90		*8.87*	2.40	0.10
2	2-SB-06	SMP	2-SB-06-SS-P-00	6/26/07	2.30	U,M		3.40	5.70	2.95			0.58	0.05
3	3-SB-01	SMP	3-SB-01-B-0-02	8/13/03	1.60	U		1.30	2.00					
3	3-SB-01	DUP	3-SB-01-B-0-02DUP	8/13/03										
3	3-SB-04	SMP	3-SB-04-B-0-01	8/12/03	14.80		0.30	3.70	3.80					
3	3-SB-04	DUP	3-SB-04-B-0-01DUP	8/12/03	14.10			2.90	1.90					
3	3-SB-05	SMP	3-SB-05-B-0-01	8/11/03										
3	3-SB-05	DUP	3-SB-05-B-0-01DUP	8/11/03										
3	3-SB-15	DUP	3-SB-15-B-1-04	8/20/03	0.49	U		0.94	1.60					
3	3-SB-15	DUP	3-SB-15-B-1-04DUP	8/20/03										
3	3-SB-20	SMP	3-SB-20-B-0-01	8/22/03										
3	3-SB-20	DUP	3-SB-20-B-0-01DUP	8/22/03										
3	3-SB-20	SMP	3-SB-20-B-0-04	8/22/03	4.80		0.26	1.50	1.60					
3	3-SB-20	DUP	3-SB-20-B-0-04DUP	8/22/03	5.10			1.80	2.30					
3	3-SB-20	SMP	3-SB-20-B-0-05	8/22/03	1.30	U		1.70	2.80					
3	3-SB-20	DUP	3-SB-20-B-0-05DUP	8/22/03	0.48	U		0.69	1.10					
3	3-SB-21	SMP	3-SB-21-B-0-02	8/20/03										
3	3-SB-21	DUP	3-SB-21-B-0-02DUP	8/20/03										
3	3-SB-25	SMP	3-SB-25-B-0-05	8/26/03	-0.80	U		2.20	4.00					
3	3-SB-25	DUP	3-SB-25-B-0-05DUP	8/26/03										
3	3-SB-33	DUP	3-SB-33-SS-DUP-00	6/28/07	3.40	U,M		2.70	4.20	1.02		1.04	0.23	0.05
3	3-SB-33	SMP	3-SB-33-SS-P-00	6/28/07	-0.40	U,M		3.20	5.80	1.20			0.26	0.05
4	4-MW-01B	SMP	4-MW-01-B-P-17	5/8/06	2.20	U		1.40	2.20					
4	4-MW-01B	DUP	4-MW-01-B-P-17DUP	5/8/06	2.60			1.10	1.60					
4	4-MW-02A	SMP	4-MW-02-B-P-09	5/8/06	1.10	U		1.40	2.30					
4	4-MW-02A	DUP	4-MW-02-B-P-09DUP	5/8/06										
4	4-MW-06A	SMP	4-MW-06-B-P-01	5/9/06	1.30	U		2.30	3.90					
4	4-MW-06A	DUP	4-MW-06-B-P-01DUP	5/9/06										
4	4-SB-23	SMP	4-SB-23-B-P-09	11/9/05	52.70		0.40	7.10	3.90					
4	4-SB-23	DUP	4-SB-23-B-P-09DUP	11/9/05	50.70			7.20	4.20					
4	4-SB-23	SMP	4-SB-23-B-P-10	11/9/05	3.90		0.53	1.70	2.50					
4	4-SB-23	DUP	4-SB-23-B-P-10DUP	11/9/05	4.60			2.00	2.80					
4	4-SB-26	SMP	4-SB-26-B-P-02	11/9/05	7.30			1.90	2.30					
4	4-SB-26	DUP	4-SB-26-B-P-02DUP	11/9/05										

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	Th-234 OffsiteGammaSpec					U-234 OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
4	4-SB-27	DUP	4-SB-27-B-DUP-06	11/10/05	0.50	U		1.10	1.80					
4	4-SB-27	DUP	4-SB-27-B-DUP-09	11/10/05	1.02	U		0.73	1.11					
4	4-SB-27	SMP	4-SB-27-B-P-06	11/10/05	1.00	U		1.40	2.30					
4	4-SB-27	SMP	4-SB-27-B-P-09	11/10/05	0.02	U		0.74	1.31					
4	4-SB-31	DUP	4-SB-31-BS-DUP-05	7/3/07	-1.10	U,M		3.00	5.60	0.22		0.09	0.07	0.03
4	4-SB-31	SMP	4-SB-31-BS-P-05	7/3/07	0.15	U		0.90	1.57	0.22			0.08	0.04
4	4-SB-33	DUP	4-SB-33-BS-DUP-05	6/29/07	1.70	U,G	1.10	1.30	2.10	2.67		***2.70***	0.49	0.02
4	4-SB-33	SMP	4-SB-33-BS-P-05	6/29/07	4.50	U,M,G		4.90	7.80	3.79			0.67	0.03
5	5-SB-03	SMP	5-SB-03-B-0-02	9/4/03	2.30	U		1.90	2.80					
5	5-SB-03	DUP	5-SB-03-B-0-02DUP	9/4/03										
5	5-SB-09	SMP	5-SB-09-B-0-02	9/8/03										
5	5-SB-09	DUP	5-SB-09-B-0-02DUP	9/8/03										
5	5-SB-13	SMP	5-SB-13-B-0-05	9/2/03	0.70	U		1.70	2.90					
5	5-SB-13	DUP	5-SB-13-B-0-05DUP	9/2/03	0.21	U		0.61	1.10					
6	6-CPT-21	SMP	6CPT-21-B-P-2	11/15/04	33.60		0.67	4.90	3.00					
6	6-CPT-21	DUP	6CPT-21-B-P-2DUP	11/15/04	31.40			4.40	3.10					
6	6CPT-62A	SMP	6CPT-62A-B-P-0.5	10/25/04	624.00		1.26	74.00	11.00					
6	6CPT-62A	DUP	6CPT-62A-B-P-0.5DUP	10/25/04	561.00			67.00	10.00					
6	6-MW-06B	SMP	6-MW-06-B-P-19	5/10/06	1.60	U		2.40	3.90					
6	6-MW-06B	DUP	6-MW-06-B-P-19DUP	5/10/06										
6	6-MW-07B	SMP	6-MW-07-B-P-17	5/9/06	0.64	U		0.66	1.06					
6	6-MW-07B	DUP	6-MW-07-B-P-17DUP	5/9/06										
6	6-SB-02	SMP	6-SB-02-B-P-11	11/12/05	1.80			1.10	1.60					
6	6-SB-02	DUP	6-SB-02-B-P-11DUP	11/12/05	1.40	U		1.00	1.50					
6	6-SB-03	SMP	6-SB-03-B-P-03	11/12/05	189.00		***2.33***	23.00	5.00					
6	6-SB-03	DUP	6-SB-03-B-P-03DUP	11/12/05	233.00			30.00	13.00					
6	6-SB-04	SMP	6-SB-04-B-P-06	11/12/05	79.00			13.00	11.00					
6	6-SB-04	DUP	6-SB-04-B-P-06DUP	11/12/05										
6	6-SB-06	SMP	6-SB-06-B-P-10	11/11/05	1.90	U		2.20	3.70					
6	6-SB-06	DUP	6-SB-06-B-P-10DUP	11/11/05										
6	6-SB-11	SMP	6-SB-11-B-P-01	11/11/05	14.50		0.27	2.60	2.30					
6	6-SB-11	DUP	6-SB-11-B-P-01DUP	11/11/05	14.00			2.60	2.20					
6	6-SB-11	SMP	6-SB-11-B-P-10	11/11/05	1.40	U		1.00	1.60					
6	6-SB-11	DUP	6-SB-11-B-P-10DUP	11/11/05										
6	6-SB-14	SMP	6-SB-14-B-P-06	11/12/05	4.60			1.30	1.60					
6	6-SB-14	DUP	6-SB-14-B-P-06DUP	11/12/05										

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	Th-234 OffsiteGammaSpec					U-234 OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
6	6-SB-17A	DUP	6-SB-17A-B-DUP-04	11/13/05	25.70		0.10	4.00	2.80					
6	6-SB-17A	SMP	6-SB-17A-B-P-04	11/13/05	26.00			4.10	2.90					
6	6-SB-17	DUP	6-SB-17-B-DUP-02	11/16/05	46.40		1.13	6.30	3.10					
6	6-SB-17	SMP	6-SB-17-B-P-02	11/16/05	51.70			6.90	3.10					
6	6-SB-18A	SMP	6-SB-18A-B-P-06	11/13/05	0.90	U		1.60	2.70					
6	6-SB-18A	DUP	6-SB-18A-B-P-06DUP	11/13/05	0.69	U		0.92	1.51					
6	6-SB-21	SMP	6-SB-21-B-P-11	11/10/05	0.34	U		0.60	1.01					
6	6-SB-21	DUP	6-SB-21-B-P-11DUP	11/10/05										
6	6-SB-33	DUP	6-SB-33-BS-DUP-03	7/4/07	-0.40	U,M,G		4.80	8.50	0.84		*2.09*	0.17	0.03
6	6-SB-33	SMP	6-SB-33-BS-P-03	7/4/07	3.50	U,M,G		3.50	5.70	0.61			0.14	0.02
6	6-SB-40	DUP	6-SB-40-BS-DUP-05	7/4/07	2.90	U,M,G	0.37	4.40	7.30	0.39		1.83	0.09	0.02
6	6-SB-40	SMP	6-SB-40-BS-P-05	7/4/07	4.00	U,M,G		4.00	6.40	0.55			0.15	0.06
BG	7-SB-04	DUP	7-SB-04-SS-DUP-00	7/3/07	0.40	U,M,G	0.07	3.80	6.70	0.91		*3.69*	0.20	0.03
BG	7-SB-04	SMP	7-SB-04-SS-P-00	7/3/07	0.60	U,M,G		4.00	7.00	0.46			0.14	0.04
BG	7-SB-07	DUP	7-SB-07-BS-DUP-03	7/3/07	-0.40	U,M		3.60	6.40	1.04		*2.09*	0.22	0.04
BG	7-SB-07	SMP	7-SB-07-BS-P-03	7/3/07	-0.10	U,M		4.00	7.10	1.42			0.29	0.03

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	U-235									
					OffsiteAlphaSpec					OffsiteGammaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
1	1BH002	SMP	1BH002-BS-080-0	6/26/02										
1	1BH002	DUP	1BH002-BS-080-0D	6/26/02										
1	1BH006	SMP	1BH006-BS-085-0	7/2/02										
1	1BH006	DUP	1BH006-BS-085-0DUP	7/2/02										
1	1BH011	SMP	1BH011-BS-050-0	7/8/02						-0.06	U		0.13	0.22
1	1BH011	DUP	1BH011-BS-050-1	7/8/02						0.01	UJ		0.36	0.59
1	1BH011	SMP	1BH011-SS-000-0	7/8/02						0.24	J		0.18	0.33
1	1BH011	DUP	1BH011-SS-000-1	7/8/02						0.24	UJ		0.40	0.45
1	1BH022	SMP	1BH022-CC-000-0	6/14/02	0.73	J	0.08	0.55	0.52	0.68	L	0.19	0.24	0.30
1	1BH022	DUP	1BH022-CC-000-1	6/14/02	0.71			0.31	0.07	0.71			0.25	0.26
1	1CPT-06-B	DUP	1CPT-06-B-D-1	11/16/04						0.34	U		0.41	0.66
1	1CPT-06-B	SMP	1CPT-06-B-P-1	11/16/04						0.38	U		0.22	0.43
1	1-MW-08A	SMP	1-MW-08-B-P-01	9/17/04						7.60		0.44	1.30	1.50
1	1-MW-08A	DUP	1-MW-08-B-P-01DUP	9/17/04						8.00			1.30	1.40
1	1-MW-21A	SMP	1-MW-21-B-P-01	7/14/05						0.00	U		0.31	0.54
1	1-MW-21A	DUP	1-MW-21-B-P-01DUP	7/14/05										
1	1-SB-01	DUP	1-SB-01-SS-DUP-00	6/25/07	5.30	M3	*7.79*	1.30	0.20	6.00	G	*10.68*	1.00	1.00
1	1-SB-01	SMP	1-SB-01-SS-P-00	6/25/07	0.22			0.11	0.06	0.29	U,G		0.38	0.63
1	1TP007	SMP	1TP007-BS-015-0	8/23/02	2.39	UJ		3.16	4.86	4.93		1.38	0.54	0.59
1	1TP007	DUP	1TP007-BS-015-1	8/23/02	11.84			6.40	2.13	5.70			0.97	0.96
1	1TP022	SMP	1TP022-BS-010-0	8/26/02	11.43	J	0.21	9.81	9.07	14.91		*9.47*	1.27	0.93
1	1TP022	DUP	1TP022-BS-010-1	8/26/02	10.09	J		8.39	4.55	32.33			3.45	2.33
1	ElevatorShaft	SMP	Elevator Shaft (0-2)	8/18/03										
1	ElevatorShaft	DUP	Elevator Shaft (0-2)DUP	8/18/03										
2	2BH004	SMP	2BH004-BS-085-0	7/26/02										
2	2BH004	DUP	2BH004-BS-085-0D	7/26/02										
2	2BH006	SMP	2BH006-BS-050-0	7/22/02										
2	2BH006	DUP	2BH006-BS-050-0DUP	7/22/02										
2	2BH042	SMP	2BH042-SS-000-0	7/18/02						11.08		*8.83*	1.04	1.03
2	2BH042	DUP	2BH042-SS-000-1	7/18/02						22.19			2.29	1.67
2	2-MW-02A	SMP	2-MW-02-B-P-02	9/21/04						58.00		0.14	7.00	2.60
2	2-MW-02A	DUP	2-MW-02-B-P-02DUP	9/21/04						58.70			7.20	3.40
2	2-MW-12A	SMP	2-MW-12-B-P-01	9/16/04						0.35	U		0.20	0.36
2	2-MW-12A	DUP	2-MW-12-B-P-01DUP	9/16/04						0.31	U		0.20	0.33
2	2-MW-19A	SMP	2-MW-19-B-P-02	8/23/05						0.04	U		0.29	0.51
2	2-MW-19A	DUP	2-MW-19-B-P-02DUP	8/23/05										

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	U-235									
					OffsiteAlphaSpec					OffsiteGammaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
2	2-MW-20A	SMP	2-MW-20-B-P-02	7/18/05						0.00	U		0.23	0.40
2	2-MW-20A	DUP	2-MW-20-B-P-02DUP	7/18/05						0.07	U		0.36	0.62
2	2-SB-06	DUP	2-SB-06-SS-DUP-00	6/26/07	0.73		*5.08*	0.22	0.06	0.80	LT,G		0.51	0.76
2	2-SB-06	SMP	2-SB-06-SS-P-00	6/26/07	0.14			0.08	0.03	0.07	U		0.26	0.46
3	3-SB-01	SMP	3-SB-01-B-0-02	8/13/03						0.07	U		0.21	0.36
3	3-SB-01	DUP	3-SB-01-B-0-02DUP	8/13/03										
3	3-SB-04	SMP	3-SB-04-B-0-01	8/12/03						1.02		0.33	0.29	0.41
3	3-SB-04	DUP	3-SB-04-B-0-01DUP	8/12/03						1.10			0.38	0.51
3	3-SB-05	SMP	3-SB-05-B-0-01	8/11/03										
3	3-SB-05	DUP	3-SB-05-B-0-01DUP	8/11/03										
3	3-SB-15	DUP	3-SB-15-B-1-04	8/20/03						-0.03	U		0.35	0.62
3	3-SB-15	DUP	3-SB-15-B-1-04DUP	8/20/03										
3	3-SB-20	SMP	3-SB-20-B-0-01	8/22/03										
3	3-SB-20	DUP	3-SB-20-B-0-01DUP	8/22/03										
3	3-SB-20	SMP	3-SB-20-B-0-04	8/22/03						0.28	U		0.29	0.45
3	3-SB-20	DUP	3-SB-20-B-0-04DUP	8/22/03						0.21	U		0.22	0.40
3	3-SB-20	SMP	3-SB-20-B-0-05	8/22/03						-0.03	U		0.20	0.37
3	3-SB-20	DUP	3-SB-20-B-0-05DUP	8/22/03						0.16	U		0.24	0.39
3	3-SB-21	SMP	3-SB-21-B-0-02	8/20/03										
3	3-SB-21	DUP	3-SB-21-B-0-02DUP	8/20/03										
3	3-SB-25	SMP	3-SB-25-B-0-05	8/26/03						0.06	U		0.16	0.28
3	3-SB-25	DUP	3-SB-25-B-0-05DUP	8/26/03										
3	3-SB-33	DUP	3-SB-33-SS-DUP-00	6/28/07	0.06	LT		0.04	0.04	0.00	U		0.29	0.51
3	3-SB-33	SMP	3-SB-33-SS-P-00	6/28/07	0.02	U		0.03	0.04	0.07	U		0.25	0.43
4	4-MW-01B	SMP	4-MW-01-B-P-17	5/8/06						0.08	U		0.45	0.77
4	4-MW-01B	DUP	4-MW-01-B-P-17DUP	5/8/06						0.13	U		0.41	0.69
4	4-MW-02A	SMP	4-MW-02-B-P-09	5/8/06						0.18	U		0.12	0.23
4	4-MW-02A	DUP	4-MW-02-B-P-09DUP	5/8/06										
4	4-MW-06A	SMP	4-MW-06-B-P-01	5/9/06						0.15	U		0.15	0.24
4	4-MW-06A	DUP	4-MW-06-B-P-01DUP	5/9/06										
4	4-SB-23	SMP	4-SB-23-B-P-09	11/9/05						3.39		0.61	0.71	1.01
4	4-SB-23	DUP	4-SB-23-B-P-09DUP	11/9/05						3.73			0.85	1.28
4	4-SB-23	SMP	4-SB-23-B-P-10	11/9/05						0.25	U		0.35	0.57
4	4-SB-23	DUP	4-SB-23-B-P-10DUP	11/9/05						0.58	U		0.53	0.84
4	4-SB-26	SMP	4-SB-26-B-P-02	11/9/05						0.65	U		0.44	0.67
4	4-SB-26	DUP	4-SB-26-B-P-02DUP	11/9/05										

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	U-235									
					OffsiteAlphaSpec					OffsiteGammaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
4	4-SB-27	DUP	4-SB-27-B-DUP-06	11/10/05						-0.09	U		0.35	0.63
4	4-SB-27	DUP	4-SB-27-B-DUP-09	11/10/05						0.05	U		0.23	0.41
4	4-SB-27	SMP	4-SB-27-B-P-06	11/10/05						-0.12	U		0.34	0.62
4	4-SB-27	SMP	4-SB-27-B-P-09	11/10/05						0.01	U		0.26	0.46
4	4-SB-31	DUP	4-SB-31-BS-DUP-05	7/3/07	0.02	LT		0.02	0.02	0.04	U		0.28	0.50
4	4-SB-31	SMP	4-SB-31-BS-P-05	7/3/07	0.01	U		0.02	0.04	-0.19	U		0.25	0.48
4	4-SB-33	DUP	4-SB-33-BS-DUP-05	6/29/07	0.15		1.08	0.06	0.01	0.43	U,G		0.32	0.48
4	4-SB-33	SMP	4-SB-33-BS-P-05	6/29/07	0.20			0.07	0.02	-0.20	U,G		0.42	0.77
5	5-SB-03	SMP	5-SB-03-B-0-02	9/4/03						-0.13	U		0.21	0.40
5	5-SB-03	DUP	5-SB-03-B-0-02DUP	9/4/03										
5	5-SB-09	SMP	5-SB-09-B-0-02	9/8/03										
5	5-SB-09	DUP	5-SB-09-B-0-02DUP	9/8/03										
5	5-SB-13	SMP	5-SB-13-B-0-05	9/2/03						0.07	U		0.17	0.29
5	5-SB-13	DUP	5-SB-13-B-0-05DUP	9/2/03						0.01	U		0.23	0.41
6	6-CPT-21	SMP	6CPT-21-B-P-2	11/15/04						1.30		1.54	0.41	0.76
6	6-CPT-21	DUP	6CPT-21-B-P-2DUP	11/15/04						1.67			0.25	0.25
6	6CPT-62A	SMP	6CPT-62A-B-P-0.5	10/25/04						39.60		***2.25***	4.90	2.50
6	6CPT-62A	DUP	6CPT-62A-B-P-0.5DUP	10/25/04						32.40			4.10	2.10
6	6-MW-06B	SMP	6-MW-06-B-P-19	5/10/06						-0.13	U		0.22	0.38
6	6-MW-06B	DUP	6-MW-06-B-P-19DUP	5/10/06										
6	6-MW-07B	SMP	6-MW-07-B-P-17	5/9/06						-0.08	U		0.24	0.45
6	6-MW-07B	DUP	6-MW-07-B-P-17DUP	5/9/06										
6	6-SB-02	SMP	6-SB-02-B-P-11	11/12/05						0.08	U		0.28	0.48
6	6-SB-02	DUP	6-SB-02-B-P-11DUP	11/12/05						0.21	U		0.32	0.53
6	6-SB-03	SMP	6-SB-03-B-P-03	11/12/05						10.10		***1.98***	1.40	1.00
6	6-SB-03	DUP	6-SB-03-B-P-03DUP	11/12/05						12.20			1.60	1.20
6	6-SB-04	SMP	6-SB-04-B-P-06	11/12/05						3.99			0.70	0.90
6	6-SB-04	DUP	6-SB-04-B-P-06DUP	11/12/05										
6	6-SB-06	SMP	6-SB-06-B-P-10	11/11/05						0.21	U		0.29	0.47
6	6-SB-06	DUP	6-SB-06-B-P-10DUP	11/11/05										
6	6-SB-11	SMP	6-SB-11-B-P-01	11/11/05						0.92		0.20	0.43	0.72
6	6-SB-11	DUP	6-SB-11-B-P-01DUP	11/11/05						0.86			0.40	0.61
6	6-SB-11	SMP	6-SB-11-B-P-10	11/11/05						-0.14	U		0.31	0.56
6	6-SB-11	DUP	6-SB-11-B-P-10DUP	11/11/05										
6	6-SB-14	SMP	6-SB-14-B-P-06	11/12/05						0.34	U		0.28	0.43
6	6-SB-14	DUP	6-SB-14-B-P-06DUP	11/12/05										

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	U-235									
					OffsiteAlphaSpec					OffsiteGammaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
6	6-SB-17A	DUP	6-SB-17A-B-DUP-04	11/13/05						1.57		0.73	0.53	0.77
6	6-SB-17A	SMP	6-SB-17A-B-P-04	11/13/05						1.32			0.44	0.77
6	6-SB-17	DUP	6-SB-17-B-DUP-02	11/16/05						2.40		1.17	0.57	0.82
6	6-SB-17	SMP	6-SB-17-B-P-02	11/16/05						2.88			0.59	0.70
6	6-SB-18A	SMP	6-SB-18A-B-P-06	11/13/05						0.17	U		0.17	0.28
6	6-SB-18A	DUP	6-SB-18A-B-P-06DUP	11/13/05						-0.05	U		0.31	0.56
6	6-SB-21	SMP	6-SB-21-B-P-11	11/10/05						-0.05	U		0.27	0.48
6	6-SB-21	DUP	6-SB-21-B-P-11DUP	11/10/05										
6	6-SB-33	DUP	6-SB-33-BS-DUP-03	7/4/07	0.06	LT	0.72	0.03	0.03	0.24	U,G	0.38	0.42	0.70
6	6-SB-33	SMP	6-SB-33-BS-P-03	7/4/07	0.04	LT		0.03	0.03	0.35	U,G		0.39	0.63
6	6-SB-40	DUP	6-SB-40-BS-DUP-05	7/4/07	0.04	LT	1.44	0.03	0.02	0.16	U,G	0.35	0.40	0.69
6	6-SB-40	SMP	6-SB-40-BS-P-05	7/4/07	0.09	LT		0.05	0.04	0.07	U,G		0.33	0.59
BG	7-SB-04	DUP	7-SB-04-SS-DUP-00	7/3/07	0.04	LT	1.22	0.03	0.03	0.12	U,G	0.13	0.36	0.63
BG	7-SB-04	SMP	7-SB-04-SS-P-00	7/3/07	0.07	LT		0.05	0.04	0.15	U,G		0.30	0.51
BG	7-SB-07	DUP	7-SB-07-BS-DUP-03	7/3/07	0.08	LT	0.85	0.05	0.03	0.01	U		0.35	0.61
BG	7-SB-07	SMP	7-SB-07-BS-P-03	7/3/07	0.11			0.06	0.02	0.03	U		0.39	0.68

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	U-238				
					OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
1	1BH002	SMP	1BH002-BS-080-0	6/26/02					
1	1BH002	DUP	1BH002-BS-080-0D	6/26/02					
1	1BH006	SMP	1BH006-BS-085-0	7/2/02					
1	1BH006	DUP	1BH006-BS-085-0DUP	7/2/02					
1	1BH011	SMP	1BH011-BS-050-0	7/8/02					
1	1BH011	DUP	1BH011-BS-050-1	7/8/02					
1	1BH011	SMP	1BH011-SS-000-0	7/8/02					
1	1BH011	DUP	1BH011-SS-000-1	7/8/02					
1	1BH022	SMP	1BH022-CC-000-0	6/14/02	13.74	L	0.08	4.24	0.54
1	1BH022	DUP	1BH022-CC-000-1	6/14/02	13.94			2.76	0.10
1	1CPT-06-B	DUP	1CPT-06-B-D-1	11/16/04					
1	1CPT-06-B	SMP	1CPT-06-B-P-1	11/16/04					
1	1-MW-08A	SMP	1-MW-08-B-P-01	9/17/04					
1	1-MW-08A	DUP	1-MW-08-B-P-01DUP	9/17/04					
1	1-MW-21A	SMP	1-MW-21-B-P-01	7/14/05					
1	1-MW-21A	DUP	1-MW-21-B-P-01DUP	7/14/05					
1	1-SB-01	DUP	1-SB-01-SS-DUP-00	6/25/07	112.00	M3	***10.23***	21.00	0.00
1	1-SB-01	SMP	1-SB-01-SS-P-00	6/25/07	4.49			0.84	0.08
1	1TP007	SMP	1TP007-BS-015-0	8/23/02	53.20		***2.08***	15.16	4.37
1	1TP007	DUP	1TP007-BS-015-1	8/23/02	78.27			18.78	2.94
1	1TP022	SMP	1TP022-BS-010-0	8/26/02	154.20		***2.91***	40.41	9.54
1	1TP022	DUP	1TP022-BS-010-1	8/26/02	253.30			54.86	7.35
1	ElevatorShaft	SMP	Elevator Shaft (0-2)	8/18/03					
1	ElevatorShaft	DUP	Elevator Shaft (0-2)DUP	8/18/03					
2	2BH004	SMP	2BH004-BS-085-0	7/26/02					
2	2BH004	DUP	2BH004-BS-085-0D	7/26/02					
2	2BH006	SMP	2BH006-BS-050-0	7/22/02					
2	2BH006	DUP	2BH006-BS-050-0DUP	7/22/02					
2	2BH042	SMP	2BH042-SS-000-0	7/18/02					
2	2BH042	DUP	2BH042-SS-000-1	7/18/02					
2	2-MW-02A	SMP	2-MW-02-B-P-02	9/21/04					
2	2-MW-02A	DUP	2-MW-02-B-P-02DUP	9/21/04					
2	2-MW-12A	SMP	2-MW-12-B-P-01	9/16/04					
2	2-MW-12A	DUP	2-MW-12-B-P-01DUP	9/16/04					
2	2-MW-19A	SMP	2-MW-19-B-P-02	8/23/05					
2	2-MW-19A	DUP	2-MW-19-B-P-02DUP	8/23/05					

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	U-238				
					OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
2	2-MW-20A	SMP	2-MW-20-B-P-02	7/18/05					
2	2-MW-20A	DUP	2-MW-20-B-P-02DUP	7/18/05					
2	2-SB-06	DUP	2-SB-06-SS-DUP-00	6/26/07	15.10		*8.91*	2.60	0.10
2	2-SB-06	SMP	2-SB-06-SS-P-00	6/26/07	3.19			0.62	0.05
3	3-SB-01	SMP	3-SB-01-B-0-02	8/13/03					
3	3-SB-01	DUP	3-SB-01-B-0-02DUP	8/13/03					
3	3-SB-04	SMP	3-SB-04-B-0-01	8/12/03					
3	3-SB-04	DUP	3-SB-04-B-0-01DUP	8/12/03					
3	3-SB-05	SMP	3-SB-05-B-0-01	8/11/03					
3	3-SB-05	DUP	3-SB-05-B-0-01DUP	8/11/03					
3	3-SB-15	DUP	3-SB-15-B-1-04	8/20/03					
3	3-SB-15	DUP	3-SB-15-B-1-04DUP	8/20/03					
3	3-SB-20	SMP	3-SB-20-B-0-01	8/22/03					
3	3-SB-20	DUP	3-SB-20-B-0-01DUP	8/22/03					
3	3-SB-20	SMP	3-SB-20-B-0-04	8/22/03					
3	3-SB-20	DUP	3-SB-20-B-0-04DUP	8/22/03					
3	3-SB-20	SMP	3-SB-20-B-0-05	8/22/03					
3	3-SB-20	DUP	3-SB-20-B-0-05DUP	8/22/03					
3	3-SB-21	SMP	3-SB-21-B-0-02	8/20/03					
3	3-SB-21	DUP	3-SB-21-B-0-02DUP	8/20/03					
3	3-SB-25	SMP	3-SB-25-B-0-05	8/26/03					
3	3-SB-25	DUP	3-SB-25-B-0-05DUP	8/26/03					
3	3-SB-33	DUP	3-SB-33-SS-DUP-00	6/28/07	1.10		0.57	0.24	0.03
3	3-SB-33	SMP	3-SB-33-SS-P-00	6/28/07	1.20			0.26	0.04
4	4-MW-01B	SMP	4-MW-01-B-P-17	5/8/06					
4	4-MW-01B	DUP	4-MW-01-B-P-17DUP	5/8/06					
4	4-MW-02A	SMP	4-MW-02-B-P-09	5/8/06					
4	4-MW-02A	DUP	4-MW-02-B-P-09DUP	5/8/06					
4	4-MW-06A	SMP	4-MW-06-B-P-01	5/9/06					
4	4-MW-06A	DUP	4-MW-06-B-P-01DUP	5/9/06					
4	4-SB-23	SMP	4-SB-23-B-P-09	11/9/05					
4	4-SB-23	DUP	4-SB-23-B-P-09DUP	11/9/05					
4	4-SB-23	SMP	4-SB-23-B-P-10	11/9/05					
4	4-SB-23	DUP	4-SB-23-B-P-10DUP	11/9/05					
4	4-SB-26	SMP	4-SB-26-B-P-02	11/9/05					
4	4-SB-26	DUP	4-SB-26-B-P-02DUP	11/9/05					

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	U-238				
					OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
4	4-SB-27	DUP	4-SB-27-B-DUP-06	11/10/05					
4	4-SB-27	DUP	4-SB-27-B-DUP-09	11/10/05					
4	4-SB-27	SMP	4-SB-27-B-P-06	11/10/05					
4	4-SB-27	SMP	4-SB-27-B-P-09	11/10/05					
4	4-SB-31	DUP	4-SB-31-BS-DUP-05	7/3/07	0.18		1.04	0.07	0.02
4	4-SB-31	SMP	4-SB-31-BS-P-05	7/3/07	0.24			0.08	0.04
4	4-SB-33	DUP	4-SB-33-BS-DUP-05	6/29/07	2.87		*2.02*	0.52	0.03
4	4-SB-33	SMP	4-SB-33-BS-P-05	6/29/07	3.72			0.66	0.01
5	5-SB-03	SMP	5-SB-03-B-0-02	9/4/03					
5	5-SB-03	DUP	5-SB-03-B-0-02DUP	9/4/03					
5	5-SB-09	SMP	5-SB-09-B-0-02	9/8/03					
5	5-SB-09	DUP	5-SB-09-B-0-02DUP	9/8/03					
5	5-SB-13	SMP	5-SB-13-B-0-05	9/2/03					
5	5-SB-13	DUP	5-SB-13-B-0-05DUP	9/2/03					
6	6-CPT-21	SMP	6CPT-21-B-P-2	11/15/04					
6	6-CPT-21	DUP	6CPT-21-B-P-2DUP	11/15/04					
6	6CPT-62A	SMP	6CPT-62A-B-P-0.5	10/25/04					
6	6CPT-62A	DUP	6CPT-62A-B-P-0.5DUP	10/25/04					
6	6-MW-06B	SMP	6-MW-06-B-P-19	5/10/06					
6	6-MW-06B	DUP	6-MW-06-B-P-19DUP	5/10/06					
6	6-MW-07B	SMP	6-MW-07-B-P-17	5/9/06					
6	6-MW-07B	DUP	6-MW-07-B-P-17DUP	5/9/06					
6	6-SB-02	SMP	6-SB-02-B-P-11	11/12/05					
6	6-SB-02	DUP	6-SB-02-B-P-11DUP	11/12/05					
6	6-SB-03	SMP	6-SB-03-B-P-03	11/12/05					
6	6-SB-03	DUP	6-SB-03-B-P-03DUP	11/12/05					
6	6-SB-04	SMP	6-SB-04-B-P-06	11/12/05					
6	6-SB-04	DUP	6-SB-04-B-P-06DUP	11/12/05					
6	6-SB-06	SMP	6-SB-06-B-P-10	11/11/05					
6	6-SB-06	DUP	6-SB-06-B-P-10DUP	11/11/05					
6	6-SB-11	SMP	6-SB-11-B-P-01	11/11/05					
6	6-SB-11	DUP	6-SB-11-B-P-01DUP	11/11/05					
6	6-SB-11	SMP	6-SB-11-B-P-10	11/11/05					
6	6-SB-11	DUP	6-SB-11-B-P-10DUP	11/11/05					
6	6-SB-14	SMP	6-SB-14-B-P-06	11/12/05					
6	6-SB-14	DUP	6-SB-14-B-P-06DUP	11/12/05					

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

AOC	LocCode	QC Type	Sample ID	Sample Date	U-238				
					OffsiteAlphaSpec				
					Result (pCi/g)	Flag	NAD	TPU [+/- 2σ]	MDC
6	6-SB-17A	DUP	6-SB-17A-B-DUP-04	11/13/05					
6	6-SB-17A	SMP	6-SB-17A-B-P-04	11/13/05					
6	6-SB-17	DUP	6-SB-17-B-DUP-02	11/16/05					
6	6-SB-17	SMP	6-SB-17-B-P-02	11/16/05					
6	6-SB-18A	SMP	6-SB-18A-B-P-06	11/13/05					
6	6-SB-18A	DUP	6-SB-18A-B-P-06DUP	11/13/05					
6	6-SB-21	SMP	6-SB-21-B-P-11	11/10/05					
6	6-SB-21	DUP	6-SB-21-B-P-11DUP	11/10/05					
6	6-SB-33	DUP	6-SB-33-BS-DUP-03	7/4/07	0.82		1.55	0.16	0.03
6	6-SB-33	SMP	6-SB-33-BS-P-03	7/4/07	0.65			0.15	0.02
6	6-SB-40	DUP	6-SB-40-BS-DUP-05	7/4/07	0.39		***3.29***	0.09	0.02
6	6-SB-40	SMP	6-SB-40-BS-P-05	7/4/07	0.72			0.18	0.07
BG	7-SB-04	DUP	7-SB-04-SS-DUP-00	7/3/07	0.95		***2.15***	0.21	0.04
BG	7-SB-04	SMP	7-SB-04-SS-P-00	7/3/07	0.66			0.17	0.04
BG	7-SB-07	DUP	7-SB-07-BS-DUP-03	7/3/07	1.00		1.91	0.22	0.05
BG	7-SB-07	SMP	7-SB-07-BS-P-03	7/3/07	1.34			0.28	0.03

Table 1. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Soil
DuPont Chambers Works

Green shading indicates NAD within accepted limits; red shading indicates NAD outside accepted limits.
NAD = Normalized Absolute Difference (should be less than 1.96)

MDC = Minimum Detectable Concentration

pCi/g = picocuries per gram

TPU = Total Propagated Uncertainty

G = Sample density differs by more than 15% of LCS density: sample results may be biased

J = Result is an estimated value

L = LCS recovery below lower control limit

LT = Result is less than requested MDC but greater than sample specific MDC

M = The requested MDC not met

M3 = The requested MDC was not met, but the reported activity is greater than the reported MDC.

TI = Nuclide identification is tentative

U = Result is less than the sample specific MDC

Y2 = Chemical yield outside default limits

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	GROSS ALPHA					GROSS BETA				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
1	1BH014	DUP	1BH014-GW-001-1	6/28/02	1.26	UJ		1.86	2.05	7.78	J	0.15	2.52	2.36
1	1BH014	SMP	1BH014-GW-001-0	6/28/02	0.69	UJ		2.66	2.92	8.08	J		3.02	2.89
1	1BH034	DUP	1BH034-GW-001-1	7/12/02	2.1	UJ		8.85	9.79	26.49		*5.97*	7.88	7.33
1	1BH034	SMP	1BH034-GW-001-0	7/12/02	4.12	UJ		6.64	7.01	61.69			8.77	7.74
1	1-MW-08A	DUP	1-MW-08-GU-P-02DUP	8/10/05										
1	1-MW-08A	SMP	1-MW-08-GU-P-02	8/10/05	434	J		70	2	231	J		37	5
1	1-MW-08A	DUP	1-MW-08-GU-P-02DUP	10/10/05										
1	1-MW-08A	SMP	1-MW-08-GU-P-02	10/10/05	22400			3600	0	7700			1200	0
1	1-MW-09B	DUP	1-MW-09-GU-P-02DUP	4/27/06	0.21	U		0.61	1.42	6.7		0.21	2	3
1	1-MW-09B	SMP	1-MW-09-GU-P-02	4/27/06	0.11	UJ		0.65	1.62	6.4			2	2.9
1	1-MW-17B	DUP	1-MW-17-GU-P-02DUP	1/18/06	0.88		0.03	0.43	0.58	6.9		0.20	1.4	1.2
1	1-MW-17B	SMP	1-MW-17-GU-P-02	1/18/06	0.87			0.4	0.52	6.7			1.4	1.2
1	1-MW-17B	DUP	1-MW-17-GU-P-02DUP	5/1/06	0.32	U		0.58	1.14	8.2		1.05	1.7	1.8
1	1-MW-17B	SMP	1-MW-17-GU-P-02	5/1/06	1.6	UJ		1	1.8	6.9			1.8	2.6
1	1-MW-18A	DUP	1-MW-18-GU-P-02DUP	8/10/05										
1	1-MW-18A	SMP	1-MW-18-GU-P-02	8/10/05	476	J		76	1	408	J		65	4
1	1-MW-18A	DUP	2-MW-18-GU-P-02DUP	10/6/05										
1	1-MW-18A	SMP	2-MW-18-GU-P-02	10/6/05	283			46	1	169			27	3
1	1-MW-21A	DUP	1-MW-21-GU-P-02DUP	1/19/06										
1	1-MW-21A	SMP	1-MW-21-GU-P-02	1/19/06	1.12			0.47	0.61	2.94			0.92	1.24
1	1-MW-22A	DUP	1-MW-22-GU-P-02DUP	4/28/06	2.8		0.47	1.2	1.5	13.6		0.52	2.9	2.9
1	1-MW-22A	SMP	1-MW-22-GU-P-02	4/28/06	3.2	J		1.2	1.6	14.7	J		3.1	2.9
2	2BH018	DUP	2BH018-GW-001-1	8/1/02	1892.58		*3.28*	49.34	6.84	1765.89		*15.24*	30.32	9.79
2	2BH018	SMP	2BH018-GW-001-0	8/1/02	2004.14			46.69	7.21	2087.74			29.42	10.05
2	2BH019	DUP	2BH019-GW-001-1	8/21/02	18.05		0.06	5.69	4.85	39.33		0.97	4.55	3.81
2	2BH019	SMP	2BH019-GW-001-0	8/21/02	18.28			5.59	4.73	42.63			5.03	4.18
2	2-MW-01B	DUP	2-MW-01-GU-P-02DUP	10/4/05	6.7		1.32	1.7	1.7	18.6		0.35	3.6	3
2	2-MW-01B	SMP	2-MW-01-GU-P-02	10/4/05	5.2			1.5	1.6	19.5			3.7	2.8
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	10/25/04										
2	2-MW-02A	SMP	2-MW-02-GU-P-02	10/25/04	12900	J		2100	0	3490	J		560	10
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	8/3/05	9300		0.19	1500	0	2590		0.91	410	20
2	2-MW-02A	SMP	2-MW-02-GU-P-02	8/3/05	9500	J		1500	0	2870			460	20
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	10/14/05										
2	2-MW-02A	SMP	2-MW-02-GU-P-02	10/14/05	3530			560	0	1500			240	10
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	1/24/06										
2	2-MW-02A	SMP	2-MW-02-GU-P-02	1/24/06	1720	J		270	0	790			130	10

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	GROSS ALPHA					GROSS BETA				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
2	2-MW-03B	DUP	2-MW-03-GU-P-02DUP	10/12/04										
2	2-MW-03B	SMP	2-MW-03-GU-P-02	10/12/04	4740	J		760	0	2600	J		410	10
2	2-MW-03B	DUP	2-MW-03-GU-P-03DUP	7/18/05										
2	2-MW-03B	SMP	2-MW-03-GU-P-03	7/18/05	2590	J		410	0	1510	J		240	10
2	2-MW-04B	DUP	2-MW-04-GU-P-02DUP	7/26/05	1.9			1.1	1.6	45		0.26	7.8	3.9
2	2-MW-04B	SMP	2-MW-04-GU-P-02	7/26/05	0.9	UJ		1.5	2.5	43.6			7.7	4.3
2	2-MW-04B	DUP	2-MW-04-GU-P-02DUP	10/5/05	6.8		0.67	2.8	3.6	64		0.24	12	7
2	2-MW-04B	SMP	2-MW-04-GU-P-02	10/5/05	8.2			3.1	3.9	66			12	7
2	2-MW-05B	DUP	2-MW-05-GU-P-02DUP	5/4/06	12.3		0.16	2.7	1.8	20.8		0.72	4.3	4
2	2-MW-05B	SMP	2-MW-05-GU-P-02	5/4/06	12			2.7	2	18.7			4	3.9
2	2-MW-15A	DUP	2-MW-15-GU-P-02DUP	10/14/05	113		0.39	18	1	86		0.20	14	3
2	2-MW-15A	SMP	2-MW-15-GU-P-02	10/14/05	108			18	1	88			14	3
2	2-MW-15A	DUP	2-MW-15-GU-P-02DUP	1/25/06										
2	2-MW-15A	SMP	2-MW-15-GU-P-02	1/25/06	181			29	1	119			19	3
2	2-MW-16B	DUP	2-MW-16-GU-P-02DUP	8/11/05	8.7		0.57	2.2	1.9	16.5		1.11	3.8	4.1
2	2-MW-16B	SMP	2-MW-16-GU-P-02	8/11/05	9.6			2.3	1.9	19.6			4.1	3.8
2	2-MW-19A	DUP	2-MW-19-GU-P-02DUP	5/4/06	1.15		0.56	0.73	1.07	11.7		0.00	2.4	2.2
2	2-MW-19A	SMP	2-MW-19-GU-P-02	5/4/06	1.46			0.83	1.18	11.7			2.4	2.2
2	2-MW-20A	DUP	2-MW-20-GU-P-02DUP	8/9/05	4.5		0.79	1.2	1.1	5.1		1.20	1.6	2.3
2	2-MW-20A	SMP	2-MW-20-GU-P-02	8/9/05	5.2	J		1.3	1	6.5			1.7	2.3
2	2-MW-20A	DUP	2-MW-20-GU-P-02DUP	5/3/06	1.8	U		1.1	1.9	4.4		0.40	1.7	2.9
2	2-MW-20A	SMP	2-MW-20-GU-P-02	5/3/06	1.8			1.1	1.7	4.9			1.8	2.9
2	2-MW-23B	DUP	2-MW-23-GU-P-02DUP	1/20/06	1.22		0.29	0.74	1.12	9.7		0.53	2.2	2.5
2	2-MW-23B	SMP	2-MW-23-GU-P-02	1/20/06	1.38			0.83	1.3	8.9			2.1	2.5
2	2-MW-24A	DUP	2-MW-24-GU-P-02DUP	1/20/06										
2	2-MW-24A	SMP	2-MW-24-GU-P-02	1/20/06	0.45	U		0.64	1.32	4.9			1.7	2.8
3	3-MW-13B	DUP	3-MW-13-GU-P-02DUP	8/11/05	2.1	U		1.9	3	12.7		0.39	4.7	6.7
3	3-MW-13B	SMP	3-MW-13-GU-P-02	8/11/05	-1.1	U		1.8	3.3	11.4			4.8	7.1
3	3-MW-13B	DUP	3-MW-13-GU-DUP-03DUP	1/24/06	4.7	J	0.19	2.3	3.1	20.2		0.11	5.4	6.7
3	3-MW-13B	DUP	3-MW-13-GU-DUP-03	1/24/06	5	J		2.2	3	19.8			5.3	6.4
3	3-SB-01	DUP	3-SB-01-G-1-03DUP	8/18/03										
3	3-SB-01	DUP	3-SB-01-G-1-03	8/18/03	0.63	U		0.93	1.52	2.6			1.4	2.2
3	3-SB-05	DUP	3-SB-05-G-1-04DUP	8/13/03										
3	3-SB-05	DUP	3-SB-05-G-1-04	8/13/03	11.3	J		2.1	1	16.8	J		3	1.8
3	3-SB-07	DUP	3-SB-07-G-0-01DUP	8/18/03										
3	3-SB-07	SMP	3-SB-07-G-0-01	8/18/03	1.1	U		2.1	3.5	12.8			3.8	4.9
3	3-SB-07	DUP	3-SB-07-G-0-02DUP	8/18/03	8.6		1.09	2.6	2.7	23.4		1.21	5.1	5.2

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	GROSS ALPHA					GROSS BETA				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
3	3-SB-07	SMP	3-SB-07-G-0-02	8/18/03	6.6		1.09	2.6	3.5	19.2		1.21	4.7	5.5
3	3-SB-09	DUP	3-SB-09-G-0-02DUP	8/12/03										
3	3-SB-09	SMP	3-SB-09-G-0-02	8/12/03	3	J		1.1	1.4	13.4	J		2.7	2.5
3	3-SB-10	DUP	3-SB-10-G-0-01DUP	8/15/03	1	U		1	1.6	11.1		0.11	2.5	2.6
3	3-SB-10	SMP	3-SB-10-G-0-01	8/15/03	0.4	U		1.1	1.8	10.9			2.5	2.8
3	3-SB-11	DUP	3-SB-11-G-0-01DUP	8/19/03										
3	3-SB-11	SMP	3-SB-11-G-0-01	8/19/03	2.2	J		1.2	1.7	7.4	J		2	2.5
3	3-SB-13	DUP	3-SB-13-G-0-02DUP	8/20/03	29.3		0.74	5.4	2	15.5		1.29	3.8	4.4
3	3-SB-13	SMP	3-SB-13-G-0-02	8/20/03	32.3			6	2.7	19.2			4.3	4.4
3	3-SB-15	DUP	3-SB-15-G-0-02DUP	8/21/03										
3	3-SB-15	SMP	3-SB-15-G-0-02	8/21/03	29.6	J		9.1	10.1	24	J		14	22
3	3-SB-17	DUP	3-SB-17-G-0-01DUP	8/26/03										
3	3-SB-17	SMP	3-SB-17-G-0-01	8/26/03	1.4	U		3.9	6.7	12.4	J		6.9	10.6
3	3-SB-17	DUP	3-SB-17-G-0-02DUP	8/26/03										
3	3-SB-17	SMP	3-SB-17-G-0-02	8/26/03	40	J		12	13	51	J		17	23
3	3-SB-24	DUP	3-SB-24-G-0-01DUP	8/21/03	3.7		0.46	1.6	2.2	15		0.42	3.3	3.2
3	3-SB-24	SMP	3-SB-24-G-0-01	8/21/03	4.2			1.5	1.9	16			3.4	3.4
3	3-SB-27	DUP	3-SB-27-G-1-04DUP	8/25/03										
3	3-SB-27	DUP	3-SB-27-G-1-04	8/25/03										
4	H17-M02B	DUP	H17-M02B-GU-P-02DUP	6/14/06	2.2			1.4	2	11.9		1.11	4.1	5.8
4	H17-M02B	SMP	H17-M02B-GU-P-02	6/14/06	1.5	U		1.5	2.4	8.9			3.5	5.1
4	I17-M01A	DUP	I17-M01A-GU-DUP-02	5/5/06	77		0.57	13	3	92		0.58	15	6
4	I17-M01A	SMP	I17-M01A-GU-P-02	5/5/06	72			12	2	86			14	5
4	4-MW-01A	DUP	4-MW-01-GU-DUP-02	5/9/07	1.5	U		1.6	2.5	15.7	M3	0.34	4.1	5.1
4	4-MW-01A	SMP	4-MW-01-GU-P-02	5/9/07	0.7	U		1.6	2.6	16.7	M3		4.3	5.2
4	4-MW-06A	DUP	4-MW-06-GU-DUP-02	9/14/06	11	M3	1.04	4.6	6.1	29.4	M3	1.02	9.1	12.3
4	4-MW-06A	SMP	4-MW-06-GU-P-02	9/14/06	7.8	M3		4.1	6	23.2	M3		8	11.3
4	4-MW-07B	DUP	4-MW-07-GU-P-02DUP	6/13/06	1.7	U		1.2	1.8	19.9		0.07	4	3.4
4	4-MW-07B	SMP	4-MW-07-GU-P-02	6/13/06	0.8	U		1.1	1.8	19.7			3.9	3.4
5	5-SB-05	DUP	5-SB-05-G-0-02DUP	9/5/03										
5	5-SB-05	SMP	5-SB-05-G-0-02	9/5/03	41.7	J		8.2	4.4	69	J		12	8
5	5-SB-06	DUP	5-SB-06-G-0-01DUP	9/5/03										
5	5-SB-06	SMP	5-SB-06-G-0-01	9/5/03	0.57	U		0.95	1.56	17.4	J		3.2	2.2
5	5-SB-07	DUP	5-SB-07-G-0-02DUP	9/8/03	283		*2.53*	58	39	379		*2.14*	77	67
5	5-SB-07	SMP	5-SB-07-G-0-02	9/8/03	406			78	40	510			95	65
5	5-SB-09	DUP	5-SB-09-G-0-01DUP	9/8/03										
5	5-SB-09	SMP	5-SB-09-G-0-01	9/8/03	3.6	U		2.4	3.7	11			3.6	4.9

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	GROSS ALPHA					GROSS BETA				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
5	5-SB-11	DUP	5-SB-11-G-0-02DUP	9/3/03										
5	5-SB-11	SMP	5-SB-11-G-0-02	9/3/03	28.1			6	4.3	47.3			8.9	6.5
5	5-SB-11	DUP	5-SB-11-G-1-01DUP	9/3/03										
5	5-SB-11	SMP	5-SB-11-G-1-01	9/3/03	1.6	U		1.5	2.4	13.5			3.2	3.4
5	5-SB-13	DUP	5-SB-13-G-0-01DUP	9/3/03	-0.1	U		0.73	1.77	9.9		0.20	2.2	2.3
5	5-SB-13	SMP	5-SB-13-G-0-01	9/3/03	0.59	U		0.69	1.36	9.6			2.1	2.3
5	5-SB-15	DUP	5-SB-15-G-0-01DUP	8/29/03										
5	5-SB-15	SMP	5-SB-15-G-0-01	8/29/03	0.89	U		0.58	0.94	4	J		1.2	1.7
6	6-MW-01B	DUP	6-MW-01-GU-DUP-02	9/15/06	85		1.52	14	1	31.9		1.37	5.3	2
6	6-MW-01B	SMP	6-MW-01-GU-P-02	9/15/06	71			12	1	27			4.8	3
6	6-MW-02B	DUP	6-MW-02-GU-DUP-02	2/13/07	1.38	U		0.97	1.46	2.4	U		1.7	3.4
6	6-MW-02B	SMP	6-MW-02-GU-P-02	2/13/07	1.01	U		0.94	1.69	3.6	LT		1.8	3.4
6	6-MW-02B	DUP	6-MW-02-GU-DUP-02	5/8/07	2.5	LT		1.1	1.5	7		0.07	2.2	3.4
6	6-MW-02B	SMP	6-MW-02-GU-P-02	5/8/07	1.19	U		0.89	1.51	6.9			2.1	3.1
6	6-MW-03B	DUP	6-MW-03-GU-P-02DUP	1/26/06	3.4		0.25	1.1	1.3	7.4		1.71	2	2.4
6	6-MW-03B	SMP	6-MW-03-GU-P-02	1/26/06	3.6			1.2	1.4	10			2.3	2.5
6	6-MW-03B	DUP	6-MW-03-GU-DUP-02	2/13/07	1.7	U		1.1	1.7	3.7	LT	0.25	1.7	3.1
6	6-MW-03B	SMP	6-MW-03-GU-P-02	2/13/07	0.48	U		0.75	1.52	4	LT		1.7	3
6	6-MW-05B	DUP	6-MW-05-GU-DUP-02	2/13/07	1	U		1.1	1.8	5.4		0.68	2.3	3.3
6	6-MW-05B	SMP	6-MW-05-GU-P-02	2/13/07	1.8	LT		1	1.4	6.5			2.3	3.3
6	6-MW-06B	DUP	6-MW-06-GU-DUP-02	2/13/07	6.5		0.53	1.9	1.9	5.2		0.82	2.3	3.4
6	6-MW-06B	SMP	6-MW-06-GU-P-02	2/13/07	5.8			1.8	2	6.6			2.5	3.5

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	RA-226					RA-228				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
1	1BH014	DUP	1BH014-GW-001-1	6/28/02										
1	1BH014	SMP	1BH014-GW-001-0	6/28/02										
1	1BH034	DUP	1BH034-GW-001-1	7/12/02										
1	1BH034	SMP	1BH034-GW-001-0	7/12/02										
1	1-MW-08A	DUP	1-MW-08-GU-P-02DUP	8/10/05										
1	1-MW-08A	SMP	1-MW-08-GU-P-02	8/10/05	0.15	U		0.13	0.2	0.38	U		0.39	0.77
1	1-MW-08A	DUP	1-MW-08-GU-P-02DUP	10/10/05										
1	1-MW-08A	SMP	1-MW-08-GU-P-02	10/10/05	0.08	U		0.1	0.2	0.17	U		0.42	0.88
1	1-MW-09B	DUP	1-MW-09-GU-P-02DUP	4/27/06										
1	1-MW-09B	SMP	1-MW-09-GU-P-02	4/27/06	0.036	U		0.07	0.156	0.29	U		0.37	0.74
1	1-MW-17B	DUP	1-MW-17-GU-P-02DUP	1/18/06										
1	1-MW-17B	SMP	1-MW-17-GU-P-02	1/18/06	0.12	U		0.11	0.18	0.19	U		0.31	0.64
1	1-MW-17B	DUP	1-MW-17-GU-P-02DUP	5/1/06										
1	1-MW-17B	SMP	1-MW-17-GU-P-02	5/1/06	0.065	U		0.086	0.159	0.13	U		0.34	0.7
1	1-MW-18A	DUP	1-MW-18-GU-P-02DUP	8/10/05										
1	1-MW-18A	SMP	1-MW-18-GU-P-02	8/10/05	0.41	J		0.22	0.18	1.98	J		0.71	0.66
1	1-MW-18A	DUP	2-MW-18-GU-P-02DUP	10/6/05										
1	1-MW-18A	SMP	2-MW-18-GU-P-02	10/6/05	0.21	J		0.15	0.19	0.47	U		0.41	0.77
1	1-MW-21A	DUP	1-MW-21-GU-P-02DUP	1/19/06										
1	1-MW-21A	SMP	1-MW-21-GU-P-02	1/19/06	0.04	U		0.12	0.3	0.75	U		0.51	0.91
1	1-MW-22A	DUP	1-MW-22-GU-P-02DUP	4/28/06										
1	1-MW-22A	SMP	1-MW-22-GU-P-02	4/28/06	0.18	J		0.14	0.18	0.31	U		0.34	0.68
2	2BH018	DUP	2BH018-GW-001-1	8/1/02										
2	2BH018	SMP	2BH018-GW-001-0	8/1/02										
2	2BH019	DUP	2BH019-GW-001-1	8/21/02										
2	2BH019	SMP	2BH019-GW-001-0	8/21/02										
2	2-MW-01B	DUP	2-MW-01-GU-P-02DUP	10/4/05										
2	2-MW-01B	SMP	2-MW-01-GU-P-02	10/4/05	0.46	J		0.19	0.14	0.5	U		0.45	0.87
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	10/25/04										
2	2-MW-02A	SMP	2-MW-02-GU-P-02	10/25/04	0.59	J		0.22	0.14	1.35	J		0.63	0.92
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	8/3/05										
2	2-MW-02A	SMP	2-MW-02-GU-P-02	8/3/05	0.61	J		0.28	0.19	1.49			0.57	0.63
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	10/14/05										
2	2-MW-02A	SMP	2-MW-02-GU-P-02	10/14/05	0.46	J		0.31	0.37	2.73	UJ		0.94	0.77
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	1/24/06										
2	2-MW-02A	SMP	2-MW-02-GU-P-02	1/24/06	0.51	J		0.26	0.22	2.95	J		0.99	0.72

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	RA-226					RA-228				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
2	2-MW-03B	DUP	2-MW-03-GU-P-02DUP	10/12/04										
2	2-MW-03B	SMP	2-MW-03-GU-P-02	10/12/04	0.55	J		0.21	0.14	1.08	J		0.55	0.85
2	2-MW-03B	DUP	2-MW-03-GU-P-03DUP	7/18/05										
2	2-MW-03B	SMP	2-MW-03-GU-P-03	7/18/05	0.84	J		0.3	0.14	2.52	J		0.85	0.63
2	2-MW-04B	DUP	2-MW-04-GU-P-02DUP	7/26/05										
2	2-MW-04B	SMP	2-MW-04-GU-P-02	7/26/05	0.33	J		0.19	0.19	0.74	U		0.5	0.9
2	2-MW-04B	DUP	2-MW-04-GU-P-02DUP	10/5/05										
2	2-MW-04B	SMP	2-MW-04-GU-P-02	10/5/05	0.77	J		0.31	0.18	1.32	J		0.53	0.64
2	2-MW-05B	DUP	2-MW-05-GU-P-02DUP	5/4/06										
2	2-MW-05B	SMP	2-MW-05-GU-P-02	5/4/06	0.52	J		0.24	0.14	0.64	U		0.44	0.79
2	2-MW-15A	DUP	2-MW-15-GU-P-02DUP	10/14/05										
2	2-MW-15A	SMP	2-MW-15-GU-P-02	10/14/05	0.67	J		0.39	0.39	1.21	UJ		0.51	0.66
2	2-MW-15A	DUP	2-MW-15-GU-P-02DUP	1/25/06										
2	2-MW-15A	SMP	2-MW-15-GU-P-02	1/25/06	0.41	J		0.2	0.17	0.43	U		0.46	0.9
2	2-MW-16B	DUP	2-MW-16-GU-P-02DUP	8/11/05										
2	2-MW-16B	SMP	2-MW-16-GU-P-02	8/11/05	0.42	J		0.22	0.18	0.31	U		0.41	0.83
2	2-MW-19A	DUP	2-MW-19-GU-P-02DUP	5/4/06										
2	2-MW-19A	SMP	2-MW-19-GU-P-02	5/4/06	0.22	J		0.14	0.16	0.4	U		0.35	0.67
2	2-MW-20A	DUP	2-MW-20-GU-P-02DUP	8/9/05										
2	2-MW-20A	SMP	2-MW-20-GU-P-02	8/9/05	0.23	J		0.13	0.13	0.72	J		0.38	0.61
2	2-MW-20A	DUP	2-MW-20-GU-P-02DUP	5/3/06										
2	2-MW-20A	SMP	2-MW-20-GU-P-02	5/3/06	0.23	J		0.15	0.16	-0.05	U		0.33	0.71
2	2-MW-23B	DUP	2-MW-23-GU-P-02DUP	1/20/06										
2	2-MW-23B	SMP	2-MW-23-GU-P-02	1/20/06	0.14	U		0.17	0.31	0.63	U		0.41	0.72
2	2-MW-24A	DUP	2-MW-24-GU-P-02DUP	1/20/06										
2	2-MW-24A	SMP	2-MW-24-GU-P-02	1/20/06	-0.09	U		0.13	0.38	0.07	U		0.35	0.75
3	3-MW-13B	DUP	3-MW-13-GU-P-02DUP	8/11/05										
3	3-MW-13B	SMP	3-MW-13-GU-P-02	8/11/05	0.29	J		0.19	0.22	0.59	U		0.36	0.61
3	3-MW-13B	DUP	3-MW-13-GU-DUP-03DUP	1/24/06										
3	3-MW-13B	DUP	3-MW-13-GU-DUP-03	1/24/06	0.3	J		0.17	0.14	0.22	U		0.39	0.8
3	3-SB-01	DUP	3-SB-01-G-1-03DUP	8/18/03										
3	3-SB-01	DUP	3-SB-01-G-1-03	8/18/03	0.2	U		0.14	0.24	0.62	U		0.5	0.94
3	3-SB-05	DUP	3-SB-05-G-1-04DUP	8/13/03										
3	3-SB-05	DUP	3-SB-05-G-1-04	8/13/03	1.91	J		0.76	0.71	0.99	J		0.55	0.9
3	3-SB-07	DUP	3-SB-07-G-0-01DUP	8/18/03	0.53		1.29	0.22	0.24					
3	3-SB-07	SMP	3-SB-07-G-0-01	8/18/03	0.76			0.28	0.19	0.71	U		0.6	1.14
3	3-SB-07	DUP	3-SB-07-G-0-02DUP	8/18/03										

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	RA-226					RA-228				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
3	3-SB-07	SMP	3-SB-07-G-0-02	8/18/03	2.84			0.75	0.33	0.98	U		0.65	1.16
3	3-SB-09	DUP	3-SB-09-G-0-02DUP	8/12/03										
3	3-SB-09	SMP	3-SB-09-G-0-02	8/12/03	0.44	J		0.26	0.32	0.26	U		0.46	0.95
3	3-SB-10	DUP	3-SB-10-G-0-01DUP	8/15/03										
3	3-SB-10	SMP	3-SB-10-G-0-01	8/15/03	0.38	J		0.18	0.21	0.45	U		0.51	1.01
3	3-SB-11	DUP	3-SB-11-G-0-01DUP	8/19/03	0.44		0.07	0.21	0.27					
3	3-SB-11	SMP	3-SB-11-G-0-01	8/19/03	0.43			0.2	0.21	1.14	J		0.67	1.12
3	3-SB-13	DUP	3-SB-13-G-0-02DUP	8/20/03										
3	3-SB-13	SMP	3-SB-13-G-0-02	8/20/03	2.4	J		0.83	0.57	2.16	J		0.87	1.07
3	3-SB-15	DUP	3-SB-15-G-0-02DUP	8/21/03										
3	3-SB-15	SMP	3-SB-15-G-0-02	8/21/03	1.3			0.38	0.28	0.99	J		0.52	0.81
3	3-SB-17	DUP	3-SB-17-G-0-01DUP	8/26/03										
3	3-SB-17	SMP	3-SB-17-G-0-01	8/26/03	0.45	J		0.2	0.21	1.48	J		0.71	1.06
3	3-SB-17	DUP	3-SB-17-G-0-02DUP	8/26/03										
3	3-SB-17	SMP	3-SB-17-G-0-02	8/26/03	6.4	J		1.6	0.5	1.64	J		0.73	1.02
3	3-SB-24	DUP	3-SB-24-G-0-01DUP	8/21/03	1.25		0.38	0.39	0.22					
3	3-SB-24	SMP	3-SB-24-G-0-01	8/21/03	1.15			0.36	0.19	1.81	J		0.78	1.05
3	3-SB-27	DUP	3-SB-27-G-1-04DUP	8/25/03										
3	3-SB-27	DUP	3-SB-27-G-1-04	8/25/03										
4	H17-M02B	DUP	H17-M02B-GU-P-02DUP	6/14/06										
4	H17-M02B	SMP	H17-M02B-GU-P-02	6/14/06	0.42	J		0.21	0.15	0.92	J		0.45	0.68
4	I17-M01A	DUP	I17-M01A-GU-DUP-02	5/5/06	0.73	J	0.88	0.3	0.15	0.63	U		0.43	0.76
4	I17-M01A	SMP	I17-M01A-GU-P-02	5/5/06	0.56	J		0.24	0.15	0.53	U		0.43	0.81
4	4-MW-01A	DUP	4-MW-01-GU-DUP-02	5/9/07	0.2	Y1,LT	0.47	0.11	0.12	1.11	M3	1.71	0.62	1.03
4	4-MW-01A	SMP	4-MW-01-GU-P-02	5/9/07	0.16	LT		0.13	0.16	0.42	U,M		0.52	1.03
4	4-MW-06A	DUP	4-MW-06-GU-DUP-02	9/14/06	0.25	LT	0.19	0.15	0.16	0.42	U,M		0.51	1.02
4	4-MW-06A	SMP	4-MW-06-GU-P-02	9/14/06	0.23	LT		0.15	0.16	0.44	U		0.5	0.98
4	4-MW-07B	DUP	4-MW-07-GU-P-02DUP	6/13/06										
4	4-MW-07B	SMP	4-MW-07-GU-P-02	6/13/06	0.09	U		0.096	0.16	0.79	J		0.41	0.65
5	5-SB-05	DUP	5-SB-05-G-0-02DUP	9/5/03	7.8		0.91	2	0.7					
5	5-SB-05	SMP	5-SB-05-G-0-02	9/5/03	6.6			1.7	0.7	2.2	J		1	1.5
5	5-SB-06	DUP	5-SB-06-G-0-01DUP	9/5/03										
5	5-SB-06	SMP	5-SB-06-G-0-01	9/5/03	0.24			0.15	0.2	1.34	J		0.74	1.22
5	5-SB-07	DUP	5-SB-07-G-0-02DUP	9/8/03	29.7		0.51	7.8	3.4					
5	5-SB-07	SMP	5-SB-07-G-0-02	9/8/03	27			7.2	3.6	16	U		13	25
5	5-SB-09	DUP	5-SB-09-G-0-01DUP	9/8/03										
5	5-SB-09	SMP	5-SB-09-G-0-01	9/8/03	1.2			0.39	0.25	2.27	J		0.96	1.25

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	RA-226					RA-228				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
5	5-SB-11	DUP	5-SB-11-G-0-02DUP	9/3/03	2.6		0.88	0.67	0.25					
5	5-SB-11	SMP	5-SB-11-G-0-02	9/3/03	3.06			0.8	0.36	3.3	J		1.3	1.6
5	5-SB-11	DUP	5-SB-11-G-1-01DUP	9/3/03										
5	5-SB-11	SMP	5-SB-11-G-1-01	9/3/03	0.47			0.21	0.22	0.75	U		0.6	1.11
5	5-SB-13	DUP	5-SB-13-G-0-01DUP	9/3/03										
5	5-SB-13	SMP	5-SB-13-G-0-01	9/3/03	1.99			0.57	0.25	0.49	U		0.56	1.11
5	5-SB-15	DUP	5-SB-15-G-0-01DUP	8/29/03										
5	5-SB-15	SMP	5-SB-15-G-0-01	8/29/03	0.13	U		0.13	0.27	0.58	U		0.6	1.17
6	6-MW-01B	DUP	6-MW-01-GU-DUP-02	9/15/06	0.28	LT	0.18	0.16	0.16	0.76	U		0.46	0.8
6	6-MW-01B	SMP	6-MW-01-GU-P-02	9/15/06	0.26	Y1,LT		0.16	0.17	0.77	LT		0.45	0.76
6	6-MW-02B	DUP	6-MW-02-GU-DUP-02	2/13/07	0.3	LT		0.18	0.16	0.48	U		0.42	0.8
6	6-MW-02B	SMP	6-MW-02-GU-P-02	2/13/07	0.11	U		0.11	0.18	0.39	U		0.35	0.66
6	6-MW-02B	DUP	6-MW-02-GU-DUP-02	5/8/07	0.36	LT	0.39	0.21	0.2	0.94	U,M		0.6	1.06
6	6-MW-02B	SMP	6-MW-02-GU-P-02	5/8/07	0.42	LT		0.22	0.18	0.69	U		0.52	0.97
6	6-MW-03B	DUP	6-MW-03-GU-P-02DUP	1/26/06										
6	6-MW-03B	SMP	6-MW-03-GU-P-02	1/26/06	0.69	J		0.28	0.17	1.4	J		0.56	0.68
6	6-MW-03B	DUP	6-MW-03-GU-DUP-02	2/13/07	0.21	LT	0.09	0.16	0.2	0.44	U		0.34	0.63
6	6-MW-03B	SMP	6-MW-03-GU-P-02	2/13/07	0.2	LT		0.15	0.16	0.48	U		0.36	0.66
6	6-MW-05B	DUP	6-MW-05-GU-DUP-02	2/13/07	0.045	U		0.08	0.173	0.37	U		0.37	0.73
6	6-MW-05B	SMP	6-MW-05-GU-P-02	2/13/07	0.015	U		0.072	0.199	0.15	U		0.37	0.78
6	6-MW-06B	DUP	6-MW-06-GU-DUP-02	2/13/07	0.11	U		0.11	0.19	0.03	U		0.35	0.73
6	6-MW-06B	SMP	6-MW-06-GU-P-02	2/13/07	0.13	U		0.12	0.18	-0.01	U		0.32	0.69

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	Th-230					U-234				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
1	1BH014	DUP	1BH014-GW-001-1	6/28/02						0.17	UJ		0.14	0.13
1	1BH014	SMP	1BH014-GW-001-0	6/28/02						0.34	J		0.32	0.33
1	1BH034	DUP	1BH034-GW-001-1	7/12/02						2.15	U		0.84	0.17
1	1BH034	SMP	1BH034-GW-001-0	7/12/02						1.89	J		0.54	0.22
1	1-MW-08A	DUP	1-MW-08-GU-P-02DUP	8/10/05						355		0.51	60	1
1	1-MW-08A	SMP	1-MW-08-GU-P-02	8/10/05						334			56	2
1	1-MW-08A	DUP	1-MW-08-GU-P-02DUP	10/10/05						17400		0.48	3100	0
1	1-MW-08A	SMP	1-MW-08-GU-P-02	10/10/05						18500			3400	0
1	1-MW-09B	DUP	1-MW-09-GU-P-02DUP	4/27/06										
1	1-MW-09B	SMP	1-MW-09-GU-P-02	4/27/06	-0.058	U		0.048	0.126	0.141	UJ		0.074	0.054
1	1-MW-17B	DUP	1-MW-17-GU-P-02DUP	1/18/06										
1	1-MW-17B	SMP	1-MW-17-GU-P-02	1/18/06						0.207	U		0.087	0.046
1	1-MW-17B	DUP	1-MW-17-GU-P-02DUP	5/1/06						0.173		1.25	0.099	0.066
1	1-MW-17B	SMP	1-MW-17-GU-P-02	5/1/06	0.008	U		0.07	0.13	0.27			0.12	0.06
1	1-MW-18A	DUP	1-MW-18-GU-P-02DUP	8/10/05						411		0.19	68	1
1	1-MW-18A	SMP	1-MW-18-GU-P-02	8/10/05						420			69	1
1	1-MW-18A	DUP	2-MW-18-GU-P-02DUP	10/6/05						257		0.40	41	1
1	1-MW-18A	SMP	2-MW-18-GU-P-02	10/6/05						269			43	1
1	1-MW-21A	DUP	1-MW-21-GU-P-02DUP	1/19/06						0.52		0.78	0.19	0.1
1	1-MW-21A	SMP	1-MW-21-GU-P-02	1/19/06						0.63			0.21	0.11
1	1-MW-22A	DUP	1-MW-22-GU-P-02DUP	4/28/06										
1	1-MW-22A	SMP	1-MW-22-GU-P-02	4/28/06	-0.009	U		0.073	0.138	1.42	J		0.31	0.05
2	2BH018	DUP	2BH018-GW-001-1	8/1/02						878.5		1.82	159.2	11.29
2	2BH018	SMP	2BH018-GW-001-0	8/1/02						1143			243.6	16.56
2	2BH019	DUP	2BH019-GW-001-1	8/21/02						5.29		0.80	1.3	0.43
2	2BH019	SMP	2BH019-GW-001-0	8/21/02						6.08			1.49	0.54
2	2-MW-01B	DUP	2-MW-01-GU-P-02DUP	10/4/05										
2	2-MW-01B	SMP	2-MW-01-GU-P-02	10/4/05						5.33	J		0.95	0.08
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	10/25/04						11700		0.14	2000	0
2	2-MW-02A	SMP	2-MW-02-GU-P-02	10/25/04						11500			2000	0
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	8/3/05										
2	2-MW-02A	SMP	2-MW-02-GU-P-02	8/3/05						9200			1500	0
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	10/14/05						3520		0.05	560	0
2	2-MW-02A	SMP	2-MW-02-GU-P-02	10/14/05						3500			550	10
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	1/24/06						1370		0.49	250	10
2	2-MW-02A	SMP	2-MW-02-GU-P-02	1/24/06						1290			210	0

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	Th-230					U-234				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
2	2-MW-03B	DUP	2-MW-03-GU-P-02DUP	10/12/04						4650		0.72	740	10
2	2-MW-03B	SMP	2-MW-03-GU-P-02	10/12/04						4290			680	0
2	2-MW-03B	DUP	2-MW-03-GU-P-03DUP	7/18/05						2400		0.11	400	0
2	2-MW-03B	SMP	2-MW-03-GU-P-03	7/18/05						2370			400	0
2	2-MW-04B	DUP	2-MW-04-GU-P-02DUP	7/26/05										
2	2-MW-04B	SMP	2-MW-04-GU-P-02	7/26/05						1.44	J		0.35	0.06
2	2-MW-04B	DUP	2-MW-04-GU-P-02DUP	10/5/05										
2	2-MW-04B	SMP	2-MW-04-GU-P-02	10/5/05						6.1	J		1.1	0.1
2	2-MW-05B	DUP	2-MW-05-GU-P-02DUP	5/4/06										
2	2-MW-05B	SMP	2-MW-05-GU-P-02	5/4/06	-0.042	U		0.054	0.131	9.2	J		1.7	0.1
2	2-MW-15A	DUP	2-MW-15-GU-P-02DUP	10/14/05										
2	2-MW-15A	SMP	2-MW-15-GU-P-02	10/14/05						94	J		17	0
2	2-MW-15A	DUP	2-MW-15-GU-P-02DUP	1/25/06						163		0.34	25	0
2	2-MW-15A	SMP	2-MW-15-GU-P-02	1/25/06						169			25	0
2	2-MW-16B	DUP	2-MW-16-GU-P-02DUP	8/11/05										
2	2-MW-16B	SMP	2-MW-16-GU-P-02	8/11/05						0.35	J		0.17	0.11
2	2-MW-19A	DUP	2-MW-19-GU-P-02DUP	5/4/06										
2	2-MW-19A	SMP	2-MW-19-GU-P-02	5/4/06	0.029	U		0.062	0.125	0.13	U		0.11	0.16
2	2-MW-20A	DUP	2-MW-20-GU-P-02DUP	8/9/05										
2	2-MW-20A	SMP	2-MW-20-GU-P-02	8/9/05						4.57	J		0.88	0.07
2	2-MW-20A	DUP	2-MW-20-GU-P-02DUP	5/3/06										
2	2-MW-20A	SMP	2-MW-20-GU-P-02	5/3/06	0	U		0.048	0.084	1.83	UJ		0.47	0.09
2	2-MW-23B	DUP	2-MW-23-GU-P-02DUP	1/20/06										
2	2-MW-23B	SMP	2-MW-23-GU-P-02	1/20/06						0.18	U		0.11	0.1
2	2-MW-24A	DUP	2-MW-24-GU-P-02DUP	1/20/06						0.101			0.076	0.069
2	2-MW-24A	SMP	2-MW-24-GU-P-02	1/20/06						0.046	U		0.067	0.127
3	3-MW-13B	DUP	3-MW-13-GU-P-02DUP	8/11/05										
3	3-MW-13B	SMP	3-MW-13-GU-P-02	8/11/05						0.15	U		0.13	0.18
3	3-MW-13B	DUP	3-MW-13-GU-DUP-03DUP	1/24/06										
3	3-MW-13B	DUP	3-MW-13-GU-DUP-03	1/24/06						0.34			0.16	0.11
3	3-SB-01	DUP	3-SB-01-G-1-03DUP	8/18/03						1.14		1.54	0.3	0.12
3	3-SB-01	DUP	3-SB-01-G-1-03	8/18/03						0.84			0.25	0.1
3	3-SB-05	DUP	3-SB-05-G-1-04DUP	8/13/03						5.51		1.25	0.91	0.044
3	3-SB-05	DUP	3-SB-05-G-1-04	8/13/03						6.4			1.1	0.1
3	3-SB-07	DUP	3-SB-07-G-0-01DUP	8/18/03										
3	3-SB-07	SMP	3-SB-07-G-0-01	8/18/03						0.162			0.099	0.11
3	3-SB-07	DUP	3-SB-07-G-0-02DUP	8/18/03										

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	Th-230					U-234				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
3	3-SB-07	SMP	3-SB-07-G-0-02	8/18/03						0.54			0.18	0.041
3	3-SB-09	DUP	3-SB-09-G-0-02DUP	8/12/03						0.22		0.23	0.13	0.16
3	3-SB-09	SMP	3-SB-09-G-0-02	8/12/03						0.2			0.11	0.077
3	3-SB-10	DUP	3-SB-10-G-0-01DUP	8/15/03						0.118			0.069	0.059
3	3-SB-10	SMP	3-SB-10-G-0-01	8/15/03						0.033	U		0.055	0.11
3	3-SB-11	DUP	3-SB-11-G-0-01DUP	8/19/03										
3	3-SB-11	SMP	3-SB-11-G-0-01	8/19/03						0.142	J		0.089	0.1
3	3-SB-13	DUP	3-SB-13-G-0-02DUP	8/20/03										
3	3-SB-13	SMP	3-SB-13-G-0-02	8/20/03						0.42	J		0.15	0.07
3	3-SB-15	DUP	3-SB-15-G-0-02DUP	8/21/03						3.06		0.57	0.85	0.43
3	3-SB-15	SMP	3-SB-15-G-0-02	8/21/03						3.42	J		0.92	0.44
3	3-SB-17	DUP	3-SB-17-G-0-01DUP	8/26/03						0.57		1.10	0.22	0.055
3	3-SB-17	SMP	3-SB-17-G-0-01	8/26/03						0.41			0.19	0.17
3	3-SB-17	DUP	3-SB-17-G-0-02DUP	8/26/03						3.83		0.28	0.75	0.18
3	3-SB-17	SMP	3-SB-17-G-0-02	8/26/03						3.98			0.77	0.2
3	3-SB-24	DUP	3-SB-24-G-0-01DUP	8/21/03						1.04		0.85	0.28	0.12
3	3-SB-24	SMP	3-SB-24-G-0-01	8/21/03						0.88			0.25	0.13
3	3-SB-27	DUP	3-SB-27-G-1-04DUP	8/25/03						0.59		0.28	0.2	0.12
3	3-SB-27	DUP	3-SB-27-G-1-04	8/25/03						0.63			0.2	0.13
4	H17-M02B	DUP	H17-M02B-GU-P-02DUP	6/14/06										
4	H17-M02B	SMP	H17-M02B-GU-P-02	6/14/06	0.052	U		0.063	0.102	0.143	J		0.081	0.09
4	I17-M01A	DUP	I17-M01A-GU-DUP-02	5/5/06	-0.05	U		0.054	0.135	54.5	J	0.29	9.3	0.2
4	I17-M01A	SMP	I17-M01A-GU-P-02	5/5/06	0.6	U		0.82	1.35	56.5	J		10	0.4
4	4-MW-01A	DUP	4-MW-01-GU-DUP-02	5/9/07	0.007	U		0.057	0.123	0.19	LT	0.22	0.12	0.08
4	4-MW-01A	SMP	4-MW-01-GU-P-02	5/9/07	0.043	U		0.064	0.125	0.21			0.14	0.14
4	4-MW-06A	DUP	4-MW-06-GU-DUP-02	9/14/06	0.043	U		0.057	0.098	8.4		1.15	1.5	0.1
4	4-MW-06A	SMP	4-MW-06-GU-P-02	9/14/06	0.077	U		0.074	0.116	9.7			1.7	0.2
4	4-MW-07B	DUP	4-MW-07-GU-P-02DUP	6/13/06										
4	4-MW-07B	SMP	4-MW-07-GU-P-02	6/13/06	0.143	J		0.076	0.102	0.17	J		0.11	0.11
5	5-SB-05	DUP	5-SB-05-G-0-02DUP	9/5/03										
5	5-SB-05	SMP	5-SB-05-G-0-02	9/5/03						5.92			0.96	0.097
5	5-SB-06	DUP	5-SB-06-G-0-01DUP	9/5/03						0.79		0.43	0.24	0.16
5	5-SB-06	SMP	5-SB-06-G-0-01	9/5/03						0.72			0.22	0.091
5	5-SB-07	DUP	5-SB-07-G-0-02DUP	9/8/03										
5	5-SB-07	SMP	5-SB-07-G-0-02	9/8/03						9.3			1.6	0.22
5	5-SB-09	DUP	5-SB-09-G-0-01DUP	9/8/03						0.4		0.76	0.13	0.072
5	5-SB-09	SMP	5-SB-09-G-0-01	9/8/03						0.33			0.13	0.11

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	Th-230					U-234				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
5	5-SB-11	DUP	5-SB-11-G-0-02DUP	9/3/03										
5	5-SB-11	SMP	5-SB-11-G-0-02	9/3/03						1.38	J		0.32	0.074
5	5-SB-11	DUP	5-SB-11-G-1-01DUP	9/3/03						0.12			0.079	0.069
5	5-SB-11	SMP	5-SB-11-G-1-01	9/3/03						0.22	U		0.11	0.037
5	5-SB-13	DUP	5-SB-13-G-0-01DUP	9/3/03										
5	5-SB-13	SMP	5-SB-13-G-0-01	9/3/03						0.39	J		0.16	0.12
5	5-SB-15	DUP	5-SB-15-G-0-01DUP	8/29/03						0.3		0.91	0.13	0.04
5	5-SB-15	SMP	5-SB-15-G-0-01	8/29/03						0.39			0.15	0.12
6	6-MW-01B	DUP	6-MW-01-GU-DUP-02	9/15/06	-0.015	U		0.057	0.129	39		0.94	6.6	0.2
6	6-MW-01B	SMP	6-MW-01-GU-P-02	9/15/06	0.072	U		0.067	0.121	34.8			6	0.1
6	6-MW-02B	DUP	6-MW-02-GU-DUP-02	2/13/07	0.007	U		0.06	0.128	0.21			0.11	0.03
6	6-MW-02B	SMP	6-MW-02-GU-P-02	2/13/07	0.063	U		0.073	0.137	0.052	U		0.063	0.11
6	6-MW-02B	DUP	6-MW-02-GU-DUP-02	5/8/07	0.067	U		0.067	0.122	0.22			0.12	0.09
6	6-MW-02B	SMP	6-MW-02-GU-P-02	5/8/07	-0.021	U		0.053	0.128	0.057	U		0.073	0.128
6	6-MW-03B	DUP	6-MW-03-GU-P-02DUP	1/26/06										
6	6-MW-03B	SMP	6-MW-03-GU-P-02	1/26/06						0.94			0.28	0.2
6	6-MW-03B	DUP	6-MW-03-GU-DUP-02	2/13/07	0.003	U		0.072	0.157	0.34		1.75	0.16	0.18
6	6-MW-03B	SMP	6-MW-03-GU-P-02	2/13/07	-0.02	U		0.068	0.161	0.17	LT		0.11	0.11
6	6-MW-05B	DUP	6-MW-05-GU-DUP-02	2/13/07	0.031	U		0.069	0.14	0.24		0.24	0.12	0.11
6	6-MW-05B	SMP	6-MW-05-GU-P-02	2/13/07	-0.005	U		0.059	0.129	0.26			0.12	0.08
6	6-MW-06B	DUP	6-MW-06-GU-DUP-02	2/13/07	0.066	U		0.07	0.128	1.93		0.43	0.44	0.07
6	6-MW-06B	SMP	6-MW-06-GU-P-02	2/13/07	-0.002	U		0.059	0.129	2.07			0.47	0.09

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	U-235					U-238				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
1	1BH014	DUP	1BH014-GW-001-1	6/28/02	16.01	UJ		20.57	30.72	0.16	UJ		0.14	0.16
1	1BH014	SMP	1BH014-GW-001-0	6/28/02	64.13	U		21.36	31.02	0.42	J		0.35	0.19
1	1BH034	DUP	1BH034-GW-001-1	7/12/02	10.81	UJ		22.94	32.16	2.45	UJ		0.91	0.17
1	1BH034	SMP	1BH034-GW-001-0	7/12/02	0.11	U		21.6	32.58	1.78	U		0.52	0.21
1	1-MW-08A	DUP	1-MW-08-GU-P-02DUP	8/10/05	12.5		1.65	4.1	1.2	372		1.22	62	1
1	1-MW-08A	SMP	1-MW-08-GU-P-02	8/10/05	17.9			5.1	1.8	322			54	2
1	1-MW-08A	DUP	1-MW-08-GU-P-02DUP	10/10/05	850		0.92	230	20	18500		0.04	3300	0
1	1-MW-08A	SMP	1-MW-08-GU-P-02	10/10/05	1010			260	20	18400			3300	0
1	1-MW-09B	DUP	1-MW-09-GU-P-02DUP	4/27/06										
1	1-MW-09B	SMP	1-MW-09-GU-P-02	4/27/06	0.029	J		0.041	0.026	0.092	UJ		0.059	0.054
1	1-MW-17B	DUP	1-MW-17-GU-P-02DUP	1/18/06										
1	1-MW-17B	SMP	1-MW-17-GU-P-02	1/18/06	0.005	U		0.035	0.054	0.195			0.083	0.021
1	1-MW-17B	DUP	1-MW-17-GU-P-02DUP	5/1/06	0.01	U		0.054	0.078	0.147		0.50	0.091	0.066
1	1-MW-17B	SMP	1-MW-17-GU-P-02	5/1/06	0.019	U		0.048	0.084	0.18			0.095	0.03
1	1-MW-18A	DUP	1-MW-18-GU-P-02DUP	8/10/05	16.8		0.91	4.5	1.1	395		0.98	65	1
1	1-MW-18A	SMP	1-MW-18-GU-P-02	8/10/05	19.9			5.1	0.5	443			73	1
1	1-MW-18A	DUP	2-MW-18-GU-P-02DUP	10/6/05	13.8		0.73	3.2	0.6	268		0.00	43	0
1	1-MW-18A	SMP	2-MW-18-GU-P-02	10/6/05	15.5			3.4	0.7	268			43	1
1	1-MW-21A	DUP	1-MW-21-GU-P-02DUP	1/19/06	0.056	U		0.062	0.079	0.28		0.11	0.13	0.07
1	1-MW-21A	SMP	1-MW-21-GU-P-02	1/19/06	-0.003	U		0.054	0.116	0.29			0.13	0.09
1	1-MW-22A	DUP	1-MW-22-GU-P-02DUP	4/28/06										
1	1-MW-22A	SMP	1-MW-22-GU-P-02	4/28/06	0.044	J		0.04	0.024	0.59	J		0.17	0.09
2	2BH018	DUP	2BH018-GW-001-1	8/1/02	37.05	UJ		22.01	29.32	832.8		*2.16*	151.6	6.68
2	2BH018	SMP	2BH018-GW-001-0	8/1/02	57.1	UJ		28.94	34.24	1142			243.2	12.65
2	2BH019	DUP	2BH019-GW-001-1	8/21/02	5.62	UJ		18.87	29.86	4.65		0.86	1.17	0.35
2	2BH019	SMP	2BH019-GW-001-0	8/21/02	23.44	UJ		31.4	28.13	5.51			1.63	0.46
2	2-MW-01B	DUP	2-MW-01-GU-P-02DUP	10/4/05										
2	2-MW-01B	SMP	2-MW-01-GU-P-02	10/4/05	0.25	J		0.12	0.04	5.4	J		0.97	0.06
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	10/25/04	570		0.39	110	10	11400		0.14	1900	0
2	2-MW-02A	SMP	2-MW-02-GU-P-02	10/25/04	540			110	0	11600			2000	0
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	8/3/05										
2	2-MW-02A	SMP	2-MW-02-GU-P-02	8/3/05	550			150	40	9700			1600	0
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	10/14/05	191		0.07	41	3	3670		0.68	580	10
2	2-MW-02A	SMP	2-MW-02-GU-P-02	10/14/05	189			40	5	3400			540	10
2	2-MW-02A	DUP	2-MW-02-GU-P-02DUP	1/24/06	118		*2.12*	30	8	1490		0.92	270	10
2	2-MW-02A	SMP	2-MW-02-GU-P-02	1/24/06	81			18	4	1330			220	0

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	U-235					U-238				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
2	2-MW-03B	DUP	2-MW-03-GU-P-02DUP	10/12/04	187		0.40	44	4	4570		0.26	720	10
2	2-MW-03B	SMP	2-MW-03-GU-P-02	10/12/04	175			41	4	4440			700	10
2	2-MW-03B	DUP	2-MW-03-GU-P-03DUP	7/18/05	118		0.55	24	1	2420		0.00	410	0
2	2-MW-03B	SMP	2-MW-03-GU-P-03	7/18/05	109			22	2	2420			400	0
2	2-MW-04B	DUP	2-MW-04-GU-P-02DUP	7/26/05										
2	2-MW-04B	SMP	2-MW-04-GU-P-02	7/26/05	0.16	J		0.1	0.09	1.61	J		0.38	0.07
2	2-MW-04B	DUP	2-MW-04-GU-P-02DUP	10/5/05										
2	2-MW-04B	SMP	2-MW-04-GU-P-02	10/5/05	0.25	J		0.13	0.1	5.7	J		1	0.1
2	2-MW-05B	DUP	2-MW-05-GU-P-02DUP	5/4/06										
2	2-MW-05B	SMP	2-MW-05-GU-P-02	5/4/06	0.47	J		0.19	0.11	9	J		1.6	0.1
2	2-MW-15A	DUP	2-MW-15-GU-P-02DUP	10/14/05										
2	2-MW-15A	SMP	2-MW-15-GU-P-02	10/14/05	4.4	J		1.1	0.3	93	J		16	0
2	2-MW-15A	DUP	2-MW-15-GU-P-02DUP	1/25/06	11.6		0.07	2	0.2	168		0.11	25	0
2	2-MW-15A	SMP	2-MW-15-GU-P-02	1/25/06	11.7			2	0.2	170			26	0
2	2-MW-16B	DUP	2-MW-16-GU-P-02DUP	8/11/05										
2	2-MW-16B	SMP	2-MW-16-GU-P-02	8/11/05	0.033	U		0.072	0.112	0.31	J		0.16	0.13
2	2-MW-19A	DUP	2-MW-19-GU-P-02DUP	5/4/06										
2	2-MW-19A	SMP	2-MW-19-GU-P-02	5/4/06	0.058	U		0.07	0.108	0.22	UJ		0.13	0.15
2	2-MW-20A	DUP	2-MW-20-GU-P-02DUP	8/9/05										
2	2-MW-20A	SMP	2-MW-20-GU-P-02	8/9/05	0.124	UJ		0.078	0.061	4.22	J		0.82	0.06
2	2-MW-20A	DUP	2-MW-20-GU-P-02DUP	5/3/06										
2	2-MW-20A	SMP	2-MW-20-GU-P-02	5/3/06	0.11	U		0.1	0.12	1.43	UJ		0.39	0.05
2	2-MW-23B	DUP	2-MW-23-GU-P-02DUP	1/20/06										
2	2-MW-23B	SMP	2-MW-23-GU-P-02	1/20/06	0.033	U		0.06	0.045	0.056			0.057	0.038
2	2-MW-24A	DUP	2-MW-24-GU-P-02DUP	1/20/06	0.072	U		0.07	0.081	0.078		0.99	0.065	0.035
2	2-MW-24A	SMP	2-MW-24-GU-P-02	1/20/06	0.068	U		0.077	0.127	0.136			0.097	0.127
3	3-MW-13B	DUP	3-MW-13-GU-P-02DUP	8/11/05										
3	3-MW-13B	SMP	3-MW-13-GU-P-02	8/11/05	-0.03	U		0.085	0.192	0.12	U		0.11	0.16
3	3-MW-13B	DUP	3-MW-13-GU-DUP-03DUP	1/24/06										
3	3-MW-13B	DUP	3-MW-13-GU-DUP-03	1/24/06	-0.005	U		0.067	0.094	0.24			0.13	0.08
3	3-SB-01	DUP	3-SB-01-G-1-03DUP	8/18/03	0.12		0.81	0.094	0.099	1.12		1.54	0.3	0.12
3	3-SB-01	DUP	3-SB-01-G-1-03	8/18/03	0.072			0.071	0.054	0.82			0.25	0.1
3	3-SB-05	DUP	3-SB-05-G-1-04DUP	8/13/03	0.37		0.17	0.17	0.11	5.26		1.42	0.87	0.044
3	3-SB-05	DUP	3-SB-05-G-1-04	8/13/03	0.35			0.17	0.1	6.2			1	0.088
3	3-SB-07	DUP	3-SB-07-G-0-01DUP	8/18/03										
3	3-SB-07	SMP	3-SB-07-G-0-01	8/18/03	-0.014	U		0.054	0.11	0.144			0.091	0.096
3	3-SB-07	DUP	3-SB-07-G-0-02DUP	8/18/03										

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	U-235					U-238				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
3	3-SB-07	SMP	3-SB-07-G-0-02	8/18/03	0.092			0.079	0.089	0.34			0.14	0.041
3	3-SB-09	DUP	3-SB-09-G-0-02DUP	8/12/03	0.074	U		0.076	0.11	0.053	U		0.058	0.08
3	3-SB-09	SMP	3-SB-09-G-0-02	8/12/03	0.028	U		0.058	0.09	0.098	U		0.079	0.1
3	3-SB-10	DUP	3-SB-10-G-0-01DUP	8/15/03	0.033			0.042	0.033	0.056		1.53	0.046	0.028
3	3-SB-10	SMP	3-SB-10-G-0-01	8/15/03	0.026	U		0.039	0.065	0.12			0.07	0.076
3	3-SB-11	DUP	3-SB-11-G-0-01DUP	8/19/03										
3	3-SB-11	SMP	3-SB-11-G-0-01	8/19/03	0.062	U		0.061	0.082	0.041	U		0.047	0.069
3	3-SB-13	DUP	3-SB-13-G-0-02DUP	8/20/03										
3	3-SB-13	SMP	3-SB-13-G-0-02	8/20/03	0.03	U		0.051	0.1	0.35	J		0.14	0.085
3	3-SB-15	DUP	3-SB-15-G-0-02DUP	8/21/03	0.05	U		0.2	0.14	2.77		0.53	0.79	0.28
3	3-SB-15	SMP	3-SB-15-G-0-02	8/21/03	0.54	J		0.33	0.15	3.08	J		0.85	0.29
3	3-SB-17	DUP	3-SB-17-G-0-01DUP	8/26/03	0.037	U		0.077	0.12	0.41		0.65	0.18	0.14
3	3-SB-17	SMP	3-SB-17-G-0-01	8/26/03	0.04	U		0.083	0.13	0.5			0.21	0.059
3	3-SB-17	DUP	3-SB-17-G-0-02DUP	8/26/03	0.16		0.73	0.13	0.13	3.6		0.29	0.72	0.061
3	3-SB-17	SMP	3-SB-17-G-0-02	8/26/03	0.23			0.14	0.069	3.75			0.73	0.16
3	3-SB-24	DUP	3-SB-24-G-0-01DUP	8/21/03	0.124			0.093	0.053	0.86		1.02	0.25	0.11
3	3-SB-24	SMP	3-SB-24-G-0-01	8/21/03	0.017	U		0.06	0.051	0.69			0.22	0.08
3	3-SB-27	DUP	3-SB-27-G-1-04DUP	8/25/03	0.057	U		0.067	0.11	0.69		0.76	0.22	0.094
3	3-SB-27	DUP	3-SB-27-G-1-04	8/25/03	0.018	U		0.057	0.12	0.58			0.19	0.1
4	H17-M02B	DUP	H17-M02B-GU-P-02DUP	6/14/06										
4	H17-M02B	SMP	H17-M02B-GU-P-02	6/14/06	0.013	U		0.039	0.062	0.035	U		0.048	0.083
4	I17-M01A	DUP	I17-M01A-GU-DUP-02	5/5/06	2.94	J	*2.27*	0.67	0.09	52.2	J	0.96	8.9	0.1
4	I17-M01A	SMP	I17-M01A-GU-P-02	5/5/06	4.7	J		1.4	0.2	59	J		11	0
4	4-MW-01A	DUP	4-MW-01-GU-DUP-02	5/9/07	0	U		0.069	0.052	0.128	LT		0.096	0.082
4	4-MW-01A	SMP	4-MW-01-GU-P-02	5/9/07	0.037	U		0.087	0.145	0.16	U		0.13	0.17
4	4-MW-06A	DUP	4-MW-06-GU-DUP-02	9/14/06	0.38		0.52	0.13	0.08	7.2		1.11	1.3	0.1
4	4-MW-06A	SMP	4-MW-06-GU-P-02	9/14/06	0.33			0.14	0.12	8.3			1.5	0.1
4	4-MW-07B	DUP	4-MW-07-GU-P-02DUP	6/13/06										
4	4-MW-07B	SMP	4-MW-07-GU-P-02	6/13/06	0.07	U		0.08	0.122	0.137	J		0.096	0.092
5	5-SB-05	DUP	5-SB-05-G-0-02DUP	9/5/03										
5	5-SB-05	SMP	5-SB-05-G-0-02	9/5/03	0.36			0.16	0.096	5.47			0.9	0.044
5	5-SB-06	DUP	5-SB-06-G-0-01DUP	9/5/03	0.111	U		0.098	0.15	0.51		0.24	0.18	0.096
5	5-SB-06	SMP	5-SB-06-G-0-01	9/5/03	0.048			0.057	0.048	0.48			0.17	0.041
5	5-SB-07	DUP	5-SB-07-G-0-02DUP	9/8/03										
5	5-SB-07	SMP	5-SB-07-G-0-02	9/8/03	0.34			0.25	0.26	9.6			1.6	0.22
5	5-SB-09	DUP	5-SB-09-G-0-01DUP	9/8/03	0.002	U		0.043	0.084	0.28		0.61	0.11	0.06
5	5-SB-09	SMP	5-SB-09-G-0-01	9/8/03	0.101			0.071	0.071	0.33			0.12	0.06

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

AOC	Loc Code	QC Type	Sample ID	Sample Date	U-235					U-238				
					Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC	Result (pCi/L)	Flag	NAD	TPU [+/- 2σ]	MDC
5	5-SB-11	DUP	5-SB-11-G-0-02DUP	9/3/03										
5	5-SB-11	SMP	5-SB-11-G-0-02	9/3/03	0.063	J		0.062	0.047	1.29	J		0.31	0.074
5	5-SB-11	DUP	5-SB-11-G-1-01DUP	9/3/03	0.044			0.052	0.044	0.104		0.37	0.075	0.082
5	5-SB-11	SMP	5-SB-11-G-1-01	9/3/03	0.05	U		0.059	0.096	0.124			0.078	0.037
5	5-SB-13	DUP	5-SB-13-G-0-01DUP	9/3/03										
5	5-SB-13	SMP	5-SB-13-G-0-01	9/3/03	0.066	J		0.065	0.05	0.47	J		0.17	0.1
5	5-SB-15	DUP	5-SB-15-G-0-01DUP	8/29/03	0.09			0.077	0.087	0.149		1.26	0.094	0.1
5	5-SB-15	SMP	5-SB-15-G-0-01	8/29/03	0.025	U		0.051	0.08	0.24			0.11	0.091
6	6-MW-01B	DUP	6-MW-01-GU-DUP-02	9/15/06	1.94		1.48	0.47	0.13	39.3		0.59	6.6	0.1
6	6-MW-01B	SMP	6-MW-01-GU-P-02	9/15/06	1.48			0.41	0.11	36.6			6.3	0.1
6	6-MW-02B	DUP	6-MW-02-GU-DUP-02	2/13/07	-0.009	U		0.053	0.092	0.095	LT	0.78	0.072	0.065
6	6-MW-02B	SMP	6-MW-02-GU-P-02	2/13/07	0.016	U		0.052	0.103	0.141	LT		0.093	0.103
6	6-MW-02B	DUP	6-MW-02-GU-DUP-02	5/8/07	0.013	U		0.064	0.092	0.087	LT		0.077	0.078
6	6-MW-02B	SMP	6-MW-02-GU-P-02	5/8/07	-0.015	U		0.066	0.128	0.056	U		0.082	0.157
6	6-MW-03B	DUP	6-MW-03-GU-P-02DUP	1/26/06										
6	6-MW-03B	SMP	6-MW-03-GU-P-02	1/26/06	0.17			0.12	0.13	0.77			0.24	0.12
6	6-MW-03B	DUP	6-MW-03-GU-DUP-02	2/13/07	0.032	U		0.056	0.11	0.19	LT	0.12	0.12	0.16
6	6-MW-03B	SMP	6-MW-03-GU-P-02	2/13/07	0.007	U		0.061	0.107	0.2	LT		0.12	0.11
6	6-MW-05B	DUP	6-MW-05-GU-DUP-02	2/13/07	0.026	U		0.055	0.08	0.088	U		0.076	0.101
6	6-MW-05B	SMP	6-MW-05-GU-P-02	2/13/07	0.029	U		0.052	0.039	0.19	LT		0.1	0.09
6	6-MW-06B	DUP	6-MW-06-GU-DUP-02	2/13/07	0.119	LT		0.085	0.072	2.05		0.93	0.46	0.07
6	6-MW-06B	SMP	6-MW-06-GU-P-02	2/13/07	0.072	U		0.07	0.08	1.76			0.42	0.07

Table 2. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Radiological Isotopes in Groundwater
DuPont Chambers Works

Green shading indicates NAD within accepted limits; red shading indicates NAD outside accepted limits.
NAD = Normalized Absolute Difference (should be less than 1.96)
MCL = Maximum Contaminant Level
MDC = Minimum Detectable Concentration
N/A = Not Applicable
NS = Not Sampled
pCi/L = picocuries per liter
TPU = Total Propagated Uncertainty
G = Sample density differs by more than 15% of LCS density: sample results may be biased
J = Result is an estimated value
LT = Result is less than requested MDC but greater than sample specific MDC
LT = Result is less than requested MDC but greater than sample specific MDC
M = The requested MDC not met
M3 = The requested MDC was not met, but the reported activity is greater than the reported MDC.
TI = Nuclide identification is tentative
U = Result is less than the sample specific MDC
Y2 = Chemical yield outside default limits

$$NAD = \frac{ABS(R_s - R_d)}{\sqrt{[(0.5*TPU_s)^2 + 0.5*TPU_d)^2]}}$$

where
NAD = Normalized Absolute Difference
ABS = Absolute Value
R_s = Result of sample
R_d = Result of duplicate
TPU = Total propogated uncertainty (based on 2σ, or 95% uncertainty)
TPU_s = TPU of sample
TPU_d = TPU of duplicate

Table 3. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Soil Radionuclide MS/MSD Sample Pairs
DuPont Chambers Works

		Radionuclide	Th-230					
Location	Sample ID	Sample Date	Result	Flag	TPU	MDC	NAD	RPD
1BH006	1BH006-BS-085-0MS	07/02/02	3.59	J	0.64	0.09	0.22	2.71
	1BH006-BS-085-0MSD	07/02/02	3.69	J	0.66	0.08		
2BH006	2BH006-BS-050-0MS	07/22/02	3.22	J	0.55	0.07	0.58	7.33
	2BH006-BS-050-0MSD	07/22/02	3.00	J	0.52	0.07		
3-SB-02	3-SB-02-B-0-02MS	08/12/03	2.90	J	0.49	0.06	0.03	0.35
	3-SB-02-B-0-02MSD	08/12/03	2.89	J	0.49	0.07		
5-SB-04	5-SB-04-B-0-02MS	09/04/03	2.67	J	0.47	0.07	0.44	5.32
	5-SB-04-B-0-02MSD	09/04/03	2.82	J	0.49	0.07		

Green shading indicates NAD/RPD within accepted limits
NAD = Normalized Absolute Difference (should be less than 1.96)
RPD = Relative Percent Difference (should be less than 20)
J = concentration of analyte is estimated

Table 4. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Groundwater Radionuclide MS/MSD Sample Pairs
DuPont Chambers Works

		Radionuclide	GROSS ALPHA						GROSS BETA					
Location	Sample ID	Sample Date	Result	Flag	TPU	MDC	NAD	RPD	Result	Flag	TPU	MDC	NAD	RPD
1-MW-06A	1-MW-06-GF-P-01MS	01/19/06	185		34	4	0.30	3.93	234		40	11	0.38	4.49
	1-MW-06-GF-P-01MSD	01/19/06	178		33	4			245		42	11		
1-MW-07B	1-MW-07-GU-P-02MS	08/02/05	237		44	6	1.57	18.56	315		54	14	0.24	2.94
	1-MW-07-GU-P-02MSD	08/02/05	291		53	6			306		52	15		
1-MW-08A	1-MW-08-GU-P-02MS	04/28/06	7300	J	1200		0.25	2.82	3850	J	620	60	0.07	0.79
	1-MW-08-GU-P-02MSD	04/28/06	7100	J	1100				3820	J	610	50		
1-MW-09B	1-MW-09-GF-P-01MS	08/03/05	150	J	25	2	0.17	2.04	215		35	4	0.44	4.87
	1-MW-09-GF-P-01MSD	08/03/05	147	J	24	2			226		36	4		
	1-MW-09-GU-P-02MS	01/17/06	194		32	2	0.40	4.86	240		39	5	0.04	0.42
	1-MW-09-GU-P-02MSD	01/17/06	185		31	2			239		39	5		
1-MW-10A	1-MW-10-GU-P-02MS	08/16/05	287		46	1	0.41	4.74	386		62	3	0.27	3.02
	1-MW-10-GU-P-02MSD	08/16/05	274	J	44	1			398		64	3		
1-MW-11B	1-MW-11-GU-P-02MS	04/27/06	189		35	4	1.01	14.55	264		45	10	0.67	7.69
	1-MW-11-GU-P-02MSD	04/27/06	165	J	32	5			286		48	10		
1-MW-18A	1-MW-18-GF-P-01MS	08/10/05	388	J	63	3	0.44	4.90	336	J	54	5	0.05	0.60
	1-MW-18-GF-P-01MSD	08/10/05	408	J	66	2			334	J	54	5		
	1-MW-18-GU-P-02MS	05/01/06	326	J	58	7	***2.43***	***26.41***	374		62	12	0.46	5.32
	1-MW-18-GU-P-02MSD	05/01/06	443		77	7			395		66	14		
1-MW-22A	1-MW-22-GF-P-01MS	08/11/05	1820		290		0.05	0.55	1470		240	10	0.35	3.92
	1-MW-22-GF-P-01MSD	08/11/05	1830		290				1530		250	10		
2-MW-01B	2-MW-01-GU-P-02MS	07/13/05	960		150		0.09	1.05	1190		190	10	0.29	3.25
	2-MW-01-GU-P-02MSD	07/13/05	950		150				1230		200	10		
2-MW-04B	2-MW-04-GF-P-01MS	07/26/05	458	J	74	3	1.24	13.26	690		110	10	0.39	4.17
	2-MW-04-GF-P-01MSD	07/26/05	528	J	85	3			720		110	10		
2-MW-16B	2-MW-16-GU-P-02MS	01/20/06	900		150	10	0.58	7.14	760		120	20	0.11	1.30
	2-MW-16-GU-P-02MSD	01/20/06	840		140	10			770		130	20		
2-MW-19A	2-MW-19-GU-P-02MS	08/25/05	640		120	10	1.57	***23.31***	670		110	30		0.00
	2-MW-19-GU-P-02MSD	08/25/05	519		97	16			670		110	30		
2-MW-23B	2-MW-23-GU-P-02MS	10/12/05	271		51	7	0.08	1.09	366		62	15	0.38	4.44
	2-MW-23-GU-P-02MSD	10/12/05	274		51	6			383		65	16		
2-MW-25C	2-MW-25-GU-P-02MS	01/24/06	2820	J	450	10	***2.83***	***38.92***	2470		400	20	0.66	7.86
	2-MW-25-GU-P-02MSD	01/24/06	2030	J	330	10			2290		370	20		
2-MW-26A	2-MW-26-GU-P-02MS	08/09/05	509		82	2	0.79	9.46	640		100		0.27	3.03
	2-MW-26-GU-P-02MSD	08/09/05	465	J	75	2			660		110			
3-MW-13B	3-MW-13-GU-P-02MS	10/13/05	1610		290	30	0.92	12.59	1390		240	80	0.68	7.95
	3-MW-13-GU-P-02MSD	10/13/05	1430		260	30			1510		260	70		
3-MW-14B	3-MW-14-GU-P-02MS	08/11/05	940		150		0.36	4.08	1120		180	10	0.16	1.82
	3-MW-14-GU-P-02MSD	08/11/05	980		160				1100		180	10		
3-SB-17	3-SB-17-G-0-01MS	08/26/03												
	3-SB-17-G-0-01MSD	08/26/03												
	3-SB-17-G-0-02MS	08/26/03												
	3-SB-17-G-0-02MSD	08/26/03												
I17-M01A	I17-M01A-GU-P-02MS	01/26/06	1140		210	20	0.13	1.72	1310		220	60		0.00
	I17-M01A-GU-P-02MSD	01/26/06	1160		210	20			1310		220	60		
5-SB-05	5-SB-05-G-0-01MS	09/05/03												
	5-SB-05-G-0-01MSD	09/05/03												
6-MW-02B	6-MW-02-GF-P-01MS	01/25/06	186		34	4	0.86	10.58	233		40	11	0.24	2.92
	6-MW-02-GF-P-01MSD	01/25/06	208		38	4			240		41	11		

Green shading indicates NAD/RPD within accepted limits; red shading indicates NAD/RPD outside accepted limits.
NAD = Normalized Absolute Difference (should be less than 1.96)
RPD = Relative Percent Difference (should be less than 20)
J = concentration of analyte is estimated

Table 4. Quality Assurance/ Quality Control Evaluation Results Sitewide Remedial Investigtion
Groundwater Radionuclide MS/MSD Sample Pairs
DuPont Chambers Works

		Radionuclide	U-234						U-235						U-238					
Location	Sample ID	Sample Date	Result	Flag	TPU	MDC	NAD	RPD	Result	Flag	TPU	MDC	NAD	RPD	Result	Flag	TPU	MDC	NAD	RPD
1-MW-06A	1-MW-06-GF-P-01MS	01/19/06																		
	1-MW-06-GF-P-01MSD	01/19/06																		
1-MW-07B	1-MW-07-GU-P-02MS	08/02/05																		
	1-MW-07-GU-P-02MSD	08/02/05																		
1-MW-08A	1-MW-08-GU-P-02MS	04/28/06																		
	1-MW-08-GU-P-02MSD	04/28/06																		
1-MW-09B	1-MW-09-GF-P-01MS	08/03/05																		
	1-MW-09-GF-P-01MSD	08/03/05																		
	1-MW-09-GU-P-02MS	01/17/06																		
	1-MW-09-GU-P-02MSD	01/17/06																		
1-MW-10A	1-MW-10-GU-P-02MS	08/16/05																		
	1-MW-10-GU-P-02MSD	08/16/05																		
1-MW-11B	1-MW-11-GU-P-02MS	04/27/06																		
	1-MW-11-GU-P-02MSD	04/27/06																		
1-MW-18A	1-MW-18-GF-P-01MS	08/10/05																		
	1-MW-18-GF-P-01MSD	08/10/05																		
	1-MW-18-GU-P-02MS	05/01/06																		
	1-MW-18-GU-P-02MSD	05/01/06																		
1-MW-22A	1-MW-22-GF-P-01MS	08/11/05																		
	1-MW-22-GF-P-01MSD	08/11/05																		
2-MW-01B	2-MW-01-GU-P-02MS	07/13/05																		
	2-MW-01-GU-P-02MSD	07/13/05																		
2-MW-04B	2-MW-04-GF-P-01MS	07/26/05																		
	2-MW-04-GF-P-01MSD	07/26/05																		
2-MW-16B	2-MW-16-GU-P-02MS	01/20/06																		
	2-MW-16-GU-P-02MSD	01/20/06																		
2-MW-19A	2-MW-19-GU-P-02MS	08/25/05																		
	2-MW-19-GU-P-02MSD	08/25/05																		
2-MW-23B	2-MW-23-GU-P-02MS	10/12/05																		
	2-MW-23-GU-P-02MSD	10/12/05																		
2-MW-25C	2-MW-25-GU-P-02MS	01/24/06																		
	2-MW-25-GU-P-02MSD	01/24/06																		
2-MW-26A	2-MW-26-GU-P-02MS	08/09/05																		
	2-MW-26-GU-P-02MSD	08/09/05																		
3-MW-13B	3-MW-13-GU-P-02MS	10/13/05																		
	3-MW-13-GU-P-02MSD	10/13/05																		
3-MW-14B	3-MW-14-GU-P-02MS	08/11/05																		
	3-MW-14-GU-P-02MSD	08/11/05																		
3-SB-17	3-SB-17-G-0-01MS	08/26/03	19.7		2.9	0.19	1.65	18.67	1.28		0.38	0.071	0.59	13.27	18.7		2.8	0.13	1.08	11.98
	3-SB-17-G-0-01MSD	08/26/03	16.6		2.4	0.17			1.13		0.34	0.15			16.7		2.4	0.097		
	3-SB-17-G-0-02MS	08/26/03	24.7		3.5	0.13	0.08	0.80	1.09		0.32	0.11	1.23	***22.14***	25.1		3.6	0.13	0.12	1.18
	3-SB-17-G-0-02MSD	08/26/03	24.9		3.6	0.12			1.4		0.39	0.15			25.4		3.6	0.15		
I17-M01A	I17-M01A-GU-P-02MS	01/26/06																		
	I17-M01A-GU-P-02MSD	01/26/06																		
5-SB-05	5-SB-05-G-0-01MS	09/05/03	18.7		2.6	0.095	1.02	10.65	1.24		0.33	0.11	0.18	3.33	18.5		2.6	0.08	0.62	6.32
	5-SB-05-G-0-01MSD	09/05/03	16.9		2.4	0.096			1.2		0.31	0.11			17.4		2.4	0.13		
6-MW-02B	6-MW-02-GF-P-01MS	01/25/06																		
	6-MW-02-GF-P-01MSD	01/25/06																		

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