MAXEY FLATS
NUCLEAR DISPOSAL SITE
CALENDAR YEAR 2008

SUMMARY REPORT

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Prepared By

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Radiation/Environmental Monitoring Section

MFNDS CY 2007 SUMMARY REPORT

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MFNDS CY 2007 SUMMARY REPORT

Introduction

One thousand ninety-nine (1,099) water samples were collected during calendar year (CY) 2008 from the environment within 4.5 air miles of the Maxey Flats Nuclear Disposal Site (MFNDS) (***Figure 1***). The Radiation/Environmental Monitoring Section (REMS) of the Radiation Health Branch (RHB) performed 3,146 analyses on these samples. An additional 17,153 quality control (QC) analyses were performed to ensure the accuracy and precision of the analytical results. The cited 17,153 QC analyses represent all daily, instrument, and run QC analyses. In previous reports QC numbers did not include all these QC activities. The total QC analyses represents the actual QC analyses numbers for 2008. Data was validated by an independent third party.

Surface water and groundwater samples were collected from the MFNDS and its environs in CY 2008. Surface water samples were collected from on-site streams (within the original licensed site area), off-site streams (outside the original licensed area), drains, washes, ditches, and retention basins. Groundwater samples were collected from drinking-water wells and U. S. Geological Survey (USGS) monitoring wells. Samples were also collected from the public water supply in Hillsboro, Kentucky. Analytical data generated from the MFNDS sampling locations is provided in attached data summaries.

In CY 2008, the REMS conducted extended radionuclide analyses on groundwater samples from the USGS monitoring wells outside the restricted area and on samples from select surface water locations and seeps. Extended radionuclide analyses of monitoring-well groundwater, surface water, and seep-water samples provided the RHB with information regarding contaminant migration from the burial trenches following completion of Initial Remedial Phase Superfund activities.

Data collected during 2008 was used to assess whether the actions implemented during the Initial Remedial Phase under Superfund at the MFNDS were successful in meeting remedial goals. Assessment of validated data from monitoring wells, seeps, and surface water locations indicate that ex-filtration of leachate from the trenches continues to occur at the MFNDS. The data collected to date does not support the U.S. Environmental Protection Agency's (USEPA) conclusion in their Second Five-Year Report. The Initial Remedial Phase of the Superfund remediation has been completed and certified by the USEPA. The *Five-Year Review Report (Second Five-Year Report) for the Maxey Flats Disposal Site Fleming County, Kentucky,*

United States Environmental Protection Agency – Region 2, Atlanta, Georgia, September 2007 states on page 35

> "Remedial action objectives for the Site are being met. The continued release of contaminants to bedrock, groundwater, sediment, and surface water has been mitigated.".

Assessment of CY2008 data provides evidence that releases to the environment continue to occur at the MFDS. Release of radionuclides to bedrock, groundwater, surface water, and sediment have not been mitigated by the Initial Remedial Phase at the Maxey Flats Disposal Site.

Laboratory Considerations

The sample minimum detectable activity (MDA) for tritiated water (HTO) measurements by the REMS laboratory ranged from 0.3 picocuries/milliliter (pCi/ml) for 5.0 ml sample aliquots used in the analysis of all on-site, off-site, drinking wells, some monitoring wells, and soil water samplers to 16.5 pCi/ml for 0.1 ml aliquots used in the analysis of various and monitoring well water samples. The MDA for gross alpha-particle activity is sample volume dependent and was approximately 2.2 pCi/l for 200 ml aliquots that increased with a decrease in sample aliquot volume. The MDA for gross beta-particle activity is also sample volume dependent and was approximately 4.0 pCi/l for 200 ml aliquots with a corresponding increase in the MDA as sample volume aliquots decreased.

Background and Off-Site Monitoring

Mean HTO activity for sample locations ranged from less than the MDA at background and off-site sampling locations, to 34.7 pCi/ml at the old site license boundary, Location 144, in the East Main Drainage Channel. Background and off-site surface-water sample locations ***(Figure 1)*** included; Crane Creek (ST119) on Highway 32, Crane Creek on Rawlings Road (ST121), Fox Creek off Highway 158 (ST130), Fox Creek on Highway 111 (ST136), Rock Lick Creek above its confluence with No-Name Creek (ST122), and Rock Lick Road at the first bridge (ST101).

HTO activity in groundwater samples from the background drinking-water well, ST112, north of the site at Highway 1895 was below the laboratory reported sample MDAs ***(Figure 2)***. The last two water samples for calendar year 2008 from ST142 had HTO activity above laboratory reported sample MDAs while the second sample taken in April of 2008 had HTO activity below the laboratory reported sample MDA. The first sample collected for ST142 in February 2008 had one of the duplicate analyses above the MDA and the other below the sample MDA ***(Figure 2)***.

East Main Drain Seep Monitoring

Samples collected from a biomonitoring plot in 1990 established the contamination zone on the East Main Drain Hillside. The plume of HTO activity associated with the seeps on the East Main Drain Hillside was mapped by using data from the biomonitoring network. The biomonitoring plot results indicated that HTO moves through the colluvium on the East Main Drain Hillside to the East Main Drainage Channel above the 800’ elevation (above Location 113). REMS personnel have monitored the East Main Drain Hillside seeps since 1990.

Table 1-1 presents the HTO data for seeps on the East Main Drain Hillside ***(Figure 3)*** from January through December 2008. This data indicates that a pulse of HTO activity in groundwater continues to migrate from the 40-Series trenches to the East Main Drain Hillside. Since this movement is most likely through fractures in the Upper/Lower Farmers Members underlying the East Side of the site, it may have been difficult to mitigate during remediation of the facility. The RHTAB continues to monitor the East Main Drain Hillside for further evidence of radionuclide activity.

TABLE 1-1. CY 2008 East Drain Seep Data

Tritium data for Water Samples were collected from Seeps on the East Hillside at the Maxey Flats Nuclear Disposal Site.

Collection	UFS1		UFS1N		LFS2	
Date	pCi/ml	CU	pCi/ml	CU	pCi/ml	CU
1/7/2008	(a)		(a)		3102	4
2/7/2008	(a)		(a)		1002	2
3/11/2008	(a)		(a)		1386	3
4/8/2008	(a)		(a)		1985	3
4/17/2008	5629	11	(a)		2056	7
5/13/2008	(a)		(a)		1188	2
6/27/2008	(a)		(a)		4015	4
7/23/2008	(a)		(a)		1702	3
8/12/2008	(a)		(a)		5300	11
9/23/2008	(a)		(a)		4717	5
10/30/2008	(a)		(a)		3055	4
11/21/2008	(a)		(a)		1254	3
12/18/2008	(a)		(a)		1660	3

(a) No samples taken because of low flow along the face of the lower Farmers' outcrop. CU=Counting Uncertainty

TABLE 1-2. East Hillside Annual Seep Data

Annual Seeps located at Farmers outcrops East Hillside April 17, 2008

	HTO		Gross alpha		Gross beta		Gamma
Location	pCi/ml	CU	pCi/l	CU	pCi/l	CU	pCi/l
UFS1	5629	11	*7.0*	*6.5*	43.8	12	<MDA
LFS2	2056	7	*5*	*6*	*25*	*11*	<MDA
EMR1	4744	10	*-1*	*5*	36	12	<MDA
EMR3	2600	0.5	*0.5*	*3*	-5	6	<MDA
EMR5	2292	0.5	*-2*	*6*	*-4*	*9*	<MDA
EML2	*0.5*	*0.5*	*2*	*3*	*-4*	*6*	<MDA
EML4	*0.1*	*0.1*	*3*	*3*	*-6*	*6*	<MDA

a = No samples taken because of low flow along the face of the lower Farmers' outcrop. Italics = Reported value below sample MDA or error greater than 50% of the reported value. MDA=Minimum Detectable ACTIVITY. CU=Counting Uncertainty.

East Drain seeps USF1, LFS2, EMR1, EMR3, EMR5, EML2, and EML4 were collected during the annual seep sample collection in CY 2008. The data for these East Main Drain Hillside Seeps is provided in Table 1-2.

Elevated HTO activity was detected in samples collected from the Farmers outcrop seeps to the North of the East Main Drain at the six (6) locations sampled in CY 2008. Water collected from locations at the East Main Drain Seeps on April 23, 2008 was also analyzed for gamma emitting radionuclides.

East Main Drain Monitoring

The HTO activity at East Main Drain sampling locations 113 and 144 ***(Figure 4)*** is representative of the discharge to surface water of leachate-contaminated groundwater that has migrated through the subsurface from the 40-Series disposal trenches to the East Main Drainage Channel. The average HTO activity at Location 144 in the East Main Drainage Channel was 52 pCi/ml in CY 2002, 60 pCi/ml in 2003, 90 pCi/ml in 2004, 50 pCi/ml in 2005, 52 pCi/ml in 2006, 78 pCi/ml in 2007, and 35 pCi/ml in 2008. The average HTO activity at location 113 was 64 pCi/ml in CY 2002, 84 pCi/ml in 2003, 153 pCi/ml in 2004, 106 pCi/ml in 2005, 126 pCi/ml in 2006, 181 pCi/ml in 2007, and 82 pCi/ml in 2008.

The HTO activity in surface water at East Main Drainage Channel locations 113 and 144 remain elevated relative to HTO activity upgradient and upslope at the outlet of the East Main Drainage

Retention Pond (EDOUTL). Based on six samples collected at the EDOUTL in 2008, the average HTO in surface water at EDOUTL was 0.7 pCi/ml as compared to 35 and 82 pCi/ml for surface water at locations 144 and 113, respectively.

The mean HTO activity for the East Drain ISCO automatic sampler (EDRN) at 800 feet above mean sea level (MSL) in the East Main Drainage Channel ***(Figure 5)*** was 103 pCi/ml in 2002, 106 pCi/ml in 2003, 133 pCi/ml in 2004, 111 pCi/ml in 2005, 82 pCi/ml in 2006, 135 pCi/ml in 2007, and 90 pCi/ml in 2008. Automatic samplers composites surface water samples on a daily basis. EDRN HTO activity in surface water for: (1) CY 2006 ranged from 1.9 to 269 pCi/ml, (2) CY 2007 ranged from 0.2 to 525 pCi/ml, and (3) CY 2008 ranged from 1.5 to 288 pCi/ml.

The results of surface water ^{90}Sr analyses for the first (1st) through fourth (4th) quarters of CY 2008 are presented in **Table 1-3.** The Results of surface water ^{90}Sr analyses for the East Main Drain seeps is provided in Appendix 1.

TABLE 1-3. Strontium-90 (^{90}Sr) surface water data for CY 2008.

Strontium-90 Analysis of Water Samples Collected at the Maxey Flats Nuclear Disposal Site on February 2, 2008.

Location	^{90}Sr pCi/liter		CU*
102	***-1.1***		1.1
103	***0.5***		0.8
106	***1.3***		1.0
107	***0.4***		1.3
122	***.0.2***		0.8
143	***1.4***		0.9
144	***0.3***		0.9
145	***1.4***		1.2

Bold Italics = Reported Values Below MDA; *CU=Counting Uncertainty

Strontium-90 Analysis of Water Samples Collected at the Maxey Flats Nuclear Disposal Site on April 8, 2008.

Location	^{90}Sr pCi/liter		CU*
102	***1.1***		1.1
103	1.7		0.7
106	1.7		0.7
107	1.8		0.7
122	3.3		1.8
143	1.8		0.7
144	1.7		0.7
145	1.6		0.7

Bold Italics = Reported Values Below MDA; CU=Counting Uncertainty

Strontium-90 Analysis of Water Samples Collected at the Maxey Flats Nuclear Disposal Site on August 12, 2008.

Location	^{90}Sr pCi/liter		CU*
102	***-0.09***		0.8
103	***-1.6***		1.4
106	***0.2***		0.9
107	***0.9***		0.9
122	1.9		1.0
144	***-0.37***		1.2
145	***0.8***		0.9

Bold Italics = Reported Values Below MDA; CU=Counting Uncertainty

TABLE 1-3. Strontium-90 (^{90}Sr) surface water data for CY

Strontium-90 Analysis of Water Samples Collected at the Maxey Flats Nuclear Disposal Site on October 30, 2008.

Location	^{90}Sr pCi/liter		CU*
102	***0.8***		0.7
106	***1.5***		0.8
122	***0.8***		0.8
144	***1.6***		0.8
145	***0.2***		0.7

Bold Italics = Reported Values Below MDA; CU=Counting Uncertainty

West Hillside Surface Water Monitoring

During the Initial Remedial Phase of the Superfund Action, significant releases of HTO occurred from the Earthen Mound Concrete Bunkers (EMCB) that were constructed for disposition of trench leachate. These HTO releases occurred from 1999 through 2000 and impacted surface water in Wash 107. The data in Appendix 1 for Locations F107, G107, and I107 demonstrate that by 2004 the average annual level of HTO at location I107 had decreased to less than the detection limit. The data for location I107 established the releases that occurred during the Initial Remedial Phase of the Superfund Action are no longer impacting Wash 107. The data in Appendix 1 also shows that the HTO levels at F107 and G107 in Wash 107 continue to be impacted by a source of HTO other than the release that occurred during the Initial Remedial Phase of the Superfund action. The source of HTO impacting Wash 107 is the western series trenches. This data establishes releases from the trenches via the fractures in the lower sandstone marker bed to the west hillside colluvium with release to the surface water in Wash 107 are still a major concern for the long-term stability of the site.

Surface water sampling locations in Wash 107 from the middle of the hillside, locations F107 and G107, downgradient/downslope to the dirt road, W7ATRD, have elevated HTO activity compared to levels of HTO activity above the middle of the hillside at locations H107, I107 and J10. The HTO activity in surface water sampling locations from the middle of the hillside in Wash 107 to downslope locations at the bottom of the west hillside indicate that HTO continues to move from the western series disposal trenches to the west hillside via subsurface pathways. This data supports the continuing release of HTO from the disposal site to the west hillside subsequent to the Initial Remedial Phase of the Superfund Action at the Maxey Flats Nuclear Disposal Site. The remedial action at the site has not impacted release of HTO from the disposal trenches to the west hillside.

The mean HTO activity for location 102 grab-samples collected at the junction of Rock Lick Creek and Highway 158 was 0.6 pCi/ml in 2002, 0.7 pCi/ml in 2003, 0.9 pCi/ml in 2004, 0.8 pCi/ml in 2005, 0.6 pCi/ml in 2006, 0.9 pCi/ml in 2007, and 0.7 pCi/ml in 2008. The mean HTO activity in Drip Springs Creek Location 103 grab-samples (Figure 8) was 0.7 pCi/ml in 2002, 0.6 pCi/ml in 2003, 0.6 pCi/ml in 2004 0.6 pCi/ml in 2005, 0.4 pCi/ml in 2006, 0.6 pCi/ml in 2007, and 0.3 pCi/ml in 2008. The HTO activity at these two (2) sampling locations may reflect some stabilization of HTO discharges due to controls established during the Initial Remedial Phase to minimize release of HTO from the Earthen Mound Concrete Bunkers that occurred during the Superfund Action.

USGS Monitoring Well Sampling

Extended radionuclide analysis of water from selected United States Geological Survey (USGS) monitoring wells ***(Figure 7)*** continued in CY 2008. Extended radionuclide analyses were evaluated in order to monitor the flux of contaminants in groundwater contaminant plumes located under the Northwest corner of the Restricted Area. All monitoring wells along the eastern side of the Restricted Area were abandoned during the Initial Remedial Phase. Extended radionuclide data collected during CY 2008 along with data collected from CY 2000 through 2007 is critical for establishing trends that can be utilized for assessment of the performance and effectiveness of Initial Remedial Phase actions.

Extended radionuclide analyses were conducted for USGS monitoring well groundwater samples collected in April and October 2008. Extended radionuclide analyses included; Strontium-90 (^{90}Sr), carbon-14 (^{14}C), plutonium-238 (^{238}Pu), plutonium-239 (^{239}Pu), uranium-238 (^{238}U), uranium-235 (^{235}U), and uranium-234 (^{234}U)

CY 2008 Observations for Water from USGS Monitoring Wells

- Elevated gross alpha-particle activity was detected in water from monitoring well UE-2 in April 2008. The gross alpha-particle activity data for water from wells N2B, UE2, and UF2 collected in October 2008 had a high counting uncertainty associated with the measurements. Therefore, the results are reported as uncertain "J" for the water samples from these locations.
- Specific alpha analyses were performed for the following radionuclides: ^{234}U, ^{235}U, ^{238}U, ^{238}Pu, and ^{239}Pu. Tables 1-4a and 1-4b present the activity of these isotopes for water from wells UE-2, UF-2, UK-1, N2B, and UF10a.
- Based on the data in Table 1-4a and 1-4b, alpha-emitting radionuclides are distributed in Lower Marker Bed (LMB) groundwater in the north/northwest portion of the Restricted Area and adjacent areas.
- Groundwater from wells UE2, UF-2, UK-1, N2B and UF10a had ^{234}U activity that exceeded sample specific MDAs for both the April and October 2008 samples.
- Wells UE2, UF2, UK1, and N2B had ^{238}U activity in groundwater that exceed sample specific MDAs for samples collected in April and October CY 2008.
- The maximum activity for ^{238}U in the monitoring wells tested ranged from 30.9/3.4 pCi/l (activity/counting uncertainty) in well N2B to 0.5/0.4 and 0.5/0.3 in wells UF2 and UK1, respectively.
- Uranium-235 activity was below the MDA or had counting uncertainty greater than 50% of the activity for monitoring well water samples.
- The activity of ^{234}U exceeded the activity of ^{238}U in the wells listed in Tables 1-4a and 1-4b suggesting that natural or depleted uranium is not the source of the ^{234}U or that the activity may be due to another isotope of uranium. Based on analysis of alpha spectroscopy data by REMS staff, the elevated activity may be due to the presence of ^{233}U.
- In October 2008 the $^{233/234}U$ activity in water from USGS monitoring well UE-2 was 30.3/3.4 pCi/l (activity/counting uncertainty), UF-2 was 15.6/2.1 pCi/l, UK-1 was 13.3/1.9 pCi/l, N2B was 19.8/2.6 pCi/l, and UF-10a was 4.9/1.1 pCi/l.
- In April 2008, the $^{233/234}U$ activity in well UE-2 was 39.7/4.1 pCi/l (activity/counting uncertainty), UF-2 was 14.4/2.0 pCi/l, UK-1 was 4.7/0.9 pCi/l, N2B was 19.1/2.4 pCi/l, and UF-10a was 7.4/1.3 pCi/l.
- If the activity is due to the presence of $^{233/234}U$, the maximum activity of 39.7/4.1 pCi/l is 13.2% of the limit of 300 pCi/l imposed by 902 KAR 100:019, for controlled release of $^{233/234}U$ outside the boundary of a disposal trench.

- Plutonium-238 activity was above sample-specific MDAs in wells UE-2, UF-2, UK-1, and N2B for both April and October 2008. Water from well UF-10a was below sample specific MDAs for April 2008.
- Plutonium-239 activity was above sample-specific MDAs in wells UK-1 and N2B for April and October 2008. Plutonium-239 activity was below sample specific MDAs in wells UE-2, UF-2, and UF10a for April 2008. Plutonium-239 activity was below sample specific MDAs in wells UE-2, UF-2, UK-1, N2B, and UF10a for October 2008.
- The maximum activity of ^{238}Pu, 6.0/1.3 pCi/L was observed in well UE-2.
- The ^{238}Pu activity in CY 2008 for UE-2 was 30.0% of the limit of 20 pCi/l imposed by 902 KAR 100:019, for controlled release of ^{238}Pu outside the boundary of a disposal trench.
- Strontium-90 activity was above sample specific MDAs in water from USGS monitoring wells UE-2, UF-2, UK-1, N2B, and F10a for both April and October collection dates (Table 1-5).
- The maximum ^{90}Sr activity for groundwater from well UF-2 was 315/13 pCi/l (activity/counting uncertainty) which is less than the 500 pCi/l limit imposed by 902 KAR 100:019 for controlled release of ^{90}Sr outside the boundary of a disposal trench.
- Cobalt-60 (^{60}Co) activity in groundwater was above sample specific MDAs in wells UE-2 and UF-2 for the April and October 2008 samples (Table 1-6). Wells UK-1 and N2B cobalt-60 activity were above the MDA in the October 2008 sample (Table 1-6). Cobalt-60 activity in well UF-10a was below sample specific MDAs for both collection dates (Table 1-6).
- The ^{14}C activity was above sample specific MDAs in USGS monitoring wells UK-1, UF-2, UE-2, and N2B (Table 1-7). Carbon-14 activity in well UF-10a had a high uncertainty associated with the measurements. Therefore, the results are reported as uncertain "J" for the water samples from UF10a locations. (Table 1-7).
- Cesium-137 activity in groundwater samples from USGS monitoring wells was below the REMS sample specific MDAs.

Summary of Extended Radionuclide Analyses

- Based on historical and CY 2008 extended radionuclide analyses, radionuclides in groundwater continue to migrate away from the disposal trenches at elevated levels to the west and north/northwest corner of the Restricted Area. This data provides convincing evidence to the contrary of the statement "Remedial action objectives for the Site are being met. The continued release of contaminants to bedrock, groundwater, sediment, and surface water has been mitigated." made in the *Five-Year Review Report (Second Five-Year report) for the Maxey Flats Disposal Site Fleming County, Kentucky, United*

States Environmental Protection Agency – Region 2, Atlanta, Georgia, September 2007. **Clearly, release of radionuclides to bedrock, groundwater, surface water, and sediment have not been mitigated by the Initial Remedial Phase at the Maxey flats Nuclear Site**.

- Radionuclide movement away from the disposal trenches is most likely controlled by: 1) The potentiometric gradient in the Lower Sandstone Marker Bed (LMB) which is radially away from the center of the Restricted Area; 2) The dip of the LMB which is radially away from the center of the Restricted Area; and 3) by the fracture orientation of the LMB.

- Extended radionuclide data indicates that Initial Remedial Phase remedial measures may not have been in place for sufficient time to impact the migration of radionuclides or is not functioning to prevent continued releases to the environment.
- The continued monitoring of radionuclides in groundwater is critical during the Interim Maintenance Period (IMP) because elevated levels of radionuclides continue migration toward the west hillside and north/northwest area of the MFNDS and the long-term potential for erosion to impact the discharge of groundwater to the surface resulting in increased radionuclide activity in surface water.

TABLE 1-4a. USGS Monitoring Well Uranium and Plutonium Data APRIL 2008.

	Activity in pCi/l			
USGS Well	^{238}U/CU	^{234}U/CU	^{238}Pu/CU	^{239}Pu/CU
UE2	*5.6/1.1*	39.7/4.1	6.0/1.3	***0.1/0.2***
UF2	*0.5/0.4*	14.4/2.0	3.7/1.0	***-0.04/0.8***
UK1	4.9/0.9	4.7/0.9	3.4/0.9	1.3/0.5
N2B	30.9/3.4	19.1/2.4	2.0/0.7	*0.15/0.15*
UF10a	3.3/0.8	7.4/1.3	1.8/0.7	***0.0/0.1***

Bold Italics = Reported Value Below MDA or a counting uncertainty of greater than 50%; Italics = uncertainty for measurement ("J" result); NA = Not Analyzed; CU=Counting Uncertainty

TABLE 1-4b. USGS Monitoring Well Uranium and Plutonium Data October 2008.

	Activity/CU in pCi/l			
USGS Well	^{238}U/CU	^{234}U/CU	^{238}Pu/CU	^{239}Pu/CU
UE2	5.4/1.1	30.3/3.4	1.9/0.6	***0.04/0.07***
UF2	2.0/0.6	15.6/2.1	2.2/0.6	***0.1/0.2***
UK1	*0.5/0.3*	13.3/1.9	2.8/0.7	***-0.04/0.09***
N2B	*3.1/0.8*	19.8/2.6	2.3/0.6	***0.04/0.15***
UF10a	1.4/0.5	4.9/1.1	-0.01/0.2	***-0.06/0.2***

Bold Italics = Reported Value Below MDA or a counting uncertainty of greater than 50%; Italics = uncertainty for measurement ("J" result); NA = Not Analyzed; CU=Counting Uncertainty

TABLE 1-5. USGS Monitoring Well Strontium-90 Data April/October 2008.

	^{90}Sr Activity/CU in pCi/l	
USGS Well	April	October
UE2	217/11	146/10
UF2	315/13	272/13
UK1	34/6	120/10
N2B	25/5	77/8
UF10a	13/5	12/6

Bold Italics = Reported Value Below MDA or a counting uncertainty of greater than 50%; NA = Not Analyzed; CU=Counting Uncertainty

TABLE 1-6. USGS Monitoring Well Cobalt-60 Data April/October 2008.

	^{60}Co Activity/CU in pCi/L	
USGS Well	April	October
UE2	46/13	*12/11*
UF2	40/11	31/13
UK1	***14/10***	36/15
N2B	***-0.7/10***	33/12
UF10a	***10/6***	***11/9***

Bold Italics = Reported Value Below MDA or a counting uncertainty of greater than 50%; Italics = uncertainty for measurement ("J" result); NA = Not Analyzed; CU=Counting Uncertainty

Table 1-7. USGS Test Monitoring Well Carbon-14 data April/October 2008.

USGS Well	^{14}C Activity/CU in pCi/l April	October
UE2	1578/57	726/83
UF2	539/36	783/85
UK1	225/27	560/77
N2B	***0/17***	435/72
UF10a	*819/43*	*23/54*

Bold Italics = Reported Value Below MDA or a counting uncertainty of greater than 50%; Italics = uncertainty for measurement ("J" result); NA = Not Analyzed; CU=Counting Uncertainty

Regulatory & Public Health Assessment

Kentucky Administrative Regulation, 902 KAR 100:022, Section 18 requires that the annual dose at the site boundary of a low-level radioactive disposal site not exceed 25 mrem. Kentucky Administrative Regulation 902 KAR 100:015, Section 2 establishes releases be maintained "As Low As Reasonably Achievable" (ALARA). A primary focus of a radiation protection program is to maintain concentration/doses ALARA. The license for the MFNDS and other licenses issued in the Commonwealth of Kentucky for the handling and release of radioactive material are based on ALARA requirements in order to minimize radiation doses to workers and members of the public.

The HTO activities at East Main Drain Hillside seep locations inside the site boundary need to be compared to a limit of 1,000 pCi/ml imposed by 902 KAR 100:019, Section 44(7) for the controlled release of tritium outside the boundary of the trenches and the Restricted Area. HTO activity in CY 2005 at the lower farmers seep (LFS2) ranged from 1380 to 7170 pCi/ml with an average activity of 2810 pCi/ml. HTO activity in CY 2006 at LFS2 ranged from 3110 to 6290 pCi/ml with an average activity of 4570 pCi/ml. In CY 2007 HTO activity at LFS2 ranged from 1380 to 5920 pCi/ml with an average activity of 3530 pCi/ml. In CY 2008 HTO activity at LFS2 ranged from 999 to 5300 pCi/ml with an average activity of 2490 pCi/ml. The LFS2 HTO activity exceeds the established release limit of 1,000 pCi/ml for HTO. These temporal HTO activity trends do not reflect cessation of releases from the trenches and Restricted Area and continue to exceed the release criteria in 902 KAR 100:019, Section 44(7).

The chart below (Figure 1.8) provides the trend line for the LFS2 HTO activity from 1995 through 2008. There is a downward trend in the HTO activity which is expected because the graph represents a time frame of 12 years, which corresponds to one

HTO half-life (12.43 years). Based on the graph for HTO activity at the Lower Farmers Seep, it is not clear whether the Initial Remedial Phase has significantly impacted HTO activity at the Lower Farmers Seep on the East Main Drain hillside. This data is contrary to the statement "Remedial action objectives for the Site are being met. The continued release of contaminants to bedrock, groundwater, sediment, and surface water has been mitigated." made in the *Five-Year Review Report (Second Five-Year report) for the Maxey Flats Disposal Site Fleming County, Kentucky, United States Environmental Protection Agency – Region 2, Atlanta, Georgia, September 2007*. **Release of HTO to bedrock, groundwater, and surface water have not clearly been mitigated by the Initial Remedial Phase remedial activities.**

Surface water sample location 113 is in the East Main Drainage Channel and within the MFNDS old site-license boundary. CY 2008 mean HTO activity at ISCO EDRN was 90.2 pCi/ml which is 9.2% of the 1,000 pCi/ml limit in 902 KAR 100:019, Section 44(7) for the release of HTO outside the boundary of the trenches and the Restricted Area (Table 1.9). CY 2007 mean HTO activity at ISCO EDRN was 135 pCi/ml which is 13.5% of the 1,000 pCi/ml limit in 902 KAR 100:019, Section 44(7) for the release of HTO outside the boundary of the trenches and the Restricted Area. CY 2006 EDRN mean HTO activity was 126 pCi/ml which and 12.6% of the release limit. CY 2005 ISCO EDRN mean HTO activity was 106 pCi/ml which is 10.6% of the release limit. The HTO activity remains elevated over the past seven (7) years at location 113. The Table 1.9 below provides the annual average HTO activity and the range of HTO activity in surface water at Location 113.

Surface water sampling location 144 is at the MFNDS old site license boundary in the East Main Drainage Channel. The average annual HTO activity for Location 144 was 52 pCi/ml during CY 2002, 60 pCi/ml during CY 2003, 90 pCi/ml in CY 2004, 50 pCi/ml in CY 2005, 54 pCi/ml in 2006, 78 pCi/ml in 2007, and 35 pCi/ml. This data along with the data for the Lower Farmers Seep and Location 113 indicates that release of HTO from the disposal trenches continues to impact the East Drainage Channel.

With the completion of the Initial Remedial Phase all surface water from the Initial Remedial Phase cap has been diverted to the East Main Drainage Channel. The increased discharge of uncontaminated surface water to the East Main Drainage Channel should be diluting the HTO activity. However, HTO activity from 2002 to 2008 at locations 113 (EDRN) and LFS2 indicate that the remedial activities may not have mitigated relaeases to the East Main Drain hillside and East Main Drainage Channel.

TABLE 1-8. LFS2 HTO activity trends from 1995 through 2008.

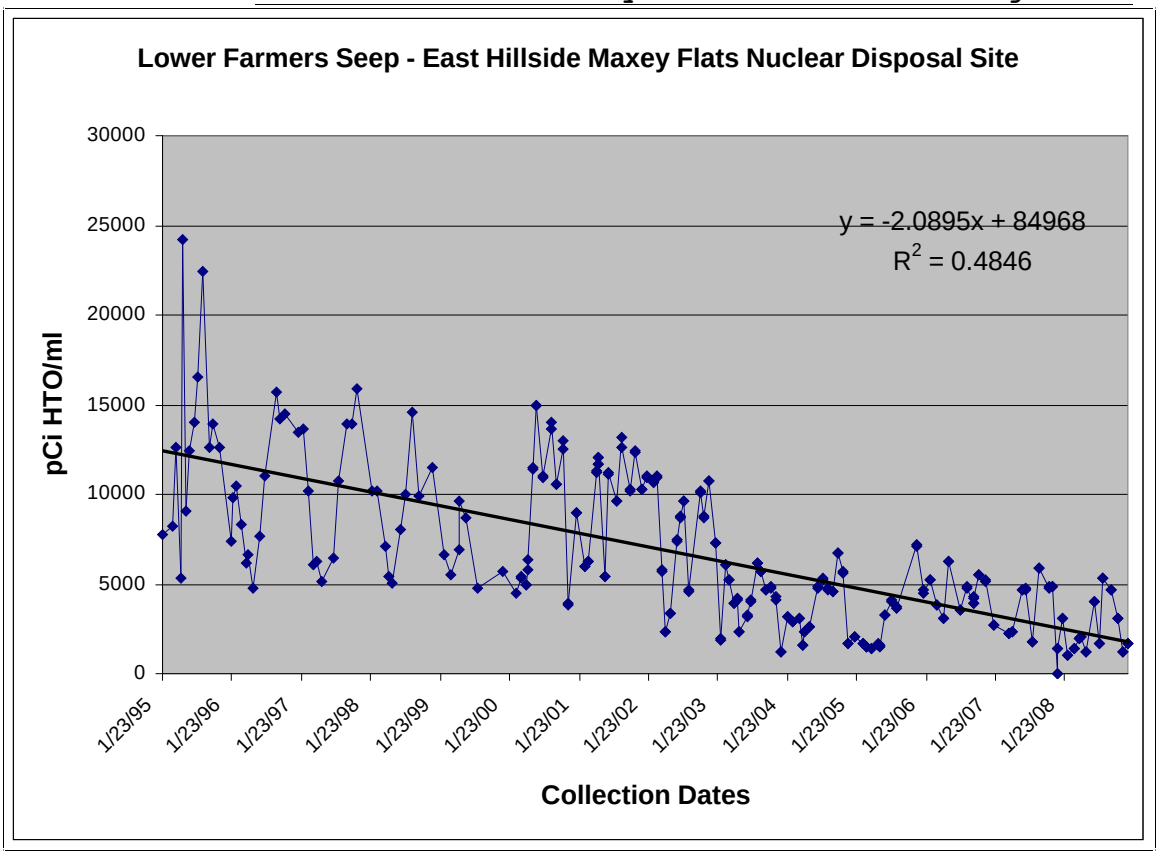


TABLE 1-9. HTO Activity in Water at Location 113 – East Drainage Channel

Year	Annual Average (pCi/ml)	Range	
		Lower (pCi/ml)	Upper (pCi/ml)
2008	90.2	1.54	288
2007	135	0.2	535
2006	126	34	308
2005	106	58	290
2004	153	28	237
2003	84	10	258
2002	64	7	178

With the addition of the buffer zone acquired during the Initial Remedial Phase location 144 is no longer the point of compliance for comparison to the 25 mrem/yr dose standard in 902 KAR 100:022. However, radiation doses will continue to be calculated at location 144 in order to assess long-term statistical trends.

The dose assessment at location 144 for HTO assumes: 1) sufficient surface water is available at or one mile within the new site boundary; 2) a person resides at the location for 365 days a year; and 3) a person consumes 2 liters of water per day.

Based on these hypothetical assumptions, a person consuming surface water at 35 pCi HTO/ml would receive an annual radiation dose from tritium of 1.6 millirem/year (mrem/yr). The hypothetical annual dose at location 144 would be 6.4 % of the 25 mrem/yr dose limit for the site boundary established by 902 KAR 100:022, Section 18. The annual dose for tritium was calculated using the RESRAD-BASELINE computer code (ARGONNE NATIONAL LABORATORY).

The new site boundary requires calculation of the potential dose to a receptor at location 102. This location is immediately outside of the new site boundary on Rock Lick Creek. Samples were collected at location 102 with a sequential sampler. The average annual CY 2008 HTO activity at location 102 was 0.7 pCi/ml. Assuming surface water with an average HTO activity of 0.7 pCi/ml could be used as a drinking water source, an individual consuming 730 liters of water 365 days a year would receive an annual radiation dose of 0.03 mrem/yr from HTO. The annual radiation dose from HTO at location 102 is 0.16% of the 25 mrem/yr dose limit established by 902 KAR 100:022, Section 18 for the site boundary. The annual dose for tritium was calculated using the RESRAD-BASELINE computer code (ARGONNE NATIONAL LABORATORY).

The 1.6 mrem/year radiation dose from HTO for an individual drinking surface water at the old site boundary, location 144, in the East Main Drainage Channel, one mile upstream of the new site boundary, would result in a risk of 3.7×10^{-5} (from Risk/Dose Conversion Factors) and 5.5×10^{-5} (from Slope Factors). However, the East Main Drainage Channel is not a perennial stream and it is no longer the point of compliance. It is also unlikely that sufficient water would be present to provide 2.0 liters of drinking water for an individual 365 days per year. The level for cancer risk was calculated using the RESRAD-BASELINE computer code (ARGONNE NATIONAL LABORAORY).

The 0.03 mrem/year radiation dose from HTO for an individual drinking surface water at Rock Lick Creek location 102, outside of the new site boundary, would result in a risk of 7.5×10^{-7} (from Risk/Dose Conversion Factors) and 1.1×10^{-6} (from Slope Factors). The level for total cancer risk at location 102 was calculated using the RESRAD-BASELINE computer code (ARGONNE NATIONAL LABORAORY).

The release of elevated levels of HTO within the site boundary remains a significant long-term concern considering the potential for erosion on the east and west hillsides. Efforts were made during the Initial Remedial Phase to minimize both the release of radionuclides from the trenches and the potential for impacts by erosion of the hillslopes surrounding the disposal trenches. Analysis of CY 2008 data indicates release of

radionuclides from the disposal trenches continues subsequent to the Initial Remedial Phase activities. Based on analysis of CY 2008 data, it is essential that sufficient monitoring be conducted to continue the evaluation of the effectiveness of the Initial Remedial Phase and to determine the potential for impacts on public health.

The International Commission on Radiation Protection (ICRP) proposed use of the effective dose (H_T) as a primary radiation protection standard and Annual Limit of Intake (ALI) as a secondary standard (ICRP Publication 30) for radiation protection. These limits have been adopted by the National Council on Radiation Protection and Measurements (NCRP, Report No. 91). NCRP Report No. 91 also recommends a Negligible Individual Risk Limit (NIRL) of 1 mrem/year. The NIRL is the level of average excess fatal health risk from radiation exposure from any individual source or practice below which further effort to reduce individual exposure is unwarranted.

In 2007 the Radiation Health Branch reduced sampling at grab sample locations surrounding the Maxey Flats Nuclear Disposal Site to once every other month. This schedule was continued in 2008. This action was supported by an assessment of the previous 11 years of data collected at the MFNDS by the RHB. It was determined ISCO samplers would provide sufficient samples and data for the assessment of continued releases of residual radioactive material on public health.

The REMS continues to maintain sufficient monitoring locations and collects samples at a more than adequate frequency for assessing impacts of continued releases from the disposal trench on the East Main Drain Hillside and in the East Main Drainage Channel. The sample locations and frequency needs to be maintained in order to assess present and future impacts of contaminant movement to locations within the new site boundary and to locations outside of the new site boundary. Sampling frequency allows for remedial actions to be planned and implemented and to address increases in radionuclide activity, if necessary. The REMS also has sufficient monitoring locations on the west hillside to continue to effectively monitor releases from the disposal trenches to Wash 107 and Drip Springs Creek.

Conclusions

On the basis of the data generated by the Radiation Health Branch, Department for Public Health, Cabinet for Health and Family Services during CY 2008, the MFNDS does not presently pose a threat to public health.

Analyses of water from monitoring wells, seeps, and surface water locations indicate that ex-filtration of leachate from the trenches continues to occur at the MFNDS. The Initial Remedial

Phase of the Superfund remediation has been completed and certified by the U.S. Environmental Protection Agency. EPA states in the *Five-Year Review Report (Second Five-Year Report) for the Maxey Flats Disposal Site Fleming County, Kentucky, United States Environmental Protection Agency – Region 2, Atlanta, Georgia, September 2007* (page 35) that "Remedial action objectives for the Site are being met. The continued release of contaminants to bedrock, groundwater, sediment, and surface water has been mitigated.". **Assessment of CY2008 data provides unequivocal evidence to the contrary. Clearly, release of radionuclides to bedrock, groundwater, surface water, and sediment have not been mitigated by the Initial Remedial Phase at the Maxey Flats Disposal Site**.

The activity of HTO and radionuclides in at the perimeter of the Restricted Area were not mitigated by the Initial Remedial Phase and continue to occur. To fully appreciate the present evaluation of water infiltration/ex-filtration problems at MFNDS and the continuing release of radionuclides, it must be stressed that the existing evaluation of site conditions encompasses a snapshot in time compared to the 200 year duration of the remedial action and institutional control required by the Federal Court Ordered Consent Decree.

APPENDICES

APPENDIX 1. Surface Water Summary Data.

Mean HTO, Gross Alpha, Gross Beta Activity for 2008
in Off-Site Surface Water at the Maxey Flats Disposal Site

Location	Mean HTO (pCi/ml)	Mean Gross Beta Activity (pCi/liter)	Mean Gross Alpha Activity (pCi/liter)
101	-0.1	5.1	0.8
102	0.7	2.1	0.4
102QC	0.7	1.9	0.2
103	0.3	2.6	0.5
143	0.2	1.0	-0.08
PDSKG	0.05	6.3	4.5
106	3.4	1.2	0.3
107	1.1	1.3	1.0
N107	0.8	0.5	0.2
108	0.5	3.8	0.3
112	0.1	1.5	-0.5
113	82	1.5	0.4
144	35	0.9	0.7
119	0.1	1.4	-0.1
121	0.1	2.1	-0.01
122	0.1	1.5	0.2
124	0.2	0.4	0.2
130	0.1	0.9	0.5
132	0.1	0.4	0.5
145	0.8	2.7	0.7
136	0.07	3.6	3.2
142	0.6	3.3	3.6

Mean HTO Activity in Surface Water at Location 113 and East Pond Outlet

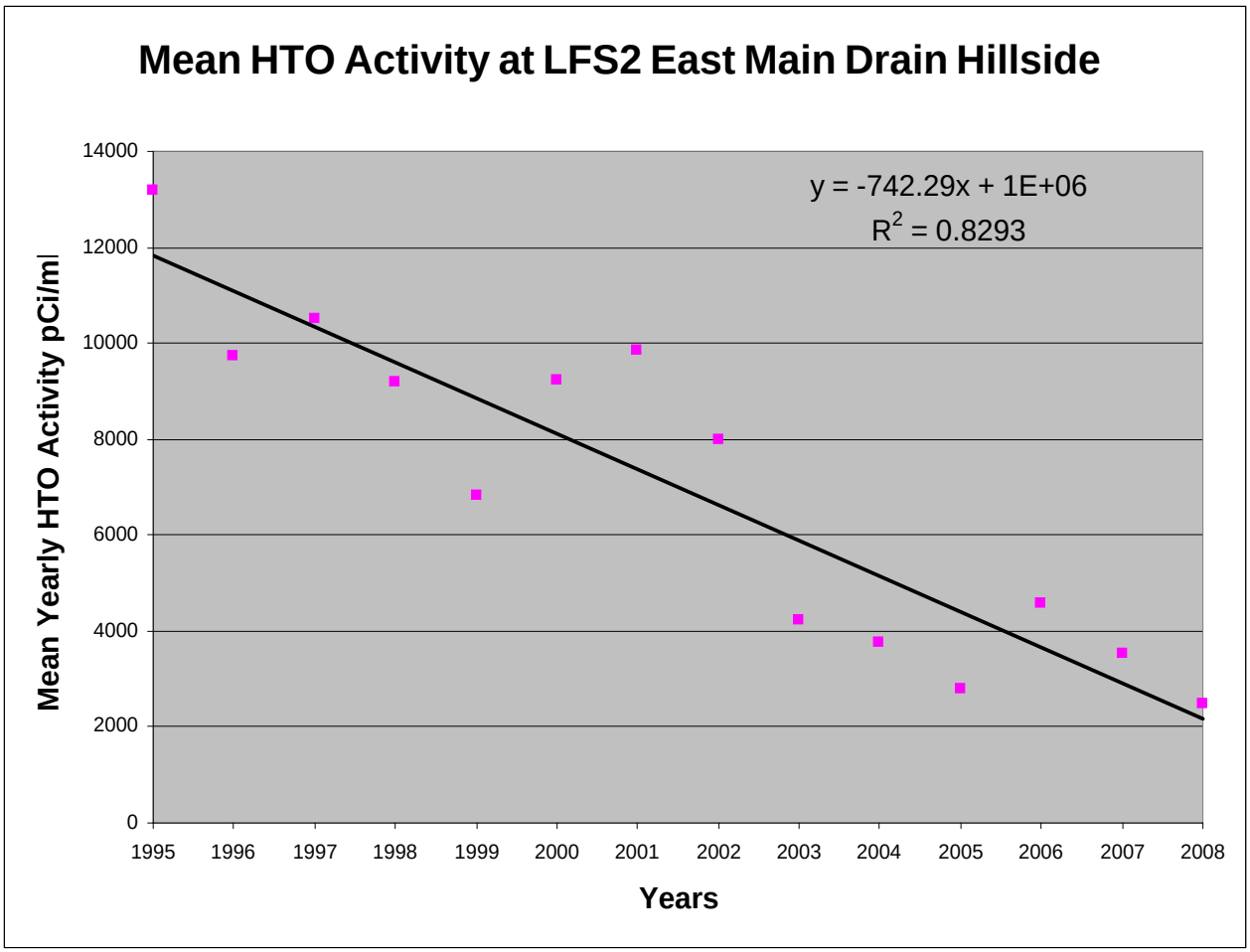
Location 113			East Pond Outlet		
Collection Date	pCi HTO/ml	CU	Collection Date	pCi HTO/ml	CU
1/7/08	103	0.7			
1/7/08	102	0.7			
2/7/08	25	0.3	2/7/08	0.2	0.09
2/7/08	26	0.4	2/7/08	0.1	0.09
3/11/08	98	0.7			
3/11/08	98	0.7			
4/8/08	165	0.9	4/8/08	0.8	0.1
4/8/08	166	0.9	4/8/08	0.7	0.1
5/13/08	157	0.9			
5/12/08	161	0.9			
6/26/08	157	0.9			
6/26/08	155	0.9			
7/23/08	1.2	0.1			
7/23/08	1.0	0.1			
8/12/08	75	0.6			
8/12/08	77	0.6			
9/23//08	54	0.5			
9/23/08	58	0.6			
10/30/08	37	0.4			
10/30/08	37	0.4			
11/21/08	26	0.4			
11/21/08	26	0.4			
12/18/08	76	0.7	12/18/08	1.2	0.1
12/18/08	76	0.6	12/18/08	1.2	0.1

Strontium-90 (^{90}Sr) data for East Main Drain Seeps CY 2008.

Strontium-90 Analysis of Water Samples Collected at the Maxey Flats Nuclear Disposal Site on April 17, 2008.

Location	^{90}Sr pCi/liter	CU*
UFS1	***-1.3***	6.7
LFS2	***-6.6***	4.7
EMR1	***-7.7***	4.3
EMR3	***-7.9***	2.6
EMR5	***-5.7***	2.2
EML2	***-7.7***	2.5
EML4	***-3.0***	2.5

Bold Italics = Reported Values Below MDA; *CU=Counting Uncertainty


Mean HTO Activity at LFS2 East Main Drain Hillside
y = -742.29x + 1E+06
R2 = 0.8293
Mean Yearly HTO Activity pCi/ml
14000
12000
10000
8000
6000
4000
2000
0
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
Years

Mean tritiated Water (HTO), Beta and Alpha Activity in
Wash from South Drain of 33L at Maxey Flats Waste Disposal Site and Drip Springs Creek for 2008

Location	pCi HTO/ml	Beta Act. (pCi/l)	Alpha Act. (pCi/l)
NCW114	1.0	2.2	0.8
SCW114	1.0	2.0	-0.3
NCW145	0.9	3.3	0.08

Mean Tritiated Water (HTO), Beta and Alpha Activity in
Wash 107 at Maxey Flats Waste Disposal Site and Drip Springs Creek for 2008

Location	pCi HTO/ml	Beta Act. (pCi/l)	Alpha Act. (pCi/l)
J107	0.12	0.2	-0.2
I107	0.1	0.6	0.0
H107	0.06	0.2	-0.2
G107	28.6	0.6	-1.2
F107	22.8	0.3	-0.4
E107	16.5	-0.02	0.03
D107	8.8	1.6	0.2
C107	8.0	1.2	0.6
W7atRd	4.9	1.0	0.5
B107	6.2	0.6	0.9
LGRA	0.08	-0.8	-2.9

Mean Tritiated Water Activity (HTO) in Wash 107 Before, During, and After The Initial Remedial Phase of the Maxey Flat Disposal Site Superfund Action

Year	Locations		
	F107 (pCi/ml)	G107 (pCi/ml)	I107 (pCi/ml)
2008	22.8	28.6	0.1
2007	15.7	18.7	0.1
2006	11.6	14.5	0.1
2005	29.0	28.0	0.2
2004	22.6	24.8	0.1
2003	9.8	10.2	0.5
2002	16.0	20.6	3.9
2001	30.0	19.2	12.7
2000	299.0	82.9	301.0
1999	408.0	331.0	396.0
1998	17.5	14.9	70.8
1997	33.1	13.2	NC
1996	18.6	24.2	10.8
1995	7.0	6.0	2.9

NC = Not collected.

Tritiated Water (HTO), Beta and Alpha Activity in South Drainage Channel
For 2008 at the Bottom of the Farmers (BF143)

Collection Date	HTO (pCi/ml)	CU	Beta Activity (pCi/l)	CU	Alpha Activity (pCi/l)	CU
2/7/08	0.06	.0.09	3.8	1.5	1.2	1.2
2/7/08	0.007	0.09				
4/8/08	0.2	0.1	-1.3	1.6	1.1	1.1
4/8/08	0.1	0.1				
12/18/08	0.1	0.1	4.7	1.4	1.4	0.9
12/18/08	0.1	0.1				

Mean tritiated Water (HTO), Beta and Alpha Activity
from Public Water Supply at Hillsboro, Kentucky for 2004

Location	pCi HTO/ml	Beta Activity (pCi/L)	Alpha Activity (pCi/L) West
Fleming Water District	0.1	-0.9	-0.3

APPENDIX 2. Groundwater Summary Data

Tritiated Water (HTO) Mean Activity for 2008
in U-Wells at Maxey Flats Disposal Site

Location	Mean pCi HTO/ml
UE-2	324000
UK-1	214000
N2B	134000
UF2	195000
UF10a	34900

APPENDIX 3. ISCO Surface-water Data

Data Qualifiers for ISCO Surface-water Data

"=" – Validated Laboratory Result
"U" – Reported Value Below Minimum Detectable Concentration or Error > 50% of Reported Value
"R" – Results Rejected because Relative Percent Difference between duplicate samples is > 15%
CU = Counting Uncertainty

ISCO 102 HTO Activity for 2008

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
1-Jan-08	HTO	0.78	0.11	0.31	=
1-Jan-08	HTO	0.86	0.11	0.31	=
2-Jan-08	HTO	0.65	0.11	0.31	=
2-Jan-08	HTO	0.69	0.11	0.31	=
8-Jan-08	HTO	0.59	0.11	0.32	=
8-Jan-08	HTO	0.73	0.11	0.32	=
9-Jan-08	HTO	0.66	0.11	0.32	=
9-Jan-08	HTO	0.73	0.11	0.32	=
10-Jan-08	HTO	0.53	0.11	0.32	=
10-Jan-08	HTO	0.75	0.11	0.32	=
11-Jan-08	HTO	0.37	0.10	0.32	=
11-Jan-08	HTO	0.46	0.11	0.32	=
14-Jan-08	HTO	0.65	0.11	0.32	=
14-Jan-08	HTO	0.75	0.11	0.32	=
15-Jan-08	HTO	0.65	0.11	0.32	=
15-Jan-08	HTO	0.74	0.11	0.32	=
16-Jan-08	HTO	0.54	0.11	0.32	=
16-Jan-08	HTO	0.57	0.11	0.32	=
17-Jan-08	HTO	0.37	0.10	0.32	=
17-Jan-08	HTO	0.46	0.11	0.32	=
18-Jan-08	HTO	1.13	0.12	0.32	=
18-Jan-08	HTO	1.15	0.12	0.32	=
20-Jan-08	HTO	0.82	0.11	0.32	=
20-Jan-08	HTO	0.83	0.11	0.32	=
21-Jan-08	HTO	0.60	0.11	0.32	=
21-Jan-08	HTO	0.62	0.11	0.32	=
22-Jan-08	HTO	0.64	0.11	0.32	=
22-Jan-08	HTO	0.78	0.11	0.32	=
23-Jan-08	HTO	0.42	0.11	0.32	=
23-Jan-08	HTO	0.53	0.11	0.32	=
25-Jan-08	HTO	0.90	0.12	0.32	=
25-Jan-08	HTO	1.02	0.12	0.32	=
26-Jan-08	HTO	0.77	0.11	0.32	=
26-Jan-08	HTO	0.89	0.11	0.32	=
27-Jan-08	HTO	0.52	0.11	0.32	=
27-Jan-08	HTO	0.68	0.11	0.32	=
28-Jan-08	HTO	0.83	0.11	0.32	=
28-Jan-08	HTO	0.86	0.11	0.32	=
29-Jan-08	HTO	0.85	0.11	0.31	=
29-Jan-08	HTO	0.87	0.11	0.31	=
30-Jan-08	HTO	0.71	0.11	0.31	=
30-Jan-08	HTO	0.78	0.11	0.31	=
31-Jan-08	HTO	0.80	0.11	0.31	=
31-Jan-08	HTO	0.82	0.11	0.31	=
1-Feb-08	HTO	0.69	0.11	0.31	=
1-Feb-08	HTO	0.86	0.11	0.31	=
2-Feb-08	HTO	0.32	0.11	0.33	U
2-Feb-08	HTO	0.56	0.11	0.33	=
3-Feb-08	HTO	0.47	0.11	0.33	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
3-Feb-08	HTO	0.57	0.11	0.33	=
4-Feb-08	HTO	0.64	0.11	0.31	=
4-Feb-08	HTO	0.72	0.11	0.31	=
5-Feb-08	HTO	0.44	0.11	0.33	=
5-Feb-08	HTO	0.63	0.11	0.33	=
6-Feb-08	HTO	0.42	0.10	0.31	=
6-Feb-08	HTO	0.49	0.10	0.31	=
7-Feb-08	HTO	0.48	0.10	0.31	=
7-Feb-08	HTO	0.53	0.10	0.31	=
8-Feb-08	HTO	0.66	0.11	0.31	=
8-Feb-08	HTO	0.73	0.11	0.31	=
9-Feb-08	HTO	0.55	0.10	0.31	=
9-Feb-08	HTO	0.63	0.11	0.31	=
10-Feb-08	HTO	0.59	0.11	0.31	=
10-Feb-08	HTO	0.68	0.11	0.31	=
11-Feb-08	HTO	0.50	0.10	0.31	=
11-Feb-08	HTO	0.56	0.10	0.31	=
12-Feb-08	HTO	0.61	0.11	0.31	=
12-Feb-08	HTO	0.73	0.11	0.31	=
13-Feb-08	HTO	0.67	0.11	0.31	=
13-Feb-08	HTO	0.76	0.11	0.31	=
14-Feb-08	HTO	0.59	0.11	0.31	=
14-Feb-08	HTO	0.68	0.11	0.31	=
15-Feb-08	HTO	0.81	0.11	0.31	=
15-Feb-08	HTO	0.96	0.11	0.31	=
16-Feb-08	HTO	0.68	0.11	0.31	=
16-Feb-08	HTO	0.75	0.11	0.31	=
17-Feb-08	HTO	0.62	0.11	0.31	=
17-Feb-08	HTO	0.73	0.11	0.31	=
18-Feb-08	HTO	0.68	0.11	0.31	=
18-Feb-08	HTO	0.87	0.11	0.31	=
19-Feb-08	HTO	0.55	0.10	0.31	=
19-Feb-08	HTO	0.69	0.11	0.31	=
20-Feb-08	HTO	0.46	0.11	0.33	=
20-Feb-08	HTO	0.54	0.11	0.33	=
22-Feb-08	HTO	0.45	0.11	0.32	=
22-Feb-08	HTO	0.54	0.11	0.32	=
23-Feb-08	HTO	0.67	0.11	0.32	=
23-Feb-08	HTO	0.83	0.12	0.32	=
24-Feb-08	HTO	0.74	0.12	0.33	=
24-Feb-08	HTO	0.95	0.12	0.33	=
25-Feb-08	HTO	0.78	0.12	0.33	=
25-Feb-08	HTO	0.86	0.12	0.33	=
26-Feb-08	HTO	0.72	0.12	0.33	=
26-Feb-08	HTO	0.75	0.12	0.33	=
27-Feb-08	HTO	0.70	0.12	0.33	=
27-Feb-08	HTO	0.75	0.12	0.33	=
28-Feb-08	HTO	0.80	0.12	0.33	=
28-Feb-08	HTO	0.86	0.12	0.33	=
29-Feb-08	HTO	0.77	0.12	0.33	=
29-Feb-08	HTO	0.80	0.12	0.33	=
1-Mar-08	HTO	0.60	0.11	0.33	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
1-Mar-08	HTO	0.75	0.12	0.33	=
2-Mar-08	HTO	0.68	0.12	0.33	=
2-Mar-08	HTO	0.77	0.12	0.33	=
3-Mar-08	HTO	0.66	0.12	0.33	=
3-Mar-08	HTO	0.76	0.12	0.33	=
4-Mar-08	HTO	0.66	0.12	0.33	=
4-Mar-08	HTO	0.78	0.12	0.33	=
5-Mar-08	HTO	0.62	0.11	0.33	=
5-Mar-08	HTO	0.78	0.12	0.33	=
6-Mar-08	HTO	0.74	0.12	0.33	=
6-Mar-08	HTO	0.90	0.12	0.33	=
7-Mar-08	HTO	0.57	0.11	0.33	=
7-Mar-08	HTO	0.61	0.11	0.33	=
8-Mar-08	HTO	0.55	0.11	0.33	=
9-Mar-08	HTO	1.37	0.13	0.33	=
9-Mar-08	HTO	1.45	0.13	0.33	=
10-Mar-08	HTO	0.49	0.11	0.33	=
10-Mar-08	HTO	0.58	0.11	0.33	=
11-Mar-08	HTO	0.65	0.12	0.33	=
11-Mar-08	HTO	0.78	0.12	0.33	=
12-Mar-08	HTO	0.73	0.11	0.30	=
12-Mar-08	HTO	0.77	0.11	0.30	=
13-Mar-08	HTO	0.92	0.11	0.30	=
13-Mar-08	HTO	0.94	0.11	0.30	=
14-Mar-08	HTO	0.70	0.11	0.30	=
14-Mar-08	HTO	0.80	0.11	0.30	=
15-Mar-08	HTO	0.72	0.11	0.30	=
15-Mar-08	HTO	0.81	0.11	0.30	=
16-Mar-08	HTO	0.74	0.11	0.30	=
16-Mar-08	HTO	0.82	0.11	0.30	=
17-Mar-08	HTO	0.64	0.11	0.30	=
17-Mar-08	HTO	0.66	0.11	0.30	=
18-Mar-08	HTO	0.57	0.10	0.30	=
18-Mar-08	HTO	0.77	0.11	0.30	=
19-Mar-08	HTO	0.84	0.11	0.30	=
19-Mar-08	HTO	0.88	0.11	0.30	=
20-Mar-08	HTO	0.58	0.11	0.30	=
20-Mar-08	HTO	0.64	0.11	0.30	=
21-Mar-08	HTO	0.60	0.11	0.30	=
21-Mar-08	HTO	0.63	0.11	0.30	=
22-Mar-08	HTO	0.68	0.11	0.30	=
22-Mar-08	HTO	0.73	0.11	0.30	=
23-Mar-08	HTO	0.62	0.11	0.30	=
23-Mar-08	HTO	0.79	0.11	0.30	=
24-Mar-08	HTO	0.63	0.11	0.30	=
24-Mar-08	HTO	0.70	0.11	0.30	=
25-Mar-08	HTO	0.51	0.10	0.30	=
25-Mar-08	HTO	0.55	0.10	0.30	=
26-Mar-08	HTO	0.46	0.10	0.30	=
26-Mar-08	HTO	0.66	0.11	0.30	=
27-Mar-08	HTO	0.79	0.11	0.30	=
27-Mar-08	HTO	0.96	0.11	0.30	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
28-Mar-08	HTO	0.69	0.11	0.30	=
28-Mar-08	HTO	0.71	0.11	0.30	=
29-Mar-08	HTO	0.56	0.10	0.30	=
29-Mar-08	HTO	0.58	0.11	0.30	=
30-Mar-08	HTO	0.50	0.10	0.30	=
30-Mar-08	HTO	0.60	0.11	0.30	=
31-Mar-08	HTO	0.54	0.10	0.30	=
31-Mar-08	HTO	0.65	0.11	0.30	=
1-Apr-08	HTO	0.90	0.11	0.30	=
1-Apr-08	HTO	0.99	0.11	0.30	=
2-Apr-08	HTO	0.58	0.10	0.30	=
2-Apr-08	HTO	0.71	0.11	0.30	=
3-Apr-08	HTO	0.62	0.11	0.30	=
3-Apr-08	HTO	0.65	0.11	0.30	=
4-Apr-08	HTO	0.45	0.10	0.28	=
4-Apr-08	HTO	0.50	0.10	0.28	=
5-Apr-08	HTO	0.43	0.10	0.30	=
5-Apr-08	HTO	0.56	0.10	0.30	=
7-Apr-08	HTO	0.58	0.10	0.30	=
7-Apr-08	HTO	0.74	0.11	0.30	=
8-Apr-08	HTO	0.66	0.11	0.30	=
8-Apr-08	HTO	0.67	0.11	0.30	=
9-Apr-08	HTO	0.50	0.10	0.30	=
9-Apr-08	HTO	0.63	0.11	0.30	=
10-Apr-08	HTO	0.79	0.11	0.30	=
10-Apr-08	HTO	0.80	0.11	0.30	=
11-Apr-08	HTO	0.55	0.10	0.30	=
11-Apr-08	HTO	0.74	0.11	0.30	=
12-Apr-08	HTO	0.71	0.11	0.30	=
12-Apr-08	HTO	0.74	0.11	0.30	=
13-Apr-08	HTO	0.71	0.11	0.30	=
13-Apr-08	HTO	0.78	0.11	0.30	=
14-Apr-08	HTO	0.88	0.11	0.30	=
14-Apr-08	HTO	1.00	0.11	0.30	=
15-Apr-08	HTO	0.69	0.11	0.30	=
15-Apr-08	HTO	0.83	0.11	0.30	=
16-Apr-08	HTO	0.49	0.10	0.30	=
16-Apr-08	HTO	0.59	0.10	0.30	=
17-Apr-08	HTO	0.47	0.10	0.30	=
17-Apr-08	HTO	0.50	0.10	0.30	=
18-Apr-08	HTO	0.46	0.10	0.30	=
18-Apr-08	HTO	0.52	0.10	0.30	=
19-Apr-08	HTO	0.42	0.10	0.30	=
19-Apr-08	HTO	0.57	0.10	0.30	=
20-Apr-08	HTO	1.52	0.12	0.30	=
20-Apr-08	HTO	1.55	0.12	0.30	=
21-Apr-08	HTO	0.76	0.11	0.30	=
21-Apr-08	HTO	0.92	0.11	0.30	=
22-Apr-08	HTO	0.57	0.10	0.30	=
22-Apr-08	HTO	0.75	0.11	0.30	=
23-Apr-08	HTO	0.74	0.11	0.30	=
24-Apr-08	HTO	0.80	0.11	0.30	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
24-Apr-08	HTO	0.87	0.11	0.30	=
26-Apr-08	HTO	1.46	0.12	0.30	=
26-Apr-08	HTO	1.71	0.13	0.30	=
27-Apr-08	HTO	1.55	0.12	0.30	=
27-Apr-08	HTO	1.59	0.12	0.30	=
28-Apr-08	HTO	1.59	0.12	0.30	=
28-Apr-08	HTO	1.74	0.13	0.30	=
29-Apr-08	HTO	1.87	0.13	0.30	=
29-Apr-08	HTO	1.95	0.13	0.30	=
30-Apr-08	HTO	1.55	0.12	0.30	=
30-Apr-08	HTO	1.65	0.13	0.30	=
1-May-08	HTO	0.91	0.11	0.30	=
1-May-08	HTO	1.08	0.12	0.30	=
2-May-08	HTO	0.88	0.11	0.30	=
2-May-08	HTO	0.96	0.11	0.30	=
3-May-08	HTO	1.19	0.12	0.30	=
3-May-08	HTO	1.29	0.12	0.30	=
4-May-08	HTO	1.26	0.12	0.30	=
4-May-08	HTO	1.32	0.12	0.30	=
5-May-08	HTO	1.09	0.12	0.30	=
5-May-08	HTO	1.16	0.12	0.30	=
6-May-08	HTO	0.96	0.11	0.30	=
6-May-08	HTO	1.01	0.11	0.30	=
7-May-08	HTO	0.83	0.11	0.30	=
7-May-08	HTO	1.06	0.11	0.30	=
8-May-08	HTO	0.83	0.11	0.30	=
8-May-08	HTO	0.99	0.11	0.30	=
9-May-08	HTO	1.05	0.11	0.30	=
9-May-08	HTO	1.06	0.11	0.30	=
10-May-08	HTO	0.66	0.11	0.30	=
10-May-08	HTO	0.78	0.11	0.30	=
11-May-08	HTO	0.68	0.11	0.30	=
11-May-08	HTO	0.96	0.11	0.30	=
12-May-08	HTO	0.76	0.11	0.30	=
12-May-08	HTO	0.84	0.11	0.30	=
13-May-08	HTO	0.59	0.11	0.30	=
13-May-08	HTO	0.76	0.11	0.30	=
14-May-08	HTO	0.75	0.11	0.30	=
14-May-08	HTO	0.89	0.11	0.30	=
15-May-08	HTO	1.01	0.11	0.30	=
15-May-08	HTO	1.25	0.12	0.30	=
16-May-08	HTO	1.09	0.12	0.32	=
16-May-08	HTO	1.21	0.12	0.32	=
17-May-08	HTO	0.85	0.12	0.32	=
17-May-08	HTO	1.00	0.12	0.32	=
30-May-08	HTO	1.28	0.13	0.33	=
30-May-08	HTO	1.40	0.13	0.33	=
31-May-08	HTO	0.81	0.12	0.33	=
31-May-08	HTO	0.84	0.12	0.33	=
1-Jun-08	HTO	0.41	0.11	0.33	=
1-Jun-08	HTO	0.53	0.11	0.33	=
2-Jun-08	HTO	0.33	0.11	0.33	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
2-Jun-08	HTO	0.41	0.11	0.33	=
3-Jun-08	HTO	0.42	0.11	0.33	=
3-Jun-08	HTO	0.48	0.11	0.33	=
4-Jun-08	HTO	1.10	0.12	0.33	=
4-Jun-08	HTO	1.28	0.13	0.33	=
5-Jun-08	HTO	0.87	0.12	0.33	=
5-Jun-08	HTO	1.04	0.12	0.33	=
6-Jun-08	HTO	0.76	0.12	0.33	=
6-Jun-08	HTO	0.78	0.12	0.33	=
7-Jun-08	HTO	0.84	0.12	0.33	=
7-Jun-08	HTO	0.92	0.12	0.33	=
8-Jun-08	HTO	0.66	0.11	0.33	=
8-Jun-08	HTO	0.71	0.11	0.33	=
9-Jun-08	HTO	0.51	0.11	0.33	=
9-Jun-08	HTO	0.66	0.11	0.33	=
10-Jun-08	HTO	0.54	0.11	0.33	=
10-Jun-08	HTO	0.61	0.11	0.33	=
11-Jun-08	HTO	1.38	0.13	0.33	=
11-Jun-08	HTO	1.66	0.13	0.33	=
12-Jun-08	HTO	0.82	0.12	0.33	=
12-Jun-08	HTO	0.95	0.12	0.33	=
13-Jun-08	HTO	0.64	0.11	0.31	=
13-Jun-08	HTO	0.76	0.11	0.31	=
14-Jun-08	HTO	0.85	0.12	0.33	=
14-Jun-08	HTO	0.85	0.12	0.33	=
15-Jun-08	HTO	0.41	0.11	0.33	=
15-Jun-08	HTO	0.51	0.11	0.33	=
16-Jun-08	HTO	0.51	0.11	0.33	=
16-Jun-08	HTO	0.60	0.11	0.33	=
17-Jun-08	HTO	0.41	0.11	0.33	=
17-Jun-08	HTO	0.62	0.11	0.33	=
18-Jun-08	HTO	0.45	0.10	0.31	=
18-Jun-08	HTO	0.59	0.11	0.31	=
19-Jun-08	HTO	0.41	0.11	0.33	=
19-Jun-08	HTO	0.54	0.11	0.33	=
20-Jun-08	HTO	0.78	0.11	0.32	=
20-Jun-08	HTO	0.84	0.11	0.32	=
21-Jun-08	HTO	0.85	0.12	0.32	=
21-Jun-08	HTO	0.90	0.12	0.32	=
22-Jun-08	HTO	0.65	0.11	0.32	=
22-Jun-08	HTO	0.76	0.11	0.32	=
23-Jun-08	HTO	0.85	0.12	0.32	=
23-Jun-08	HTO	0.99	0.12	0.32	=
24-Jun-08	HTO	0.82	0.11	0.30	=
24-Jun-08	HTO	0.92	0.11	0.30	=
25-Jun-08	HTO	0.65	0.11	0.32	=
25-Jun-08	HTO	0.85	0.12	0.32	=
26-Jun-08	HTO	0.78	0.11	0.32	=
26-Jun-08	HTO	0.87	0.12	0.32	=
27-Jun-08	HTO	0.72	0.11	0.32	=
27-Jun-08	HTO	0.76	0.11	0.32	=
28-Jun-08	HTO	0.59	0.11	0.32	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
28-Jun-08	HTO	0.59	0.11	0.32	=
29-Jun-08	HTO	0.85	0.12	0.32	=
29-Jun-08	HTO	0.95	0.12	0.32	=
30-Jun-08	HTO	0.70	0.11	0.32	=
30-Jun-08	HTO	0.71	0.11	0.32	=
1-Jul-08	HTO	0.75	0.11	0.32	=
1-Jul-08	HTO	0.79	0.11	0.32	=
2-Jul-08	HTO	0.66	0.11	0.32	=
2-Jul-08	HTO	0.72	0.11	0.32	=
3-Jul-08	HTO	0.67	0.11	0.32	=
3-Jul-08	HTO	0.74	0.11	0.32	=
4-Jul-08	HTO	0.66	0.11	0.32	=
4-Jul-08	HTO	0.71	0.11	0.32	=
5-Jul-08	HTO	1.17	0.12	0.32	=
5-Jul-08	HTO	1.38	0.13	0.32	=
6-Jul-08	HTO	0.94	0.12	0.32	=
6-Jul-08	HTO	1.06	0.12	0.32	=
7-Jul-08	HTO	0.84	0.11	0.32	=
7-Jul-08	HTO	1.03	0.12	0.32	=
8-Jul-08	HTO	1.09	0.12	0.32	=
8-Jul-08	HTO	1.13	0.12	0.32	=
9-Jul-08	HTO	0.97	0.12	0.32	=
9-Jul-08	HTO	1.10	0.12	0.32	=
10-Jul-08	HTO	0.79	0.11	0.32	=
10-Jul-08	HTO	1.00	0.12	0.32	=
11-Jul-08	HTO	1.16	0.12	0.31	=
11-Jul-08	HTO	1.30	0.12	0.31	=
12-Jul-08	HTO	0.81	0.11	0.31	=
12-Jul-08	HTO	0.85	0.11	0.31	=
13-Jul-08	HTO	1.16	0.12	0.31	=
13-Jul-08	HTO	1.22	0.12	0.31	=
14-Jul-08	HTO	0.94	0.12	0.31	=
14-Jul-08	HTO	1.02	0.12	0.31	=
15-Jul-08	HTO	1.82	0.13	0.31	=
15-Jul-08	HTO	1.93	0.13	0.31	=
16-Jul-08	HTO	0.86	0.11	0.30	=
16-Jul-08	HTO	0.96	0.11	0.30	=
17-Jul-08	HTO	0.80	0.11	0.31	=
17-Jul-08	HTO	0.82	0.11	0.31	=
18-Jul-08	HTO	0.78	0.11	0.31	=
18-Jul-08	HTO	0.83	0.11	0.31	=
19-Jul-08	HTO	0.84	0.11	0.31	=
19-Jul-08	HTO	0.94	0.12	0.31	=
20-Jul-08	HTO	0.62	0.10	0.30	=
20-Jul-08	HTO	0.72	0.11	0.30	=
21-Jul-08	HTO	0.75	0.11	0.30	=
21-Jul-08	HTO	0.83	0.11	0.30	=
22-Jul-08	HTO	0.77	0.11	0.31	=
22-Jul-08	HTO	0.87	0.11	0.31	=
23-Jul-08	HTO	0.77	0.11	0.31	=
23-Jul-08	HTO	0.85	0.11	0.31	=
24-Jul-08	HTO	0.78	0.11	0.31	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
24-Jul-08	HTO	0.97	0.12	0.31	=
25-Jul-08	HTO	0.83	0.11	0.31	=
25-Jul-08	HTO	0.97	0.12	0.31	=
26-Jul-08	HTO	1.07	0.12	0.31	=
26-Jul-08	HTO	1.17	0.12	0.31	=
27-Jul-08	HTO	0.82	0.11	0.31	=
27-Jul-08	HTO	0.84	0.11	0.31	=
28-Jul-08	HTO	0.92	0.12	0.31	=
28-Jul-08	HTO	0.94	0.12	0.31	=
29-Jul-08	HTO	0.75	0.11	0.31	=
29-Jul-08	HTO	0.96	0.12	0.31	=
30-Jul-08	HTO	0.72	0.11	0.31	=
30-Jul-08	HTO	0.84	0.11	0.31	=
31-Jul-08	HTO	0.95	0.11	0.30	=
31-Jul-08	HTO	1.11	0.12	0.30	=
1-Aug-08	HTO	1.07	0.12	0.30	=
1-Aug-08	HTO	1.09	0.12	0.30	=
2-Aug-08	HTO	0.84	0.11	0.30	=
2-Aug-08	HTO	0.85	0.11	0.30	=
3-Aug-08	HTO	0.72	0.11	0.30	=
3-Aug-08	HTO	0.76	0.11	0.30	=
4-Aug-08	HTO	0.74	0.11	0.30	=
4-Aug-08	HTO	0.87	0.11	0.30	=
5-Aug-08	HTO	0.57	0.10	0.30	=
5-Aug-08	HTO	0.70	0.11	0.30	=
6-Aug-08	HTO	0.96	0.11	0.30	=
6-Aug-08	HTO	0.99	0.11	0.30	=
7-Aug-08	HTO	0.67	0.11	0.30	=
7-Aug-08	HTO	0.74	0.11	0.30	=
8-Aug-08	HTO	0.79	0.11	0.30	=
8-Aug-08	HTO	0.89	0.11	0.30	=
9-Aug-08	HTO	0.71	0.11	0.30	=
9-Aug-08	HTO	0.77	0.11	0.30	=
10-Aug-08	HTO	0.69	0.11	0.30	=
10-Aug-08	HTO	0.89	0.11	0.30	=
11-Aug-08	HTO	0.70	0.11	0.30	=
11-Aug-08	HTO	0.81	0.11	0.30	=
12-Aug-08	HTO	0.68	0.11	0.30	=
12-Aug-08	HTO	0.75	0.11	0.30	=
13-Aug-08	HTO	0.85	0.11	0.30	=
13-Aug-08	HTO	0.97	0.11	0.30	=
14-Aug-08	HTO	0.76	0.11	0.30	=
14-Aug-08	HTO	0.81	0.11	0.30	=
15-Aug-08	HTO	0.73	0.11	0.30	=
15-Aug-08	HTO	0.86	0.11	0.30	=
16-Aug-08	HTO	0.57	0.10	0.30	=
16-Aug-08	HTO	0.69	0.11	0.30	=
17-Aug-08	HTO	0.67	0.11	0.30	=
17-Aug-08	HTO	0.72	0.11	0.30	=
18-Aug-08	HTO	0.65	0.11	0.30	=
18-Aug-08	HTO	0.80	0.11	0.30	=
19-Aug-08	HTO	0.70	0.11	0.30	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
19-Aug-08	HTO	0.88	0.11	0.30	=
20-Aug-08	HTO	0.82	0.11	0.30	=
20-Aug-08	HTO	0.82	0.11	0.30	=
21-Aug-08	HTO	0.71	0.11	0.30	=
21-Aug-08	HTO	0.78	0.11	0.30	=
22-Aug-08	HTO	0.57	0.11	0.30	=
22-Aug-08	HTO	0.66	0.11	0.30	=
23-Aug-08	HTO	0.60	0.11	0.30	=
23-Aug-08	HTO	0.62	0.11	0.30	=
24-Aug-08	HTO	0.58	0.11	0.30	=
24-Aug-08	HTO	0.77	0.11	0.30	=
25-Aug-08	HTO	0.66	0.11	0.30	=
25-Aug-08	HTO	0.69	0.11	0.30	=
26-Aug-08	HTO	0.80	0.11	0.30	=
26-Aug-08	HTO	0.82	0.11	0.30	=
27-Aug-08	HTO	0.69	0.11	0.30	=
27-Aug-08	HTO	0.86	0.11	0.30	=
28-Aug-08	HTO	0.68	0.11	0.30	=
28-Aug-08	HTO	0.80	0.11	0.30	=
29-Aug-08	HTO	0.61	0.10	0.30	=
29-Aug-08	HTO	0.69	0.11	0.30	=
30-Aug-08	HTO	0.61	0.11	0.30	=
30-Aug-08	HTO	0.70	0.11	0.30	=
31-Aug-08	HTO	0.45	0.10	0.30	=
31-Aug-08	HTO	0.57	0.10	0.30	=
1-Sep-08	HTO	0.74	0.11	0.30	=
1-Sep-08	HTO	0.80	0.11	0.30	=
2-Sep-08	HTO	0.61	0.11	0.30	=
2-Sep-08	HTO	0.71	0.11	0.30	=
3-Sep-08	HTO	0.55	0.10	0.30	=
3-Sep-08	HTO	0.73	0.11	0.30	=
4-Sep-08	HTO	0.51	0.10	0.30	=
4-Sep-08	HTO	0.55	0.10	0.30	=
5-Sep-08	HTO	0.57	0.11	0.31	=
5-Sep-08	HTO	0.65	0.11	0.31	=
6-Sep-08	HTO	0.48	0.11	0.31	=
6-Sep-08	HTO	0.59	0.11	0.31	=
7-Sep-08	HTO	0.56	0.11	0.31	=
7-Sep-08	HTO	0.71	0.11	0.31	=
8-Sep-08	HTO	0.45	0.10	0.31	=
8-Sep-08	HTO	0.60	0.11	0.31	=
9-Sep-08	HTO	0.54	0.11	0.31	=
9-Sep-08	HTO	0.66	0.11	0.31	=
10-Sep-08	HTO	0.49	0.11	0.31	=
10-Sep-08	HTO	0.57	0.11	0.31	=
11-Sep-08	HTO	0.53	0.11	0.31	=
11-Sep-08	HTO	0.62	0.11	0.31	=
12-Sep-08	HTO	0.38	0.10	0.31	=
12-Sep-08	HTO	0.40	0.10	0.31	=
13-Sep-08	HTO	0.42	0.10	0.31	=
13-Sep-08	HTO	0.47	0.11	0.31	=
14-Sep-08	HTO	0.30	0.10	0.31	U

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
14-Sep-08	HTO	0.36	0.10	0.31	=
15-Sep-08	HTO	0.46	0.10	0.31	=
15-Sep-08	HTO	0.48	0.11	0.31	=
16-Sep-08	HTO	0.31	0.10	0.31	=
16-Sep-08	HTO	0.48	0.11	0.31	=
17-Sep-08	HTO	0.29	0.10	0.31	U
17-Sep-08	HTO	0.37	0.10	0.31	=
18-Sep-08	HTO	0.29	0.10	0.31	U
18-Sep-08	HTO	0.37	0.10	0.31	=
19-Sep-08	HTO	0.34	0.10	0.31	=
19-Sep-08	HTO	0.50	0.11	0.31	=
20-Sep-08	HTO	0.40	0.10	0.31	=
20-Sep-08	HTO	0.43	0.10	0.31	=
21-Sep-08	HTO	0.41	0.10	0.31	=
21-Sep-08	HTO	0.47	0.11	0.31	=
22-Sep-08	HTO	0.31	0.10	0.31	U
22-Sep-08	HTO	0.44	0.10	0.31	=
23-Sep-08	HTO	0.34	0.10	0.31	=
23-Sep-08	HTO	0.35	0.10	0.31	=
24-Sep-08	HTO	0.13	0.10	0.33	U
24-Sep-08	HTO	0.17	0.10	0.33	U
25-Sep-08	HTO	0.28	0.11	0.33	U
25-Sep-08	HTO	0.35	0.11	0.33	=
26-Sep-08	HTO	0.23	0.10	0.33	U
26-Sep-08	HTO	0.36	0.11	0.33	=
27-Sep-08	HTO	0.33	0.11	0.33	=
27-Sep-08	HTO	0.44	0.11	0.33	=
28-Sep-08	HTO	0.32	0.11	0.33	U
28-Sep-08	HTO	0.46	0.11	0.33	=
29-Sep-08	HTO	0.01	0.10	0.33	U
29-Sep-08	HTO	0.28	0.11	0.33	U
30-Sep-08	HTO	0.24	0.10	0.33	U
30-Sep-08	HTO	0.31	0.11	0.33	U
1-Oct-08	HTO	0.30	0.11	0.33	U
1-Oct-08	HTO	0.40	0.11	0.33	=
2-Oct-08	HTO	0.29	0.11	0.33	U
2-Oct-08	HTO	0.36	0.11	0.33	=
3-Oct-08	HTO	0.30	0.11	0.33	U
3-Oct-08	HTO	0.31	0.11	0.33	U
4-Oct-08	HTO	0.28	0.11	0.33	U
4-Oct-08	HTO	0.34	0.11	0.33	=
5-Oct-08	HTO	0.31	0.11	0.33	U
5-Oct-08	HTO	0.34	0.11	0.33	=
8-Oct-08	HTO	0.16	0.10	0.33	U
8-Oct-08	HTO	0.21	0.10	0.33	U
9-Oct-08	HTO	0.03	0.10	0.33	U
9-Oct-08	HTO	0.28	0.11	0.33	U
25-Oct-08	HTO	1.03	0.12	0.32	=
25-Oct-08	HTO	1.14	0.12	0.32	=
26-Oct-08	HTO	1.17	0.12	0.32	=
26-Oct-08	HTO	1.33	0.13	0.32	=
27-Oct-08	HTO	0.85	0.12	0.33	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
27-Oct-08	HTO	0.93	0.12	0.33	=
28-Oct-08	HTO	1.09	0.12	0.32	=
28-Oct-08	HTO	1.14	0.12	0.32	=
29-Oct-08	HTO	1.12	0.12	0.32	=
29-Oct-08	HTO	1.18	0.12	0.32	=
30-Oct-08	HTO	0.96	0.12	0.32	=
30-Oct-08	HTO	1.01	0.12	0.32	=
31-Oct-08	HTO	1.08	0.12	0.32	=
31-Oct-08	HTO	1.15	0.12	0.32	=
1-Nov-08	HTO	1.03	0.12	0.32	=
1-Nov-08	HTO	1.14	0.12	0.32	=
2-Nov-08	HTO	0.92	0.12	0.32	=
2-Nov-08	HTO	1.13	0.12	0.32	=
3-Nov-08	HTO	0.96	0.12	0.32	=
3-Nov-08	HTO	1.11	0.12	0.32	=
4-Nov-08	HTO	0.89	0.12	0.32	=
4-Nov-08	HTO	1.10	0.12	0.32	=
5-Nov-08	HTO	0.91	0.12	0.32	=
5-Nov-08	HTO	1.00	0.12	0.32	=
6-Nov-08	HTO	0.96	0.12	0.32	=
6-Nov-08	HTO	1.00	0.12	0.32	=
7-Nov-08	HTO	0.93	0.11	0.29	=
7-Nov-08	HTO	0.94	0.11	0.29	=
8-Nov-08	HTO	0.69	0.11	0.31	=
8-Nov-08	HTO	0.74	0.11	0.31	=
9-Nov-08	HTO	0.75	0.11	0.31	=
9-Nov-08	HTO	0.87	0.11	0.31	=
10-Nov-08	HTO	0.84	0.11	0.31	=
10-Nov-08	HTO	0.94	0.11	0.31	=
11-Nov-08	HTO	1.00	0.12	0.31	=
11-Nov-08	HTO	1.09	0.12	0.31	=
12-Nov-08	HTO	0.99	0.12	0.31	=
12-Nov-08	HTO	1.20	0.12	0.31	=
13-Nov-08	HTO	0.84	0.11	0.31	=
13-Nov-08	HTO	0.90	0.11	0.31	=
14-Nov-08	HTO	0.85	0.11	0.31	=
14-Nov-08	HTO	1.04	0.12	0.31	=
15-Nov-08	HTO	0.95	0.11	0.31	=
15-Nov-08	HTO	0.97	0.12	0.31	=
16-Nov-08	HTO	0.72	0.11	0.29	=
16-Nov-08	HTO	0.74	0.11	0.29	=
17-Nov-08	HTO	0.71	0.11	0.31	=
17-Nov-08	HTO	0.76	0.11	0.31	=
18-Nov-08	HTO	0.64	0.11	0.31	=
18-Nov-08	HTO	0.71	0.11	0.31	=
19-Nov-08	HTO	0.66	0.11	0.31	=
19-Nov-08	HTO	0.72	0.11	0.31	=
20-Nov-08	HTO	0.56	0.11	0.31	=
20-Nov-08	HTO	0.73	0.11	0.31	=
21-Nov-08	HTO	0.63	0.11	0.31	=
21-Nov-08	HTO	0.71	0.11	0.31	=
23-Nov-08	HTO	0.62	0.11	0.31	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
23-Nov-08	HTO	0.75	0.11	0.31	=
24-Nov-08	HTO	0.57	0.11	0.31	=
24-Nov-08	HTO	0.74	0.11	0.31	=
25-Nov-08	HTO	1.18	0.12	0.31	=
25-Nov-08	HTO	1.32	0.12	0.31	=
26-Nov-08	HTO	1.10	0.12	0.31	=
26-Nov-08	HTO	1.18	0.12	0.31	=
27-Nov-08	HTO	0.80	0.11	0.31	=
27-Nov-08	HTO	0.86	0.11	0.31	=
28-Nov-08	HTO	0.85	0.11	0.31	=
28-Nov-08	HTO	0.93	0.11	0.31	=
29-Nov-08	HTO	0.68	0.11	0.31	=
29-Nov-08	HTO	0.84	0.11	0.31	=
30-Nov-08	HTO	0.57	0.11	0.31	=
30-Nov-08	HTO	0.72	0.11	0.31	=
1-Dec-08	HTO	0.72	0.11	0.31	=
1-Dec-08	HTO	0.92	0.11	0.31	=
2-Dec-08	HTO	1.20	0.12	0.31	=
2-Dec-08	HTO	1.46	0.13	0.31	=
3-Dec-08	HTO	1.15	0.12	0.31	=
3-Dec-08	HTO	1.16	0.12	0.31	=
4-Dec-08	HTO	1.10	0.12	0.31	=
4-Dec-08	HTO	1.31	0.12	0.31	=
5-Dec-08	HTO	1.09	0.12	0.31	=
5-Dec-08	HTO	1.25	0.12	0.31	=
6-Dec-08	HTO	1.04	0.12	0.31	=
6-Dec-08	HTO	1.12	0.12	0.31	=
7-Dec-08	HTO	0.98	0.12	0.31	=
8-Dec-08	HTO	0.81	0.11	0.31	=
8-Dec-08	HTO	0.84	0.11	0.31	=
9-Dec-08	HTO	0.79	0.11	0.31	=
9-Dec-08	HTO	0.88	0.11	0.31	=
10-Dec-08	HTO	1.09	0.12	0.31	=
10-Dec-08	HTO	1.13	0.12	0.31	=
11-Dec-08	HTO	0.97	0.12	0.31	=
11-Dec-08	HTO	1.21	0.12	0.31	=
12-Dec-08	HTO	1.09	0.12	0.31	=
12-Dec-08	HTO	1.09	0.12	0.31	=

Average Activity	**0.77**
Minimum Activity	**0.01**
Maximum Activity	**1.95**

ISCO 103 HTO Activity for 2008

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
1/8/2008	HTO	0.51	0.11	0.32	=
1/8/2008	HTO	0.73	0.11	0.32	=
1/9/2008	HTO	0.55	0.11	0.32	=
1/9/2008	HTO	0.82	0.11	0.32	=
1/10/2008	HTO	0.49	0.11	0.32	=
1/10/2008	HTO	0.62	0.11	0.32	=
1/11/2008	HTO	0.40	0.11	0.32	=
1/11/2008	HTO	0.44	0.11	0.32	=
1/12/2008	HTO	0.26	0.10	0.32	U
1/12/2008	HTO	0.28	0.10	0.32	U
1/13/2008	HTO	0.37	0.11	0.32	=
1/13/2008	HTO	0.38	0.11	0.32	=
1/14/2008	HTO	0.29	0.10	0.32	U
1/14/2008	HTO	0.47	0.11	0.32	=
1/15/2008	HTO	0.27	0.10	0.32	U
1/15/2008	HTO	0.31	0.10	0.32	U
1/16/2008	HTO	0.36	0.10	0.32	=
1/16/2008	HTO	0.37	0.11	0.32	=
1/17/2008	HTO	0.31	0.10	0.32	U
1/17/2008	HTO	0.50	0.11	0.32	=
1/18/2008	HTO	0.53	0.11	0.32	=
1/18/2008	HTO	0.67	0.11	0.32	=
1/19/2008	HTO	0.46	0.11	0.32	=
1/19/2008	HTO	0.60	0.11	0.32	=
1/20/2008	HTO	0.46	0.11	0.32	=
1/20/2008	HTO	0.49	0.11	0.32	=
1/21/2008	HTO	0.37	0.11	0.32	=
1/21/2008	HTO	0.66	0.11	0.32	=
1/22/2008	HTO	0.55	0.11	0.32	=
1/22/2008	HTO	0.57	0.11	0.32	=
1/23/2008	HTO	0.63	0.11	0.32	=
1/23/2008	HTO	0.67	0.11	0.32	=
1/27/2008	HTO	0.58	0.11	0.32	=
1/27/2008	HTO	0.67	0.11	0.32	=
1/28/2008	HTO	0.78	0.11	0.32	=
1/28/2008	HTO	0.83	0.12	0.32	=
1/29/2008	HTO	0.74	0.12	0.33	=
1/29/2008	HTO	0.82	0.12	0.33	=
1/30/2008	HTO	0.48	0.11	0.33	=
1/30/2008	HTO	0.50	0.11	0.33	=
1/31/2008	HTO	0.42	0.11	0.33	=
1/31/2008	HTO	0.61	0.11	0.33	=
2/1/2008	HTO	0.54	0.11	0.33	=
2/1/2008	HTO	0.62	0.11	0.33	=
2/2/2008	HTO	0.49	0.11	0.33	=
2/2/2008	HTO	0.58	0.11	0.33	=
2/3/2008	HTO	0.41	0.11	0.33	=
2/3/2008	HTO	0.54	0.11	0.33	=
2/4/2008	HTO	0.50	0.11	0.33	=
2/4/2008	HTO	0.62	0.11	0.33	=
2/5/2008	HTO	0.51	0.11	0.31	=
2/5/2008	HTO	0.55	0.11	0.31	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
2/6/2008	HTO	0.24	0.11	0.33	U
2/6/2008	HTO	0.30	0.11	0.33	U
2/7/2008	HTO	0.35	0.11	0.33	=
2/7/2008	HTO	0.47	0.11	0.33	=
2/8/2008	HTO	0.40	0.11	0.33	=
2/8/2008	HTO	0.46	0.11	0.33	=
2/9/2008	HTO	0.22	0.11	0.33	U
2/9/2008	HTO	0.29	0.11	0.33	U
2/10/2008	HTO	0.31	0.11	0.33	U
2/10/2008	HTO	0.46	0.11	0.33	=
2/12/2008	HTO	0.34	0.11	0.33	=
2/12/2008	HTO	0.36	0.11	0.33	=
2/13/2008	HTO	0.39	0.11	0.33	=
2/13/2008	HTO	0.47	0.11	0.33	=
2/14/2008	HTO	0.33	0.10	0.31	=
2/14/2008	HTO	0.51	0.11	0.31	=
2/15/2008	HTO	0.35	0.10	0.31	=
2/15/2008	HTO	0.61	0.11	0.31	=
2/16/2008	HTO	0.48	0.10	0.31	=
2/16/2008	HTO	0.60	0.11	0.31	=
2/17/2008	HTO	0.44	0.10	0.31	=
2/17/2008	HTO	0.52	0.11	0.31	=
2/18/2008	HTO	0.51	0.11	0.31	=
2/18/2008	HTO	0.55	0.11	0.31	=
2/19/2008	HTO	0.40	0.10	0.31	=
2/19/2008	HTO	0.62	0.11	0.31	=
2/20/2008	HTO	0.56	0.11	0.31	=
2/20/2008	HTO	0.71	0.11	0.31	=
2/21/2008	HTO	0.48	0.10	0.31	=
2/21/2008	HTO	0.56	0.11	0.31	=
2/22/2008	HTO	0.45	0.10	0.31	=
2/22/2008	HTO	0.59	0.11	0.31	=
2/23/2008	HTO	0.57	0.11	0.31	=
2/23/2008	HTO	0.59	0.11	0.31	=
2/24/2008	HTO	0.58	0.11	0.31	=
2/24/2008	HTO	0.73	0.11	0.31	=
2/25/2008	HTO	0.57	0.11	0.31	=
2/25/2008	HTO	0.62	0.11	0.31	=
2/26/2008	HTO	0.42	0.10	0.31	=
2/26/2008	HTO	0.61	0.11	0.31	=
2/27/2008	HTO	0.68	0.11	0.31	=
2/27/2008	HTO	0.73	0.11	0.31	=
2/28/2008	HTO	0.56	0.11	0.31	=
2/28/2008	HTO	0.64	0.11	0.31	=
2/29/2008	HTO	0.61	0.11	0.31	=
2/29/2008	HTO	0.65	0.11	0.31	=
3/1/2008	HTO	0.67	0.11	0.31	=
3/1/2008	HTO	0.71	0.11	0.31	=
3/2/2008	HTO	0.60	0.11	0.31	=
3/2/2008	HTO	0.68	0.11	0.31	=
3/3/2008	HTO	0.63	0.11	0.31	=
3/3/2008	HTO	0.70	0.11	0.31	=
3/4/2008	HTO	0.60	0.11	0.31	=
3/4/2008	HTO	0.74	0.11	0.31	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
3/5/2008	HTO	0.54	0.10	0.31	=
3/5/2008	HTO	0.59	0.11	0.31	=
3/6/2008	HTO	0.40	0.10	0.31	=
3/6/2008	HTO	0.49	0.10	0.31	=
3/7/2008	HTO	0.33	0.10	0.31	=
3/7/2008	HTO	0.46	0.10	0.31	=
3/8/2008	HTO	0.28	0.10	0.31	U
3/8/2008	HTO	0.39	0.10	0.31	=
3/9/2008	HTO	0.31	0.10	0.31	=
3/9/2008	HTO	0.39	0.10	0.31	=
3/10/2008	HTO	0.32	0.10	0.31	=
3/10/2008	HTO	0.33	0.10	0.31	=
3/11/2008	HTO	0.46	0.10	0.31	=
3/11/2008	HTO	0.67	0.11	0.31	=
3/12/2008	HTO	0.55	0.11	0.32	=
3/12/2008	HTO	0.58	0.11	0.32	=
3/13/2008	HTO	0.53	0.11	0.32	=
3/13/2008	HTO	0.63	0.11	0.32	=
3/14/2008	HTO	0.45	0.11	0.32	=
3/14/2008	HTO	0.71	0.11	0.32	=
3/15/2008	HTO	0.63	0.11	0.32	=
3/15/2008	HTO	0.74	0.11	0.32	=
3/16/2008	HTO	0.64	0.11	0.32	=
3/16/2008	HTO	0.66	0.11	0.32	=
3/17/2008	HTO	0.51	0.11	0.32	=
3/17/2008	HTO	0.52	0.11	0.32	=
3/18/2008	HTO	0.54	0.11	0.32	=
3/18/2008	HTO	0.60	0.11	0.32	=
3/19/2008	HTO	0.64	0.11	0.32	=
3/19/2008	HTO	0.65	0.11	0.32	=
3/20/2008	HTO	0.36	0.10	0.32	=
3/20/2008	HTO	0.45	0.11	0.32	=
3/21/2008	HTO	0.43	0.11	0.32	=
3/21/2008	HTO	0.43	0.11	0.32	=
3/22/2008	HTO	0.41	0.10	0.32	=
3/22/2008	HTO	0.48	0.11	0.32	=
3/23/2008	HTO	0.42	0.11	0.32	=
3/23/2008	HTO	0.65	0.11	0.32	=
3/24/2008	HTO	0.48	0.11	0.32	=
3/24/2008	HTO	0.60	0.11	0.32	=
3/25/2008	HTO	0.39	0.10	0.32	=
3/25/2008	HTO	0.40	0.10	0.32	=
3/26/2008	HTO	0.48	0.11	0.32	=
3/26/2008	HTO	0.51	0.11	0.32	=
3/27/2008	HTO	0.68	0.11	0.32	=
3/27/2008	HTO	0.73	0.11	0.32	=
3/28/2008	HTO	0.41	0.10	0.32	=
3/28/2008	HTO	0.47	0.11	0.32	=
3/29/2008	HTO	0.37	0.10	0.32	=
3/29/2008	HTO	0.41	0.10	0.32	=
3/30/2008	HTO	0.38	0.10	0.32	=
3/30/2008	HTO	0.42	0.11	0.32	=
3/31/2008	HTO	0.47	0.11	0.32	=
3/31/2008	HTO	0.50	0.11	0.32	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
4/1/2008	HTO	0.48	0.11	0.32	=
4/1/2008	HTO	0.70	0.11	0.32	=
4/2/2008	HTO	0.66	0.11	0.32	=
4/2/2008	HTO	0.68	0.11	0.32	=
4/3/2008	HTO	0.62	0.11	0.31	=
4/3/2008	HTO	0.67	0.11	0.31	=
4/4/2008	HTO	0.64	0.11	0.32	=
4/4/2008	HTO	0.69	0.11	0.32	=
4/5/2008	HTO	0.50	0.11	0.32	=
4/5/2008	HTO	0.51	0.11	0.32	=
4/6/2008	HTO	0.42	0.11	0.32	=
4/6/2008	HTO	0.47	0.11	0.32	=
4/7/2008	HTO	0.54	0.11	0.32	=
4/7/2008	HTO	0.56	0.11	0.32	=
4/8/2008	HTO	0.46	0.11	0.32	=
4/8/2008	HTO	0.46	0.11	0.32	=
4/9/2008	HTO	0.46	0.10	0.31	=
4/9/2008	HTO	0.51	0.10	0.31	=
4/10/2008	HTO	0.37	0.11	0.32	=
4/10/2008	HTO	0.38	0.11	0.32	=
4/11/2008	HTO	0.56	0.11	0.32	=
4/12/2008	HTO	0.71	0.11	0.32	=
4/12/2008	HTO	0.73	0.11	0.32	=
4/13/2008	HTO	0.72	0.11	0.32	=
4/13/2008	HTO	0.82	0.12	0.32	=
4/14/2008	HTO	0.66	0.11	0.32	=
4/14/2008	HTO	0.67	0.11	0.32	=
4/15/2008	HTO	0.70	0.11	0.32	=
4/15/2008	HTO	0.78	0.11	0.32	=
4/16/2008	HTO	0.60	0.11	0.32	=
4/16/2008	HTO	0.68	0.11	0.32	=
4/17/2008	HTO	0.58	0.11	0.31	=
4/17/2008	HTO	0.82	0.11	0.31	=
4/18/2008	HTO	0.75	0.11	0.32	=
4/18/2008	HTO	0.76	0.11	0.32	=
4/19/2008	HTO	0.61	0.11	0.32	=
4/19/2008	HTO	0.71	0.11	0.32	=
4/20/2008	HTO	0.72	0.11	0.32	=
4/20/2008	HTO	0.83	0.12	0.32	=
4/21/2008	HTO	0.90	0.12	0.32	=
4/21/2008	HTO	1.02	0.12	0.32	=
4/22/2008	HTO	0.81	0.11	0.32	=
4/22/2008	HTO	0.91	0.12	0.32	=
4/23/2008	HTO	0.87	0.12	0.32	=
4/23/2008	HTO	0.90	0.12	0.32	=
4/24/2008	HTO	1.21	0.13	0.36	=
4/24/2008	HTO	1.22	0.13	0.36	=
4/25/2008	HTO	0.80	0.13	0.36	=
4/25/2008	HTO	1.05	0.13	0.36	=
4/26/2008	HTO	1.27	0.14	0.36	=
4/26/2008	HTO	1.31	0.14	0.36	=
4/27/2008	HTO	1.13	0.13	0.36	=
4/27/2008	HTO	1.28	0.14	0.36	=
4/28/2008	HTO	1.17	0.13	0.36	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
4/28/2008	HTO	1.24	0.13	0.36	=
4/29/2008	HTO	1.32	0.14	0.36	=
4/29/2008	HTO	1.33	0.14	0.36	=
4/30/2008	HTO	1.15	0.13	0.36	=
4/30/2008	HTO	1.20	0.13	0.36	=
5/1/2008	HTO	1.18	0.13	0.36	=
5/1/2008	HTO	1.45	0.14	0.36	=
5/2/2008	HTO	1.11	0.13	0.36	=
5/2/2008	HTO	1.24	0.13	0.36	=
5/3/2008	HTO	1.12	0.13	0.34	=
5/3/2008	HTO	1.17	0.13	0.36	=
5/3/2008	HTO	1.18	0.13	0.34	=
5/3/2008	HTO	1.51	0.14	0.36	=
5/4/2008	HTO	2.54	0.16	0.36	=
5/4/2008	HTO	2.63	0.16	0.36	=
5/5/2008	HTO	1.64	0.14	0.36	=
5/5/2008	HTO	1.73	0.14	0.36	=
5/6/2008	HTO	1.39	0.14	0.36	=
5/6/2008	HTO	1.46	0.14	0.36	=
5/7/2008	HTO	1.27	0.14	0.36	=
5/7/2008	HTO	1.35	0.14	0.36	=
5/8/2008	HTO	1.20	0.13	0.36	=
5/8/2008	HTO	1.36	0.14	0.36	=
5/9/2008	HTO	0.90	0.13	0.36	=
5/9/2008	HTO	1.17	0.13	0.36	=
5/10/2008	HTO	1.20	0.13	0.36	=
5/10/2008	HTO	1.21	0.13	0.36	=
5/11/2008	HTO	0.70	0.12	0.36	=
5/11/2008	HTO	0.79	0.13	0.36	=
5/12/2008	HTO	0.61	0.12	0.36	=
5/12/2008	HTO	0.78	0.12	0.34	=
5/12/2008	HTO	0.80	0.12	0.34	=
5/12/2008	HTO	0.95	0.13	0.36	=
5/13/2008	HTO	0.78	0.13	0.36	=
5/13/2008	HTO	0.88	0.13	0.36	=
5/14/2008	HTO	0.46	0.12	0.36	=
5/14/2008	HTO	0.61	0.12	0.36	=
5/15/2008	HTO	0.75	0.13	0.36	=
5/15/2008	HTO	0.85	0.13	0.36	=
5/29/2008	HTO	0.47	0.11	0.32	=
5/29/2008	HTO	0.64	0.11	0.32	=
5/30/2008	HTO	0.40	0.10	0.32	=
5/30/2008	HTO	0.63	0.11	0.32	=
5/31/2008	HTO	0.42	0.10	0.32	=
5/31/2008	HTO	0.67	0.11	0.32	=
6/1/2008	HTO	0.47	0.11	0.32	=
6/1/2008	HTO	0.52	0.11	0.32	=
6/2/2008	HTO	0.37	0.10	0.32	=
6/2/2008	HTO	0.42	0.10	0.32	=
6/3/2008	HTO	0.51	0.11	0.32	=
6/3/2008	HTO	0.55	0.11	0.32	=
6/4/2008	HTO	1.15	0.12	0.32	=
6/4/2008	HTO	1.28	0.12	0.32	=
6/5/2008	HTO	0.74	0.11	0.32	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
6/5/2008	HTO	0.82	0.11	0.32	=
6/6/2008	HTO	0.62	0.11	0.32	=
6/6/2008	HTO	0.76	0.11	0.32	=
6/7/2008	HTO	0.62	0.11	0.32	=
6/7/2008	HTO	0.64	0.11	0.32	=
6/8/2008	HTO	0.37	0.10	0.32	=
6/8/2008	HTO	0.61	0.11	0.32	=
6/9/2008	HTO	0.44	0.11	0.32	=
6/9/2008	HTO	0.44	0.11	0.32	=
6/10/2008	HTO	0.23	0.10	0.32	U
6/10/2008	HTO	0.46	0.11	0.32	=
6/11/2008	HTO	0.37	0.10	0.32	=
6/11/2008	HTO	0.46	0.11	0.32	=
6/12/2008	HTO	0.51	0.11	0.32	=
6/12/2008	HTO	0.56	0.11	0.32	=
6/13/2008	HTO	0.33	0.10	0.32	=
6/13/2008	HTO	0.48	0.11	0.32	=
6/14/2008	HTO	0.41	0.10	0.32	=
6/14/2008	HTO	0.47	0.11	0.32	=
6/15/2008	HTO	0.44	0.11	0.32	=
6/15/2008	HTO	0.55	0.11	0.32	=
6/16/2008	HTO	0.41	0.10	0.32	=
6/16/2008	HTO	0.52	0.11	0.32	=
6/17/2008	HTO	0.41	0.10	0.32	=
6/17/2008	HTO	0.43	0.11	0.32	=
6/18/2008	HTO	0.35	0.10	0.32	=
6/18/2008	HTO	0.50	0.11	0.32	=
6/19/2008	HTO	0.34	0.10	0.32	=
6/19/2008	HTO	0.42	0.10	0.32	=
6/20/2008	HTO	0.48	0.11	0.34	=
6/20/2008	HTO	0.53	0.11	0.34	=
6/21/2008	HTO	0.47	0.11	0.34	=
6/21/2008	HTO	0.52	0.11	0.34	=
6/22/2008	HTO	0.50	0.11	0.34	=
6/22/2008	HTO	0.51	0.11	0.34	=
6/23/2008	HTO	0.55	0.12	0.34	=
6/23/2008	HTO	0.60	0.12	0.34	=
6/24/2008	HTO	0.31	0.11	0.34	U
6/24/2008	HTO	0.31	0.11	0.34	U
6/25/2008	HTO	0.49	0.11	0.34	=
6/25/2008	HTO	0.50	0.11	0.34	=
6/26/2008	HTO	0.43	0.11	0.34	=
6/26/2008	HTO	0.49	0.11	0.34	=
6/27/2008	HTO	0.31	0.11	0.34	J
6/27/2008	HTO	0.51	0.11	0.34	J
6/28/2008	HTO	0.40	0.11	0.34	=
6/28/2008	HTO	0.42	0.11	0.34	=
6/29/2008	HTO	0.26	0.11	0.34	J
6/29/2008	HTO	0.43	0.11	0.34	J
6/30/2008	HTO	0.33	0.11	0.34	J
6/30/2008	HTO	0.44	0.11	0.34	J
7/1/2008	HTO	0.44	0.11	0.34	=
7/1/2008	HTO	0.55	0.12	0.34	=
7/2/2008	HTO	0.19	0.11	0.34	J

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
7/2/2008	HTO	0.52	0.11	0.34	J
7/3/2008	HTO	0.24	0.11	0.34	J
7/3/2008	HTO	0.36	0.11	0.34	J
7/4/2008	HTO	0.34	0.11	0.34	J
7/4/2008	HTO	0.40	0.11	0.34	J
7/5/2008	HTO	0.03	0.10	0.34	U
7/5/2008	HTO	0.29	0.11	0.34	U
7/6/2008	HTO	0.25	0.11	0.34	J
7/6/2008	HTO	0.39	0.11	0.34	J
7/7/2008	HTO	0.34	0.11	0.34	J
7/7/2008	HTO	0.54	0.12	0.34	J
7/8/2008	HTO	0.25	0.11	0.34	J
7/8/2008	HTO	0.35	0.11	0.34	J
7/9/2008	HTO	0.19	0.11	0.34	J
7/9/2008	HTO	0.44	0.11	0.34	J
7/10/2008	HTO	0.44	0.11	0.34	=
7/10/2008	HTO	0.54	0.11	0.34	=
7/11/2008	HTO	0.27	0.10	0.31	U
7/11/2008	HTO	0.42	0.10	0.31	=
7/12/2008	HTO	0.49	0.10	0.31	=
7/12/2008	HTO	0.55	0.11	0.31	=
7/13/2008	HTO	0.69	0.11	0.31	=
7/13/2008	HTO	0.81	0.11	0.31	=
7/14/2008	HTO	0.40	0.10	0.31	=
7/14/2008	HTO	0.51	0.10	0.31	=
7/15/2008	HTO	0.44	0.10	0.31	=
7/15/2008	HTO	0.55	0.11	0.31	=
7/16/2008	HTO	0.56	0.11	0.31	=
7/16/2008	HTO	0.65	0.11	0.31	=
7/17/2008	HTO	0.44	0.10	0.31	=
7/17/2008	HTO	0.56	0.11	0.31	=
7/18/2008	HTO	0.54	0.11	0.31	=
7/18/2008	HTO	0.54	0.11	0.31	=
7/19/2008	HTO	0.54	0.11	0.31	=
7/19/2008	HTO	0.58	0.11	0.31	=
7/20/2008	HTO	0.49	0.10	0.31	=
7/20/2008	HTO	0.54	0.11	0.31	=
7/21/2008	HTO	0.33	0.10	0.31	=
7/21/2008	HTO	0.39	0.10	0.31	=
7/22/2008	HTO	0.49	0.10	0.31	=
7/23/2008	HTO	0.40	0.10	0.31	=
7/23/2008	HTO	0.45	0.10	0.31	=
7/24/2008	HTO	0.35	0.10	0.31	=
7/24/2008	HTO	0.62	0.11	0.31	=
7/25/2008	HTO	0.39	0.10	0.31	=
7/25/2008	HTO	0.59	0.11	0.31	=
7/26/2008	HTO	0.33	0.10	0.31	=
7/26/2008	HTO	0.49	0.10	0.31	=
7/27/2008	HTO	0.23	0.10	0.31	U
7/27/2008	HTO	0.34	0.10	0.31	=
7/28/2008	HTO	0.27	0.10	0.31	U
7/28/2008	HTO	0.41	0.10	0.31	=
7/29/2008	HTO	0.33	0.10	0.31	=
7/29/2008	HTO	0.48	0.10	0.31	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
7/30/2008	HTO	0.30	0.10	0.31	U
7/30/2008	HTO	0.43	0.10	0.31	=
7/31/2008	HTO	0.21	0.10	0.31	U
7/31/2008	HTO	0.33	0.10	0.31	=
8/1/2008	HTO	0.23	0.10	0.31	U
8/1/2008	HTO	0.49	0.11	0.31	=
8/2/2008	HTO	0.32	0.10	0.31	=
8/2/2008	HTO	0.33	0.10	0.31	=
8/3/2008	HTO	0.27	0.10	0.31	U
8/3/2008	HTO	0.36	0.10	0.31	=
8/4/2008	HTO	0.37	0.10	0.31	=
8/4/2008	HTO	0.41	0.10	0.31	=
8/5/2008	HTO	0.23	0.10	0.31	U
8/5/2008	HTO	0.30	0.10	0.31	U
8/6/2008	HTO	0.21	0.10	0.31	U
8/6/2008	HTO	0.26	0.10	0.31	U
8/7/2008	HTO	0.27	0.10	0.31	U
8/7/2008	HTO	0.30	0.10	0.31	U
8/8/2008	HTO	0.21	0.10	0.31	U
8/8/2008	HTO	0.30	0.10	0.31	U
8/9/2008	HTO	0.29	0.10	0.31	U
8/9/2008	HTO	0.43	0.10	0.31	=
8/10/2008	HTO	0.28	0.10	0.31	U
8/10/2008	HTO	0.33	0.10	0.31	=
8/11/2008	HTO	0.18	0.10	0.31	U
8/11/2008	HTO	0.47	0.11	0.31	=
8/12/2008	HTO	0.27	0.10	0.31	U
8/12/2008	HTO	0.29	0.10	0.31	U
8/13/2008	HTO	0.15	0.10	0.31	U
8/13/2008	HTO	0.23	0.10	0.31	U
8/14/2008	HTO	0.11	0.10	0.31	U
8/14/2008	HTO	0.26	0.10	0.31	U
8/15/2008	HTO	0.20	0.10	0.31	U
8/15/2008	HTO	0.21	0.10	0.31	U
8/16/2008	HTO	0.29	0.10	0.31	U
8/16/2008	HTO	0.30	0.10	0.31	U
8/17/2008	HTO	0.15	0.10	0.31	U
8/17/2008	HTO	0.41	0.10	0.31	=
8/18/2008	HTO	0.11	0.10	0.31	U
8/18/2008	HTO	0.38	0.10	0.31	=
8/21/2008	HTO	0.35	0.11	0.34	=
8/21/2008	HTO	0.49	0.11	0.34	=
8/22/2008	HTO	0.21	0.11	0.34	U
8/22/2008	HTO	0.46	0.11	0.34	=
8/25/2008	HTO	0.07	0.10	0.34	U
8/25/2008	HTO	0.31	0.11	0.34	U
8/26/2008	HTO	0.19	0.11	0.34	U
8/26/2008	HTO	0.26	0.11	0.34	U
8/27/2008	HTO	0.32	0.11	0.34	U
8/27/2008	HTO	0.43	0.11	0.34	=
8/28/2008	HTO	0.43	0.11	0.34	=
8/28/2008	HTO	0.48	0.11	0.34	=
8/29/2008	HTO	0.24	0.11	0.34	U
8/29/2008	HTO	0.34	0.11	0.34	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
8/30/2008	HTO	0.23	0.11	0.34	U
8/30/2008	HTO	0.30	0.11	0.34	U
8/31/2008	HTO	0.40	0.11	0.34	=
8/31/2008	HTO	0.42	0.11	0.34	=
9/1/2008	HTO	0.25	0.11	0.34	U
9/1/2008	HTO	0.29	0.11	0.34	U
9/2/2008	HTO	0.31	0.11	0.34	U
9/2/2008	HTO	0.39	0.11	0.34	=
9/3/2008	HTO	0.21	0.11	0.34	U
9/3/2008	HTO	0.28	0.11	0.34	U
9/4/2008	HTO	0.21	0.11	0.34	U
9/4/2008	HTO	0.37	0.11	0.34	=
9/5/2008	HTO	0.35	0.10	0.31	=
9/5/2008	HTO	0.40	0.10	0.31	=
9/6/2008	HTO	0.39	0.10	0.31	=
9/6/2008	HTO	0.46	0.11	0.31	=
9/7/2008	HTO	0.39	0.10	0.31	=
9/7/2008	HTO	0.51	0.11	0.31	=
9/8/2008	HTO	0.38	0.10	0.31	=
9/8/2008	HTO	0.56	0.11	0.31	=
9/9/2008	HTO	0.26	0.10	0.31	U
9/9/2008	HTO	0.37	0.10	0.31	=
9/10/2008	HTO	0.30	0.10	0.31	U
9/10/2008	HTO	0.43	0.11	0.31	=
9/11/2008	HTO	0.26	0.10	0.31	U
9/11/2008	HTO	0.30	0.10	0.31	U
9/12/2008	HTO	0.39	0.10	0.31	=
9/12/2008	HTO	0.46	0.11	0.31	=
9/13/2008	HTO	0.40	0.11	0.31	=
9/13/2008	HTO	0.43	0.11	0.31	=
9/14/2008	HTO	0.37	0.10	0.31	=
9/14/2008	HTO	0.42	0.11	0.31	=
9/15/2008	HTO	0.34	0.10	0.31	=
9/15/2008	HTO	0.56	0.11	0.31	=
11/15/2008	HTO	0.34	0.12	0.37	U
11/15/2008	HTO	0.43	0.12	0.37	=
11/16/2008	HTO	0.21	0.12	0.37	U
11/16/2008	HTO	0.41	0.12	0.37	=
11/17/2008	HTO	0.38	0.12	0.37	=
11/17/2008	HTO	0.51	0.12	0.37	=
11/18/2008	HTO	0.39	0.12	0.37	=
11/18/2008	HTO	0.59	0.12	0.37	=
11/19/2008	HTO	0.35	0.12	0.37	U
11/19/2008	HTO	0.44	0.12	0.37	=
11/20/2008	HTO	0.25	0.12	0.37	U
11/20/2008	HTO	0.33	0.12	0.37	U
11/21/2008	HTO	0.39	0.12	0.37	=
11/21/2008	HTO	0.48	0.12	0.37	=
12/7/2008	HTO	0.28	0.12	0.36	U
12/7/2008	HTO	0.34	0.12	0.36	U
12/8/2008	HTO	0.25	0.12	0.36	U
12/8/2008	HTO	0.30	0.12	0.36	U
12/9/2008	HTO	0.31	0.10	0.31	=
12/9/2008	HTO	0.35	0.10	0.31	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
12/10/2008	HTO	0.28	0.12	0.36	U
12/10/2008	HTO	0.39	0.12	0.36	=
12/11/2008	HTO	0.31	0.12	0.36	U
12/11/2008	HTO	0.53	0.12	0.36	=
12/12/2008	HTO	0.47	0.12	0.36	=
12/12/2008	HTO	0.53	0.12	0.36	=

Average Activity	0.54
Minimum Activity	0.03
Maximum Activity	2.63

ISCO EDRN HTO Activity for 2007

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
1/4/2008	HTO	89.41	0.65	0.32	=
1/4/2008	HTO	90.95	0.65	0.32	=
1/5/2008	HTO	13.56	0.27	0.32	=
1/5/2008	HTO	14.71	0.28	0.32	=
1/6/2008	HTO	103.01	0.69	0.32	=
1/6/2008	HTO	104.24	0.70	0.32	=
1/8/2008	HTO	182.95	0.89	0.30	=
1/8/2008	HTO	183.11	0.89	0.30	=
1/9/2008	HTO	54.27	0.49	0.30	=
1/9/2008	HTO	54.90	0.50	0.30	=
1/10/2008	HTO	77.41	0.59	0.30	=
1/10/2008	HTO	78.81	0.59	0.30	=
1/11/2008	HTO	12.14	0.25	0.30	=
1/11/2008	HTO	12.17	0.25	0.30	=
1/12/2008	HTO	34.20	0.40	0.30	=
1/12/2008	HTO	34.79	0.40	0.30	=
1/13/2008	HTO	110.68	0.70	0.30	=
1/13/2008	HTO	110.88	0.70	0.30	=
1/14/2008	HTO	46.12	0.46	0.30	=
1/14/2008	HTO	46.51	0.46	0.30	=
1/15/2008	HTO	129.13	0.75	0.30	=
1/15/2008	HTO	131.59	0.76	0.30	=
1/17/2008	HTO	97.82	0.66	0.30	=
1/17/2008	HTO	97.86	0.66	0.30	=
1/18/2008	HTO	40.37	0.43	0.30	=
1/18/2008	HTO	40.79	0.43	0.30	=
1/22/2008	HTO	15.44	0.27	0.30	=
1/22/2008	HTO	15.74	0.28	0.30	=
1/23/2008	HTO	20.28	0.31	0.30	=
1/23/2008	HTO	20.88	0.31	0.30	=
1/26/2008	HTO	168.75	0.86	0.30	=
1/26/2008	HTO	170.80	0.86	0.30	=
1/27/2008	HTO	156.12	0.83	0.30	=
1/27/2008	HTO	156.19	0.83	0.30	=
1/28/2008	HTO	131.66	0.76	0.30	=
1/28/2008	HTO	134.90	0.77	0.30	=
1/29/2008	HTO	36.77	0.42	0.30	=
1/29/2008	HTO	36.81	0.42	0.30	=
1/30/2008	HTO	13.01	0.26	0.30	=
1/30/2008	HTO	13.10	0.26	0.30	=
1/31/2008	HTO	47.38	0.47	0.30	=
1/31/2008	HTO	48.63	0.48	0.30	=
2/1/2008	HTO	34.08	0.40	0.30	=
2/1/2008	HTO	34.15	0.41	0.30	=
2/2/2008	HTO	66.25	0.56	0.30	=
2/2/2008	HTO	66.69	0.56	0.30	=
2/3/2008	HTO	125.56	0.76	0.30	=
2/3/2008	HTO	125.99	0.76	0.30	=
2/4/2008	HTO	78.10	0.60	0.30	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
2/4/2008	HTO	79.04	0.61	0.30	=
2/5/2008	HTO	15.63	0.28	0.30	=
2/5/2008	HTO	16.37	0.29	0.30	=
2/6/2008	HTO	11.30	0.24	0.30	=
2/6/2008	HTO	11.50	0.25	0.30	=
2/7/2008	HTO	20.31	0.32	0.30	=
2/7/2008	HTO	20.64	0.32	0.30	=
2/8/2008	HTO	26.25	0.36	0.30	=
2/8/2008	HTO	27.41	0.37	0.30	=
2/9/2008	HTO	30.43	0.38	0.30	=
2/9/2008	HTO	30.65	0.39	0.30	=
2/10/2008	HTO	89.31	0.64	0.30	=
2/10/2008	HTO	90.95	0.65	0.30	=
2/12/2008	HTO	21.64	0.33	0.30	=
2/12/2008	HTO	21.86	0.33	0.30	=
2/13/2008	HTO	14.66	0.27	0.30	=
2/13/2008	HTO	14.91	0.28	0.30	=
2/15/2008	HTO	28.13	0.37	0.30	=
2/15/2008	HTO	29.82	0.38	0.30	=
2/16/2008	HTO	70.60	0.57	0.30	=
2/16/2008	HTO	70.75	0.58	0.30	=
2/17/2008	HTO	78.68	0.61	0.30	=
2/17/2008	HTO	79.49	0.61	0.30	=
2/18/2008	HTO	46.88	0.47	0.30	=
2/18/2008	HTO	47.54	0.47	0.30	=
2/19/2008	HTO	121.67	0.75	0.30	=
2/19/2008	HTO	122.71	0.75	0.30	=
2/20/2008	HTO	104.53	0.70	0.31	=
2/20/2008	HTO	105.23	0.70	0.31	=
2/22/2008	HTO	14.12	0.27	0.31	=
2/22/2008	HTO	14.85	0.28	0.31	=
2/23/2008	HTO	24.52	0.35	0.31	=
2/23/2008	HTO	25.23	0.35	0.31	=
2/24/2008	HTO	37.24	0.42	0.31	=
2/24/2008	HTO	37.89	0.43	0.31	=
2/25/2008	HTO	92.91	0.66	0.31	=
2/25/2008	HTO	93.73	0.66	0.31	=
2/26/2008	HTO	38.73	0.43	0.31	=
2/26/2008	HTO	39.15	0.44	0.31	=
2/27/2008	HTO	68.15	0.57	0.31	=
2/27/2008	HTO	68.52	0.57	0.31	=
2/28/2008	HTO	25.88	0.36	0.31	=
2/28/2008	HTO	26.78	0.36	0.31	=
2/29/2008	HTO	84.04	0.63	0.31	=
2/29/2008	HTO	84.32	0.63	0.31	=
3/1/2008	HTO	81.08	0.62	0.31	=
3/1/2008	HTO	81.85	0.62	0.31	=
3/2/2008	HTO	144.15	0.82	0.31	=
3/2/2008	HTO	144.64	0.82	0.31	=
3/3/2008	HTO	164.63	0.88	0.31	=
3/3/2008	HTO	165.87	0.88	0.31	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
3/4/2008	HTO	56.60	0.52	0.31	=
3/4/2008	HTO	56.83	0.52	0.31	=
3/5/2008	HTO	43.55	0.46	0.31	=
3/5/2008	HTO	44.47	0.46	0.31	=
3/6/2008	HTO	131.15	0.78	0.31	=
3/6/2008	HTO	133.82	0.79	0.31	=
3/7/2008	HTO	84.15	0.63	0.31	=
3/7/2008	HTO	85.75	0.64	0.31	=
3/8/2008	HTO	35.83	0.42	0.31	=
3/8/2008	HTO	36.28	0.42	0.31	=
3/9/2008	HTO	28.00	0.37	0.31	=
3/9/2008	HTO	28.40	0.37	0.31	=
3/10/2008	HTO	14.48	0.28	0.31	=
3/10/2008	HTO	15.17	0.28	0.31	=
3/11/2008	HTO	72.57	0.59	0.31	=
3/11/2008	HTO	72.74	0.59	0.31	=
3/12/2008	HTO	104.02	0.72	0.35	=
3/12/2008	HTO	105.23	0.72	0.35	=
3/13/2008	HTO	127.93	0.80	0.35	=
3/13/2008	HTO	128.70	0.80	0.35	=
3/14/2008	HTO	117.86	0.76	0.35	=
3/14/2008	HTO	118.04	0.77	0.35	=
3/15/2008	HTO	44.72	0.48	0.35	=
3/15/2008	HTO	44.88	0.48	0.35	=
3/16/2008	HTO	71.44	0.60	0.35	=
3/16/2008	HTO	72.09	0.60	0.35	=
3/17/2008	HTO	153.87	0.87	0.35	=
3/17/2008	HTO	155.54	0.88	0.35	=
3/18/2008	HTO	158.43	0.88	0.35	=
3/18/2008	HTO	158.81	0.89	0.35	=
3/19/2008	HTO	74.48	0.61	0.35	=
3/19/2008	HTO	79.96	0.63	0.35	=
3/20/2008	HTO	33.54	0.42	0.35	=
3/20/2008	HTO	33.67	0.42	0.35	=
3/21/2008	HTO	116.40	0.76	0.35	=
3/21/2008	HTO	118.62	0.77	0.35	=
3/22/2008	HTO	143.81	0.84	0.35	=
3/22/2008	HTO	144.48	0.85	0.35	=
4/2/2008	HTO	130.51	0.80	0.35	=
4/2/2008	HTO	130.55	0.80	0.35	=
4/3/2008	HTO	84.91	0.67	0.37	=
4/3/2008	HTO	85.90	0.68	0.37	=
4/4/2008	HTO	10.04	0.26	0.37	=
4/4/2008	HTO	10.82	0.26	0.37	=
4/5/2008	HTO	15.31	0.30	0.37	=
4/5/2008	HTO	15.77	0.31	0.37	=
4/6/2008	HTO	102.89	0.74	0.37	=
4/6/2008	HTO	102.98	0.74	0.37	=
4/7/2008	HTO	143.60	0.87	0.37	=
4/7/2008	HTO	145.54	0.88	0.37	=
4/8/2008	HTO	178.03	0.97	0.37	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
4/8/2008	HTO	178.05	0.97	0.37	=
4/9/2008	HTO	135.27	0.85	0.37	=
4/9/2008	HTO	136.07	0.85	0.37	=
4/10/2008	HTO	155.24	0.91	0.37	=
4/10/2008	HTO	157.22	0.91	0.37	=
4/11/2008	HTO	114.58	0.78	0.37	=
4/11/2008	HTO	115.46	0.78	0.37	=
4/12/2008	HTO	52.60	0.54	0.37	=
4/12/2008	HTO	53.75	0.54	0.37	=
4/13/2008	HTO	65.88	0.60	0.37	=
4/13/2008	HTO	68.42	0.61	0.37	=
4/14/2008	HTO	84.42	0.67	0.37	=
4/14/2008	HTO	84.67	0.67	0.37	=
4/15/2008	HTO	175.73	0.96	0.37	=
4/15/2008	HTO	176.89	0.97	0.37	=
4/16/2008	HTO	221.54	1.08	0.37	=
4/16/2008	HTO	223.89	1.09	0.37	=
4/17/2008	HTO	254.94	1.16	0.37	=
4/17/2008	HTO	255.60	1.16	0.37	=
4/18/2008	HTO	264.24	1.18	0.37	=
4/18/2008	HTO	266.82	1.18	0.37	=
4/19/2008	HTO	140.00	0.86	0.37	=
4/19/2008	HTO	140.26	0.86	0.37	=
4/20/2008	HTO	32.82	0.43	0.37	=
4/20/2008	HTO	33.63	0.43	0.37	=
4/21/2008	HTO	156.29	0.91	0.37	=
4/21/2008	HTO	157.21	0.91	0.37	=
4/22/2008	HTO	222.05	1.08	0.37	=
4/22/2008	HTO	222.35	1.08	0.37	=
4/23/2008	HTO	265.54	1.18	0.37	=
4/23/2008	HTO	268.17	1.19	0.37	=
4/24/2008	HTO	260.81	1.13	0.31	=
4/24/2008	HTO	261.44	1.13	0.31	=
4/25/2008	HTO	167.51	0.91	0.31	=
4/25/2008	HTO	169.27	0.91	0.31	=
4/26/2008	HTO	96.20	0.69	0.31	=
4/26/2008	HTO	98.53	0.70	0.31	=
4/27/2008	HTO	196.60	0.98	0.31	=
4/27/2008	HTO	199.41	0.99	0.31	=
4/28/2008	HTO	22.77	0.35	0.31	=
4/28/2008	HTO	23.77	0.35	0.31	=
4/29/2008	HTO	66.06	0.57	0.31	=
4/29/2008	HTO	66.58	0.58	0.31	=
4/30/2008	HTO	189.78	0.96	0.31	=
4/30/2008	HTO	193.58	0.97	0.31	=
5/1/2008	HTO	231.44	1.06	0.31	=
5/1/2008	HTO	235.55	1.07	0.31	=
5/2/2008	HTO	254.85	1.12	0.31	=
5/2/2008	HTO	258.43	1.12	0.31	=
5/3/2008	HTO	10.28	0.24	0.31	=
5/3/2008	HTO	10.87	0.25	0.31	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
5/4/2008	HTO	117.42	0.76	0.31	=
5/4/2008	HTO	119.16	0.77	0.31	=
5/5/2008	HTO	220.02	1.04	0.31	=
5/5/2008	HTO	228.15	1.06	0.31	=
5/6/2008	HTO	276.00	1.16	0.31	=
5/6/2008	HTO	276.01	1.16	0.31	=
5/7/2008	HTO	283.85	1.18	0.31	=
5/7/2008	HTO	287.60	1.19	0.31	=
5/8/2008	HTO	13.81	0.28	0.31	=
5/8/2008	HTO	14.10	0.28	0.31	=
5/9/2008	HTO	8.48	0.21	0.27	=
5/9/2008	HTO	8.63	0.21	0.27	=
5/10/2008	HTO	84.90	0.61	0.27	=
5/10/2008	HTO	87.03	0.62	0.27	=
5/11/2008	HTO	44.82	0.45	0.27	=
5/11/2008	HTO	44.87	0.45	0.27	=
5/12/2008	HTO	23.68	0.33	0.27	=
5/12/2008	HTO	24.34	0.34	0.27	=
5/13/2008	HTO	105.71	0.68	0.27	=
5/13/2008	HTO	107.77	0.69	0.27	=
5/14/2008	HTO	72.41	0.57	0.27	=
5/14/2008	HTO	72.86	0.57	0.27	=
5/15/2008	HTO	25.33	0.34	0.27	=
5/15/2008	HTO	25.46	0.34	0.27	=
5/15/2008	HTO	27.30	0.36	0.30	=
5/15/2008	HTO	27.34	0.36	0.30	=
5/16/2008	HTO	121.93	0.75	0.30	=
5/16/2008	HTO	123.06	0.75	0.30	=
5/17/2008	HTO	24.33	0.34	0.30	=
5/17/2008	HTO	25.62	0.35	0.30	=
5/18/2008	HTO	126.51	0.76	0.30	=
5/18/2008	HTO	129.11	0.77	0.30	=
5/19/2008	HTO	16.47	0.29	0.30	=
5/19/2008	HTO	16.97	0.29	0.30	=
5/20/2008	HTO	130.46	0.78	0.30	=
5/20/2008	HTO	131.66	0.78	0.30	=
5/21/2008	HTO	213.93	0.99	0.30	=
5/21/2008	HTO	216.94	1.00	0.30	=
5/22/2008	HTO	234.91	1.04	0.30	=
5/22/2008	HTO	235.97	1.04	0.30	=
5/23/2008	HTO	75.59	0.59	0.30	=
5/23/2008	HTO	75.99	0.60	0.30	=
5/24/2008	HTO	210.88	0.98	0.30	=
5/24/2008	HTO	212.13	0.99	0.30	=
5/25/2008	HTO	255.66	1.08	0.30	=
5/25/2008	HTO	261.41	1.10	0.30	=
5/26/2008	HTO	214.80	0.99	0.30	=
5/26/2008	HTO	217.18	1.00	0.30	=
5/27/2008	HTO	33.38	0.40	0.30	=
5/27/2008	HTO	34.95	0.41	0.30	=
5/28/2008	HTO	157.85	0.85	0.30	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
5/28/2008	HTO	160.68	0.86	0.30	=
5/30/2008	HTO	198.91	0.99	0.35	=
5/30/2008	HTO	199.63	0.99	0.35	=
5/31/2008	HTO	194.02	0.98	0.35	=
5/31/2008	HTO	194.76	0.98	0.35	=
6/1/2008	HTO	96.80	0.69	0.35	=
6/1/2008	HTO	98.11	0.70	0.35	=
6/2/2008	HTO	162.25	0.90	0.35	=
6/2/2008	HTO	163.46	0.90	0.35	=
6/3/2008	HTO	100.12	0.71	0.35	=
6/3/2008	HTO	101.54	0.71	0.35	=
6/4/2008	HTO	9.42	0.24	0.35	=
6/4/2008	HTO	9.56	0.24	0.35	=
6/5/2008	HTO	119.40	0.77	0.35	=
6/5/2008	HTO	121.55	0.78	0.35	=
6/6/2008	HTO	181.20	0.95	0.35	=
6/6/2008	HTO	182.46	0.95	0.35	=
6/7/2008	HTO	217.86	1.04	0.35	=
6/7/2008	HTO	218.34	1.04	0.35	=
6/8/2008	HTO	248.61	1.11	0.35	=
6/8/2008	HTO	249.91	1.11	0.35	=
6/9/2008	HTO	280.57	1.17	0.35	=
6/9/2008	HTO	284.89	1.18	0.35	=
6/10/2008	HTO	84.13	0.65	0.35	=
6/10/2008	HTO	84.78	0.65	0.35	=
6/11/2008	HTO	77.41	0.62	0.35	=
6/11/2008	HTO	77.61	0.62	0.35	=
6/12/2008	HTO	164.95	0.90	0.35	=
6/12/2008	HTO	165.08	0.90	0.35	=
6/13/2008	HTO	209.78	1.02	0.35	=
6/13/2008	HTO	210.72	1.02	0.35	=
6/14/2008	HTO	9.17	0.24	0.35	=
6/14/2008	HTO	9.33	0.24	0.35	=
6/15/2008	HTO	85.63	0.65	0.35	=
6/15/2008	HTO	86.38	0.66	0.35	=
6/16/2008	HTO	71.08	0.60	0.35	=
6/16/2008	HTO	71.84	0.60	0.35	=
6/17/2008	HTO	65.39	0.57	0.35	=
6/17/2008	HTO	66.54	0.58	0.35	=
6/18/2008	HTO	146.05	0.85	0.35	=
6/18/2008	HTO	148.75	0.86	0.35	=
6/19/2008	HTO	45.54	0.48	0.35	=
6/19/2008	HTO	46.74	0.49	0.35	=
6/20/2008	HTO	108.69	0.72	0.29	=
6/20/2008	HTO	116.98	0.74	0.29	=
6/21/2008	HTO	89.42	0.65	0.29	=
6/21/2008	HTO	89.73	0.65	0.29	=
6/22/2008	HTO	72.33	0.59	0.29	=
6/22/2008	HTO	73.52	0.59	0.29	=
6/23/2008	HTO	90.31	0.65	0.29	=
6/23/2008	HTO	91.04	0.66	0.29	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
6/24/2008	HTO	122.59	0.76	0.29	=
6/24/2008	HTO	124.65	0.76	0.29	=
6/25/2008	HTO	177.60	0.91	0.29	=
6/25/2008	HTO	181.16	0.92	0.29	=
6/26/2008	HTO	221.97	1.02	0.29	=
6/26/2008	HTO	224.64	1.02	0.29	=
6/27/2008	HTO	194.29	0.95	0.29	=
6/27/2008	HTO	194.37	0.95	0.29	=
6/28/2008	HTO	9.89	0.23	0.29	=
6/28/2008	HTO	10.23	0.23	0.29	=
6/29/2008	HTO	8.76	0.22	0.29	=
6/29/2008	HTO	8.99	0.22	0.29	=
6/30/2008	HTO	36.84	0.42	0.29	=
6/30/2008	HTO	36.99	0.42	0.29	=
7/1/2008	HTO	45.04	0.47	0.29	=
7/1/2008	HTO	45.07	0.47	0.29	=
7/2/2008	HTO	107.19	0.71	0.29	=
7/2/2008	HTO	108.53	0.71	0.29	=
7/3/2008	HTO	161.29	0.87	0.29	=
7/3/2008	HTO	162.01	0.87	0.29	=
7/4/2008	HTO	5.41	0.18	0.29	=
7/4/2008	HTO	5.96	0.19	0.29	=
7/5/2008	HTO	48.29	0.48	0.29	=
7/5/2008	HTO	49.04	0.48	0.29	=
7/6/2008	HTO	33.85	0.41	0.29	=
7/6/2008	HTO	35.05	0.41	0.29	=
7/7/2008	HTO	91.32	0.66	0.29	=
7/7/2008	HTO	91.37	0.66	0.29	=
7/8/2008	HTO	104.43	0.70	0.29	=
7/8/2008	HTO	104.87	0.70	0.29	=
7/9/2008	HTO	7.81	0.21	0.29	=
7/9/2008	HTO	8.32	0.21	0.29	=
7/10/2008	HTO	24.98	0.35	0.29	=
7/10/2008	HTO	26.22	0.36	0.29	=
7/11/2008	HTO	86.77	0.66	0.34	=
7/11/2008	HTO	86.95	0.66	0.34	=
7/12/2008	HTO	103.00	0.72	0.34	=
7/12/2008	HTO	103.76	0.72	0.34	=
7/13/2008	HTO	7.93	0.22	0.34	=
7/13/2008	HTO	8.24	0.23	0.34	=
7/14/2008	HTO	51.01	0.51	0.34	=
7/14/2008	HTO	51.31	0.52	0.34	=
7/15/2008	HTO	105.98	0.73	0.34	=
7/15/2008	HTO	107.28	0.74	0.34	=
7/16/2008	HTO	157.58	0.89	0.34	=
7/16/2008	HTO	158.38	0.89	0.34	=
7/17/2008	HTO	187.89	0.97	0.34	=
7/17/2008	HTO	189.77	0.98	0.34	=
7/18/2008	HTO	220.62	1.05	0.34	=
7/18/2008	HTO	222.23	1.05	0.34	=
7/19/2008	HTO	236.17	1.09	0.34	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
7/19/2008	HTO	239.12	1.09	0.34	=
7/20/2008	HTO	256.84	1.13	0.34	=
7/20/2008	HTO	257.55	1.13	0.34	=
7/21/2008	HTO	42.34	0.47	0.34	=
7/21/2008	HTO	42.53	0.47	0.34	=
7/22/2008	HTO	56.29	0.54	0.34	=
7/22/2008	HTO	56.31	0.54	0.34	=
7/23/2008	HTO	28.60	0.39	0.34	=
7/23/2008	HTO	28.92	0.39	0.34	=
7/24/2008	HTO	29.40	0.40	0.34	=
7/24/2008	HTO	29.68	0.40	0.34	=
7/25/2008	HTO	63.05	0.57	0.34	=
7/25/2008	HTO	65.07	0.58	0.34	=
7/26/2008	HTO	77.95	0.63	0.34	=
7/26/2008	HTO	86.91	0.66	0.34	=
7/27/2008	HTO	114.61	0.76	0.34	=
7/27/2008	HTO	116.67	0.77	0.34	=
7/28/2008	HTO	93.82	0.69	0.34	=
7/28/2008	HTO	96.75	0.70	0.34	=
7/29/2008	HTO	30.07	0.40	0.34	=
7/29/2008	HTO	30.14	0.40	0.34	=
7/30/2008	HTO	64.24	0.57	0.34	=
7/30/2008	HTO	64.53	0.58	0.34	=
7/31/2008	HTO	21.65	0.33	0.31	=
7/31/2008	HTO	21.78	0.33	0.31	=
8/1/2008	HTO	17.27	0.30	0.31	=
8/1/2008	HTO	17.35	0.30	0.31	=
8/2/2008	HTO	48.71	0.49	0.31	=
8/2/2008	HTO	48.84	0.49	0.31	=
8/3/2008	HTO	74.73	0.60	0.31	=
8/3/2008	HTO	75.22	0.60	0.31	=
8/4/2008	HTO	92.94	0.67	0.31	=
8/4/2008	HTO	93.39	0.67	0.31	=
8/5/2008	HTO	80.91	0.62	0.31	=
8/5/2008	HTO	80.98	0.62	0.31	=
8/6/2008	HTO	4.58	0.17	0.31	=
8/6/2008	HTO	4.77	0.18	0.31	=
8/7/2008	HTO	24.40	0.35	0.31	=
8/7/2008	HTO	24.78	0.35	0.31	=
8/8/2008	HTO	53.12	0.51	0.31	=
8/8/2008	HTO	53.53	0.51	0.31	=
8/9/2008	HTO	76.52	0.61	0.31	=
8/9/2008	HTO	77.08	0.61	0.31	=
8/10/2008	HTO	100.76	0.69	0.31	=
8/10/2008	HTO	104.58	0.71	0.31	=
8/11/2008	HTO	124.12	0.77	0.31	=
8/11/2008	HTO	124.31	0.77	0.31	=
8/12/2008	HTO	139.29	0.81	0.31	=
8/12/2008	HTO	139.69	0.81	0.31	=
8/13/2008	HTO	154.22	0.85	0.31	=
8/13/2008	HTO	154.74	0.86	0.31	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
8/14/2008	HTO	154.97	0.86	0.31	=
8/14/2008	HTO	155.81	0.86	0.31	=
8/15/2008	HTO	63.41	0.55	0.31	=
8/15/2008	HTO	64.52	0.56	0.31	=
8/16/2008	HTO	95.43	0.67	0.31	=
8/16/2008	HTO	95.92	0.68	0.31	=
10/16/2008	HTO	81.11	0.64	0.33	=
10/16/2008	HTO	82.06	0.64	0.33	=
10/17/2008	HTO	14.44	0.29	0.33	=
10/17/2008	HTO	15.25	0.29	0.33	=
10/18/2008	HTO	39.68	0.45	0.33	=
10/18/2008	HTO	40.35	0.46	0.33	=
10/19/2008	HTO	50.95	0.51	0.33	=
10/19/2008	HTO	51.80	0.52	0.33	=
10/20/2008	HTO	60.15	0.55	0.33	=
10/20/2008	HTO	61.79	0.56	0.33	=
10/21/2008	HTO	70.83	0.60	0.33	=
10/21/2008	HTO	71.60	0.60	0.33	=
10/22/2008	HTO	78.25	0.63	0.33	=
10/22/2008	HTO	78.51	0.63	0.33	=
10/23/2008	HTO	73.40	0.61	0.33	=
10/23/2008	HTO	73.55	0.61	0.33	=
10/24/2008	HTO	33.63	0.42	0.33	=
10/24/2008	HTO	34.33	0.42	0.33	=
10/25/2008	HTO	2.51	0.15	0.33	=
10/25/2008	HTO	2.74	0.15	0.33	=
10/26/2008	HTO	16.63	0.30	0.33	=
10/26/2008	HTO	16.82	0.31	0.33	=
10/27/2008	HTO	34.03	0.42	0.33	=
10/27/2008	HTO	34.60	0.43	0.33	=
10/28/2008	HTO	21.01	0.34	0.33	=
10/28/2008	HTO	21.20	0.34	0.33	=
10/29/2008	HTO	22.40	0.35	0.33	=
10/29/2008	HTO	22.75	0.35	0.33	=
10/30/2008	HTO	34.71	0.43	0.33	=
10/30/2008	HTO	35.16	0.43	0.33	=
10/31/2008	HTO	44.52	0.48	0.33	=
10/31/2008	HTO	44.82	0.48	0.33	=
11/1/2008	HTO	55.85	0.54	0.33	=
11/1/2008	HTO	57.00	0.54	0.33	=
11/2/2008	HTO	65.92	0.58	0.33	=
11/2/2008	HTO	66.24	0.58	0.33	=
11/3/2008	HTO	82.60	0.65	0.33	=
11/3/2008	HTO	83.32	0.65	0.33	=
11/4/2008	HTO	96.90	0.70	0.33	=
11/4/2008	HTO	97.95	0.70	0.33	=
11/5/2008	HTO	111.33	0.75	0.33	=
11/5/2008	HTO	111.93	0.75	0.33	=
11/6/2008	HTO	120.50	0.78	0.33	=
11/6/2008	HTO	120.54	0.78	0.33	=
11/7/2008	HTO	5.20	0.19	0.35	=

Collection Date	Isotope	Activity (pCi/ml)	CU*	MDA	Validation Code
11/7/2008	HTO	5.25	0.19	0.35	=
11/8/2008	HTO	6.60	0.21	0.35	=
11/8/2008	HTO	6.70	0.21	0.35	=
11/9/2008	HTO	25.02	0.37	0.35	=
11/9/2008	HTO	25.39	0.37	0.35	=
11/10/2008	HTO	39.83	0.46	0.35	=
11/10/2008	HTO	41.08	0.47	0.35	=
11/13/2008	HTO	3.58	0.17	0.35	=
11/13/2008	HTO	3.79	0.17	0.35	=
11/14/2008	HTO	19.55	0.33	0.35	=
11/14/2008	HTO	20.76	0.34	0.35	=
11/15/2008	HTO	1.54	0.14	0.35	=
11/15/2008	HTO	1.56	0.14	0.35	=
11/16/2008	HTO	2.90	0.16	0.35	=
11/16/2008	HTO	2.92	0.16	0.35	=
11/17/2008	HTO	19.71	0.33	0.35	=
11/17/2008	HTO	19.72	0.33	0.35	=
11/18/2008	HTO	33.67	0.43	0.35	=
11/18/2008	HTO	34.13	0.43	0.35	=
11/19/2008	HTO	75.90	0.63	0.35	=
11/19/2008	HTO	78.54	0.64	0.35	=
11/20/2008	HTO	116.76	0.77	0.35	=
11/20/2008	HTO	121.34	0.79	0.35	=
11/21/2008	HTO	20.37	0.34	0.35	=
11/21/2008	HTO	20.76	0.34	0.35	=
11/24/2008	HTO	4.85	0.18	0.33	=
11/24/2008	HTO	5.15	0.19	0.33	=
11/25/2008	HTO	9.36	0.24	0.33	=
11/25/2008	HTO	9.70	0.24	0.33	=
11/30/2008	HTO	2.78	0.15	0.33	=
11/30/2008	HTO	3.25	0.16	0.33	=
12/1/2008	HTO	7.95	0.22	0.33	=
12/1/2008	HTO	8.51	0.23	0.33	=
12/2/2008	HTO	13.44	0.27	0.33	=
12/2/2008	HTO	13.45	0.28	0.33	=

Average Activity	90.24
Minimum Activity	1.54
Maximum Activity	287.60

APPENDIX 4. Figures.

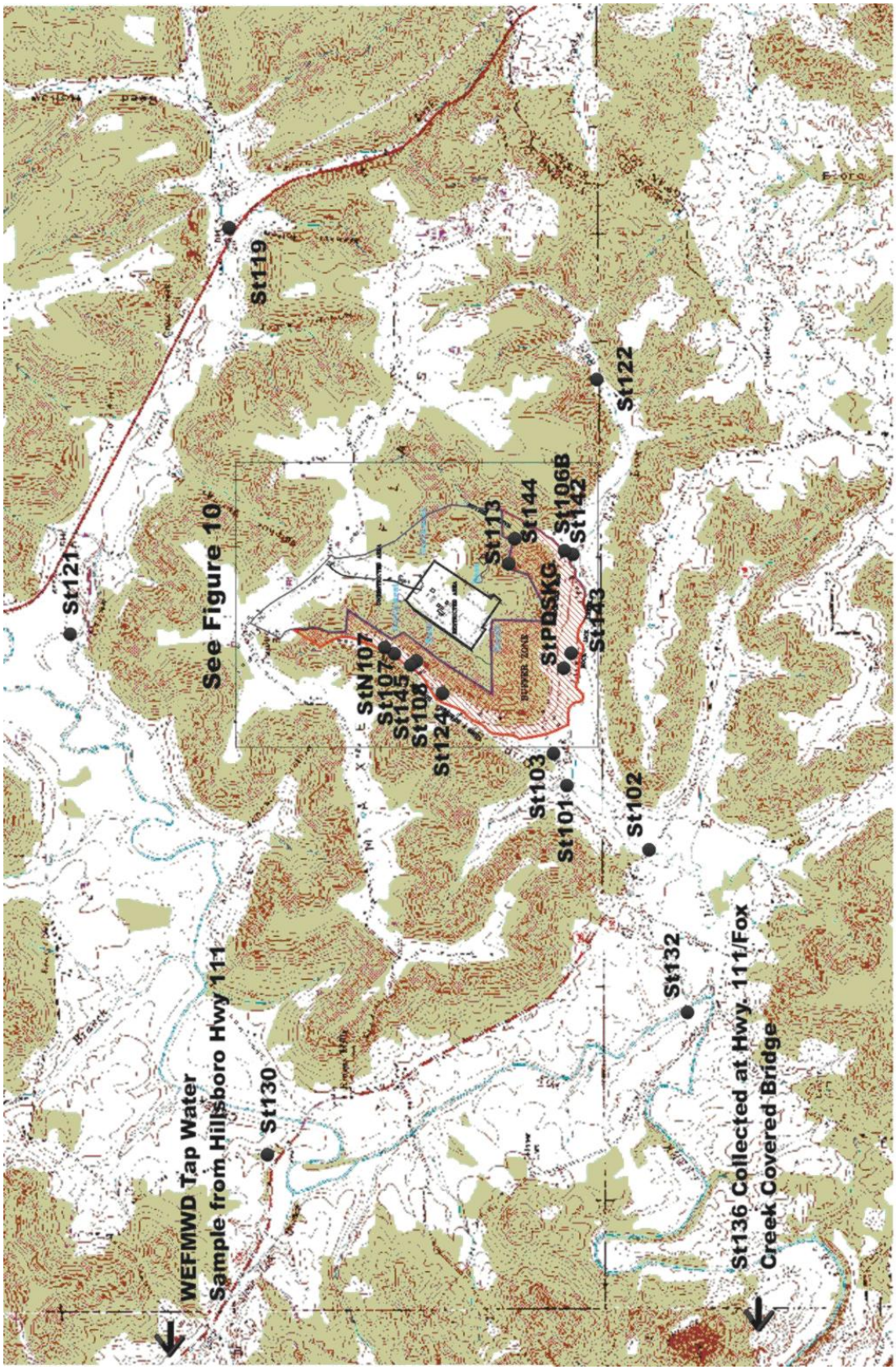


Figure 1. Background and off-site surface water sampling locations

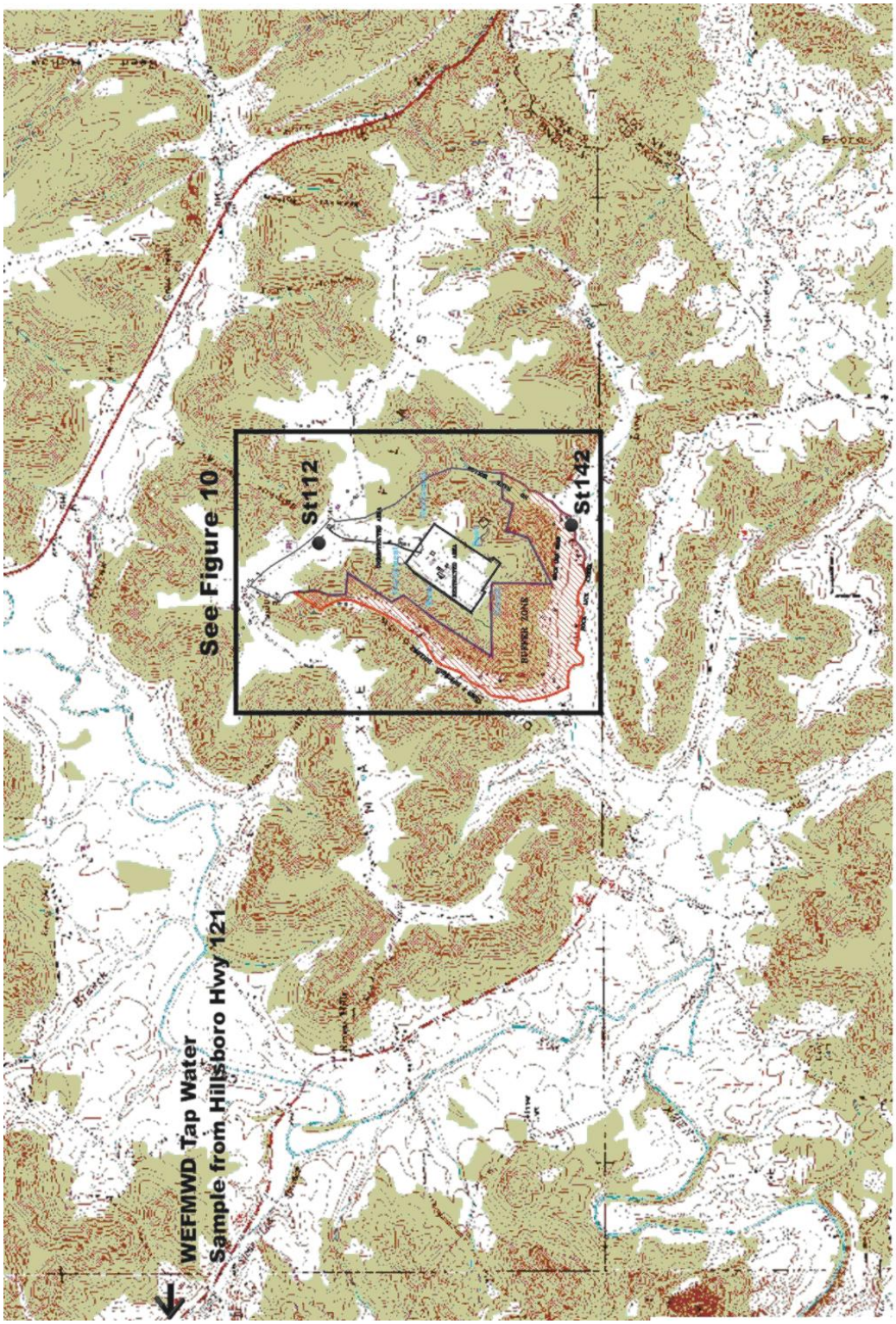


Figure 2. Background and off-site groundwater and drinking water locations

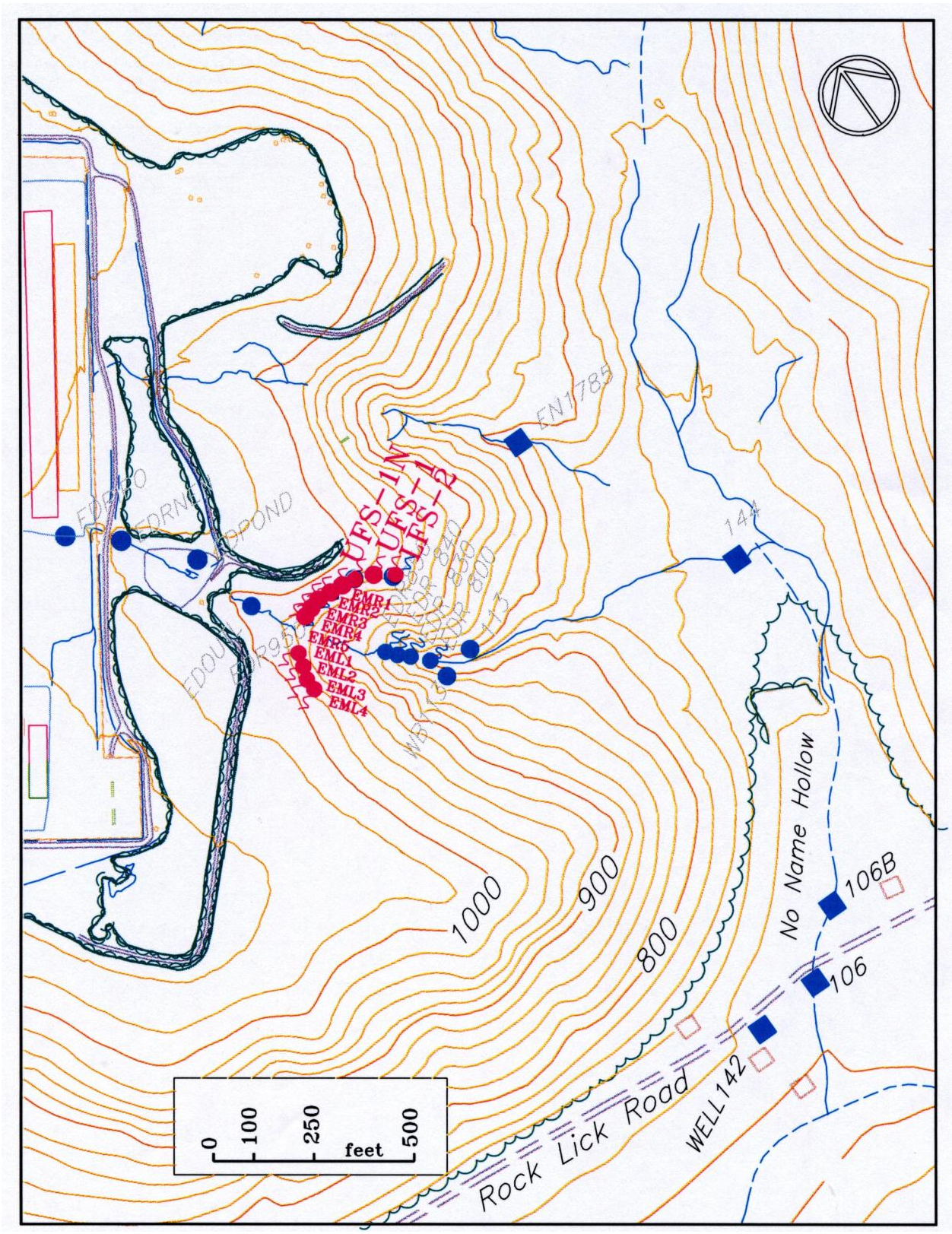


Figure 3. East Drain Hillside seep sampling locations.

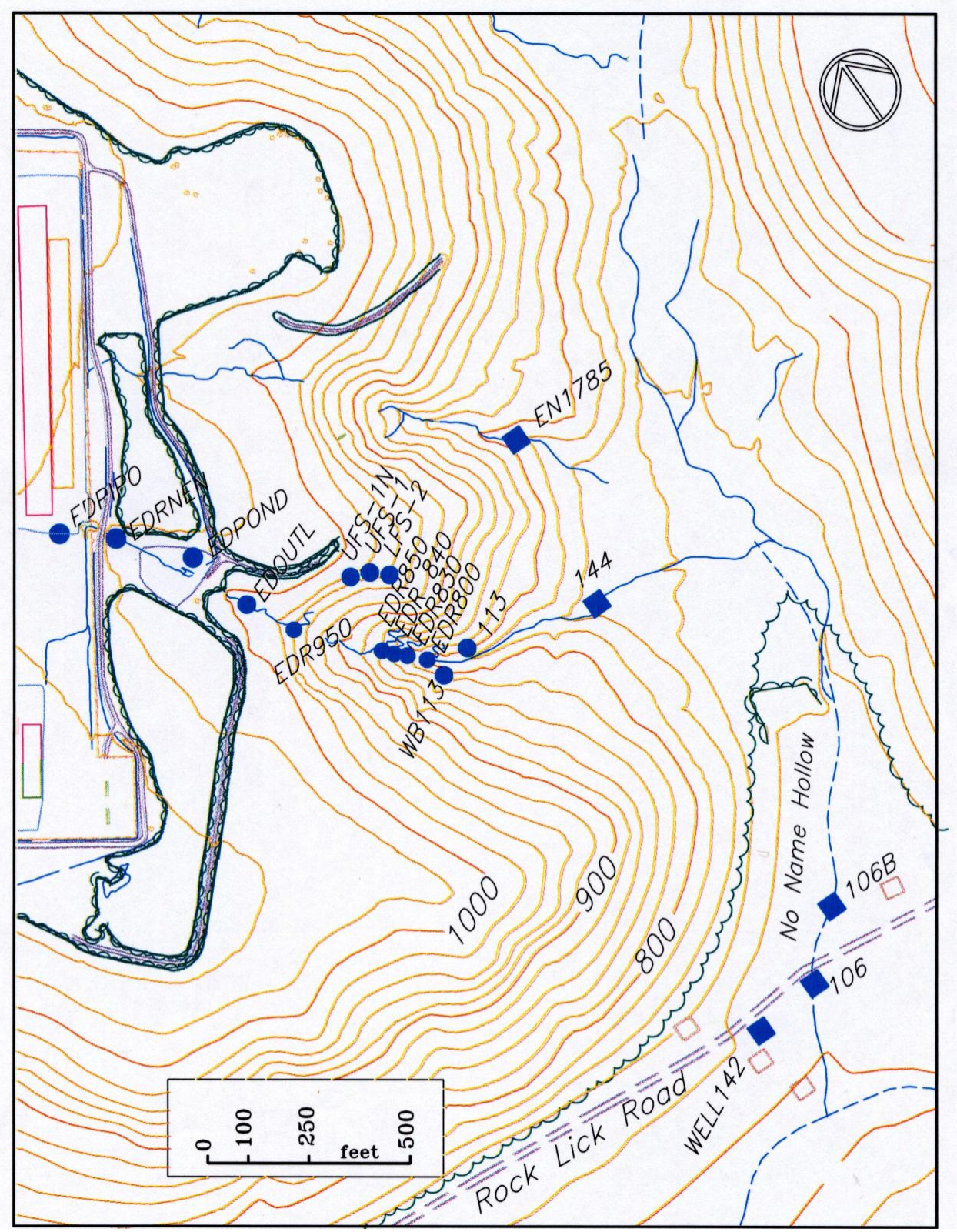


Figure 4. East Drain Hillside surface-water sampling locations.

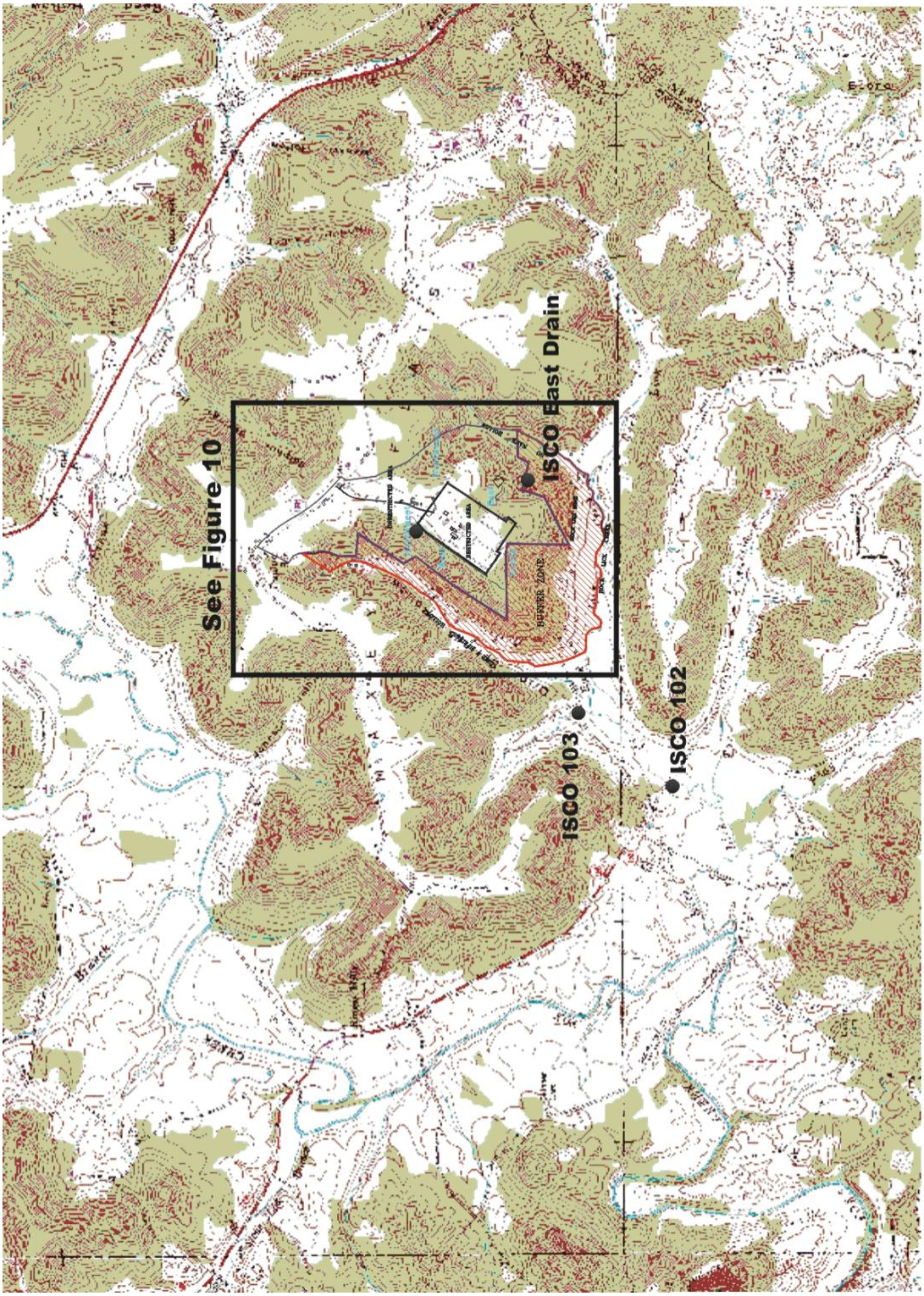


Figure 5. Automated surface water sampling locations (ISCO East Drain = EDRN)

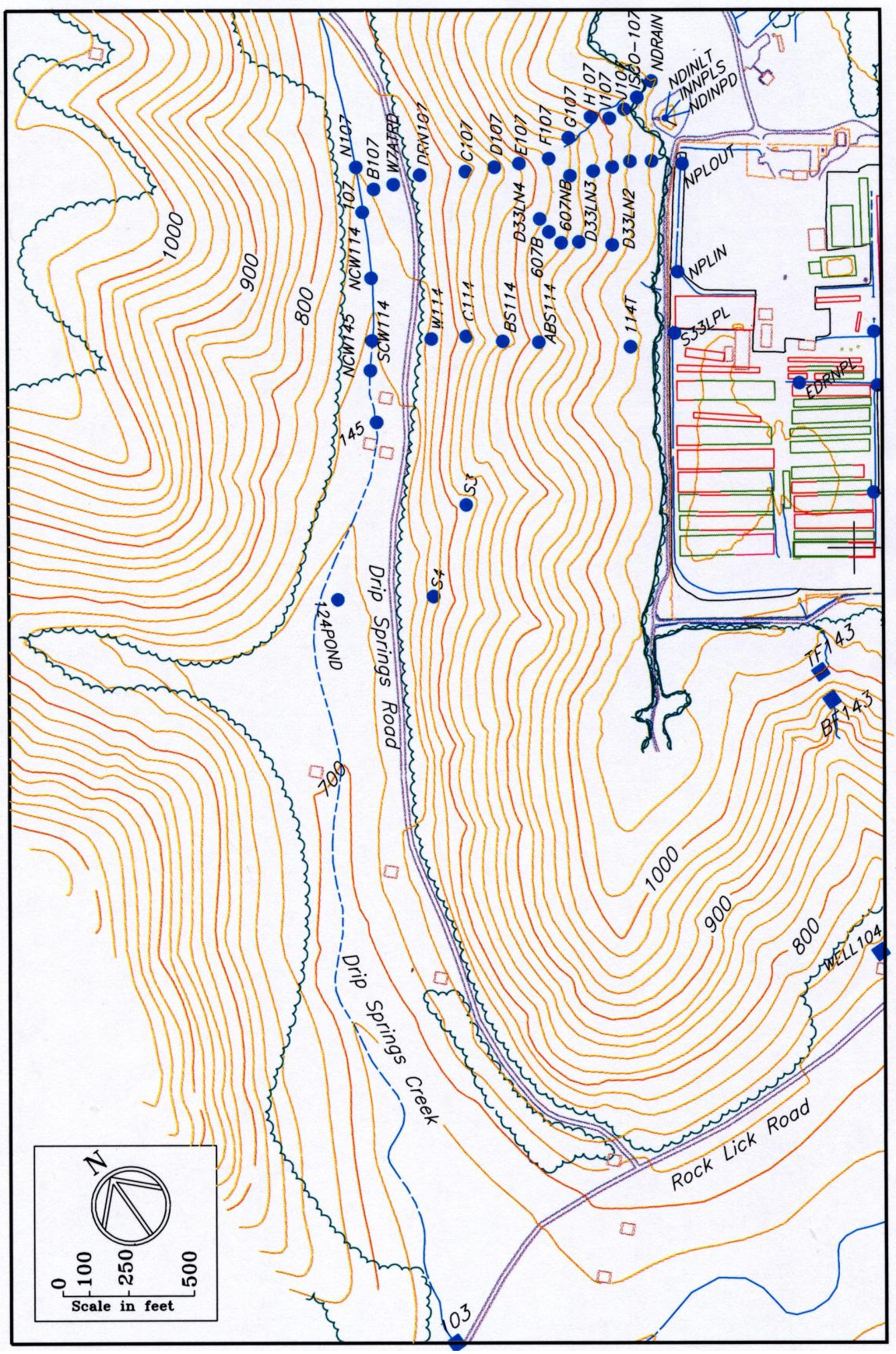


Figure 6. West Hillside surface-water sampling locations.

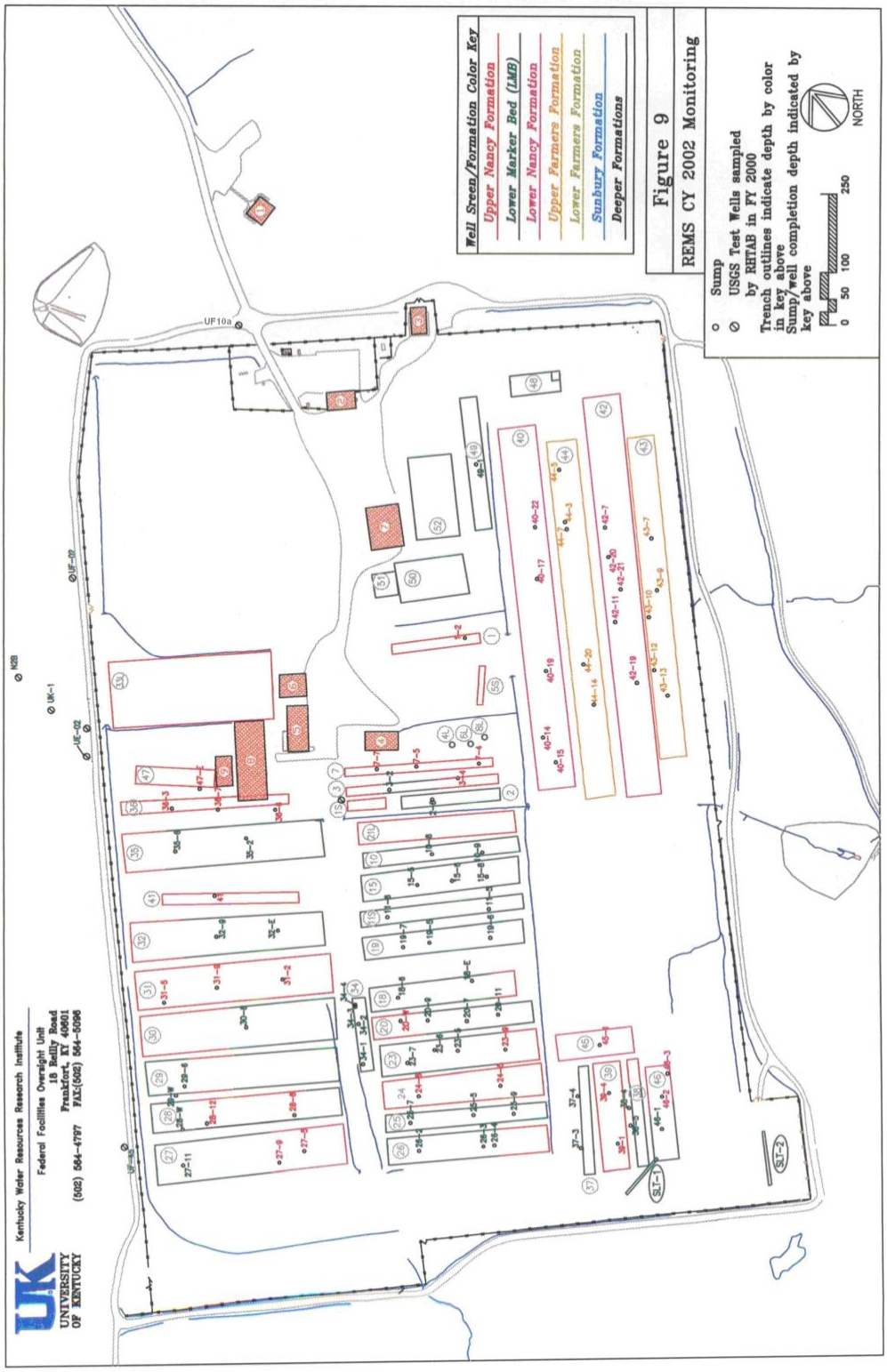


Figure 7. USGS Test Well Sampled in CY 2007

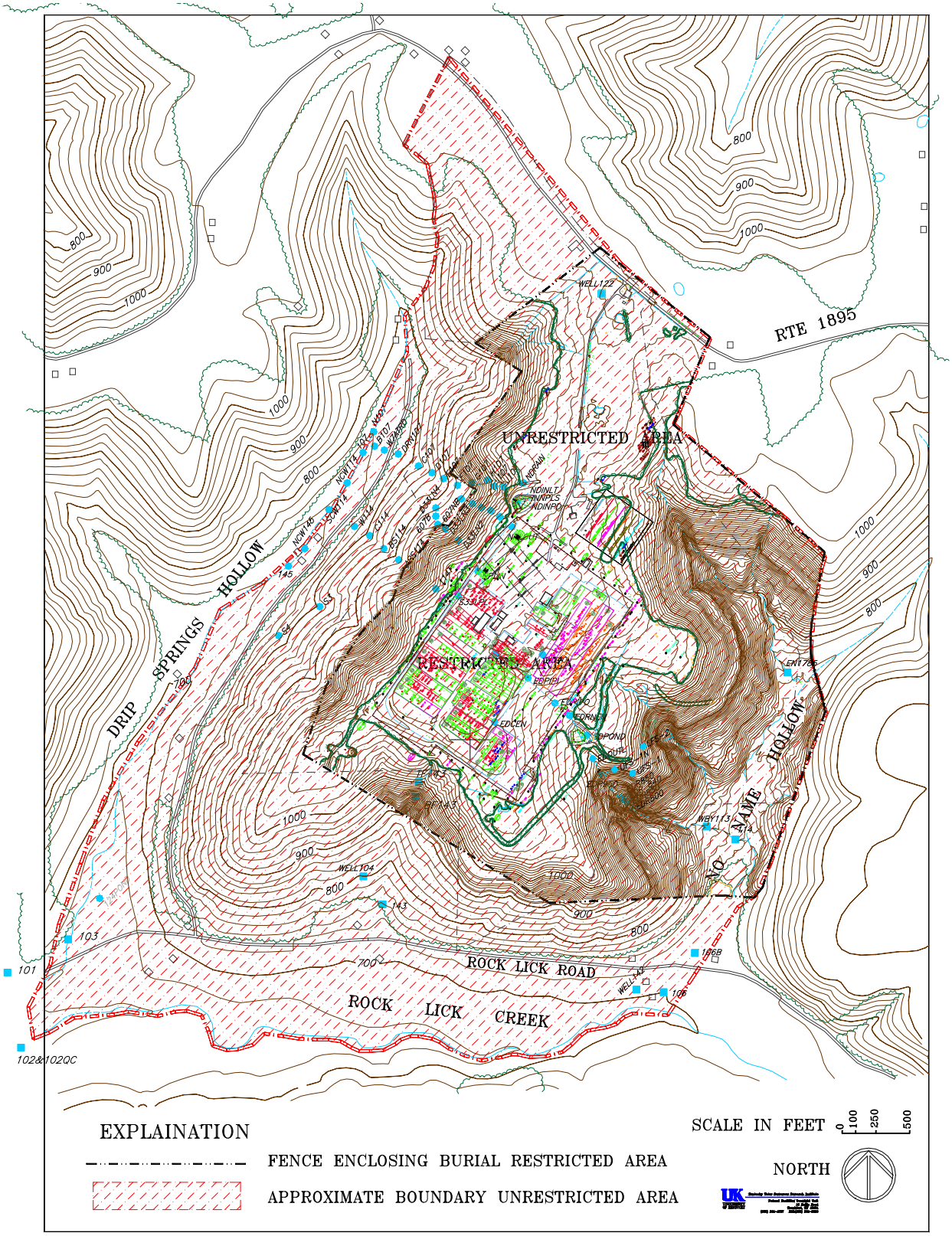


Figure 8. Maxey Flats Nuclear Disposal Site Area Map.

Appendix 5 – Maxey Flats Data Summaries