Department of Health Preliminary Summary
2008 US Ecology Borehole Radiological Sample Investigation Results

This report provides a brief preliminary summary of the results from the Department of Health (DOH) 2008 internal study of the US Ecology commercial low-level radioactive waste disposal facility (see Figure 1). This report includes all sample results and numerous graphical presentations of the results.

A more in-depth review of the data will be performed to assess the potential migration from the US Ecology resin tank and trench areas into the vadose zone, and a formal comprehensive report will be issued at a later date.

Background

An opportunity to sample subsurface soils occurred when the Washington State Department of Ecology's (Ecology) Model Toxics Control Act (MTCA) investigation at US Ecology began in 2008. The intent of the DOH internal study was to take advantage of this opportunity and obtain soil samples at depths below the trench and resin tank areas that would not be feasible through standard environmental sampling methods. The study will also serve to determine if there is any evidence of radionuclide migration from the trenches into the vadose zone. The study area focused on the "Pre-1985 Area" (see Figure 2). This area contains trenches and tanks that were active until the facility was banned from receiving and disposing of RCRA waste in 1985. All sampling sites were chosen by Ecology (see Figures 3-4). This study was funded solely by DOH.

Sampling

The sampling area consisted of 26 boreholes in the Pre-1985 Area. There were 18 vertical trench perimeter boreholes, 6 vertical resin tank perimeter boreholes, and 2 slant boreholes under the resin tanks (see Figures 2 and 3). Two samples were obtained per borehole, one at an "upper depth" and one at a "lower depth". Upper depth samples from the trench areas were taken approximately 10 feet below the bottom of the trenches, while the lower depth samples were taken at the lowest sampling depth, approximately 65-90 feet below ground surface (bgs). Likewise, the resin tank area upper depth samples were taken at approximately 5-10 feet below the bottom of the tanks, and the lower depth samples were taken at the lowest sampling depth, which was approximately 30-40 feet below ground surface (bgs).

A total of 51 samples were obtained. The lower depth sample from one trench area borehole was not obtained due to drilling limitations. All sampling was done in accordance with approved Vista Engineering Technologies, LLC Remedial Investigation/Feasibility Study (RI/FS) plans and procedures.

Analysis

Each sample was analyzed for 16 analytes: pH, moisture content, gross beta, Co-60, Cs-137, K-40, H-3, Ni-63, Sr-90, Tc-99, Ra-226, U-234, U-235, U-238, Pu-238, and Pu-239/240. All analyses were performed by the DOH Public Health Laboratory. Sample results can be found in Tables 1-16.

Preliminary Summary of Results

Figure 5 provides a resin tank area overview showing detected sample results (detected meaning above detection limit or natural background levels) and locations. All sample results are graphically presented by sample ID and depth, and some analytes by borehole in Figures 6-59.

- Pu-238 was not detected in samples from the resin tank or trench areas.
- Pu-239/240 was not detected in samples from the resin tank or trench areas.
- Ra-226 was not detected above background in samples from the resin tank or trench areas.
- Tc-99 was not detected in samples from below the resin tank or trench areas.
- U-238 was detected above background in one upper depth sample in the resin tank area; U-238 was not detected above background in lower depth resin tank area samples or upper/lower depth trench area samples.
- U-234 was detected above background in one upper depth sample in the resin tank area; U-234 was not detected above background in lower depth resin tank area samples or upper/lower depth trench area samples.
- U-235 is suspected to be above background in one lower depth sample in the trench area. U-235 was not detected above background in upper/lower depth resin tank area samples or upper depth trench area samples. More rigorous statistics will be performed on the data set to confirm the result detected above background.
- Gross Beta is suspected to be above background in three upper depth samples in the resin tank area. Gross beta was not detected above background in lower depth resin tank area samples or upper/lower depth trench area samples. More rigorous statistics will be performed on the data set to confirm the results detected above background.
- Co-60 was detected in numerous locations in the upper and lower sampling depths in the resin tank area; Co-60 was not detected in upper or lower depth trench area samples.
- Cs-137 was detected in four upper depth samples in the resin tank area; Cs-137 was not detected in lower depth resin tank area samples or upper/lower depth trench area samples.
- Sr-90 was detected in four upper depth samples in the resin tank area; Sr-90 was not detected in lower depth resin tank area samples or upper/lower depth trench area samples.
- Ni-63 was detected in two upper depth samples in the resin tank area; Ni-63 was not detected in lower depth resin tank area samples or upper/lower depth trench area samples.
- H-3 was detected in numerous locations in the upper and lower sampling depths in both the resin tank and trench areas.

Figure 1. US Ecology Low-Level Radioactive Waste Disposal Site

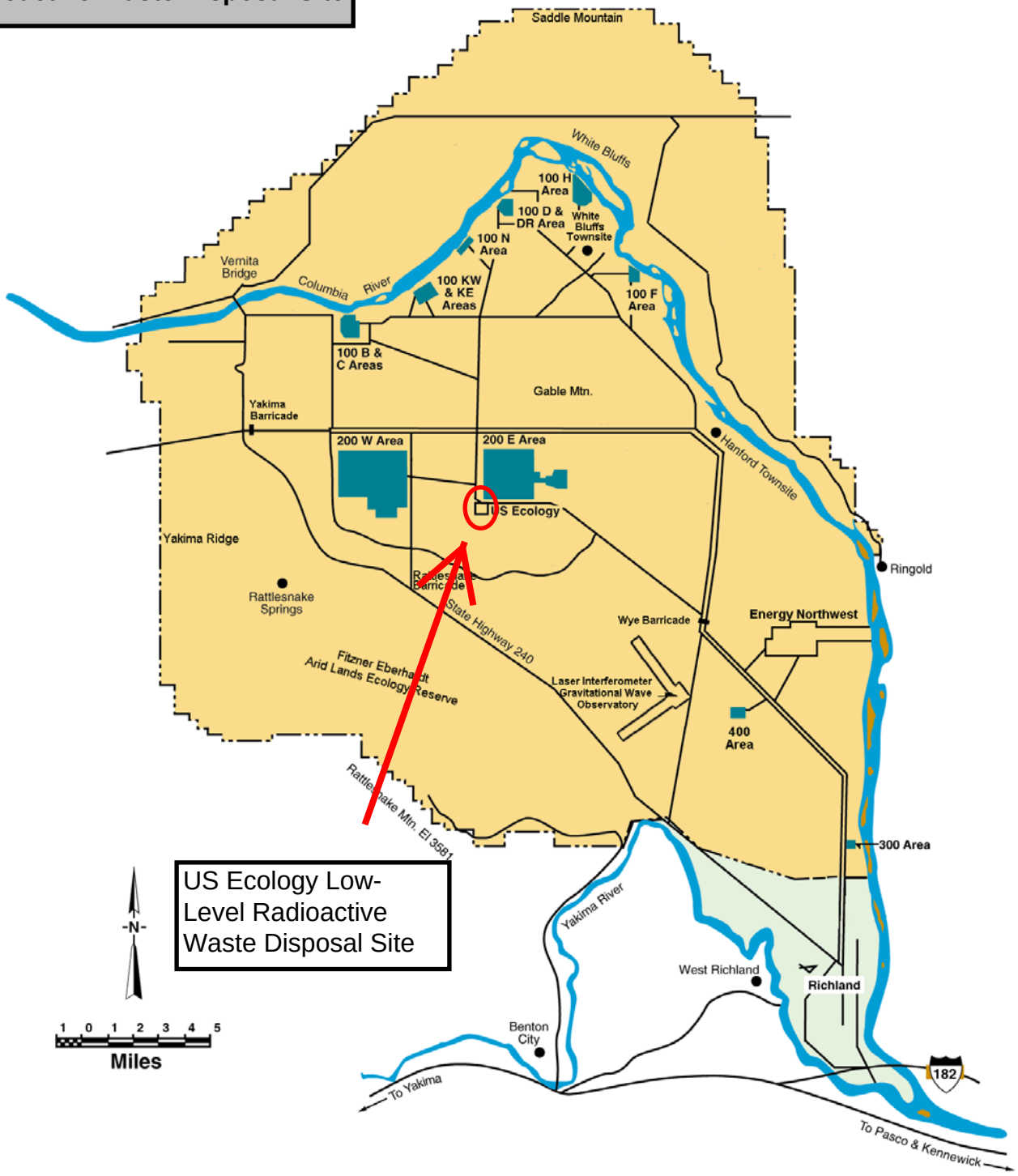


Figure 2. Site Map

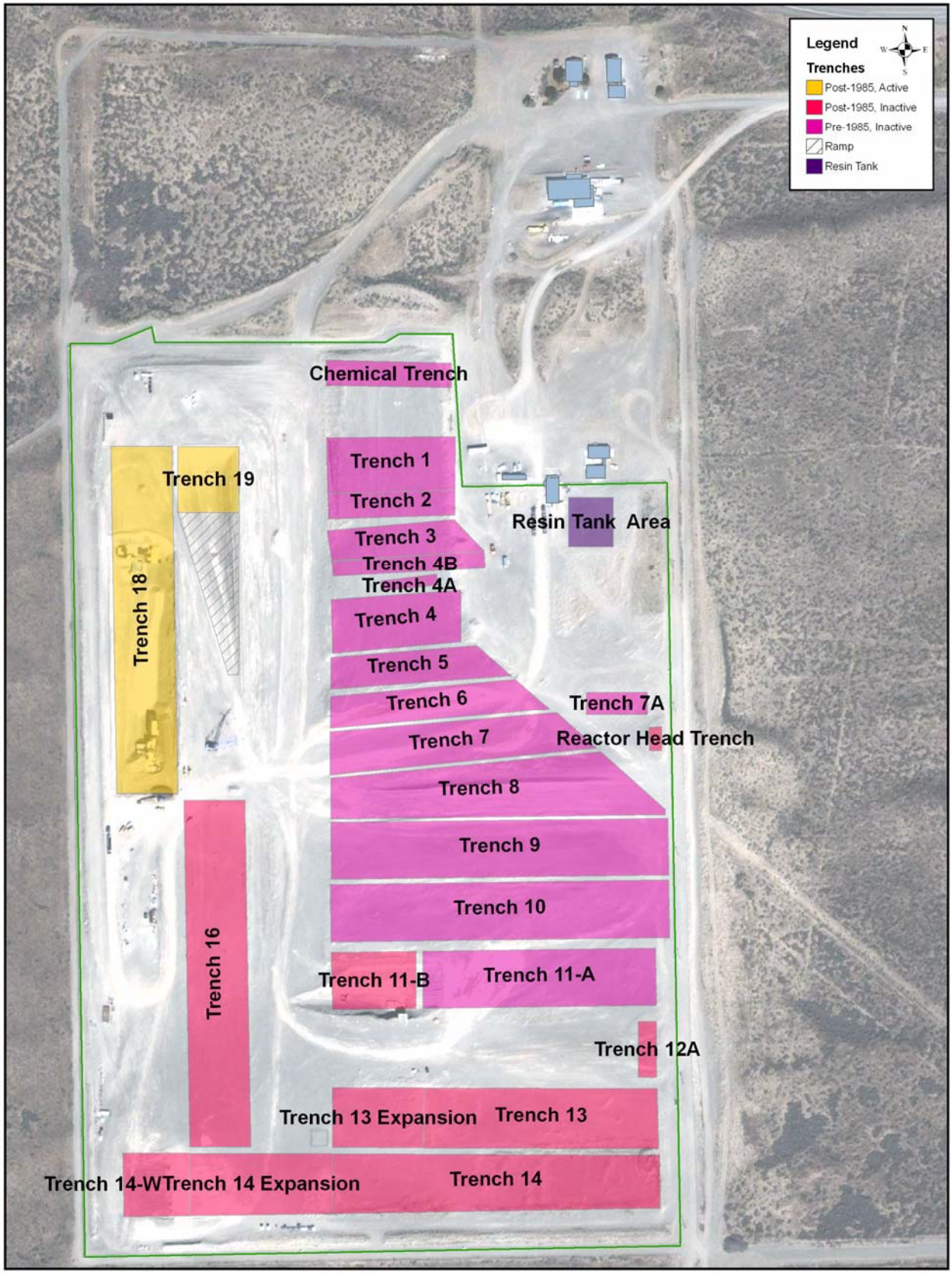


Figure 3. Trench Area Sampling Locations, B10 - B27

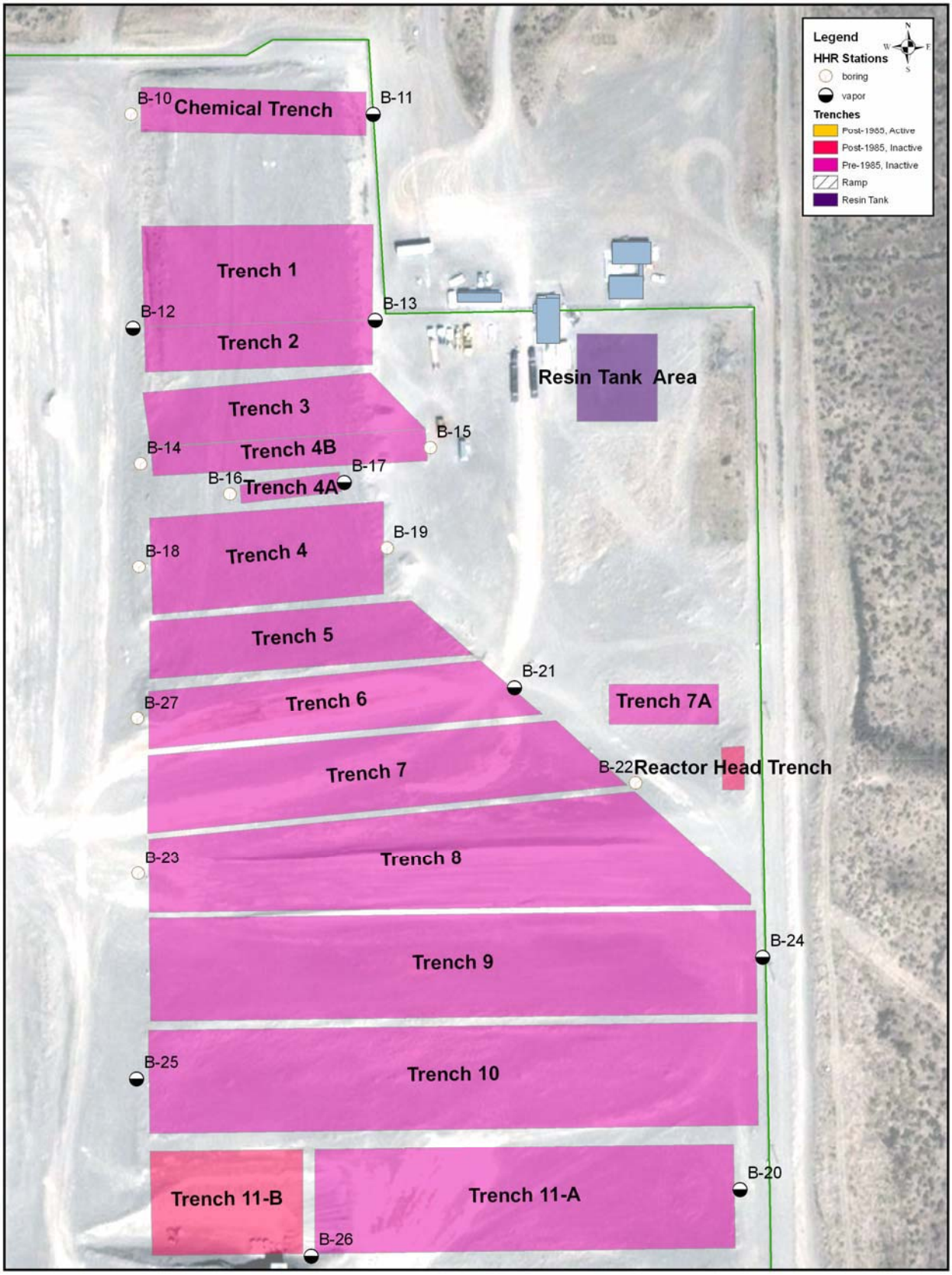


Figure 4. Resin Tank Area Sampling Locations, B1 - B8

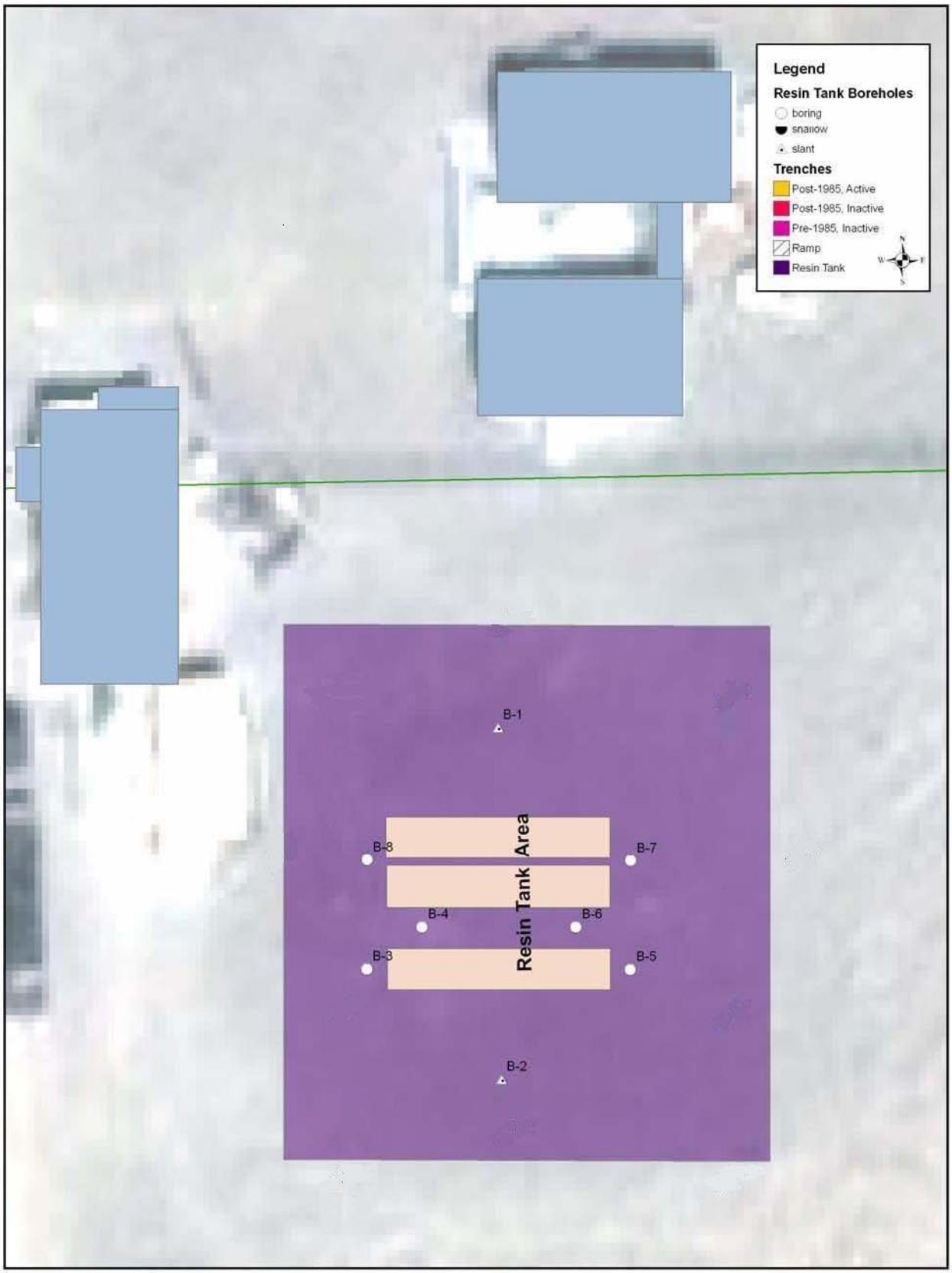
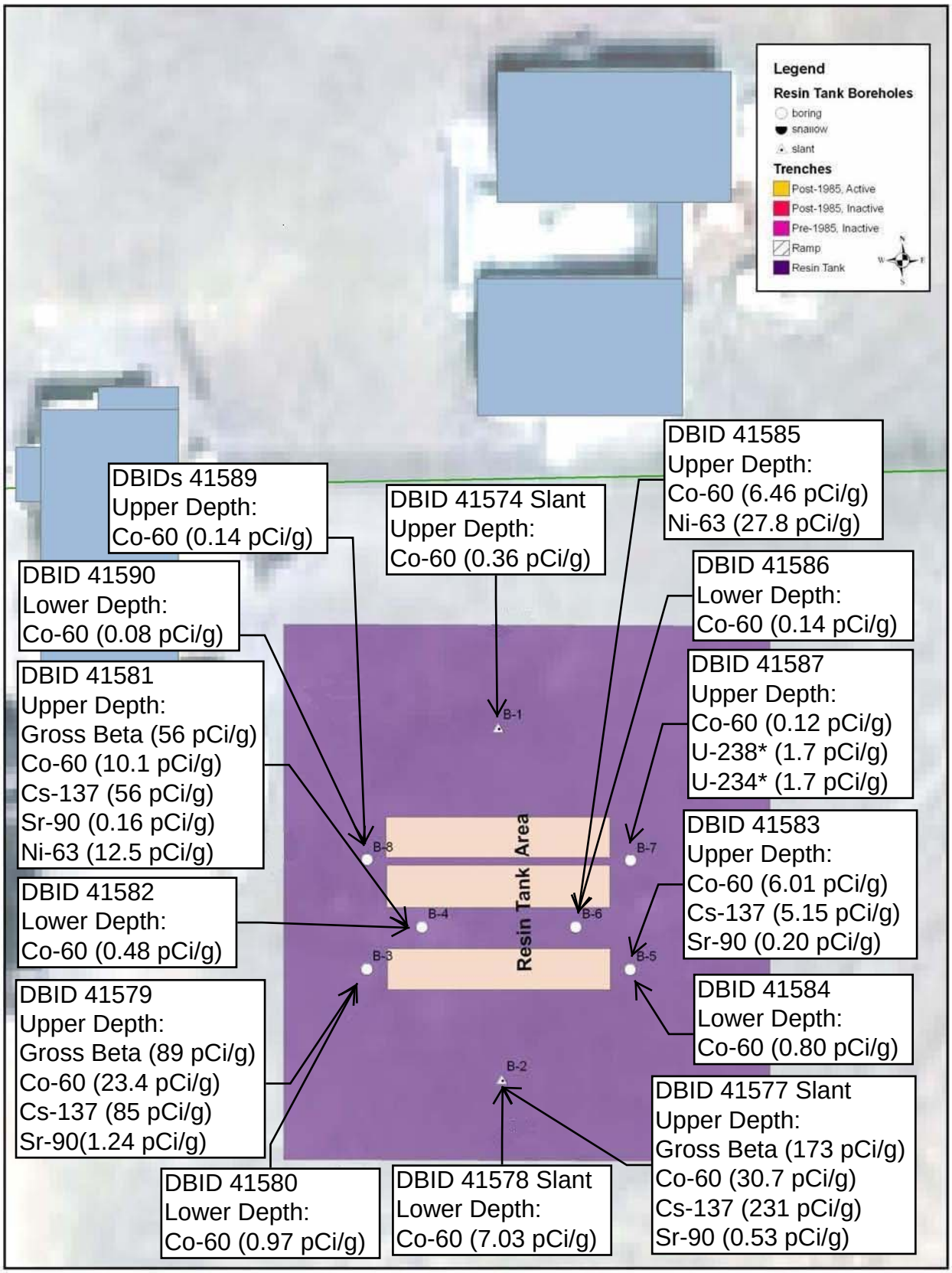


Figure 5. Site Map with Sample Results: Resin Tank Area



* U-238 and U-235 results are gross values and include background contribution.

Table 1. Pu-238 Results

	DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]	MDA [pCi/g]
	41574	25	B1A	NORTH OF TANK 3	-6.8E-03	7.8E-03	6.0E-02	1.8E-02
1	41576	38	B1B	NORTH OF TANK 3	-5.5E-04	6.5E-03	6.0E-02	1.7E-02
	41577	27	B2A	SOUTH OF TANK 1	8.0E-03	1.1E-02	6.0E-02	1.8E-02
	41578	42	B2B	SOUTH OF TANK 1	-3.4E-03	8.9E-03	6.0E-02	1.8E-02
	41579	23	B3A	WEST OF TANK 1	3.3E-03	6.5E-03	6.0E-02	1.7E-02
	41580	33	B3B	WEST OF TANK 1	8.0E-03	1.4E-02	6.0E-02	2.1E-02
	41581	23	B4A	NW OF TANK 1	-2.5E-03	7.1E-03	6.0E-02	2.3E-02
	41582	33	B4B	NW OF TANK 1	-1.3E-02	1.4E-02	6.0E-02	2.8E-02
	41583	23	B5A	EAST OF TANK 1	-6.1E-03	1.1E-02	6.0E-02	2.3E-02
	41584	33	B5B	EAST OF TANK 1	-1.3E-02	1.2E-02	6.0E-02	2.8E-02
	41585	23	B6A	NE OF TANK 1	-6.0E-03	1.2E-02	6.0E-02	2.4E-02
	41586	33	B6B	NE OF TANK 1	-1.7E-02	1.4E-02	6.0E-02	3.2E-02
	41587	23	B7A	E OF TANKS 2&3	-1.4E-03	7.9E-03	6.0E-02	1.9E-02
	41588	33	B7B	E OF TANKS 2&3	0.0E+00	8.7E-03	6.0E-02	2.0E-02
	41589	23	B8A	W OF TANKS 2&3	-2.6E-03	9.5E-03	6.0E-02	2.1E-02
	41590	35	B8B	W OF TANKS 2&3	-6.8E-03	8.7E-03	6.0E-02	2.2E-02
	41591	31	B10A	W OF CHEM TRENCH	0.0E+00	1.3E-02	6.0E-02	2.6E-02
1	41592	66	B10B	W OF CHEM TRENCH	6.0E-03	2.3E-02	6.0E-02	1.8E-02
1	41593	29	B11A	E OF CHEM TRENCH	2.6E-03	1.5E-02	6.0E-02	2.5E-02
	41594	64	B11B	E OF CHEM TRENCH	-6.1E-03	8.0E-03	6.0E-02	2.1E-02
	41595	40	B12A	W OF TRENCHES 1&2	0.0E+00	1.5E-02	6.0E-02	3.0E-02
	41596	75	B12B	W OF TRENCHES 1&2	-1.3E-03	9.0E-03	6.0E-02	2.0E-02
	41597	39	B13A	E OF TRENCHES 1&2	-3.5E-03	7.3E-03	6.0E-02	1.6E-02
	41598	74	B13B	E OF TRENCHES 1&2	-6.8E-03	9.4E-03	6.0E-02	2.1E-02
1	41599	54	B14A	W OF TRENCH 4-B	-3.0E-04	4.0E-03	6.0E-02	8.0E-03
	41600	89	B14B	W OF TRENCH 4-B	-2.0E-03	4.0E-03	6.0E-02	1.3E-02
1	41601	58	B15A	E OF TRENCH 4-B	7.0E-04	1.1E-02	6.0E-02	6.6E-03
	41602	89	B15B	E OF TRENCH 4-B	-3.7E-03	8.2E-03	6.0E-02	1.8E-02
	41603	41	B16A	W OF TRENCH 4-A	7.0E-04	5.0E-03	6.0E-02	1.2E-02
	41604	76	B16B	W OF TRENCH 4-A	3.0E-03	4.0E-03	6.0E-02	9.0E-03
	41605	40	B17A	E OF TRENCH 4-A	-2.0E-03	4.0E-03	6.0E-02	1.0E-02
	41606	75	B17B	E OF TRENCH 4-A	-9.5E-03	1.1E-02	6.0E-02	2.4E-02
	41607	43	B18A	WEST OF TRENCH 4	-8.5E-03	9.2E-03	6.0E-02	2.3E-02
	41608	78	B18B	WEST OF TRENCH 4	1.9E-03	8.4E-03	6.0E-02	1.7E-02
	41609	43	B19A	EAST OF TRENCH 4	6.0E-03	1.3E-02	6.0E-02	2.4E-02
2	41610	75.25	B19B	EAST OF TRENCH 4	-4.7E-03	9.0E-03	6.0E-02	2.1E-02
1	41611	43	B20A	E TRENCH 11-A	1.2E-02	1.7E-02	6.0E-02	1.7E-02
	41612	76	B20B	E TRENCH 11-A	3.0E-04	5.3E-03	6.0E-02	1.3E-02
	41613	39	B21A	EAST OF TRENCH 6	-7.3E-03	9.7E-03	6.0E-02	2.3E-02
	41614	74	B21B	EAST OF TRENCH 6	-2.0E-04	8.7E-03	6.0E-02	1.8E-02
	41615	53	B22A	E OF TRENCHES 7&8	1.3E-03	7.8E-03	6.0E-02	1.6E-02
	41616	84	B22B	E OF TRENCHES 7&8	9.0E-03	1.2E-02	6.0E-02	2.1E-02
	41617	49	B23A	WEST OF TRENCH 8	1.2E-03	9.4E-03	6.0E-02	1.9E-02
1	41618	84	B23B	WEST OF TRENCH 8	2.0E-03	3.0E-02	6.0E-02	1.8E-02
	41619	57	B24A	EAST OF TRENCH 9	-4.4E-03	9.2E-03	6.0E-02	2.2E-02
	41620	89	B24B	EAST OF TRENCH 9	2.0E-03	1.7E-02	6.0E-02	3.3E-02
	41621	57	B25A	WEST OF TRENCH 10	-3.0E-03	1.4E-02	6.0E-02	3.1E-02
	41622	89	B25B	WEST OF TRENCH 10	1.2E-03	7.9E-03	6.0E-02	1.7E-02
	41623	53	B26A	W OF TRENCH 11-A	0.0E+00	1.0E-02	6.0E-02	2.2E-02
	41624	89	B26B	W OF TRENCH 11-A	-4.0E-03	1.5E-02	6.0E-02	3.4E-02
1	41625	57	B27A	WEST OF TRENCH 6	3.0E-03	2.2E-02	6.0E-02	2.3E-02

[1] Arithmetic mean of multiple aliquots.

[2] Analyzed and reported on wet sample aliquot; all other samples, dry aliquots analyzed and reported dry.

Table 2. Pu-239/240 Results

	DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]	MDA [pCi/g]	Units
	41574	25	B1A	NORTH OF TANK 3	0.0E+00	3.1E-03	3.0E-03	1.2E-02	pCi/g
1	41576	38	B1B	NORTH OF TANK 3	5.0E-04	6.5E-03	3.0E-03	1.1E-02	pCi/g
	41577	27	B2A	SOUTH OF TANK 1	0.0E+00	2.3E-03	3.0E-03	1.3E-02	pCi/g
	41578	42	B2B	SOUTH OF TANK 1	-2.3E-03	3.2E-03	3.0E-03	1.2E-02	pCi/g
	41579	23	B3A	WEST OF TANK 1	2.2E-03	6.9E-03	3.0E-03	1.2E-02	pCi/g
	41580	33	B3B	WEST OF TANK 1	1.3E-03	5.9E-03	3.0E-03	1.4E-02	pCi/g
	41581	23	B4A	NW OF TANK 1	2.5E-03	3.5E-03	3.0E-03	9.2E-03	pCi/g
	41582	33	B4B	NW OF TANK 1	-1.3E-03	2.6E-03	3.0E-03	9.4E-03	pCi/g
	41583	23	B5A	EAST OF TANK 1	1.2E-03	4.1E-03	3.0E-03	8.8E-03	pCi/g
	41584	33	B5B	EAST OF TANK 1	5.1E-03	7.3E-03	3.0E-03	1.2E-02	pCi/g
	41585	23	B6A	NE OF TANK 1	1.2E-03	4.1E-03	3.0E-03	8.8E-03	pCi/g
	41586	33	B6B	NE OF TANK 1	0.0E+00	2.6E-03	3.0E-03	9.6E-03	pCi/g
	41587	23	B7A	E OF TANKS 2&3	-4.1E-03	4.6E-03	3.0E-03	1.5E-02	pCi/g
	41588	33	B7B	E OF TANKS 2&3	0.0E+00	3.9E-03	3.0E-03	1.0E-02	pCi/g
	41589	23	B8A	W OF TANKS 2&3	-2.6E-03	4.7E-03	3.0E-03	1.3E-02	pCi/g
	41590	35	B8B	W OF TANKS 2&3	-1.4E-03	2.6E-03	3.0E-03	9.9E-03	pCi/g
	41591	31	B10A	W OF CHEM TRENCH	-1.4E-03	6.4E-03	3.0E-03	1.6E-02	pCi/g
1	41592	66	B10B	W OF CHEM TRENCH	1.1E-02	2.0E-02	3.0E-03	1.1E-02	pCi/g
	41593	29	B11A	E OF CHEM TRENCH	2.1E-03	5.9E-03	3.0E-03	1.3E-02	pCi/g
	41594	64	B11B	E OF CHEM TRENCH	1.4E-03	4.6E-03	3.0E-03	1.0E-02	pCi/g
	41595	40	B12A	W OF TRENCHES 1&2	6.3E-03	6.1E-03	3.0E-03	1.0E-02	pCi/g
	41596	75	B12B	W OF TRENCHES 1&2	1.3E-03	2.5E-03	3.0E-03	9.2E-03	pCi/g
	41597	39	B13A	E OF TRENCHES 1&2	0.0E+00	2.3E-03	3.0E-03	8.5E-03	pCi/g
	41598	74	B13B	E OF TRENCHES 1&2	1.1E-03	3.2E-03	3.0E-03	8.4E-03	pCi/g
1	41599	54	B14A	W OF TRENCH 4-B	8.0E-04	2.0E-03	3.0E-03	6.0E-03	pCi/g
	41600	89	B14B	W OF TRENCH 4-B	6.0E-04	1.2E-03	3.0E-03	4.0E-03	pCi/g
1	41601	58	B15A	E OF TRENCH 4-B	2.0E-03	7.4E-03	3.0E-03	3.1E-03	pCi/g
	41602	89	B15B	E OF TRENCH 4-B	1.2E-03	4.3E-03	3.0E-03	1.2E-02	pCi/g
	41603	41	B16A	W OF TRENCH 4-A	-1.0E-03	3.0E-03	3.0E-03	8.0E-03	pCi/g
	41604	76	B16B	W OF TRENCH 4-A	3.0E-03	3.0E-03	3.0E-03	7.0E-03	pCi/g
	41605	40	B17A	E OF TRENCH 4-A	1.0E-03	2.0E-03	3.0E-03	5.0E-03	pCi/g
	41606	75	B17B	E OF TRENCH 4-A	-1.1E-03	2.1E-03	3.0E-03	7.7E-03	pCi/g
	41607	43	B18A	WEST OF TRENCH 4	-2.6E-03	3.6E-03	3.0E-03	1.2E-02	pCi/g
	41608	78	B18B	WEST OF TRENCH 4	0.0E+00	4.0E-03	3.0E-03	1.0E-02	pCi/g
	41609	43	B19A	EAST OF TRENCH 4	1.5E-03	3.0E-03	3.0E-03	4.1E-03	pCi/g
2	41610	75.25	B19B	EAST OF TRENCH 4	0.0E+00	4.0E-03	3.0E-03	1.0E-02	pCi/g
1	41611	43	B20A	E TRENCH 11-A	2.3E-03	1.0E-02	3.0E-03	4.9E-03	pCi/g
	41612	76	B20B	E TRENCH 11-A	1.5E-03	5.3E-03	3.0E-03	1.1E-02	pCi/g
	41613	39	B21A	EAST OF TRENCH 6	3.0E-03	6.1E-03	3.0E-03	1.2E-02	pCi/g
	41614	74	B21B	EAST OF TRENCH 6	-3.1E-03	4.3E-03	3.0E-03	1.2E-02	pCi/g
	41615	53	B22A	E OF TRENCHES 7&8	-2.2E-03	4.5E-03	3.0E-03	1.2E-02	pCi/g
	41616	84	B22B	E OF TRENCHES 7&8	3.0E-04	4.9E-03	3.0E-03	1.2E-02	pCi/g
	41617	49	B23A	WEST OF TRENCH 8	3.5E-03	5.8E-03	3.0E-03	1.1E-02	pCi/g
	41618	84	B23B	WEST OF TRENCH 8	1.2E-03	4.8E-03	3.0E-03	1.0E-02	pCi/g
	41619	57	B24A	EAST OF TRENCH 9	-2.7E-03	7.1E-03	3.0E-03	1.8E-02	pCi/g
	41620	89	B24B	EAST OF TRENCH 9	-2.3E-03	7.5E-03	3.0E-03	2.1E-02	pCi/g
	41621	57	B25A	WEST OF TRENCH 10	-4.2E-03	9.2E-03	3.0E-03	2.3E-02	pCi/g
	41622	89	B25B	WEST OF TRENCH 10	-2.9E-03	6.1E-03	3.0E-03	1.5E-02	pCi/g
	41623	53	B26A	W OF TRENCH 11-A	-2.8E-03	5.3E-03	3.0E-03	1.5E-02	pCi/g
	41624	89	B26B	W OF TRENCH 11-A	-2.1E-03	8.3E-03	3.0E-03	2.3E-02	pCi/g
	41625	57	B27A	WEST OF TRENCH 6	-5.0E-04	5.9E-03	3.0E-03	1.3E-02	pCi/g

[1] Arithmetic mean of multiple aliquots.

[2] Analyzed and reported on wet sample aliquot; all other samples, dry aliquots analyzed and reported dry.

Table 3. Ra-226 Results

	DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]	MDA* [pCi/g]
	41574	25	B1A	NORTH OF TANK 3	4.60E-01	3.0E-02	4.2E-02	
	41576	38	B1B	NORTH OF TANK 3	5.10E-01	3.0E-02	4.2E-02	
1	41577	27	B2A	SOUTH OF TANK 1	2.0E-01	4.0E-01	4.2E-02	7.00E-01
	41578	42	B2B	SOUTH OF TANK 1	5.40E-01	4.0E-02	4.2E-02	
	41579	23	B3A	WEST OF TANK 1	6.0E-01	1.0E-01	4.2E-02	
	41580	33	B3B	WEST OF TANK 1	5.80E-01	4.0E-02	4.2E-02	
	41581	23	B4A	NW OF TANK 1	5.30E-01	7.0E-02	4.2E-02	
	41582	33	B4B	NW OF TANK 1	7.16E-01	7.2E-02	4.2E-02	
	41583	23	B5A	EAST OF TANK 1	5.89E-01	5.2E-02	4.2E-02	
	41584	33	B5B	EAST OF TANK 1	6.42E-01	6.6E-02	4.2E-02	
	41585	23	B6A	NE OF TANK 1	5.24E-01	4.5E-02	4.2E-02	
	41586	33	B6B	NE OF TANK 1	6.90E-01	4.5E-02	4.2E-02	
	41587	23	B7A	E OF TANKS 2&3	6.79E-01	4.7E-02	4.2E-02	
	41588	33	B7B	E OF TANKS 2&3	6.82E-01	4.6E-02	4.2E-02	
	41589	23	B8A	W OF TANKS 2&3	4.65E-01	3.7E-02	4.2E-02	
	41590	35	B8B	W OF TANKS 2&3	7.19E-01	4.7E-02	4.2E-02	
	41591	31	B10A	W OF CHEM TRENCH	5.32E-01	3.2E-02	4.2E-02	
	41592	66	B10B	W OF CHEM TRENCH	6.60E-01	4.3E-02	4.2E-02	
	41593	29	B11A	E OF CHEM TRENCH	5.30E-01	3.0E-02	4.2E-02	
	41594	64	B11B	E OF CHEM TRENCH	6.90E-01	5.0E-02	4.2E-02	
	41595	40	B12A	W OF TRENCHES 1&2	6.60E-01	3.0E-02	4.2E-02	
	41596	75	B12B	W OF TRENCHES 1&2	6.10E-01	4.0E-02	4.2E-02	
	41597	39	B13A	E OF TRENCHES 1&2	7.48E-01	4.9E-02	4.2E-02	
	41598	74	B13B	E OF TRENCHES 1&2	6.72E-01	4.4E-02	4.2E-02	
	41599	54	B14A	W OF TRENCH 4-B	6.90E-01	5.0E-02	4.2E-02	
	41600	89	B14B	W OF TRENCH 4-B	6.83E-01	7.1E-02	4.2E-02	
	41601	58	B15A	E OF TRENCH 4-B	5.70E-01	3.0E-02	4.2E-02	
	41602	89	B15B	E OF TRENCH 4-B	6.90E-01	5.0E-02	4.2E-02	
	41603	41	B16A	W OF TRENCH 4-A	4.60E-01	3.8E-02	4.2E-02	
	41604	76	B16B	W OF TRENCH 4-A	6.73E-01	4.7E-02	4.2E-02	
	41605	40	B17A	E OF TRENCH 4-A	3.99E-01	3.3E-02	4.2E-02	
	41606	75	B17B	E OF TRENCH 4-A	6.13E-01	4.6E-02	4.2E-02	
	41607	43	B18A	WEST OF TRENCH 4	5.10E-01	2.0E-02	4.2E-02	
	41608	78	B18B	WEST OF TRENCH 4	5.92E-01	3.9E-02	4.2E-02	
	41609	43	B19A	EAST OF TRENCH 4	6.00E-01	4.0E-02	4.2E-02	
2	41610	75.25	B19B	EAST OF TRENCH 4	7.83E-01	8.4E-02	7.5E-02	
	41611	43	B20A	E TRENCH 11-A	6.50E-01	3.0E-02	4.2E-02	
	41612	76	B20B	E TRENCH 11-A	6.51E-01	3.1E-02	4.2E-02	
	41613	39	B21A	EAST OF TRENCH 6	7.20E-01	5.0E-02	4.2E-02	
	41614	74	B21B	EAST OF TRENCH 6	6.90E-01	4.0E-02	4.2E-02	
	41615	53	B22A	E OF TRENCHES 7&8	7.70E-01	4.0E-02	4.2E-02	
	41616	84	B22B	E OF TRENCHES 7&8	6.50E-01	5.0E-02	4.2E-02	
	41617	49	B23A	WEST OF TRENCH 8	8.50E-01	7.7E-02	4.2E-02	
	41618	84	B23B	WEST OF TRENCH 8	5.96E-01	3.8E-02	4.2E-02	
	41619	57	B24A	EAST OF TRENCH 9	6.92E-01	4.7E-02	4.2E-02	
	41620	89	B24B	EAST OF TRENCH 9	7.38E-01	4.3E-02	4.2E-02	
	41621	57	B25A	WEST OF TRENCH 10	6.78E-01	4.4E-02	4.2E-02	
	41622	89	B25B	WEST OF TRENCH 10	6.44E-01	4.2E-02	4.2E-02	
	41623	53	B26A	W OF TRENCH 11-A	7.64E-01	4.2E-02	4.2E-02	
	41624	89	B26B	W OF TRENCH 11-A	6.30E-01	4.0E-02	4.2E-02	
	41625	57	B27A	WEST OF TRENCH 6	6.45E-01	4.4E-02	4.2E-02	

* MDA not reported when result is greater than MDA at the 95% confidence level.

1 Result biased low, Co-60 and Cs-137 fission product backscatter interference in Ra-226 region of interest.

2 Analyzed and reported on wet sample aliquot; all other samples, dry aliquots analyzed and reported dry.

Table 4. Tc-99 Results

	DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]	MDA [pCi/g]
[1]	41574	25	B1A	NORTH OF TANK 3	0.0E+00	1.6E-01	5.0E-01	2.5E-01
[1]	41576	38	B1B	NORTH OF TANK 3	-1.8E-01	2.4E-01	5.0E-01	2.5E-01
[1]	41577	27	B2A	SOUTH OF TANK 1	6.3E-02	1.9E-01	5.0E-01	2.9E-01
[1]	41578	42	B2B	SOUTH OF TANK 1	1.1E-01	1.8E-01	5.0E-01	2.8E-01
[1]	41579	23	B3A	WEST OF TANK 1	1.4E-01	2.1E-01	5.0E-01	2.9E-01
[1]	41580	33	B3B	WEST OF TANK 1	9.0E-02	1.9E-01	5.0E-01	2.9E-01
[1]	41581	23	B4A	NW OF TANK 1	2.4E-01	2.8E-01	5.0E-01	2.5E-01
[1]	41582	33	B4B	NW OF TANK 1	2.7E-02	1.6E-01	5.0E-01	2.4E-01
[1]	41583	23	B5A	EAST OF TANK 1	9.0E-02	1.6E-01	5.0E-01	2.5E-01
[1]	41584	33	B5B	EAST OF TANK 1	2.4E-01	1.6E-01	5.0E-01	2.4E-01
[1]	41585	23	B6A	NE OF TANK 1	-1.7E-02	1.4E-01	5.0E-01	2.4E-01
[1]	41586	33	B6B	NE OF TANK 1	0.0E+00	1.3E-01	5.0E-01	2.1E-01
[1]	41587	23	B7A	E OF TANKS 2&3	-6.7E-02	1.3E-01	5.0E-01	2.1E-01
[1]	41588	33	B7B	E OF TANKS 2&3	3.6E-02	2.2E-01	5.0E-01	1.0E-01
[1]	41589	23	B8A	W OF TANKS 2&3	0.0E+00	1.2E-01	5.0E-01	1.6E-01
[1]	41590	35	B8B	W OF TANKS 2&3	4.7E-03	1.2E-01	5.0E-01	1.6E-01
[1]	41591	31	B10A	W OF CHEM TRENCH	3.3E-02	1.1E-01	5.0E-01	1.9E-01
[1]	41592	66	B10B	W OF CHEM TRENCH	2.7E-02	1.1E-01	5.0E-01	1.7E-01
[1]	41593	29	B11A	E OF CHEM TRENCH	1.8E-01	1.3E-01	5.0E-01	2.0E-01
[1]	41594	64	B11B	E OF CHEM TRENCH	1.6E-01	1.2E-01	5.0E-01	1.8E-01
[1]	41595	40	B12A	W OF TRENCHES 1&2	1.4E-01	1.4E-01	5.0E-01	1.6E-01
[1]	41596	75	B12B	W OF TRENCHES 1&2	1.5E-01	1.4E-01	5.0E-01	1.8E-01
[1]	41597	39	B13A	E OF TRENCHES 1&2	6.9E-02	1.3E-01	5.0E-01	1.6E-01
[1]	41598	74	B13B	E OF TRENCHES 1&2	3.0E-02	1.4E-01	5.0E-01	2.2E-01
[1]	41599	54	B14A	W OF TRENCH 4-B	9.7E-02	1.4E-01	5.0E-01	2.2E-01
[1]	41600	89	B14B	W OF TRENCH 4-B	1.2E-01	1.4E-01	5.0E-01	2.0E-01
[1]	41601	58	B15A	E OF TRENCH 4-B	1.4E-01	1.4E-01	5.0E-01	2.4E-01
[1]	41602	89	B15B	E OF TRENCH 4-B	-2.0E-02	1.5E-01	5.0E-01	2.5E-01
[1]	41603	41	B16A	W OF TRENCH 4-A	7.7E-02	1.5E-01	5.0E-01	2.5E-01
[1]	41604	76	B16B	W OF TRENCH 4-A	7.7E-02	1.8E-01	5.0E-01	2.5E-01
[1]	41605	40	B17A	E OF TRENCH 4-A	-2.0E-02	1.4E-01	5.0E-01	2.4E-01
[1]	41606	75	B17B	E OF TRENCH 4-A	1.2E-01	1.1E-01	5.0E-01	1.7E-01
[1]	41607	43	B18A	WEST OF TRENCH 4	4.3E-02	1.1E-01	5.0E-01	1.8E-01
[1]	41608	78	B18B	WEST OF TRENCH 4	6.1E-02	1.1E-01	5.0E-01	1.7E-01
[1]	41609	43	B19A	EAST OF TRENCH 4	1.5E-01	3.4E-01	5.0E-01	1.9E-01
[1]	41610	75.25	B19B	EAST OF TRENCH 4	-1.3E-02	1.1E-01	5.0E-01	1.7E-01
[1]	41611	43	B20A	E TRENCH 11-A	-4.0E-02	1.1E-01	5.0E-01	1.9E-01
[1]	41612	76	B20B	E TRENCH 11-A	6.7E-03	1.2E-01	5.0E-01	1.9E-01
[1]	41613	39	B21A	EAST OF TRENCH 6	-3.3E-02	1.2E-01	5.0E-01	1.9E-01
[1]	41614	74	B21B	EAST OF TRENCH 6	-5.9E-01	1.5E-01	5.0E-01	2.8E-01
[1]	41615	53	B22A	E OF TRENCHES 7&8	-5.4E-01	1.6E-01	5.0E-01	2.7E-01
[1]	41616	84	B22B	E OF TRENCHES 7&8	-5.7E-01	1.6E-01	5.0E-01	2.8E-01
[1]	41617	49	B23A	WEST OF TRENCH 8	-4.9E-01	1.6E-01	5.0E-01	2.6E-01
[1]	41618	84	B23B	WEST OF TRENCH 8	2.7E-02	1.5E-01	5.0E-01	2.3E-01
[1]	41619	57	B24A	EAST OF TRENCH 9	3.7E-02	1.5E-01	5.0E-01	2.7E-01
[1]	41620	89	B24B	EAST OF TRENCH 9	1.1E-01	1.6E-01	5.0E-01	2.8E-01
[1]	41621	57	B25A	WEST OF TRENCH 10	3.0E-02	1.6E-01	5.0E-01	2.5E-01
[1]	41622	89	B25B	WEST OF TRENCH 10	5.0E-02	1.4E-01	5.0E-01	2.4E-01
[1]	41623	53	B26A	W OF TRENCH 11-A	3.3E-03	1.3E-01	5.0E-01	2.2E-01
[1]	41624	89	B26B	W OF TRENCH 11-A	7.0E-02	1.3E-01	5.0E-01	2.0E-01
[1]	41625	57	B27A	WEST OF TRENCH 6	4.0E-02	1.3E-01	5.0E-01	2.1E-01

[1] Arithmetic mean of multiple wet aliquots.

Table 5. U-238 Results

	DBID	Depth (bgs-ft)	Sample Location ID	Project	Area	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]
	41574	25	B1A	RAD WS	USE	NORTH OF TANK 3	4.73E-01	9.1E-02	5.4E-02
	41576	38	B1B	RAD WS	USE	NORTH OF TANK 3	5.78E-01	9.9E-02	5.4E-02
	41577	27	B2A	RAD WS	USE	SOUTH OF TANK 1	4.63E-01	9.1E-02	5.4E-02
	41578	42	B2B	RAD WS	USE	SOUTH OF TANK 1	6.2E-01	1.0E-01	5.4E-02
	41579	23	B3A	RAD WS	USE	WEST OF TANK 1	3.74E-01	6.2E-02	5.4E-02
	41580	33	B3B	RAD WS	USE	WEST OF TANK 1	5.55E-01	7.3E-02	5.4E-02
	41581	23	B4A	RAD WS	USE	NW OF TANK 1	4.84E-01	6.7E-02	5.4E-02
	41582	33	B4B	RAD WS	USE	NW OF TANK 1	5.81E-01	7.7E-02	5.4E-02
	41583	23	B5A	RAD WS	USE	EAST OF TANK 1	5.72E-01	7.4E-02	5.4E-02
	41584	33	B5B	RAD WS	USE	EAST OF TANK 1	5.22E-01	7.7E-02	5.4E-02
	41585	23	B6A	RAD WS	USE	NE OF TANK 1	4.51E-01	6.6E-02	5.4E-02
	41586	33	B6B	RAD WS	USE	NE OF TANK 1	8.58E-01	9.0E-02	5.4E-02
	41587	23	B7A	RAD WS	USE	E OF TANKS 2&3	1.7E+00	1.3E-01	5.4E-02
	41588	33	B7B	RAD WS	USE	E OF TANKS 2&3	5.52E-01	7.5E-02	5.4E-02
	41589	23	B8A	RAD WS	USE	W OF TANKS 2&3	4.13E-01	6.2E-02	5.4E-02
	41590	35	B8B	RAD WS	USE	W OF TANKS 2&3	6.40E-01	8.0E-02	5.4E-02
1	41591	31	B10A	RAD WS	USE	W OF CHEM TRENCH	5.65E-01	7.3E-02	5.4E-02
	41592	66	B10B	RAD WS	USE	W OF CHEM TRENCH	5.54E-01	7.0E-02	5.4E-02
	41593	29	B11A	RAD WS	USE	E OF CHEM TRENCH	5.89E-01	8.1E-02	5.4E-02
	41594	64	B11B	RAD WS	USE	E OF CHEM TRENCH	4.69E-01	6.6E-02	5.4E-02
	41595	40	B12A	RAD WS	USE	W OF TRENCHES 1&2	5.28E-01	7.8E-02	5.4E-02
	41596	75	B12B	RAD WS	USE	W OF TRENCHES 1&2	5.98E-01	8.1E-02	5.4E-02
	41597	39	B13A	RAD WS	USE	E OF TRENCHES 1&2	5.04E-01	7.1E-02	5.4E-02
	41598	74	B13B	RAD WS	USE	E OF TRENCHES 1&2	8.45E-01	8.8E-02	5.4E-02
	41599	54	B14A	RAD WS	USE	W OF TRENCH 4-B	5.38E-01	7.8E-02	5.4E-02
	41600	89	B14B	RAD WS	USE	W OF TRENCH 4-B	5.78E-01	7.3E-02	5.4E-02
	41601	58	B15A	RAD WS	USE	E OF TRENCH 4-B	6.0E-01	1.0E-01	5.4E-02
	41602	89	B15B	RAD WS	USE	E OF TRENCH 4-B	6.0E-01	1.1E-01	5.4E-02
	41603	41	B16A	RAD WS	USE	W OF TRENCH 4-A	3.41E-01	5.6E-02	5.4E-02
	41604	76	B16B	RAD WS	USE	W OF TRENCH 4-A	5.72E-01	8.0E-02	5.4E-02
	41605	40	B17A	RAD WS	USE	E OF TRENCH 4-A	4.47E-01	6.5E-02	5.4E-02
	41606	75	B17B	RAD WS	USE	E OF TRENCH 4-A	5.45E-01	7.8E-02	5.4E-02
	41607	43	B18A	RAD WS	USE	WEST OF TRENCH 4	5.07E-01	7.1E-02	5.4E-02
	41608	78	B18B	RAD WS	USE	WEST OF TRENCH 4	4.93E-01	7.1E-02	5.4E-02
	41609	43	B19A	RAD WS	USE	EAST OF TRENCH 4	4.70E-01	8.0E-02	5.4E-02
2	41610	75.25	B19B	RAD WS	USE	EAST OF TRENCH 4	5.50E-01	9.0E-02	5.4E-02
	41611	43	B20A	RAD WS	USE	E TRENCH 11-A	6.20E-01	8.0E-02	5.4E-02
	41612	76	B20B	RAD WS	USE	E TRENCH 11-A	7.50E-01	9.0E-02	5.4E-02
	41613	39	B21A	RAD WS	USE	EAST OF TRENCH 6	7.0E-01	1.1E-01	5.4E-02
	41614	74	B21B	RAD WS	USE	EAST OF TRENCH 6	4.20E-01	9.0E-02	5.4E-02
	41615	53	B22A	RAD WS	USE	E OF TRENCHES 7&8	6.70E-01	9.0E-02	5.4E-02
	41616	84	B22B	RAD WS	USE	E OF TRENCHES 7&8	5.80E-01	9.0E-02	5.4E-02
	41617	49	B23A	RAD WS	USE	WEST OF TRENCH 8	6.88E-01	8.2E-02	5.4E-02
	41618	84	B23B	RAD WS	USE	WEST OF TRENCH 8	5.48E-01	7.5E-02	5.4E-02
	41619	57	B24A	RAD WS	USE	EAST OF TRENCH 9	5.55E-01	7.4E-02	5.4E-02
1	41620	89	B24B	RAD WS	USE	EAST OF TRENCH 9	6.42E-01	8.0E-02	5.4E-02
	41621	57	B25A	RAD WS	USE	WEST OF TRENCH 10	6.10E-01	9.0E-02	5.4E-02
	41622	89	B25B	RAD WS	USE	WEST OF TRENCH 10	5.90E-01	7.9E-02	5.4E-02
	41623	53	B26A	RAD WS	USE	W OF TRENCH 11-A	4.94E-01	7.0E-02	5.4E-02
	41624	89	B26B	RAD WS	USE	W OF TRENCH 11-A	5.32E-01	7.3E-02	5.4E-02
1	41625	57	B27A	RAD WS	USE	WEST OF TRENCH 6	5.54E-01	1.3E-01	5.4E-02

[1] Arithmetic mean of multiple aliquots.

[2] Analyzed and reported on wet sample aliquot; all other samples, dry aliquots analyzed and reported dry.

Table 6. U-234 Results

	DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]
	41574	25	B1A	NORTH OF TANK 3	4.4E-01	1.8E-01	6.3E-02
	41576	38	B1B	NORTH OF TANK 3	6.4E-01	1.9E-01	6.3E-02
	41577	27	B2A	SOUTH OF TANK 1	4.5E-01	1.8E-01	6.3E-02
	41578	42	B2B	SOUTH OF TANK 1	6.6E-01	2.0E-01	6.3E-02
	41579	23	B3A	WEST OF TANK 1	6.30E-01	8.0E-02	6.3E-02
	41580	33	B3B	WEST OF TANK 1	6.04E-01	7.6E-02	6.3E-02
	41581	23	B4A	NW OF TANK 1	5.56E-01	7.2E-02	6.3E-02
	41582	33	B4B	NW OF TANK 1	5.52E-01	7.6E-02	6.3E-02
	41583	23	B5A	EAST OF TANK 1	4.85E-01	6.9E-02	6.3E-02
	41584	33	B5B	EAST OF TANK 1	4.97E-01	7.6E-02	6.3E-02
	41585	23	B6A	NE OF TANK 1	4.93E-01	7.0E-02	6.3E-02
	41586	33	B6B	NE OF TANK 1	7.09E-01	8.3E-02	6.3E-02
	41587	23	B7A	E OF TANKS 2&3	1.72E+00	1.3E-01	6.3E-02
	41588	33	B7B	E OF TANKS 2&3	5.50E-01	7.6E-02	6.3E-02
	41589	23	B8A	W OF TANKS 2&3	4.25E-01	6.5E-02	6.3E-02
	41590	35	B8B	W OF TANKS 2&3	6.72E-01	8.3E-02	6.3E-02
1	41591	31	B10A	W OF CHEM TRENCH	5.38E-01	7.5E-02	6.3E-02
	41592	66	B10B	W OF CHEM TRENCH	4.92E-01	6.7E-02	6.3E-02
	41593	29	B11A	E OF CHEM TRENCH	4.35E-01	6.9E-02	6.3E-02
	41594	64	B11B	E OF CHEM TRENCH	4.74E-01	6.6E-02	6.3E-02
	41595	40	B12A	W OF TRENCHES 1&2	5.27E-01	7.9E-02	6.3E-02
	41596	75	B12B	W OF TRENCHES 1&2	6.84E-01	8.6E-02	6.3E-02
	41597	39	B13A	E OF TRENCHES 1&2	6.27E-01	8.0E-02	6.3E-02
	41598	74	B13B	E OF TRENCHES 1&2	8.19E-01	8.8E-02	6.3E-02
	41599	54	B14A	W OF TRENCH 4-B	6.03E-01	8.1E-02	6.3E-02
	41600	89	B14B	W OF TRENCH 4-B	5.47E-01	7.2E-02	6.3E-02
	41601	58	B15A	E OF TRENCH 4-B	5.8E-01	1.1E-01	6.3E-02
	41602	89	B15B	E OF TRENCH 4-B	5.1E-01	1.1E-01	6.3E-02
	41603	41	B16A	W OF TRENCH 4-A	3.68E-01	5.9E-02	6.3E-02
	41604	76	B16B	W OF TRENCH 4-A	5.28E-01	7.7E-02	6.3E-02
	41605	40	B17A	E OF TRENCH 4-A	4.59E-01	6.7E-02	6.3E-02
	41606	75	B17B	E OF TRENCH 4-A	5.85E-01	8.2E-02	6.3E-02
	41607	43	B18A	WEST OF TRENCH 4	4.82E-01	7.0E-02	6.3E-02
	41608	78	B18B	WEST OF TRENCH 4	5.03E-01	7.2E-02	6.3E-02
	41609	43	B19A	EAST OF TRENCH 4	5.3E-01	1.0E-01	6.3E-02
2	41610	75.25	B19B	EAST OF TRENCH 4	5.3E-01	1.0E-01	6.3E-02
	41611	43	B20A	E TRENCH 11-A	5.80E-01	9.0E-02	6.3E-02
	41612	76	B20B	E TRENCH 11-A	5.90E-01	9.0E-02	6.3E-02
	41613	39	B21A	EAST OF TRENCH 6	5.7E-01	1.2E-01	6.3E-02
	41614	74	B21B	EAST OF TRENCH 6	4.5E-01	1.1E-01	6.3E-02
	41615	53	B22A	E OF TRENCHES 7&8	5.30E-01	9.0E-02	6.3E-02
	41616	84	B22B	E OF TRENCHES 7&8	5.50E-01	9.0E-02	6.3E-02
	41617	49	B23A	WEST OF TRENCH 8	7.19E-01	8.3E-02	6.3E-02
	41618	84	B23B	WEST OF TRENCH 8	5.13E-01	7.2E-02	6.3E-02
	41619	57	B24A	EAST OF TRENCH 9	7.15E-01	8.5E-02	6.3E-02
1	41620	89	B24B	EAST OF TRENCH 9	5.95E-01	8.1E-02	6.3E-02
	41621	57	B25A	WEST OF TRENCH 10	6.8E-01	1.1E-01	6.3E-02
	41622	89	B25B	WEST OF TRENCH 10	5.00E-01	7.3E-02	6.3E-02
	41623	53	B26A	W OF TRENCH 11-A	5.22E-01	7.1E-02	6.3E-02
	41624	89	B26B	W OF TRENCH 11-A	5.59E-01	7.5E-02	6.3E-02
1	41625	57	B27A	WEST OF TRENCH 6	5.43E-01	7.4E-02	6.3E-02

[1] Arithmetic mean of multiple aliquots.

[2] Analyzed and reported on wet sample aliquot; all other samples, dry aliquots analyzed and reported dry.

Table 7. U-235 Results

	DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]	MDA* [pCi/g]
	41574	25	B1A	NORTH OF TANK 3	1.4E-02	2.4E-02	1.0E-02	2.6E-02
	41576	38	B1B	NORTH OF TANK 3	2.7E-02	2.8E-02	1.0E-02	3.0E-02
	41577	27	B2A	SOUTH OF TANK 1	1.5E-02	2.4E-02	1.0E-02	2.7E-02
	41578	42	B2B	SOUTH OF TANK 1	1.1E-02	2.3E-02	1.0E-02	2.8E-02
	41579	23	B3A	WEST OF TANK 1	3.4E-02	1.8E-02	1.0E-02	
	41580	33	B3B	WEST OF TANK 1	2.2E-02	1.5E-02	1.0E-02	
	41581	23	B4A	NW OF TANK 1	2.7E-02	1.7E-02	1.0E-02	1.7E-02
	41582	33	B4B	NW OF TANK 1	1.8E-02	1.5E-02	1.0E-02	1.9E-02
	41583	23	B5A	EAST OF TANK 1	1.9E-02	1.5E-02	1.0E-02	1.8E-02
	41584	33	B5B	EAST OF TANK 1	4.2E-02	2.3E-02	1.0E-02	2.1E-02
	41585	23	B6A	NE OF TANK 1	9.0E-03	1.2E-02	1.0E-02	1.8E-02
	41586	33	B6B	NE OF TANK 1	2.2E-02	1.7E-02	1.0E-02	2.3E-02
	41587	23	B7A	E OF TANKS 2&3	7.2E-02	2.6E-02	1.0E-02	
	41588	33	B7B	E OF TANKS 2&3	3.6E-02	1.8E-02	1.0E-02	
	41589	23	B8A	W OF TANKS 2&3	3.2E-02	1.8E-02	1.0E-02	
	41590	35	B8B	W OF TANKS 2&3	2.3E-02	1.4E-02	1.0E-02	
1	41591	31	B10A	W OF CHEM TRENCH	2.4E-02	1.6E-02	1.0E-02	
	41592	66	B10B	W OF CHEM TRENCH	3.7E-02	1.8E-02	1.0E-02	
	41593	29	B11A	E OF CHEM TRENCH	2.2E-02	1.5E-02	1.0E-02	
	41594	64	B11B	E OF CHEM TRENCH	1.2E-02	1.0E-02	1.0E-02	
	41595	40	B12A	W OF TRENCHES 1&2	2.3E-02	1.6E-02	1.0E-02	
	41596	75	B12B	W OF TRENCHES 1&2	3.5E-02	1.9E-02	1.0E-02	
	41597	39	B13A	E OF TRENCHES 1&2	2.1E-02	1.5E-02	1.0E-02	
	41598	74	B13B	E OF TRENCHES 1&2	3.8E-02	1.9E-02	1.0E-02	
	41599	54	B14A	W OF TRENCH 4-B	6.4E-02	2.6E-02	1.0E-02	
	41600	89	B14B	W OF TRENCH 4-B	1.2E-02	1.0E-02	1.0E-02	
	41601	58	B15A	E OF TRENCH 4-B	1.20E-01	5.0E-02	1.0E-02	
	41602	89	B15B	E OF TRENCH 4-B	1.60E-01	5.0E-02	1.0E-02	
	41603	41	B16A	W OF TRENCH 4-A	1.7E-02	1.4E-02	1.0E-02	1.8E-02
	41604	76	B16B	W OF TRENCH 4-A	2.1E-02	1.7E-02	1.0E-02	2.1E-02
	41605	40	B17A	E OF TRENCH 4-A	1.0E-02	1.4E-02	1.0E-02	2.3E-02
	41606	75	B17B	E OF TRENCH 4-A	5.0E-04	7.9E-03	1.0E-02	2.1E-02
	41607	43	B18A	WEST OF TRENCH 4	3.5E-02	1.8E-02	1.0E-02	
	41608	78	B18B	WEST OF TRENCH 4	3.1E-02	1.8E-02	1.0E-02	
	41609	43	B19A	EAST OF TRENCH 4	6.0E-02	3.1E-02	1.0E-02	
2	41610	75.25	B19B	EAST OF TRENCH 4	8.6E-02	3.8E-02	1.0E-02	
	41611	43	B20A	E TRENCH 11-A	3.8E-02	2.3E-02	1.0E-02	
	41612	76	B20B	E TRENCH 11-A	3.2E-02	2.2E-02	1.0E-02	
	41613	39	B21A	EAST OF TRENCH 6	7.0E-02	3.8E-02	1.0E-02	
	41614	74	B21B	EAST OF TRENCH 6	9.3E-02	4.2E-02	1.0E-02	
	41615	53	B22A	E OF TRENCHES 7&8	1.10E-01	4.0E-02	1.0E-02	
	41616	84	B22B	E OF TRENCHES 7&8	7.8E-02	3.3E-02	1.0E-02	
	41617	49	B23A	WEST OF TRENCH 8	3.3E-02	1.9E-02	1.0E-02	2.2E-02
	41618	84	B23B	WEST OF TRENCH 8	1.7E-02	1.7E-02	1.0E-02	2.7E-02
	41619	57	B24A	EAST OF TRENCH 9	3.0E-02	1.8E-02	1.0E-02	
1	41620	89	B24B	EAST OF TRENCH 9	2.6E-02	1.9E-02	1.0E-02	2.4E-02
	41621	57	B25A	WEST OF TRENCH 10	1.10E-01	4.0E-02	1.0E-02	
	41622	89	B25B	WEST OF TRENCH 10	2.5E-02	1.8E-02	1.0E-02	2.4E-02
	41623	53	B26A	W OF TRENCH 11-A	1.1E-02	1.3E-02	1.0E-02	2.2E-02
	41624	89	B26B	W OF TRENCH 11-A	2.6E-02	1.8E-02	1.0E-02	2.3E-02
1	41625	57	B27A	WEST OF TRENCH 6	2.1E-02	1.7E-02	1.0E-02	1.8E-02

* MDA not reported when result is greater than MDA at the 95% confidence level.

1 Arithmetic mean of multiple aliquots.

2 Analyzed and reported on wet sample aliquot; all other samples, dry aliquots analyzed and reported dry.

Table 8. Gross Beta Results

DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]
41574	25	B1A	NORTH OF TANK 3	13.9	2.4	1
41576	38	B1B	NORTH OF TANK 3	19.1	2.7	1
41577	27	B2A	SOUTH OF TANK 1	173	6.0	1
41578	42	B2B	SOUTH OF TANK 1	24.3	3.0	1
41579	23	B3A	WEST OF TANK 1	89.0	12	1
41580	33	B3B	WEST OF TANK 1	21.5	2.9	1
41581	23	B4A	NW OF TANK 1	56.0	3.9	1
41582	33	B4B	NW OF TANK 1	22.7	2.9	1
41583	23	B5A	EAST OF TANK 1	22.5	4.1	1
41584	33	B5B	EAST OF TANK 1	21.1	2.9	1
41585	23	B6A	NE OF TANK 1	19.6	2.9	1
41586	33	B6B	NE OF TANK 1	22.4	3.4	1
41587	23	B7A	E OF TANKS 2&3	18.3	2.6	1
41588	33	B7B	E OF TANKS 2&3	23.1	2.8	1
41589	23	B8A	W OF TANKS 2&3	14.2	2.4	1
41590	35	B8B	W OF TANKS 2&3	22.2	3.3	1
41591	31	B10A	W OF CHEM TRENCH	15.9	2.4	1
41592	66	B10B	W OF CHEM TRENCH	23.1	2.8	1
41593	29	B11A	E OF CHEM TRENCH	16.0	3.0	1
41594	64	B11B	E OF CHEM TRENCH	22.0	3.0	1
41595	40	B12A	W OF TRENCHES 1&2	21.5	3.8	1
41596	75	B12B	W OF TRENCHES 1&2	23.0	3.0	1
41597	39	B13A	E OF TRENCHES 1&2	22.1	3.0	1
41598	74	B13B	E OF TRENCHES 1&2	23.6	3.0	1
41599	54	B14A	W OF TRENCH 4-B	24.2	3.0	1
41600	89	B14B	W OF TRENCH 4-B	21.9	2.8	1
41601	58	B15A	E OF TRENCH 4-B	21.0	3.0	1
41602	89	B15B	E OF TRENCH 4-B	21.4	2.8	1
41603	41	B16A	W OF TRENCH 4-A	15.2	2.6	1
41604	76	B16B	W OF TRENCH 4-A	21.8	2.8	1
41605	40	B17A	E OF TRENCH 4-A	13.8	2.5	1
41606	75	B17B	E OF TRENCH 4-A	23.2	2.8	1
41607	43	B18A	WEST OF TRENCH 4	18.9	2.7	1
41608	78	B18B	WEST OF TRENCH 4	23.1	2.8	1
41609	43	B19A	EAST OF TRENCH 4	22.6	3.0	1
[1] 41610	75.25	B19B	EAST OF TRENCH 4	23.1	2.9	1
41611	43	B20A	E TRENCH 11-A	23.2	2.8	1
41612	76	B20B	E TRENCH 11-A	22.8	2.8	1
41613	39	B21A	EAST OF TRENCH 6	23.7	2.8	1
41614	74	B21B	EAST OF TRENCH 6	23.2	2.7	1
41615	53	B22A	E OF TRENCHES 7&8	24.5	2.8	1
41616	84	B22B	E OF TRENCHES 7&8	23.1	2.7	1
41617	49	B23A	WEST OF TRENCH 8	22.5	2.7	1
41618	84	B23B	WEST OF TRENCH 8	24.1	2.8	1
41619	57	B24A	EAST OF TRENCH 9	23.0	2.7	1
41620	89	B24B	EAST OF TRENCH 9	23.7	2.9	1
41621	57	B25A	WEST OF TRENCH 10	22.5	2.9	1
41622	89	B25B	WEST OF TRENCH 10	20.8	2.8	1
41623	53	B26A	W OF TRENCH 11-A	22.5	2.8	1
41624	89	B26B	W OF TRENCH 11-A	23.6	2.9	1
41625	57	B27A	WEST OF TRENCH 6	23.6	2.9	1

[1] Analyzed and reported on wet sample aliquot; all other samples, dry aliquots analyzed and reported dry.

Table 9. Co-60 Results

DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]	MDA* [pCi/g]
41574	25	B1A	NORTH OF TANK 3	3.60E-01	2.0E-02	1.0E-02	
41576	38	B1B	NORTH OF TANK 3	2.0E-02	1.0E-02	1.0E-02	1.3E-02
41577	27	B2A	SOUTH OF TANK 1	3.07E+01	5.0E-01	1.0E-02	
41578	42	B2B	SOUTH OF TANK 1	7.03E+00	6.0E-02	1.0E-02	
41579	23	B3A	WEST OF TANK 1	2.34E+01	2.0E-01	1.0E-02	
41580	33	B3B	WEST OF TANK 1	9.70E-01	3.0E-02	1.0E-02	
41581	23	B4A	NW OF TANK 1	1.01E+01	1.0E-01	1.0E-02	
41582	33	B4B	NW OF TANK 1	4.79E-01	3.6E-02	1.0E-02	
41583	23	B5A	EAST OF TANK 1	6.01E+00	6.4E-02	1.0E-02	
41584	33	B5B	EAST OF TANK 1	8.01E-01	4.0E-02	1.0E-02	
41585	23	B6A	NE OF TANK 1	6.46E+00	1.1E-01	1.0E-02	
41586	33	B6B	NE OF TANK 1	1.43E-01	1.8E-02	1.0E-02	
41587	23	B7A	E OF TANKS 2&3	1.19E-01	1.4E-02	1.0E-02	
41588	33	B7B	E OF TANKS 2&3	6.8E-03	8.5E-03	1.0E-02	1.5E-02
41589	23	B8A	W OF TANKS 2&3	1.45E-01	1.3E-02	1.0E-02	
41590	35	B8B	W OF TANKS 2&3	8.1E-02	1.3E-02	1.0E-02	
41591	31	B10A	W OF CHEM TRENCH	0.0E+00	1.1E-02	1.0E-02	1.8E-02
41592	66	B10B	W OF CHEM TRENCH	-1.0E-03	1.1E-02	1.0E-02	1.8E-02
41593	29	B11A	E OF CHEM TRENCH	7.0E-03	8.0E-03	1.0E-02	1.4E-02
41594	64	B11B	E OF CHEM TRENCH	-2.0E-03	1.8E-02	1.0E-02	3.0E-02
41595	40	B12A	W OF TRENCHES 1&2	2.0E-03	1.1E-02	1.0E-02	2.0E-02
41596	75	B12B	W OF TRENCHES 1&2	3.0E-03	1.0E-02	1.0E-02	1.7E-02
41597	39	B13A	E OF TRENCHES 1&2	-3.9E-03	8.3E-03	1.0E-02	1.4E-02
41598	74	B13B	E OF TRENCHES 1&2	8.0E-03	1.1E-02	1.0E-02	1.9E-02
41599	54	B14A	W OF TRENCH 4-B	-1.0E-02	1.0E-02	1.0E-02	1.0E-02
41600	89	B14B	W OF TRENCH 4-B	5.0E-03	1.6E-02	1.0E-02	2.8E-02
41601	58	B15A	E OF TRENCH 4-B	-4.0E-03	1.0E-02	1.0E-02	2.0E-02
41602	89	B15B	E OF TRENCH 4-B	-8.0E-03	1.7E-02	1.0E-02	3.0E-02
41603	41	B16A	W OF TRENCH 4-A	-2.9E-03	9.5E-03	1.0E-02	1.6E-02
41604	76	B16B	W OF TRENCH 4-A	-8.9E-03	8.7E-03	1.0E-02	1.4E-02
41605	40	B17A	E OF TRENCH 4-A	2.2E-03	7.1E-03	1.0E-02	1.2E-02
41606	75	B17B	E OF TRENCH 4-A	-4.7E-03	8.5E-03	1.0E-02	1.4E-02
41607	43	B18A	WEST OF TRENCH 4	1.3E-02	1.0E-02	1.0E-02	1.8E-02
41608	78	B18B	WEST OF TRENCH 4	-3.4E-03	8.2E-03	1.0E-02	1.3E-02
41609	43	B19A	EAST OF TRENCH 4	2.0E-03	8.0E-03	1.0E-02	1.3E-02
[1] 41610	75.25	B19B	EAST OF TRENCH 4	-7.0E-03	2.3E-02	2.0E-02	3.8E-02
41611	43	B20A	E TRENCH 11-A	-2.0E-03	1.0E-02	1.0E-02	1.7E-02
41612	76	B20B	E TRENCH 11-A	-1.9E-03	8.3E-03	1.0E-02	1.4E-02
41613	39	B21A	EAST OF TRENCH 6	-5.0E-03	1.8E-02	1.0E-02	3.0E-02
41614	74	B21B	EAST OF TRENCH 6	-1.0E-03	9.0E-03	1.0E-02	1.5E-02
41615	53	B22A	E OF TRENCHES 7&8	6.0E-03	1.1E-02	1.0E-02	1.8E-02
41616	84	B22B	E OF TRENCHES 7&8	1.0E-03	8.0E-03	1.0E-02	1.4E-02
41617	49	B23A	WEST OF TRENCH 8	-4.0E-03	1.8E-02	1.0E-02	3.0E-02
41618	84	B23B	WEST OF TRENCH 8	-3.3E-03	9.1E-03	1.0E-02	1.5E-02
41619	57	B24A	EAST OF TRENCH 9	-5.3E-03	9.2E-03	1.0E-02	1.5E-02
41620	89	B24B	EAST OF TRENCH 9	-1.0E-02	1.4E-02	1.0E-02	2.3E-02
41621	57	B25A	WEST OF TRENCH 10	5.0E-04	8.0E-03	1.0E-02	1.3E-02
41622	89	B25B	WEST OF TRENCH 10	-4.4E-03	7.6E-03	1.0E-02	1.2E-02
41623	53	B26A	W OF TRENCH 11-A	-1.3E-03	9.7E-03	1.0E-02	1.6E-02
41624	89	B26B	W OF TRENCH 11-A	-8.0E-04	9.1E-03	1.0E-02	1.5E-02
41625	57	B27A	WEST OF TRENCH 6	2.6E-03	7.8E-03	1.0E-02	1.3E-02

[*] MDA not reported when result is greater than MDA at the 95% confidence level.

[1] Analyzed and reported on wet sample aliquot; all other samples, dry aliquots analyzed and reported dry.

Table 10. Cs-137 Results

DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]	MDA* [pCi/g]
41574	25	B1A	NORTH OF TANK 3	1.5E-03	1.2E-02	1.0E-02	2.0E-02
41576	38	B1B	NORTH OF TANK 3	-1.00E-02	7.0E-03	1.0E-02	1.0E-02
41577	27	B2A	SOUTH OF TANK 1	2.31E+02	3.0E+00	1.0E-02	
41578	42	B2B	SOUTH OF TANK 1	-1.5E-02	1.4E-02	1.0E-02	2.0E-02
41579	23	B3A	WEST OF TANK 1	8.50E+01	1.0E+00	1.0E-02	
41580	33	B3B	WEST OF TANK 1	-8.0E-04	9.9E-03	1.0E-02	1.6E-02
41581	23	B4A	NW OF TANK 1	5.6E+01	8.0E-01	1.0E-02	
41582	33	B4B	NW OF TANK 1	7.0E-03	1.7E-02	1.0E-02	2.8E-02
41583	23	B5A	EAST OF TANK 1	5.15E+00	8.6E-02	1.0E-02	
41584	33	B5B	EAST OF TANK 1	-1.7E-02	1.6E-02	1.0E-02	2.5E-02
41585	23	B6A	NE OF TANK 1	-7.0E-03	1.4E-02	1.0E-02	2.3E-02
41586	33	B6B	NE OF TANK 1	3.0E-03	1.3E-02	1.0E-02	2.2E-02
41587	23	B7A	E OF TANKS 2&3	-2.0E-04	9.7E-03	1.0E-02	1.6E-02
41588	33	B7B	E OF TANKS 2&3	1.5E-03	7.7E-03	1.0E-02	1.3E-02
41589	23	B8A	W OF TANKS 2&3	-4.8E-03	7.3E-03	1.0E-02	1.2E-02
41590	35	B8B	W OF TANKS 2&3	-1.2E-02	8.2E-03	1.0E-02	1.3E-02
41591	31	B10A	W OF CHEM TRENCH	-4.0E-03	1.0E-02	1.0E-02	1.7E-02
41592	66	B10B	W OF CHEM TRENCH	-1.0E-02	9.7E-03	1.0E-02	1.6E-02
41593	29	B11A	E OF CHEM TRENCH	-3.0E-03	8.0E-03	1.0E-02	1.3E-02
41594	64	B11B	E OF CHEM TRENCH	-2.6E-02	1.5E-02	1.0E-02	2.0E-02
41595	40	B12A	W OF TRENCHES 1&2	-1.0E-02	1.0E-02	1.0E-02	1.7E-02
41596	75	B12B	W OF TRENCHES 1&2	-7.0E-04	9.2E-03	1.0E-02	1.5E-02
41597	39	B13A	E OF TRENCHES 1&2	-5.2E-03	7.7E-03	1.0E-02	1.3E-02
41598	74	B13B	E OF TRENCHES 1&2	-4.6E-03	1.0E-02	1.0E-02	1.7E-02
41599	54	B14A	W OF TRENCH 4-B	-1.0E-02	1.0E-02	1.0E-02	1.0E-02
41600	89	B14B	W OF TRENCH 4-B	-1.1E-02	1.4E-02	1.0E-02	2.2E-02
41601	58	B15A	E OF TRENCH 4-B	-5.0E-03	1.0E-02	1.0E-02	1.6E-02
41602	89	B15B	E OF TRENCH 4-B	-3.0E-03	1.5E-02	1.0E-02	2.0E-02
41603	41	B16A	W OF TRENCH 4-A	-6.7E-03	9.6E-03	1.0E-02	1.6E-02
41604	76	B16B	W OF TRENCH 4-A	-8.1E-03	8.5E-03	1.0E-02	1.3E-02
41605	40	B17A	E OF TRENCH 4-A	-3.3E-03	6.9E-03	1.0E-02	1.2E-02
41606	75	B17B	E OF TRENCH 4-A	2.0E-03	7.5E-03	1.0E-02	1.3E-02
41607	43	B18A	WEST OF TRENCH 4	-1.5E-03	9.1E-03	1.0E-02	1.5E-02
41608	78	B18B	WEST OF TRENCH 4	-3.9E-03	7.7E-03	1.0E-02	1.2E-02
41609	43	B19A	EAST OF TRENCH 4	-6.0E-03	8.0E-03	1.0E-02	1.0E-02
[1] 41610	75.25	B19B	EAST OF TRENCH 4	-7.0E-03	2.0E-02	2.0E-02	3.2E-02
41611	43	B20A	E TRENCH 11-A	-1.0E-02	1.0E-02	1.0E-02	1.6E-02
41612	76	B20B	E TRENCH 11-A	-8.3E-03	7.8E-03	1.0E-02	1.3E-02
41613	39	B21A	EAST OF TRENCH 6	-1.0E-02	1.6E-02	1.0E-02	3.0E-02
41614	74	B21B	EAST OF TRENCH 6	-9.0E-03	8.0E-03	1.0E-02	1.3E-02
41615	53	B22A	E OF TRENCHES 7&8	-1.0E-02	1.0E-02	1.0E-02	2.0E-02
41616	84	B22B	E OF TRENCHES 7&8	-2.0E-03	7.0E-03	1.0E-02	1.2E-02
41617	49	B23A	WEST OF TRENCH 8	-5.0E-03	1.6E-02	1.0E-02	2.6E-02
41618	84	B23B	WEST OF TRENCH 8	-8.0E-04	8.6E-03	1.0E-02	1.5E-02
41619	57	B24A	EAST OF TRENCH 9	2.4E-02	1.3E-02	1.0E-02	1.4E-02
41620	89	B24B	EAST OF TRENCH 9	8.0E-03	1.3E-02	1.0E-02	2.2E-02
41621	57	B25A	WEST OF TRENCH 10	-5.8E-03	7.4E-03	1.0E-02	1.2E-02
41622	89	B25B	WEST OF TRENCH 10	-7.9E-03	7.2E-03	1.0E-02	1.1E-02
41623	53	B26A	W OF TRENCH 11-A	7.9E-03	9.2E-03	1.0E-02	1.6E-02
41624	89	B26B	W OF TRENCH 11-A	2.3E-03	8.7E-03	1.0E-02	1.5E-02
41625	57	B27A	WEST OF TRENCH 6	-1.1E-02	7.9E-03	1.0E-02	1.2E-02

[*] MDA not reported when result is greater than MDA at the 95% confidence level.

[1] Analyzed and reported on wet sample aliquot; all other samples, dry aliquots analyzed and reported dry.

Table 11. Sr-90 Results

	DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]	MDA* [pCi/g]
	41574	25	B1A	NORTH OF TANK 3	3.0E-03	1.5E-02	3.0E-03	2.9E-02
	41576	38	B1B	NORTH OF TANK 3	2.0E-03	1.6E-02	3.0E-03	3.2E-02
1	41577	27	B2A	SOUTH OF TANK 1	5.33E-01	4.3E-02	3.0E-03	
	41578	42	B2B	SOUTH OF TANK 1	5.0E-03	1.5E-02	3.0E-03	3.0E-02
	41579	23	B3A	WEST OF TANK 1	1.24E+00	6.0E-02	3.0E-03	
	41580	33	B3B	WEST OF TANK 1	-4.0E-03	1.6E-02	3.0E-03	3.2E-02
	41581	23	B4A	NW OF TANK 1	1.61E-01	2.9E-02	3.0E-03	
	41582	33	B4B	NW OF TANK 1	-3.0E-03	1.6E-02	3.0E-03	3.0E-02
	41583	23	B5A	EAST OF TANK 1	1.97E-01	2.9E-02	3.0E-03	
	41584	33	B5B	EAST OF TANK 1	-3.0E-03	1.7E-02	3.0E-03	3.1E-02
	41585	23	B6A	NE OF TANK 1	1.8E-02	2.2E-02	3.0E-03	3.6E-02
	41586	33	B6B	NE OF TANK 1	-1.0E-03	1.6E-02	3.0E-03	3.0E-02
	41587	23	B7A	E OF TANKS 2&3	3.0E-03	1.7E-02	3.0E-03	3.3E-02
1	41588	33	B7B	E OF TANKS 2&3	3.0E-03	1.7E-02	3.0E-03	2.9E-02
	41589	23	B8A	W OF TANKS 2&3	3.3E-02	1.8E-02	3.0E-03	3.0E-02
	41590	35	B8B	W OF TANKS 2&3	-4.0E-03	1.5E-02	3.0E-03	3.1E-02
	41591	31	B10A	W OF CHEM TRENCH	6.0E-03	1.4E-02	3.0E-03	2.6E-02
	41592	66	B10B	W OF CHEM TRENCH	3.0E-03	1.4E-02	3.0E-03	2.7E-02
1	41593	29	B11A	E OF CHEM TRENCH	5.0E-03	1.0E-02	3.0E-03	2.0E-02
	41594	64	B11B	E OF CHEM TRENCH	1.0E-02	1.0E-02	3.0E-03	3.0E-02
	41595	40	B12A	W OF TRENCHES 1&2	3.0E-03	1.5E-02	3.0E-03	2.9E-02
	41596	75	B12B	W OF TRENCHES 1&2	8.0E-03	1.5E-02	3.0E-03	2.7E-02
	41597	39	B13A	E OF TRENCHES 1&2	0.0E+00	1.5E-02	3.0E-03	3.0E-02
	41598	74	B13B	E OF TRENCHES 1&2	1.0E-03	1.7E-02	3.0E-03	3.2E-02
	41599	54	B14A	W OF TRENCH 4-B	-2.0E-03	1.4E-02	3.0E-03	2.8E-02
1	41600	89	B14B	W OF TRENCH 4-B	4.0E-03	1.6E-02	3.0E-03	2.9E-02
	41601	58	B15A	E OF TRENCH 4-B	0.0E+00	1.0E-02	3.0E-03	2.0E-02
	41602	89	B15B	E OF TRENCH 4-B	1.0E-03	1.3E-02	3.0E-03	2.6E-02
1	41603	41	B16A	W OF TRENCH 4-A	5.0E-04	1.4E-02	3.0E-03	2.6E-02
	41604	76	B16B	W OF TRENCH 4-A	4.0E-03	1.7E-02	3.0E-03	3.2E-02
	41605	40	B17A	E OF TRENCH 4-A	-6.0E-03	1.7E-02	3.0E-03	2.9E-02
	41606	75	B17B	E OF TRENCH 4-A	-1.0E-02	1.5E-02	3.0E-03	2.9E-02
	41607	43	B18A	WEST OF TRENCH 4	2.0E-03	1.4E-02	3.0E-03	2.8E-02
	41608	78	B18B	WEST OF TRENCH 4	0.0E+00	1.7E-02	3.0E-03	3.3E-02
	41609	43	B19A	EAST OF TRENCH 4	0.0E+00	1.0E-02	3.0E-03	3.0E-02
2	41610	75.25	B19B	EAST OF TRENCH 4	-1.0E-03	4.1E-02	3.0E-03	8.0E-02
1	41611	43	B20A	E TRENCH 11-A	4.5E-03	1.5E-02	3.0E-03	2.7E-02
	41612	76	B20B	E TRENCH 11-A	4.0E-03	1.4E-02	3.0E-03	2.8E-02
	41613	39	B21A	EAST OF TRENCH 6	0.0E+00	1.0E-02	3.0E-03	3.0E-02
	41614	74	B21B	EAST OF TRENCH 6	0.0E+00	1.5E-02	3.0E-03	2.9E-02
	41615	53	B22A	E OF TRENCHES 7&8	-2.0E-03	1.5E-02	3.0E-03	3.0E-02
	41616	84	B22B	E OF TRENCHES 7&8	5.0E-03	1.5E-02	3.0E-03	2.9E-02
	41617	49	B23A	WEST OF TRENCH 8	1.1E-02	1.5E-02	3.0E-03	2.8E-02
	41618	84	B23B	WEST OF TRENCH 8	2.0E-03	1.7E-02	3.0E-03	3.4E-02
	41619	57	B24A	EAST OF TRENCH 9	6.0E-03	2.0E-02	3.0E-03	2.9E-02
	41620	89	B24B	EAST OF TRENCH 9	5.0E-03	1.9E-02	3.0E-03	3.2E-02
	41621	57	B25A	WEST OF TRENCH 10	7.0E-03	1.7E-02	3.0E-03	2.8E-02
	41622	89	B25B	WEST OF TRENCH 10	-2.0E-02	1.4E-02	3.0E-03	3.1E-02
	41623	53	B26A	W OF TRENCH 11-A	5.0E-03	1.5E-02	3.0E-03	2.9E-02
	41624	89	B26B	W OF TRENCH 11-A	0.0E+00	1.6E-02	3.0E-03	3.2E-02
	41625	57	B27A	WEST OF TRENCH 6	-1.0E-03	1.6E-02	3.0E-03	3.2E-02

* MDA not reported when result is greater than MDA at the 95% confidence level.

1 Arithmetic mean of multiple wet aliquots.

2 Analyzed and reported on wet sample aliquot; all other samples, dry aliquots analyzed and reported dry.

Table 12. Ni-63 Results

	DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	MDA* [pCi/g]
1,2	41574	25	B1A	NORTH OF TANK 3	2.0	1.4	2.1
1,2	41576	38	B1B	NORTH OF TANK 3	1.1	1.3	2.1
1,2	41577	27	B2A	SOUTH OF TANK 1	3.4	2.0	3.0
1,2	41578	42	B2B	SOUTH OF TANK 1	1.1	1.9	3.0
1,2	41579	23	B3A	WEST OF TANK 1	0.4	1.9	3.0
1,2	41580	33	B3B	WEST OF TANK 1	0.9	1.3	1.0
1,2	41581	23	B4A	NW OF TANK 1	12.5	2.1	
1,2	41582	33	B4B	NW OF TANK 1	-0.8	1.9	3.0
1,2	41583	23	B5A	EAST OF TANK 1	0.2	1.9	2.9
1,2	41584	33	B5B	EAST OF TANK 1	-0.5	1.8	3.0
2	41585	23	B6A	NE OF TANK 1	27.8	2.9	
2	41586	33	B6B	NE OF TANK 1	0.5	1.6	2.6
2	41587	23	B7A	E OF TANKS 2&3	0.2	1.4	2.9
2	41588	33	B7B	E OF TANKS 2&3	-0.4	1.8	2.5
2	41589	23	B8A	W OF TANKS 2&3	-0.5	1.9	2.5
2	41590	35	B8B	W OF TANKS 2&3	-0.7	1.3	2.2
2	41591	31	B10A	W OF CHEM TRENCH	0.4	1.7	2.1
2	41592	66	B10B	W OF CHEM TRENCH	0.3	1.5	2.5
2	41593	29	B11A	E OF CHEM TRENCH	0.4	1.9	2.7
2	41594	64	B11B	E OF CHEM TRENCH	0.9	1.7	2.4
2	41595	40	B12A	W OF TRENCHES 1&2	1.2	1.7	2.5
2	41596	75	B12B	W OF TRENCHES 1&2	-0.2	1.7	2.8
2	41597	39	B13A	E OF TRENCHES 1&2	1.1	1.7	2.5
2	41598	74	B13B	E OF TRENCHES 1&2	0.3	1.6	2.6
2	41599	54	B14A	W OF TRENCH 4-B	-0.9	1.8	2.6
2	41600	89	B14B	W OF TRENCH 4-B	-0.5	1.7	2.8
2	41601	58	B15A	E OF TRENCH 4-B	-0.4	1.8	2.2
2	41602	89	B15B	E OF TRENCH 4-B	-1.1	1.8	2.8
2	41603	41	B16A	W OF TRENCH 4-A	0.4	1.8	2.8
2	41604	76	B16B	W OF TRENCH 4-A	0.6	2.3	2.9
2	41605	40	B17A	E OF TRENCH 4-A	-0.2	1.8	2.9
2	41606	75	B17B	E OF TRENCH 4-A	0.4	1.8	3.0
2	41607	43	B18A	WEST OF TRENCH 4	-0.2	1.8	2.9
2	41608	78	B18B	WEST OF TRENCH 4	-0.5	3.0	2.8
2	41609	43	B19A	EAST OF TRENCH 4	0.2	3.8	2.2
2	41610	75.25	B19B	EAST OF TRENCH 4	-0.4	2.1	3.5
2	41611	43	B20A	E TRENCH 11-A	-1.5	2.1	3.3
2	41612	76	B20B	E TRENCH 11-A	-0.7	2.3	3.2
2	41613	39	B21A	EAST OF TRENCH 6	-0.8	2.2	3.3
2	41614	74	B21B	EAST OF TRENCH 6	0.1	2.4	2.9
2	41615	53	B22A	E OF TRENCHES 7&8	-0.2	2.1	2.5
2	41616	84	B22B	E OF TRENCHES 7&8	-0.9	1.9	3.2
2	41617	49	B23A	WEST OF TRENCH 8	-0.4	2.1	3.1
2	41618	84	B23B	WEST OF TRENCH 8	0.6	2.0	3.2
2	41619	57	B24A	EAST OF TRENCH 9	2.5	2.0	2.5
2	41620	89	B24B	EAST OF TRENCH 9	1.6	2.0	2.3
2	41621	57	B25A	WEST OF TRENCH 10	1.4	1.9	2.6
2	41622	89	B25B	WEST OF TRENCH 10	0.7	2.1	2.5
2	41623	53	B26A	W OF TRENCH 11-A	1.7	1.8	2.9
2	41624	89	B26B	W OF TRENCH 11-A	0.1	2.2	2.8
2	41625	57	B27A	WEST OF TRENCH 6	-0.1	1.8	2.9

* MDA not reported when result is greater than MDA at the 95% confidence level.

1 Analyzed wet and dry aliquots to study Ni volatility; wet aliquots results reported in this assessment.

2 Arithmetic mean of multiple wet aliquots.

Table 13. H-3 Results

	DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	MDA* [pCi/g]
	41574	25	B1A	NORTH OF TANK 3	4.7E-01	2.6E-01	4.2E-01
	41576	38	B1B	NORTH OF TANK 3	3.8E-01	2.5E-01	4.1E-01
	41577	27	B2A	SOUTH OF TANK 1	5.76E+00	4.1E-01	
	41578	42	B2B	SOUTH OF TANK 1	1.26E+00	2.9E-01	
	41579	23	B3A	WEST OF TANK 1	7.09E+00	4.4E-01	
	41580	33	B3B	WEST OF TANK 1	2.60E-01	2.5E-01	4.2E-01
	41581	23	B4A	NW OF TANK 1	6.53E+00	6.7E-01	
	41582	33	B4B	NW OF TANK 1	1.35E+00	4.8E-01	
	41583	23	B5A	EAST OF TANK 1	3.91E+00	5.8E-01	
	41584	33	B5B	EAST OF TANK 1	1.30E+00	4.7E-01	
	41585	23	B6A	NE OF TANK 1	3.22E+00	5.5E-01	
	41586	33	B6B	NE OF TANK 1	1.38E+00	4.9E-01	
	41587	23	B7A	E OF TANKS 2&3	4.1E-01	2.6E-01	4.1E-01
	41588	33	B7B	E OF TANKS 2&3	1.8E-01	2.5E-01	4.1E-01
1	41589	23	B8A	W OF TANKS 2&3	4.9E-01	2.6E-01	4.1E-01
	41590	35	B8B	W OF TANKS 2&3	1.1E-01	2.5E-01	4.1E-01
	41591	31	B10A	W OF CHEM TRENCH	-7.6E-01	2.2E-01	4.2E-01
	41592	66	B10B	W OF CHEM TRENCH	2.1E-01	2.5E-01	4.1E-01
	41593	29	B11A	E OF CHEM TRENCH	5.3E-01	2.7E-01	4.3E-01
	41594	64	B11B	E OF CHEM TRENCH	4.00E-02	2.4E-01	4.1E-01
	41595	40	B12A	W OF TRENCHES 1&2	5.3E-01	2.7E-01	4.3E-01
	41596	75	B12B	W OF TRENCHES 1&2	1.24E+01	6.0E-01	
	41597	39	B13A	E OF TRENCHES 1&2	4.2E-01	2.7E-01	4.3E-01
	41598	74	B13B	E OF TRENCHES 1&2	6.81E+01	1.1E+00	
1	41599	54	B14A	W OF TRENCH 4-B	5.31E+00	4.1E-01	
	41600	89	B14B	W OF TRENCH 4-B	-1.7E-01	2.5E-01	4.3E-01
	41601	58	B15A	E OF TRENCH 4-B	-2.2E-01	2.5E-01	4.3E-01
	41602	89	B15B	E OF TRENCH 4-B	-4.00E-02	2.5E-01	4.4E-01
	41603	41	B16A	W OF TRENCH 4-A	1.62E+00	3.1E-01	
	41604	76	B16B	W OF TRENCH 4-A	7.6E-01	2.8E-01	
	41605	40	B17A	E OF TRENCH 4-A	8.00E-02	2.6E-01	4.3E-01
	41606	75	B17B	E OF TRENCH 4-A	5.70E+00	4.1E-01	
	41607	43	B18A	WEST OF TRENCH 4	2.36E+01	7.0E-01	
	41608	78	B18B	WEST OF TRENCH 4	9.5E-01	2.9E-01	
1	41609	43	B19A	EAST OF TRENCH 4	1.1E-01	2.6E-01	4.3E-01
	41610	75.25	B19B	EAST OF TRENCH 4	-1.2E-01	2.5E-01	4.2E-01
	41611	43	B20A	E TRENCH 11-A	7.37E+00	5.4E-01	
2	41612	76	B20B	E TRENCH 11-A	2.64E+01	8.0E-01	
	41613	39	B21A	EAST OF TRENCH 6	8.39E+00	5.6E-01	
	41614	74	B21B	EAST OF TRENCH 6	3.91E+00	4.7E-01	
	41615	53	B22A	E OF TRENCHES 7&8	2.51E+01	8.0E-01	
	41616	84	B22B	E OF TRENCHES 7&8	1.51E+01	7.0E-01	
	41617	49	B23A	WEST OF TRENCH 8	1.85E+00	4.3E-01	
1	41618	84	B23B	WEST OF TRENCH 8	2.3E-01	3.8E-01	6.4E-01
2	41619	57	B24A	EAST OF TRENCH 9	1.42E+02	2.0E+00	
	41620	89	B24B	EAST OF TRENCH 9	1.29E+01	6.0E-01	
2	41621	57	B25A	WEST OF TRENCH 10	3.02E+04	2.0E+01	
3	41622	89	B25B	WEST OF TRENCH 10	1.88E+00	4.1E-01	
	41623	53	B26A	W OF TRENCH 11-A	1.08E+01	6.0E-01	
	41624	89	B26B	W OF TRENCH 11-A	4.39E+00	4.8E-01	
	41625	57	B27A	WEST OF TRENCH 6	9.09E+00	5.7E-01	

* MDA not reported when result is greater than MDA at the 95% confidence level.

1 Arithmetic mean of multiple wet aliquots.

2 Aliquot 1 reported; aliquot 2 biased low due to moisture loss from storage after aliquot 1 analysis.

3 Result biased low due to moisture loss from storage.

Table 14. K-40 Results

DBID	Depth (bgs-ft)	Sample Location ID	Site	Result Dry [pCi/g]	Error [pCi/g]	LLD [pCi/g]
41574	25	B1A	NORTH OF TANK 3	1.47E+01	5.0E-01	1.9E-01
41576	38	B1B	NORTH OF TANK 3	2.16E+01	7.0E-01	1.9E-01
41577	27	B2A	SOUTH OF TANK 1	1.46E+01	1.5E+00	1.9E-01
41578	42	B2B	SOUTH OF TANK 1	2.16E+01	5.0E-01	1.9E-01
41579	23	B3A	WEST OF TANK 1	1.60E+01	1.0E+00	1.9E-01
41580	33	B3B	WEST OF TANK 1	2.14E+01	8.0E-01	1.9E-01
41581	23	B4A	NW OF TANK 1	1.60E+01	1.0E+00	1.9E-01
41582	33	B4B	NW OF TANK 1	2.21E+01	1.0E+00	1.9E-01
41583	23	B5A	EAST OF TANK 1	1.64E+01	5.7E-01	1.9E-01
41584	33	B5B	EAST OF TANK 1	2.07E+01	9.8E-01	1.9E-01
41585	23	B6A	NE OF TANK 1	1.53E+01	6.4E-01	1.9E-01
41586	33	B6B	NE OF TANK 1	2.13E+01	5.4E-01	1.9E-01
41587	23	B7A	E OF TANKS 2&3	1.63E+01	7.0E-01	1.9E-01
41588	33	B7B	E OF TANKS 2&3	2.14E+01	7.0E-01	1.9E-01
41589	23	B8A	W OF TANKS 2&3	1.52E+01	5.0E-01	1.9E-01
41590	35	B8B	W OF TANKS 2&3	2.08E+01	8.0E-01	1.9E-01
41591	31	B10A	W OF CHEM TRENCH	1.56E+01	5.0E-01	1.9E-01
41592	66	B10B	W OF CHEM TRENCH	2.29E+01	5.0E-01	1.9E-01
41593	29	B11A	E OF CHEM TRENCH	1.48E+01	5.0E-01	1.9E-01
41594	64	B11B	E OF CHEM TRENCH	2.20E+01	1.0E+00	1.9E-01
41595	40	B12A	W OF TRENCHES 1&2	2.21E+01	5.0E-01	1.9E-01
41596	75	B12B	W OF TRENCHES 1&2	2.30E+01	1.0E+00	1.9E-01
41597	39	B13A	E OF TRENCHES 1&2	2.22E+01	7.0E-01	1.9E-01
41598	74	B13B	E OF TRENCHES 1&2	2.29E+01	6.0E-01	1.9E-01
41599	54	B14A	W OF TRENCH 4-B	2.17E+01	7.0E-01	1.9E-01
41600	89	B14B	W OF TRENCH 4-B	2.28E+01	1.0E+00	1.9E-01
41601	58	B15A	E OF TRENCH 4-B	2.14E+01	5.0E-01	1.9E-01
41602	89	B15B	E OF TRENCH 4-B	2.10E+01	1.0E+00	1.9E-01
41603	41	B16A	W OF TRENCH 4-A	1.50E+01	4.7E-01	1.9E-01
41604	76	B16B	W OF TRENCH 4-A	2.19E+01	8.5E-01	1.9E-01
41605	40	B17A	E OF TRENCH 4-A	1.56E+01	5.4E-01	1.9E-01
41606	75	B17B	E OF TRENCH 4-A	2.28E+01	7.0E-01	1.9E-01
41607	43	B18A	WEST OF TRENCH 4	1.84E+01	5.0E-01	1.9E-01
41608	78	B18B	WEST OF TRENCH 4	2.20E+01	8.0E-01	1.9E-01
41609	43	B19A	EAST OF TRENCH 4	2.14E+01	8.0E-01	1.9E-01
[1] 41610	75.25	B19B	EAST OF TRENCH 4	2.22E+01	1.1E+00	2.2E-01
41611	43	B20A	E TRENCH 11-A	2.18E+01	5.0E-01	1.9E-01
41612	76	B20B	E TRENCH 11-A	2.20E+01	7.0E-01	1.9E-01
41613	39	B21A	EAST OF TRENCH 6	2.30E+01	1.0E+00	1.9E-01
41614	74	B21B	EAST OF TRENCH 6	2.28E+01	9.0E-01	1.9E-01
41615	53	B22A	E OF TRENCHES 7&8	2.28E+01	5.0E-01	1.9E-01
41616	84	B22B	E OF TRENCHES 7&8	2.34E+01	8.0E-01	1.9E-01
41617	49	B23A	WEST OF TRENCH 8	2.27E+01	1.1E+00	1.9E-01
41618	84	B23B	WEST OF TRENCH 8	2.17E+01	5.0E-01	1.9E-01
41619	57	B24A	EAST OF TRENCH 9	2.33E+01	9.0E-01	1.9E-01
41620	89	B24B	EAST OF TRENCH 9	2.22E+01	5.0E-01	1.9E-01
41621	57	B25A	WEST OF TRENCH 10	2.28E+01	7.4E-01	1.9E-01
41622	89	B25B	WEST OF TRENCH 10	2.04E+01	7.8E-01	1.9E-01
41623	53	B26A	W OF TRENCH 11-A	2.30E+01	5.0E-01	1.9E-01
41624	89	B26B	W OF TRENCH 11-A	2.23E+01	5.0E-01	1.9E-01
41625	57	B27A	WEST OF TRENCH 6	2.22E+01	8.0E-01	1.9E-01

[1] Analyzed and reported on wet sample aliquot; all other samples, dry aliquots analyzed and reported dry.

Table 15. pH

DBID	Depth (bgs-ft)	Sample Location ID	Site	Result	Error
41574	25	B1A	NORTH OF TANK 3	8.8	0.4
41576	38	B1B	NORTH OF TANK 3	9.0	0.4
41577	27	B2A	SOUTH OF TANK 1	8.6	0.4
41578	42	B2B	SOUTH OF TANK 1	8.5	0.4
41579	23	B3A	WEST OF TANK 1	8.4	0.4
41580	33	B3B	WEST OF TANK 1	8.9	0.4
41581	23	B4A	NW OF TANK 1	8.6	0.4
41582	33	B4B	NW OF TANK 1	9.0	0.4
41583	23	B5A	EAST OF TANK 1	8.9	0.4
41584	33	B5B	EAST OF TANK 1	8.9	0.4
41585	23	B6A	NE OF TANK 1	8.1	0.4
41586	33	B6B	NE OF TANK 1	8.8	0.4
41587	23	B7A	E OF TANKS 2&3	8.8	0.4
41588	33	B7B	E OF TANKS 2&3	9.1	0.5
41589	23	B8A	W OF TANKS 2&3	8.9	0.4
41590	35	B8B	W OF TANKS 2&3	9.0	0.5
41591	31	B10A	W OF CHEM TRENCH	8.9	0.4
41592	66	B10B	W OF CHEM TRENCH	9.2	0.5
41593	29	B11A	E OF CHEM TRENCH	8.9	0.4
41594	64	B11B	E OF CHEM TRENCH	9.2	0.5
41595	40	B12A	W OF TRENCHES 1&2	9.0	0.5
41596	75	B12B	W OF TRENCHES 1&2	8.7	0.4
41597	39	B13A	E OF TRENCHES 1&2	9.2	0.5
41598	74	B13B	E OF TRENCHES 1&2	9.1	0.5
41599	54	B14A	W OF TRENCH 4-B	8.8	0.4
41600	89	B14B	W OF TRENCH 4-B	9.2	0.5
41601	58	B15A	E OF TRENCH 4-B	9.2	0.5
41602	89	B15B	E OF TRENCH 4-B	9.2	0.5
41603	41	B16A	W OF TRENCH 4-A	9.0	0.5
41604	76	B16B	W OF TRENCH 4-A	9.1	0.5
41605	40	B17A	E OF TRENCH 4-A	9.1	0.5
41606	75	B17B	E OF TRENCH 4-A	9.0	0.5
41607	43	B18A	WEST OF TRENCH 4	8.9	0.4
41608	78	B18B	WEST OF TRENCH 4	9.0	0.5
41609	43	B19A	EAST OF TRENCH 4	9.1	0.5
41610	75.25	B19B	EAST OF TRENCH 4	8.8	0.4
41611	43	B20A	E TRENCH 11-A	9.0	0.5
41612	76	B20B	E TRENCH 11-A	8.8	0.4
41613	39	B21A	EAST OF TRENCH 6	8.8	0.4
41614	74	B21B	EAST OF TRENCH 6	8.9	0.4
41615	53	B22A	E OF TRENCHES 7&8	9.0	0.5
41616	84	B22B	E OF TRENCHES 7&8	9.1	0.5
41617	49	B23A	WEST OF TRENCH 8	9.2	0.5
41618	84	B23B	WEST OF TRENCH 8	9.2	0.5
41619	57	B24A	EAST OF TRENCH 9	9.2	0.5
41620	89	B24B	EAST OF TRENCH 9	9.2	0.5
41621	57	B25A	WEST OF TRENCH 10	9.2	0.5
41622	89	B25B	WEST OF TRENCH 10	9.2	0.5
41623	53	B26A	W OF TRENCH 11-A	9.2	0.5
41624	89	B26B	W OF TRENCH 11-A	9.2	0.5
41625	57	B27A	WEST OF TRENCH 6	9.2	0.5

Table 16. Moisture Content

DBID	Depth (bgs-ft)	Sample Location ID	Site	Collection Date	Result [%]
41574	25	B1A	NORTH OF TANK 3	5/15/2008	5.23
41576	38	B1B	NORTH OF TANK 3	5/19/2008	2.72
41577	27	B2A	SOUTH OF TANK 1	5/19/2008	4.92
41578	42	B2B	SOUTH OF TANK 1	5/20/2008	4.07
41579	23	B3A	WEST OF TANK 1	5/13/2008	6.54
41580	33	B3B	WEST OF TANK 1	5/13/2008	4.40
41581	23	B4A	NW OF TANK 1	5/13/2008	5.63
41582	33	B4B	NW OF TANK 1	5/14/2008	4.29
41583	23	B5A	EAST OF TANK 1	5/12/2008	4.71
41584	33	B5B	EAST OF TANK 1	5/12/2008	2.89
41585	23	B6A	NE OF TANK 1	5/14/2008	3.82
41586	33	B6B	NE OF TANK 1	5/15/2008	5.17
41587	23	B7A	E OF TANKS 2&3	5/8/2008	4.14
41588	33	B7B	E OF TANKS 2&3	5/8/2008	3.96
41589	23	B8A	W OF TANKS 2&3	5/7/2008	4.10
41590	35	B8B	W OF TANKS 2&3	5/7/2008	3.31
41591	31	B10A	W OF CHEM TRENCH	4/21/2008	6.47
41592	66	B10B	W OF CHEM TRENCH	4/22/2008	2.32
41593	29	B11A	E OF CHEM TRENCH	1/30/2008	8.56
41594	64	B11B	E OF CHEM TRENCH	2/1/2008	2.68
41595	40	B12A	W OF TRENCHES 1&2	4/10/2008	3.37
41596	75	B12B	W OF TRENCHES 1&2	4/14/2008	6.05
41597	39	B13A	E OF TRENCHES 1&2	4/24/2008	2.58
41598	74	B13B	E OF TRENCHES 1&2	4/28/2008	3.01
41599	54	B14A	W OF TRENCH 4-B	4/16/2008	4.43
41600	89	B14B	W OF TRENCH 4-B	4/17/2008	1.43
41601	58	B15A	E OF TRENCH 4-B	2/6/2008	3.10
41602	89	B15B	E OF TRENCH 4-B	2/11/2008	3.60
41603	41	B16A	W OF TRENCH 4-A	3/31/2008	3.23
41604	76	B16B	W OF TRENCH 4-A	4/1/2008	3.77
41605	40	B17A	E OF TRENCH 4-A	4/2/2008	2.18
41606	75	B17B	E OF TRENCH 4-A	4/3/2008	2.49
41607	43	B18A	WEST OF TRENCH 4	4/8/2008	2.26
41608	78	B18B	WEST OF TRENCH 4	4/9/2008	1.99
41609	43	B19A	EAST OF TRENCH 4	2/13/2008	3.11
[1] 41610	75.25	B19B	EAST OF TRENCH 4	2/14/2008	
41611	43	B20A	E TRENCH 11-A	2/28/2008	3.17
41612	76	B20B	E TRENCH 11-A	2/29/2008	4.60
41613	39	B21A	EAST OF TRENCH 6	2/19/2008	5.36
41614	74	B21B	EAST OF TRENCH 6	2/20/2008	2.46
41615	53	B22A	E OF TRENCHES 7&8	2/25/2008	3.43
41616	84	B22B	E OF TRENCHES 7&8	2/26/2008	3.49
41617	49	B23A	WEST OF TRENCH 8	3/20/2008	2.90
41618	84	B23B	WEST OF TRENCH 8	3/25/2008	1.33
41619	57	B24A	EAST OF TRENCH 9	5/1/2008	2.40
41620	89	B24B	EAST OF TRENCH 9	5/5/2008	3.93
41621	57	B25A	WEST OF TRENCH 10	3/5/2008	2.59
41622	89	B25B	WEST OF TRENCH 10	3/10/2008	1.71
41623	53	B26A	W OF TRENCH 11-A	3/13/2008	2.14
41624	89	B26B	W OF TRENCH 11-A	3/18/2008	1.73
41625	57	B27A	WEST OF TRENCH 6	3/26/2008	2.66

[1] Insufficient sample volume to determine % moisture content.

Figure 6.
Pu-238

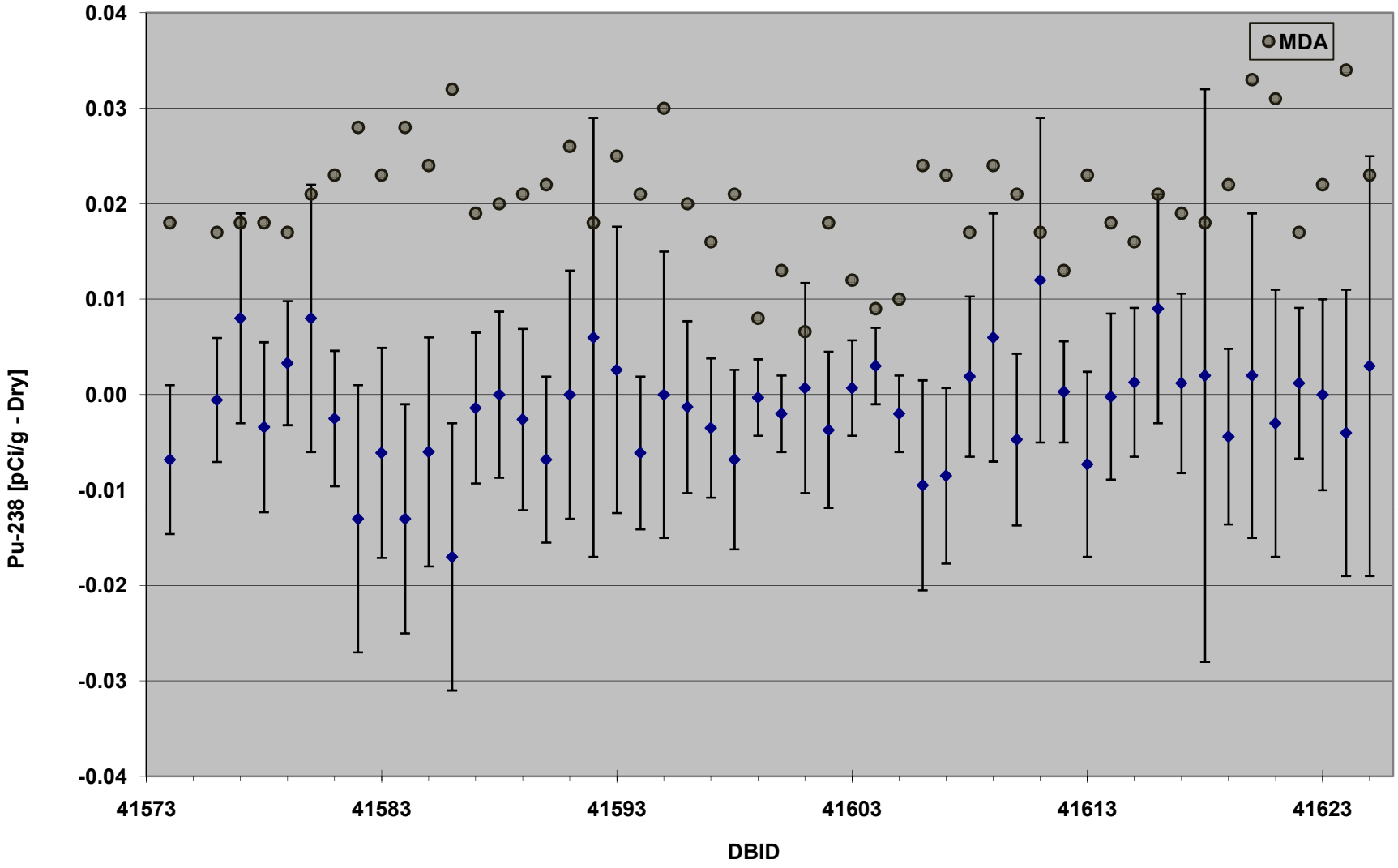


Figure 7.
Pu-238 by Depth

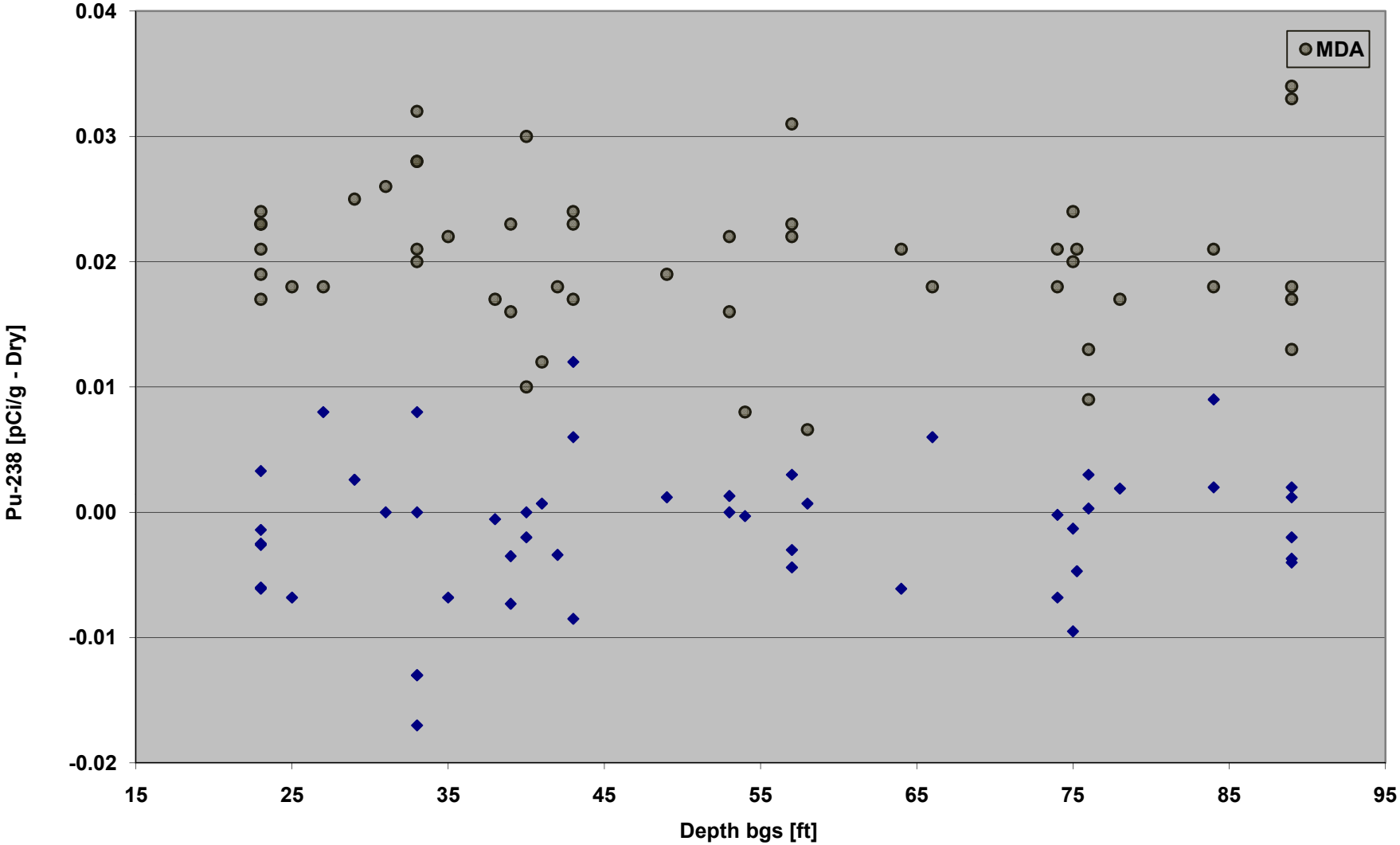


Figure 8.
Pu 239/240

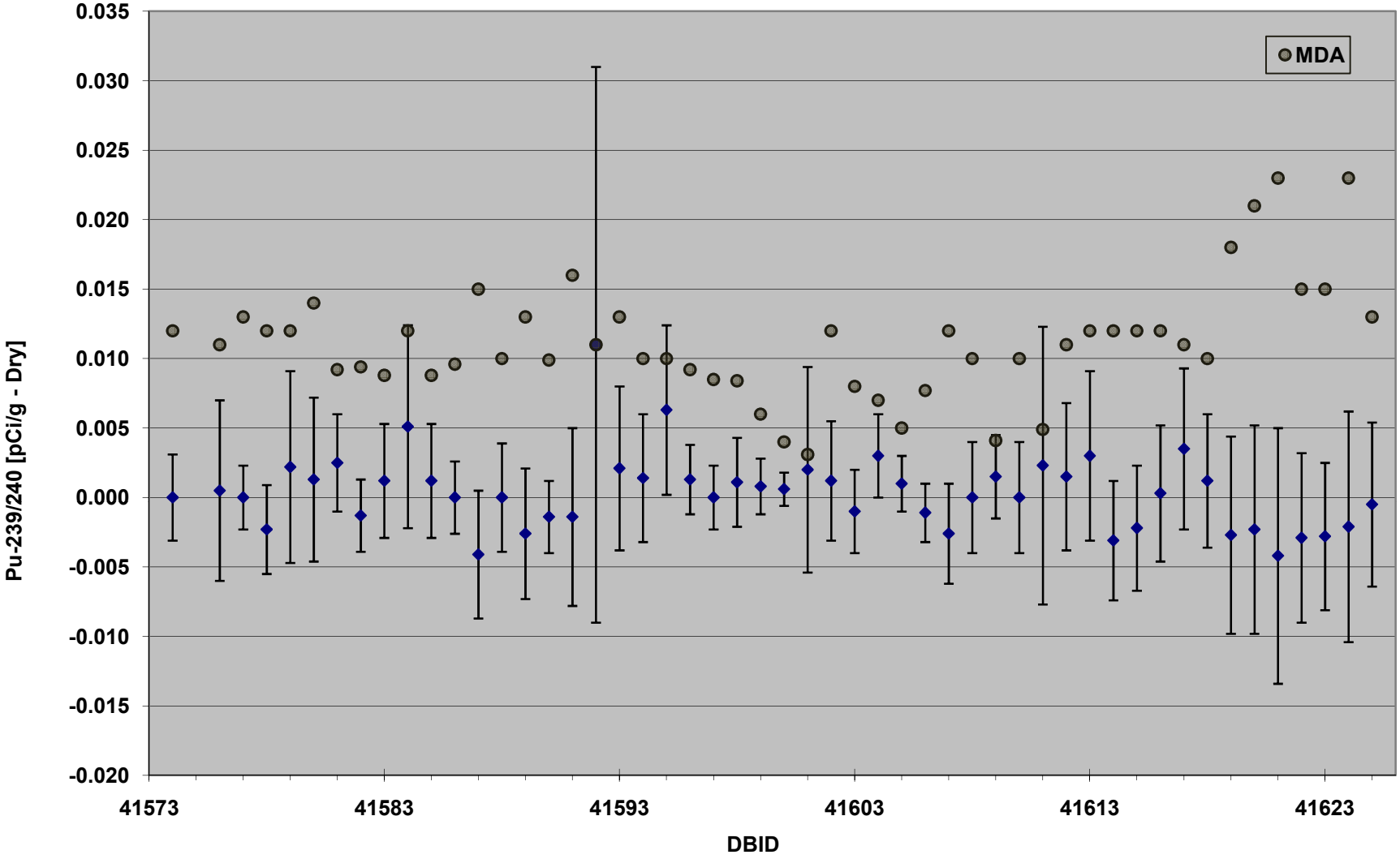


Figure 9.
Pu-239/240 by Depth

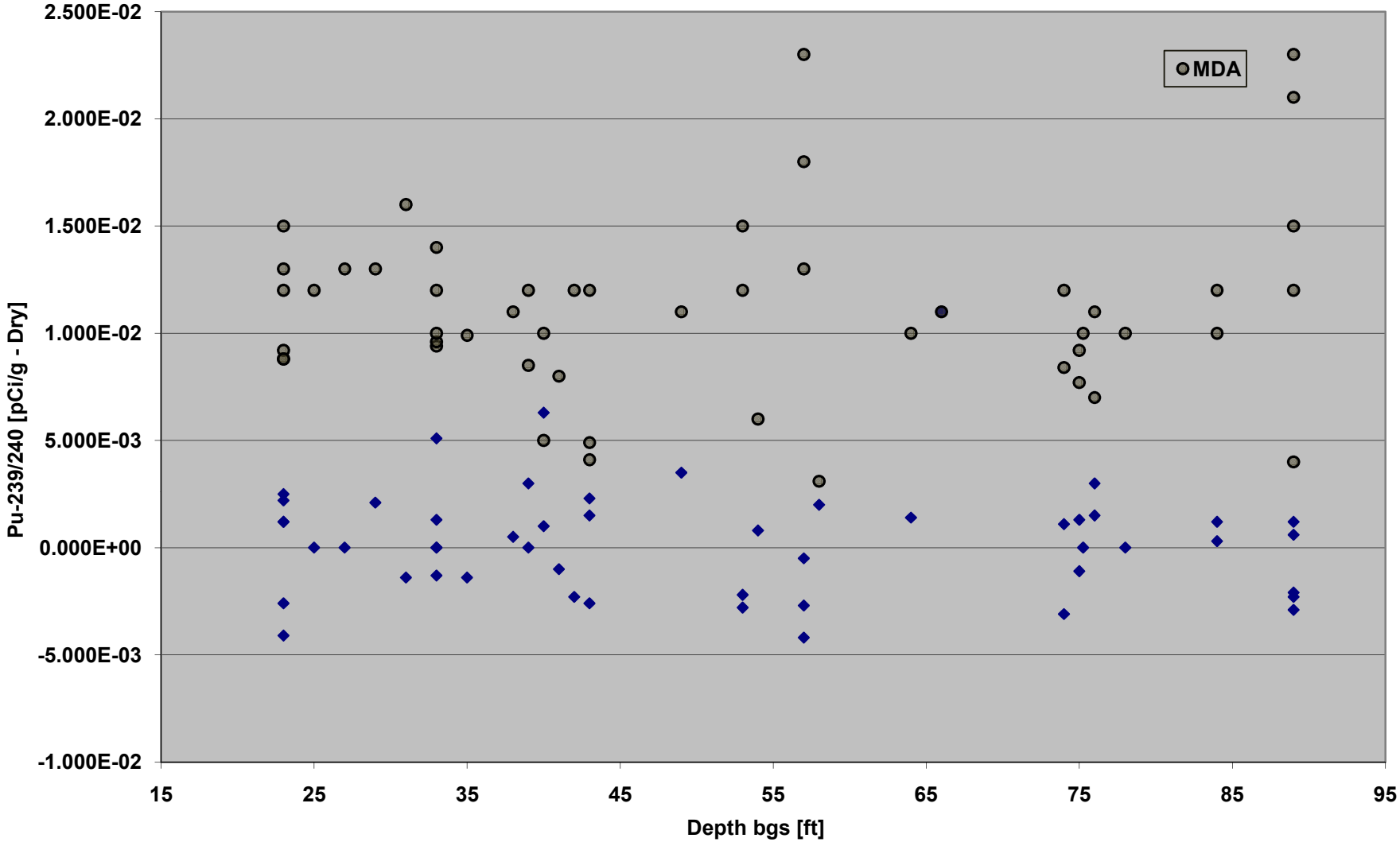
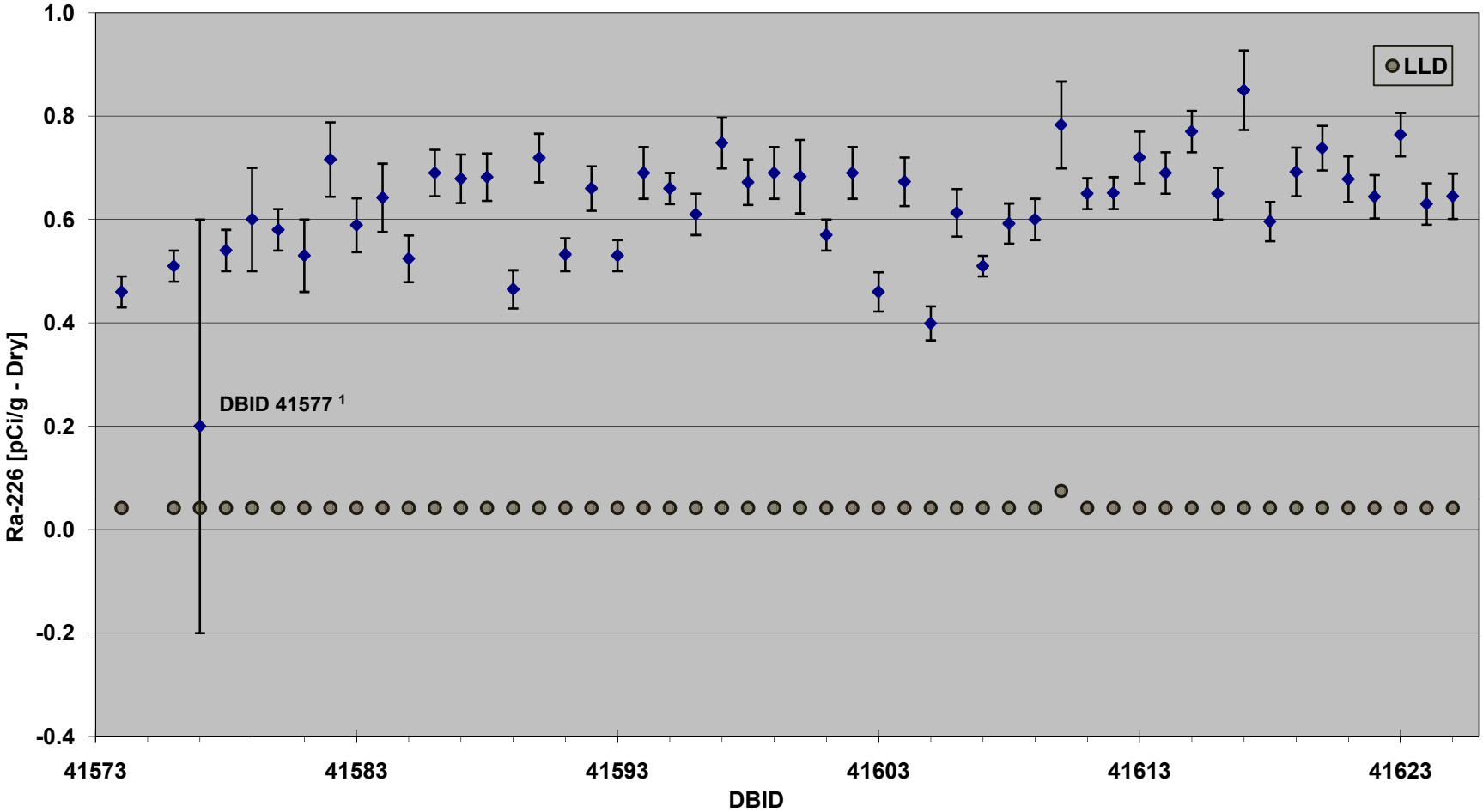
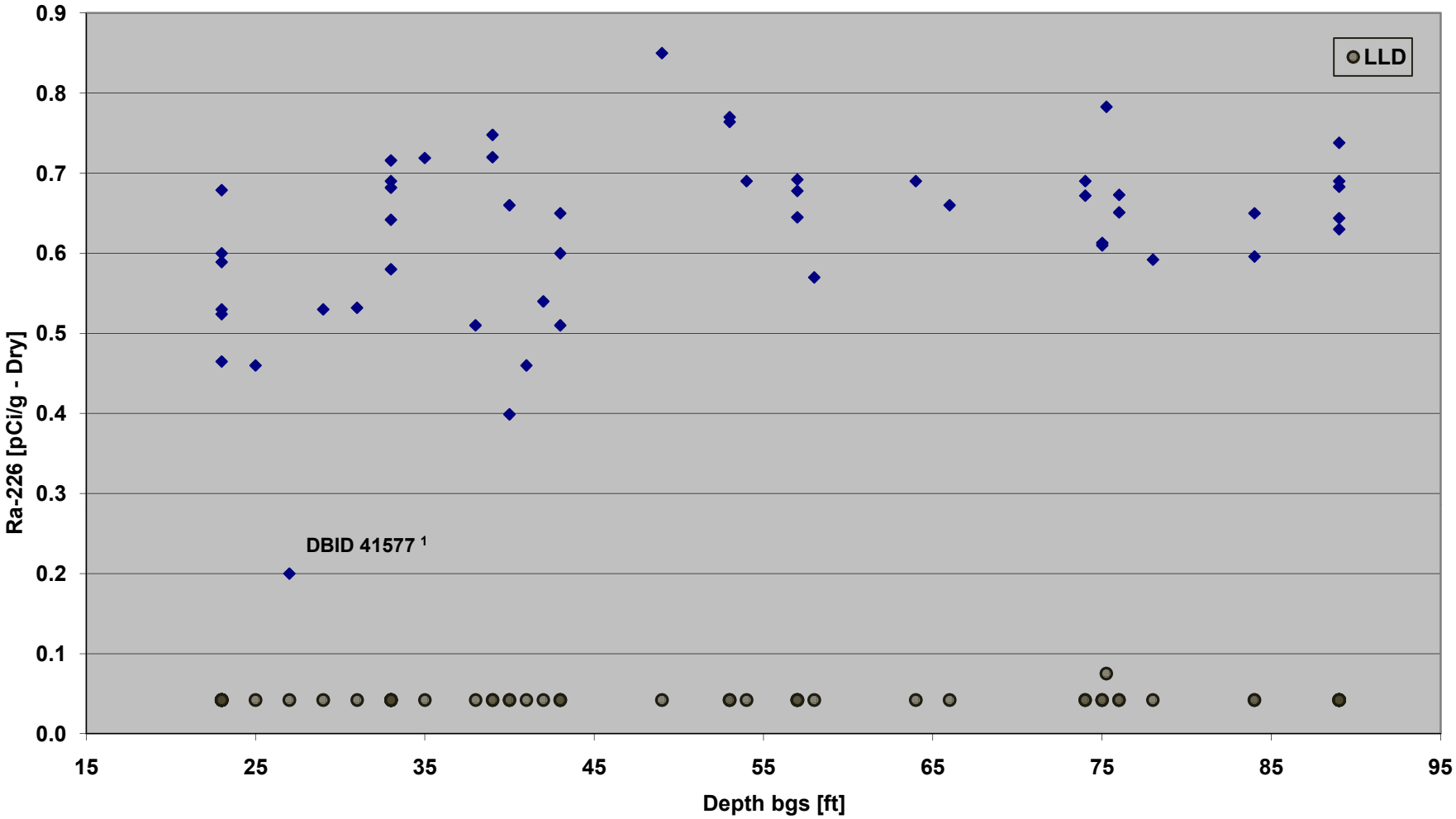


Figure 10.
Ra-226



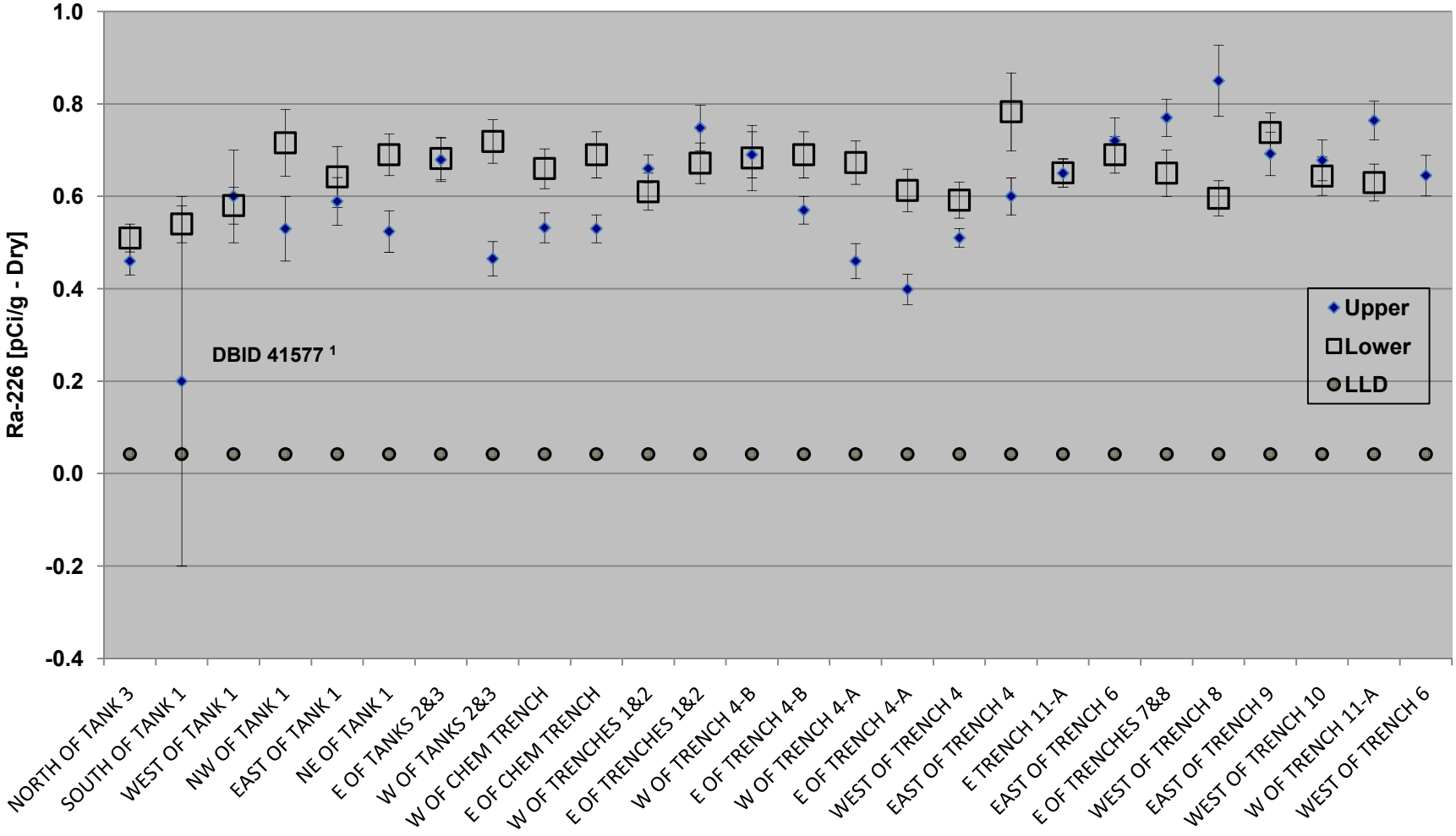
'1 Result biased low, Co-60 and Cs-137 fission product backscatter interference in Ra-226 region of interest.

Figure 11.
Ra-226 by Depth



'1 Result biased low, Co-60 and Cs-137 fission product backscatter interference in Ra-226 region of interest.

Figure 12.
Ra-226 by Borehole



'1 Result biased low, Co-60 and Cs-137 fission product backscatter interference in Ra-226 region of interest.

Figure 13.
Tc-99

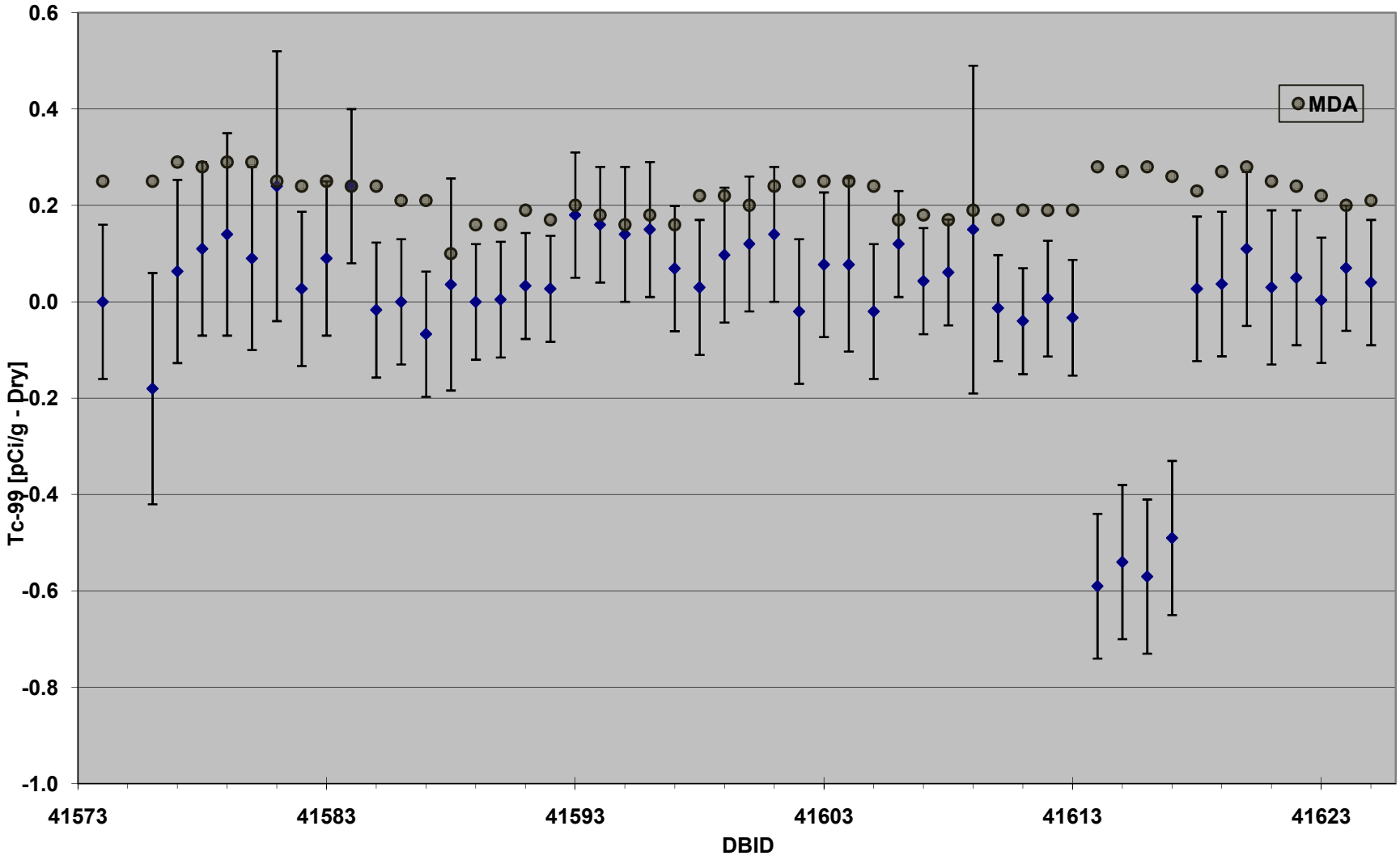


Figure 14.
Tc-99 by Depth

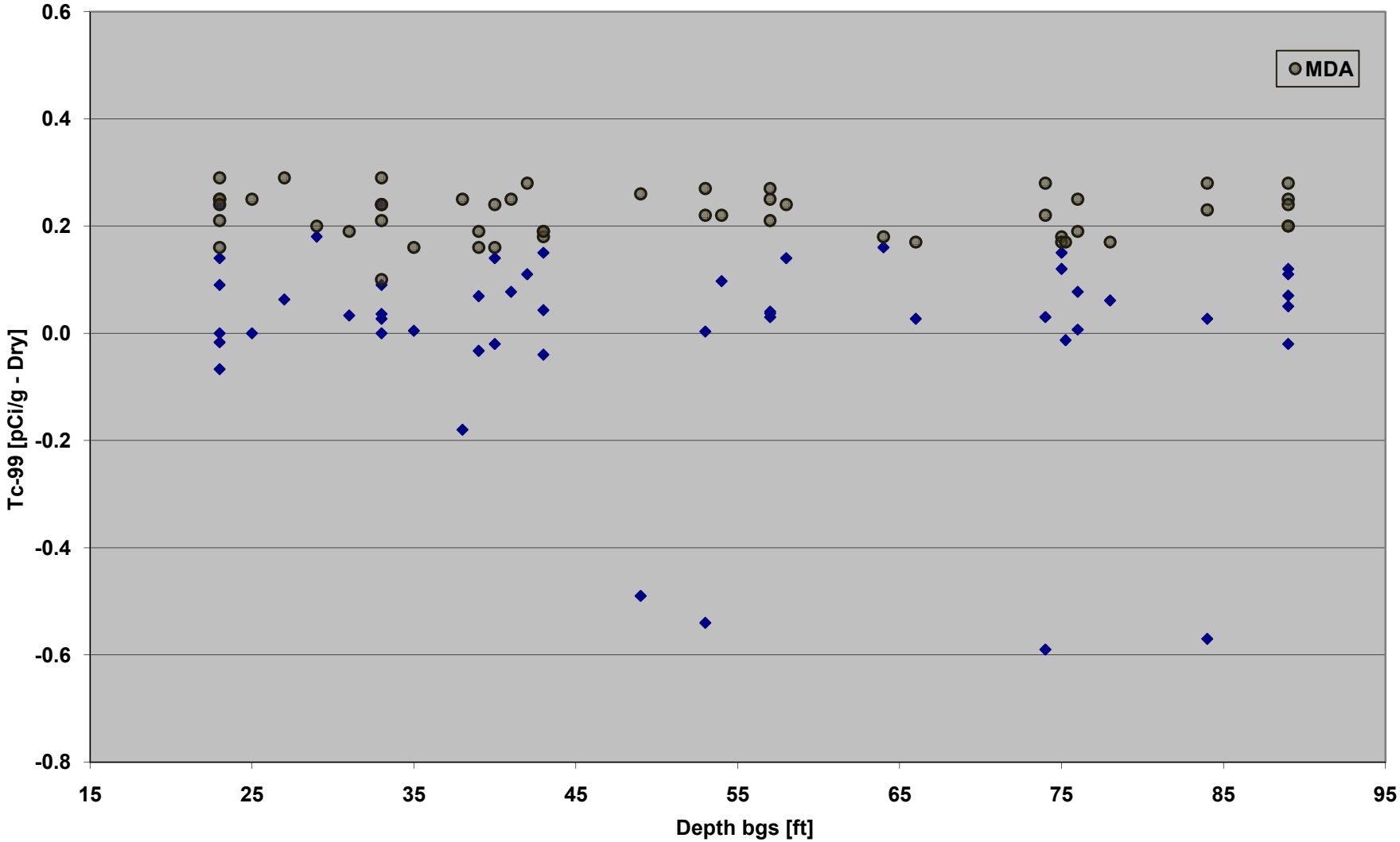


Figure 15.
U-238

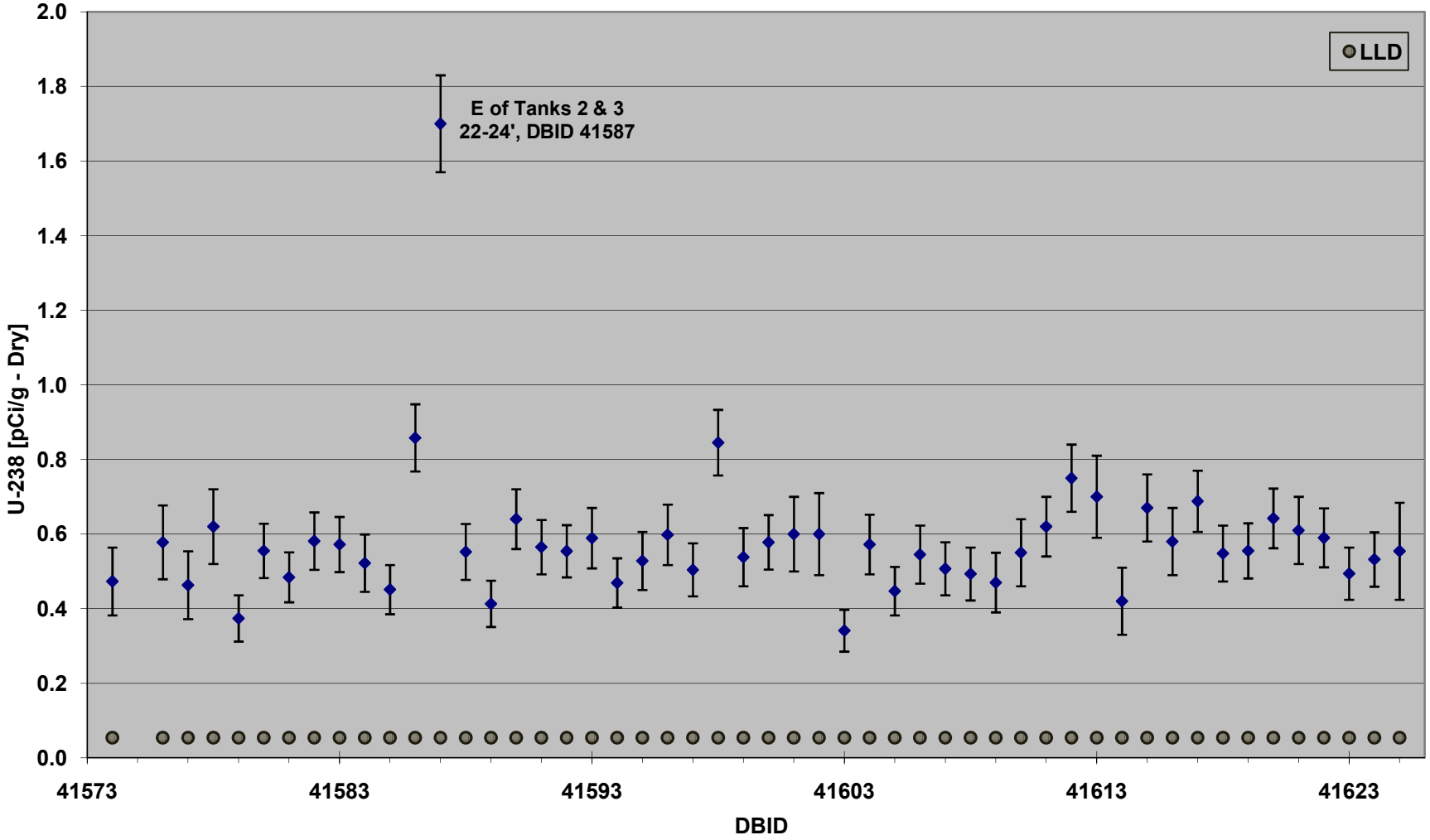
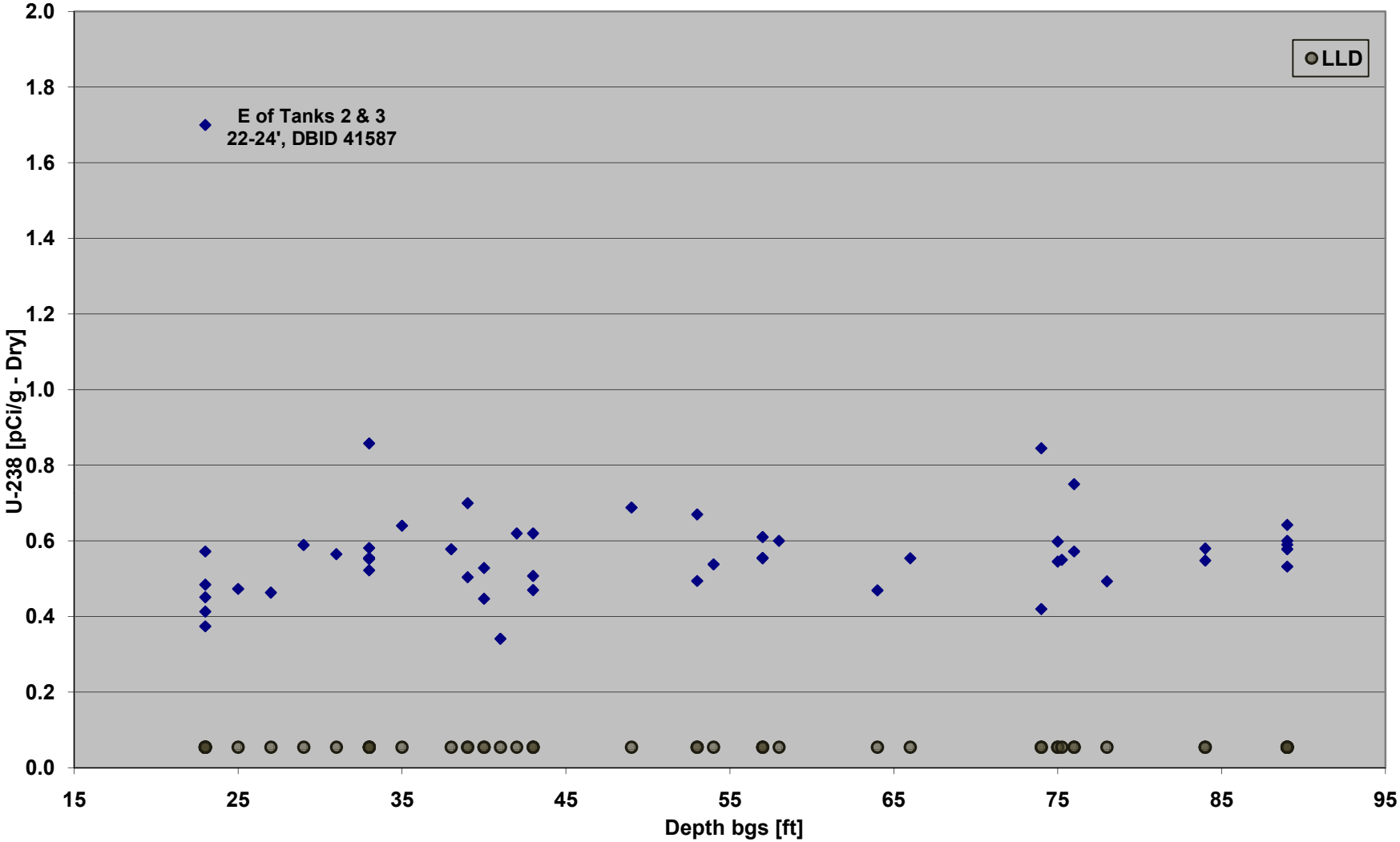


Figure 16.
U-238 by Depth



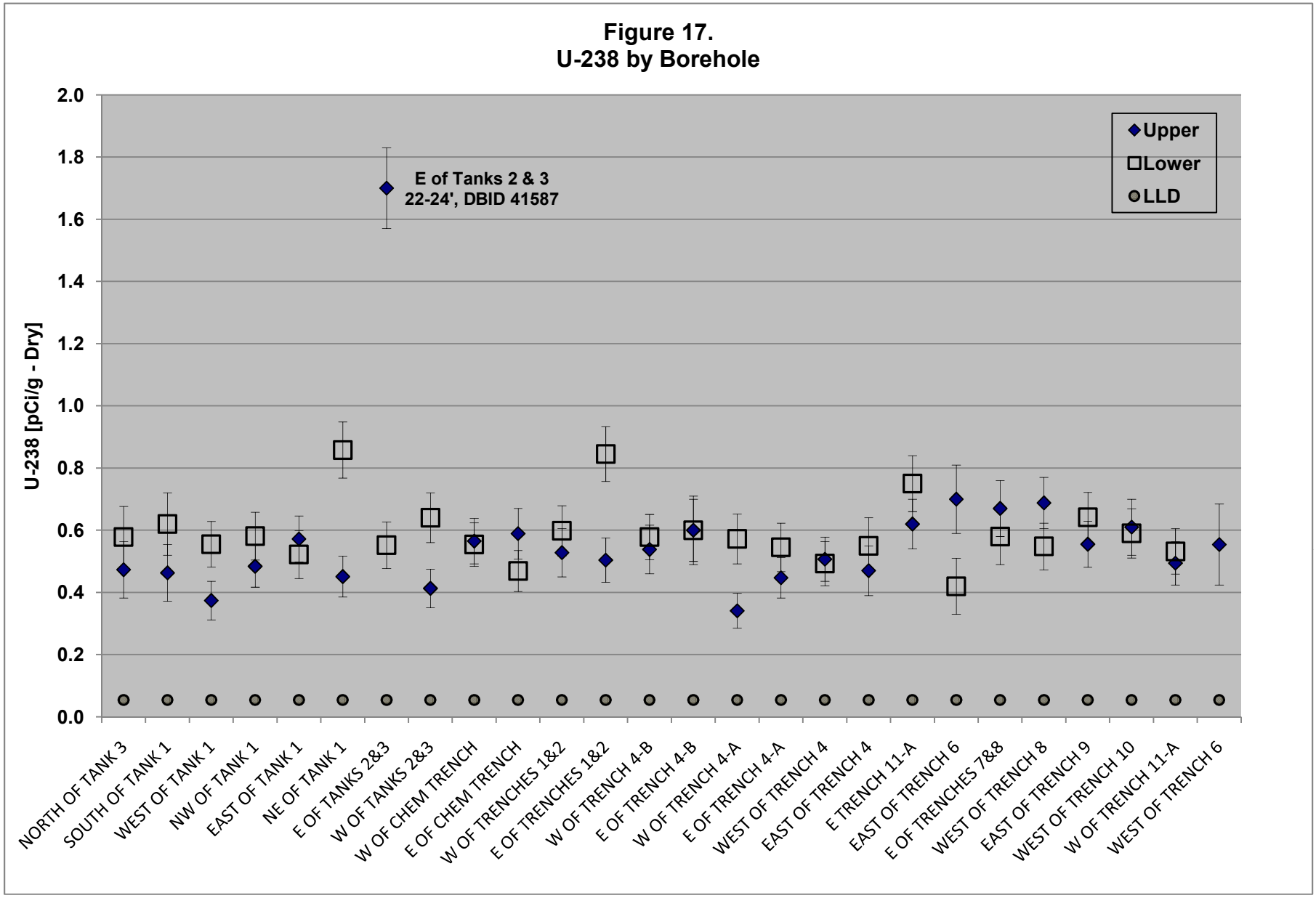


Figure 17.
U-238 by Borehole
U-238 [pCi/g - Dry]
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
E of Tanks 2 & 3
22-24', DBID 41587
Upper
Lower
LLD
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

Figure 18.
U-234

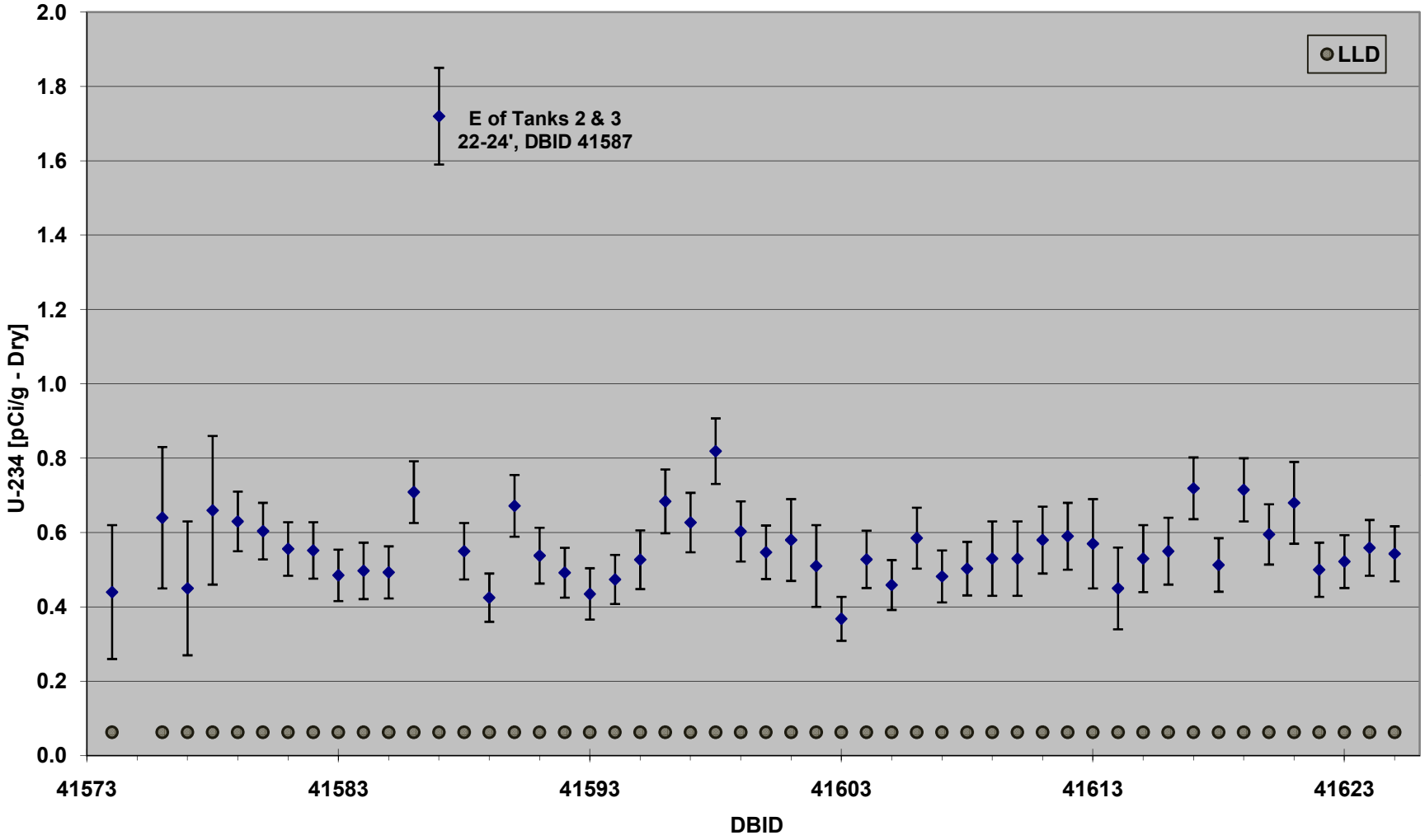
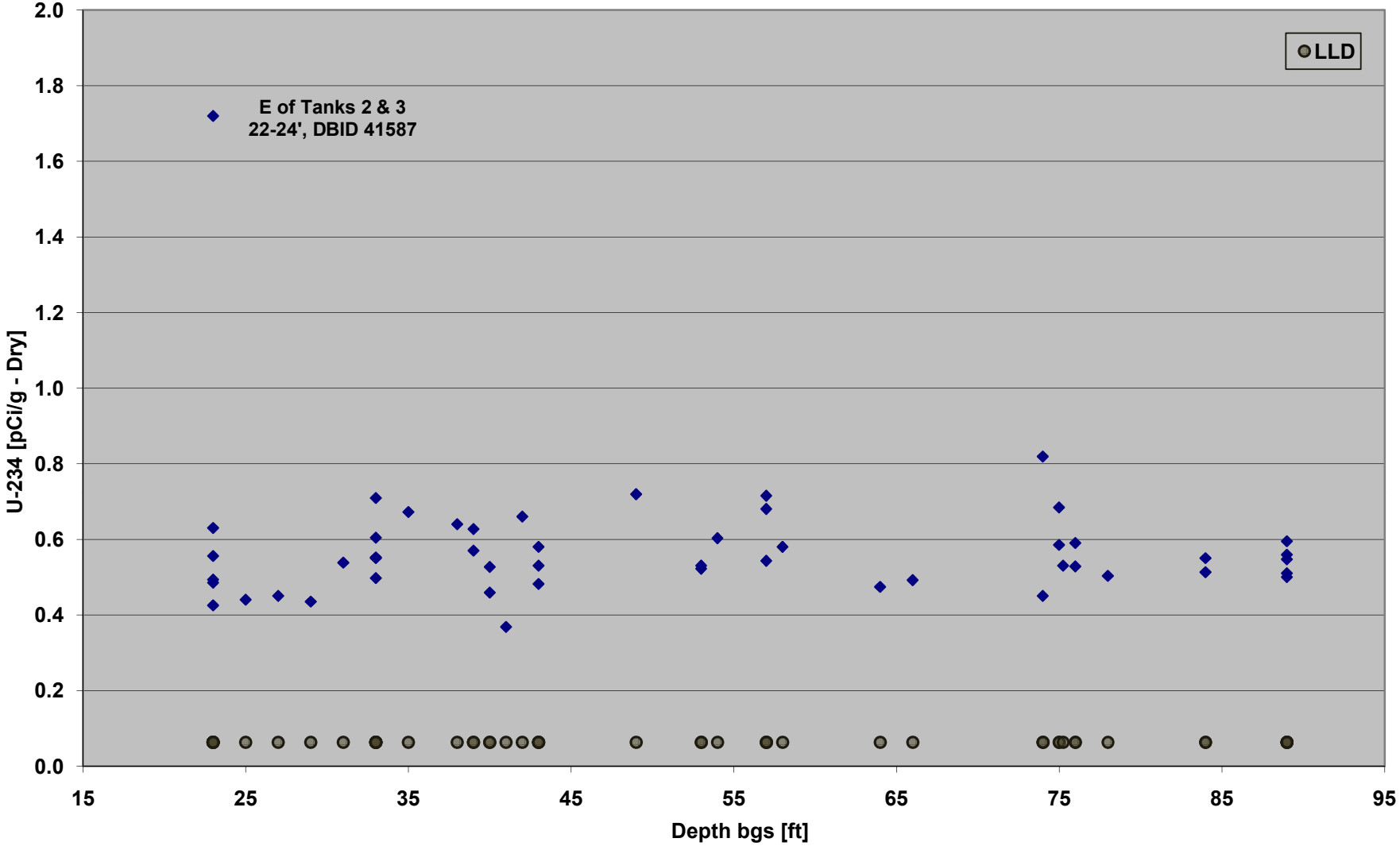


Figure 19.
U-234 by Depth



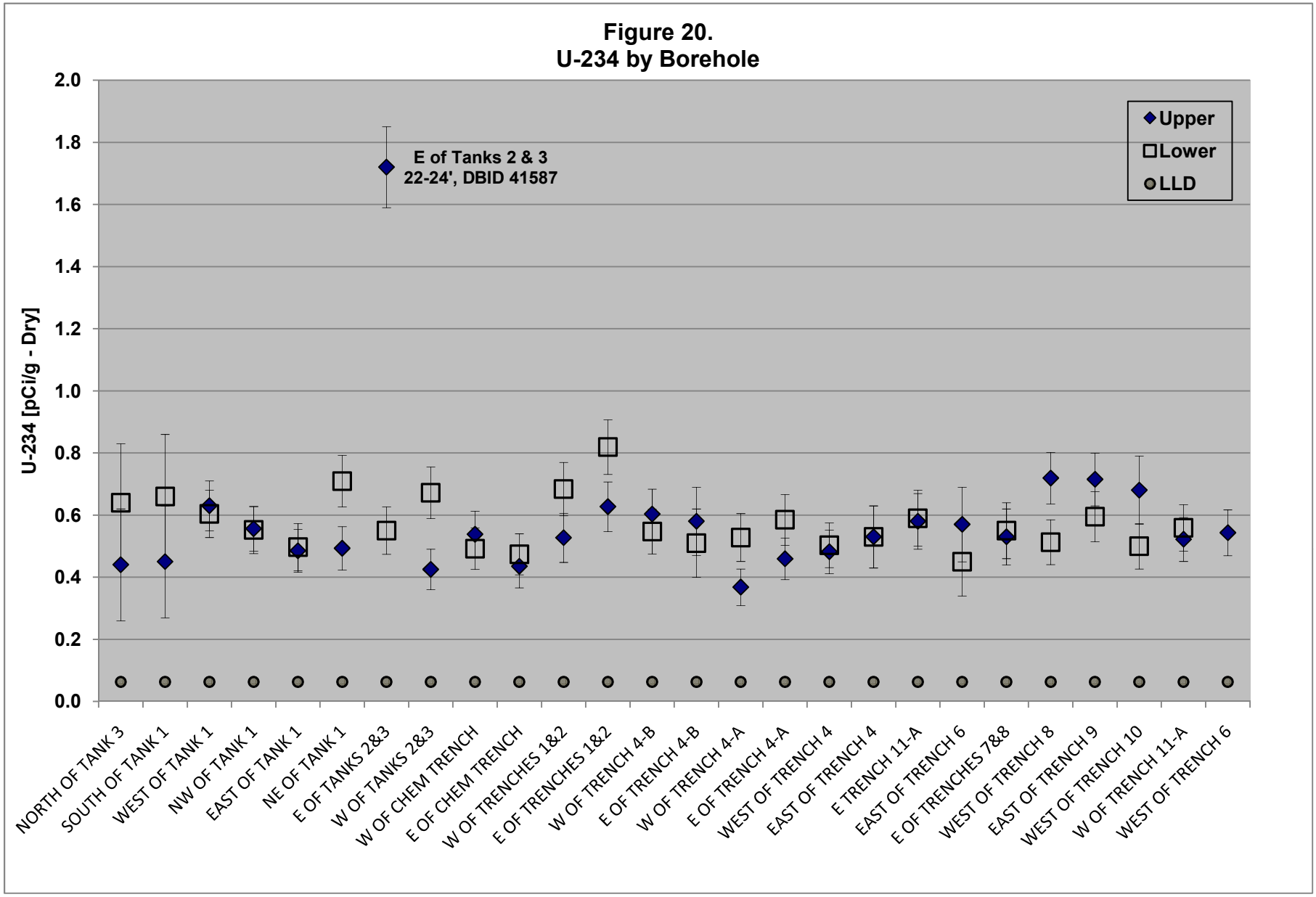


Figure 20.
U-234 by Borehole
U-234 [pCi/g - Dry]
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
E of Tanks 2 & 3
22-24', DBID 41587
Upper
Lower
LLD
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

Figure 21.
U-235

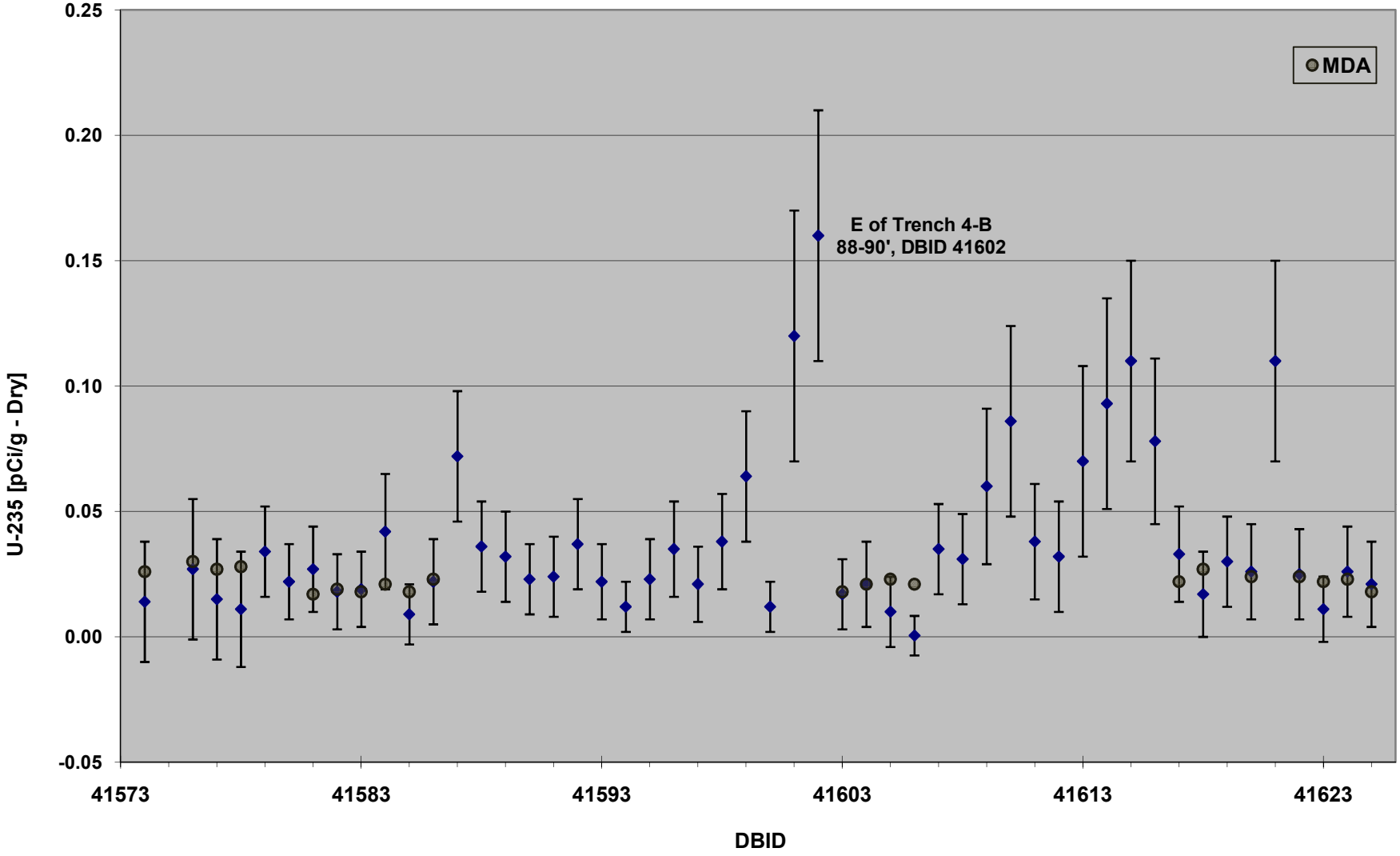
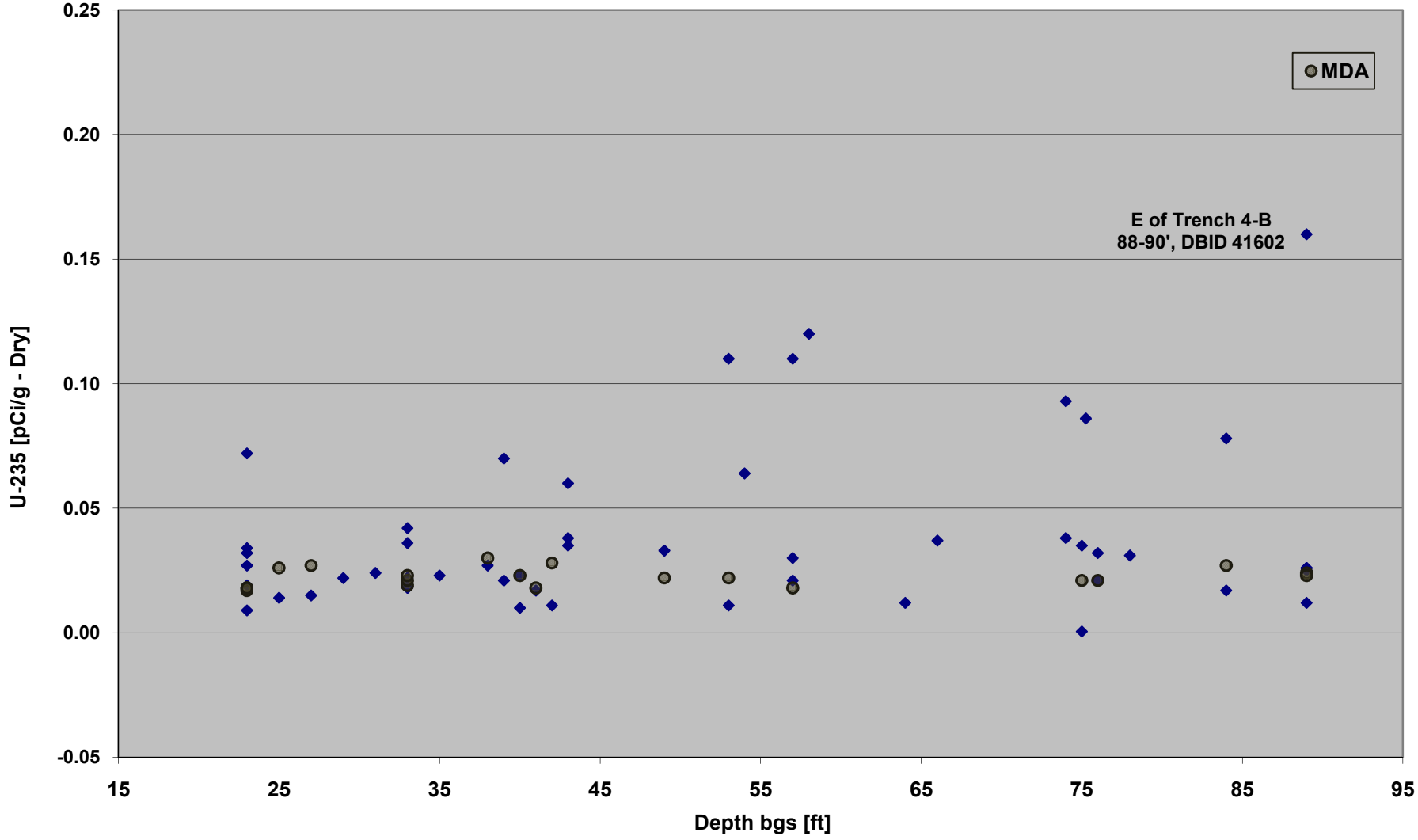


Figure 22.
U-235 by Depth



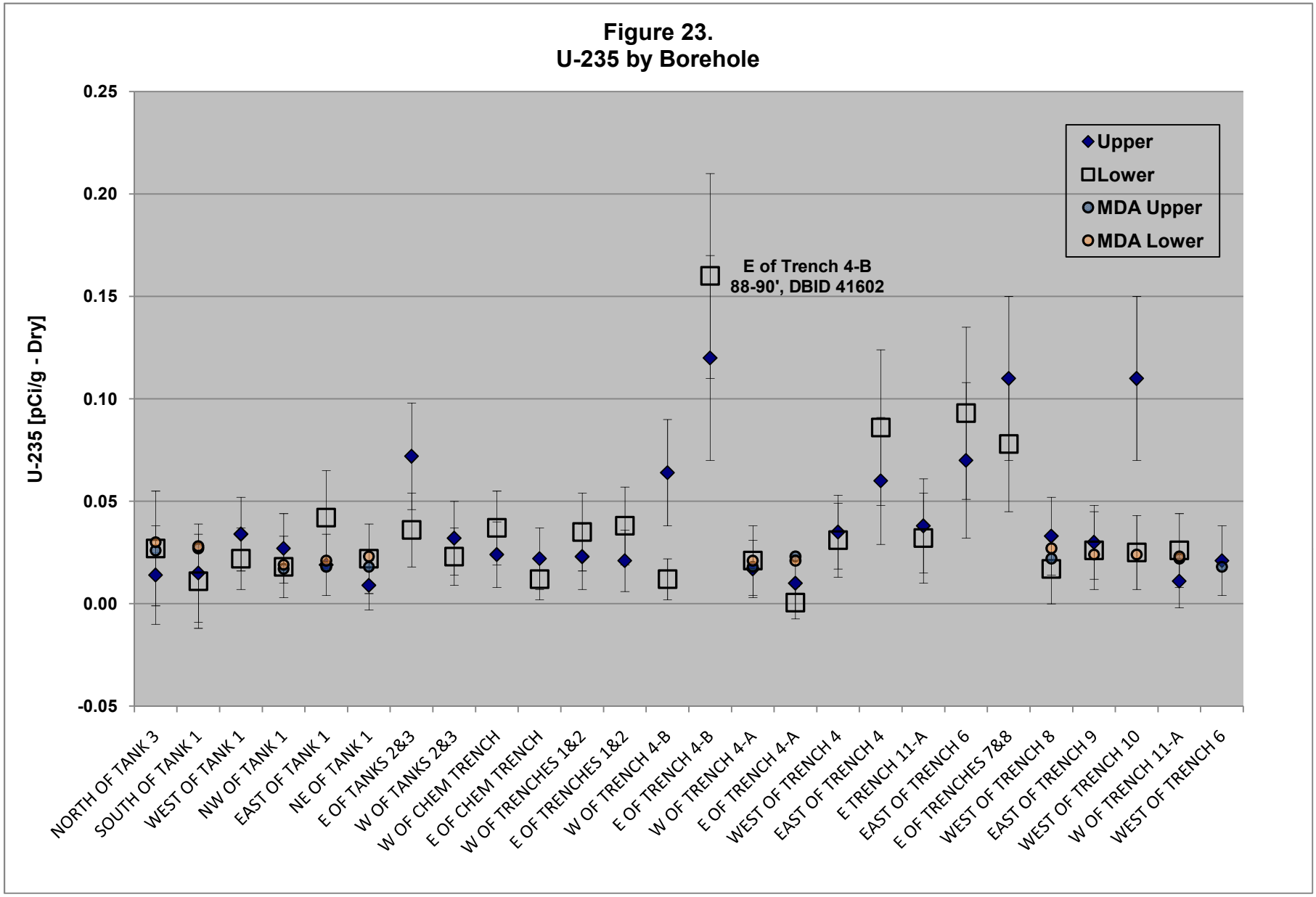


Figure 23.
U-235 by Borehole
U-235 [pCi/g - Dry]
0.25
0.20
0.15
0.10
0.05
0.00
-0.05
Upper
Lower
MDA Upper
MDA Lower
E of Trench 4-B
88-90', DBID 41602
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

Figure 24.
Gross Beta

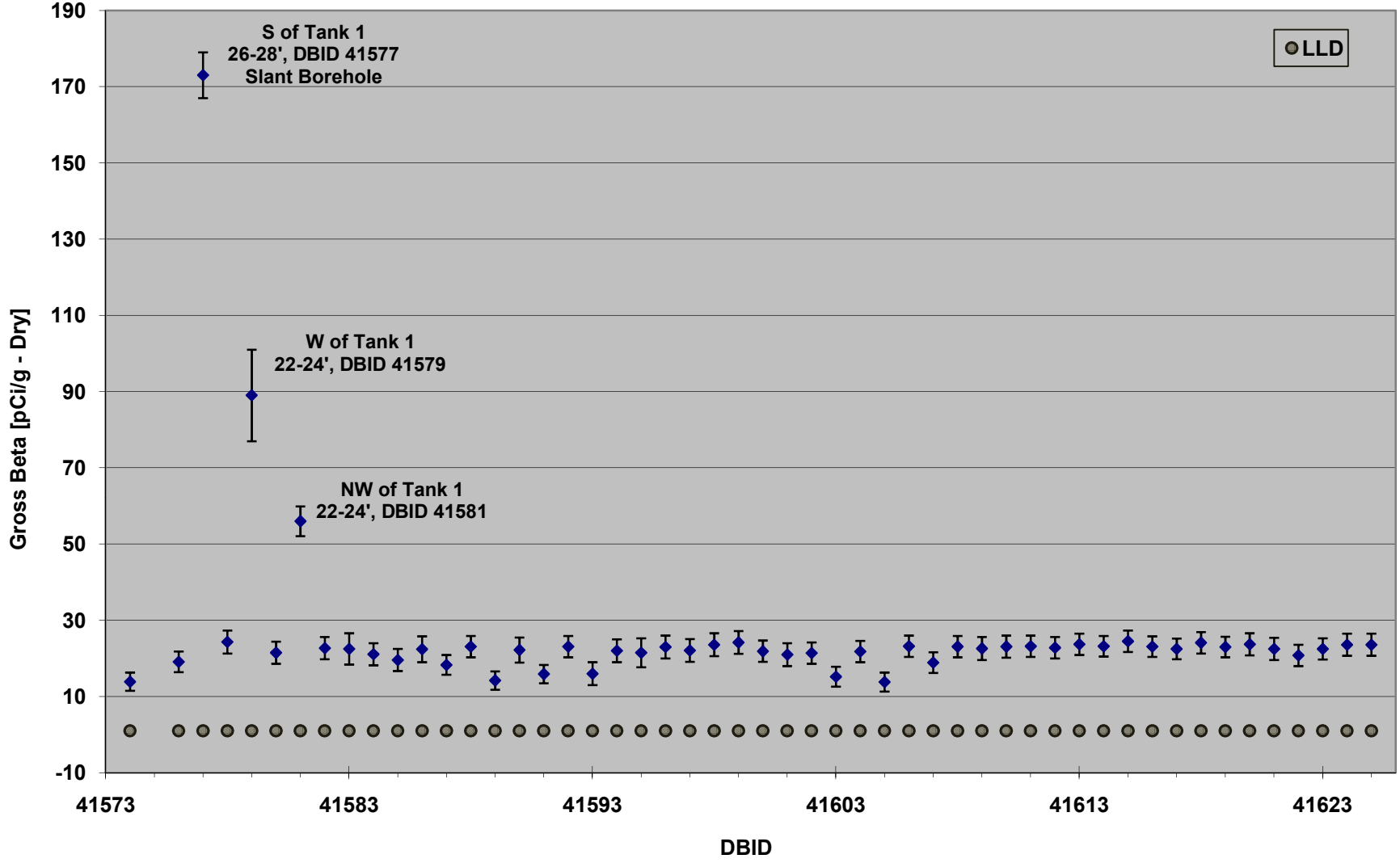
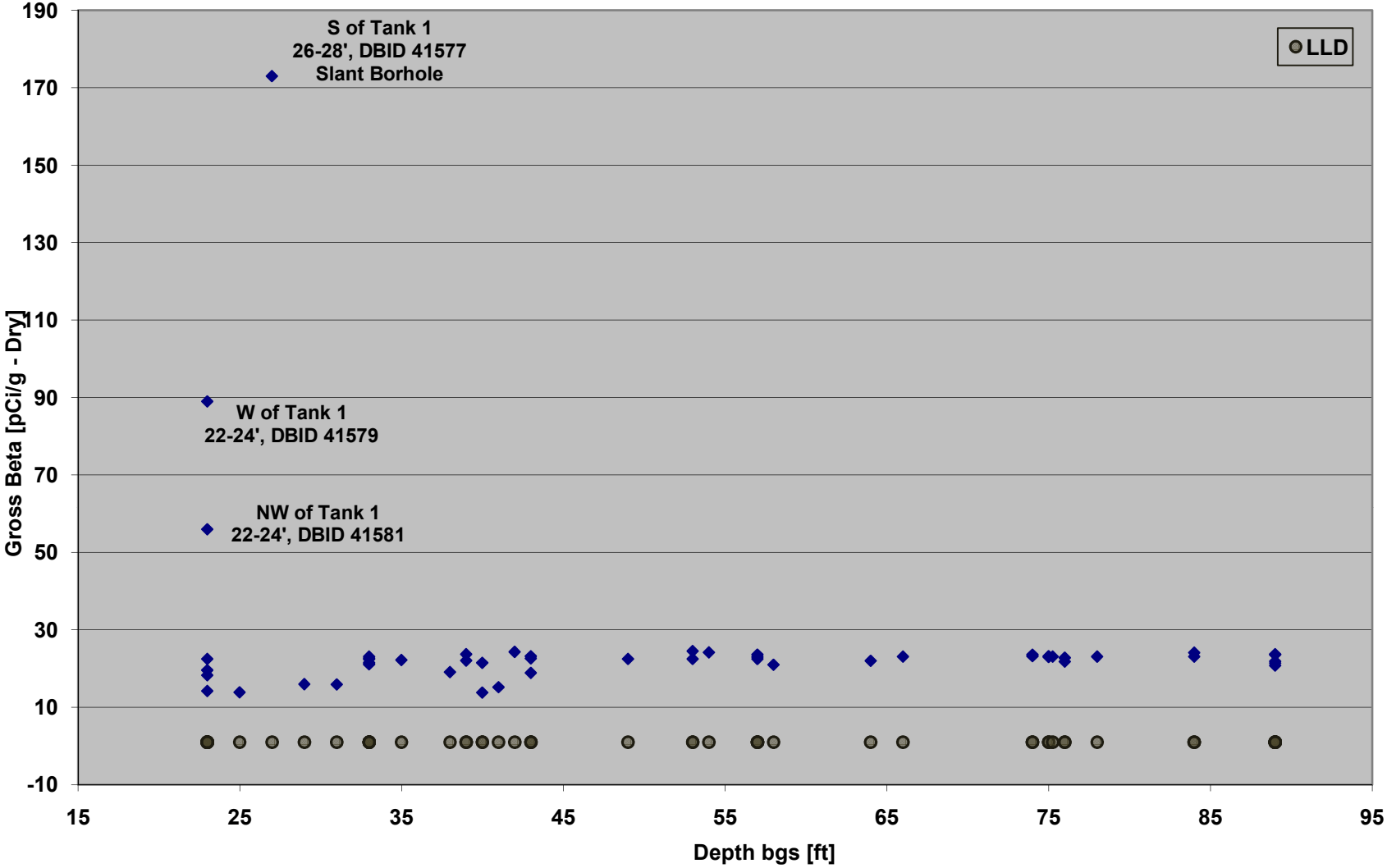


Figure 25.
Gross Beta by Depth



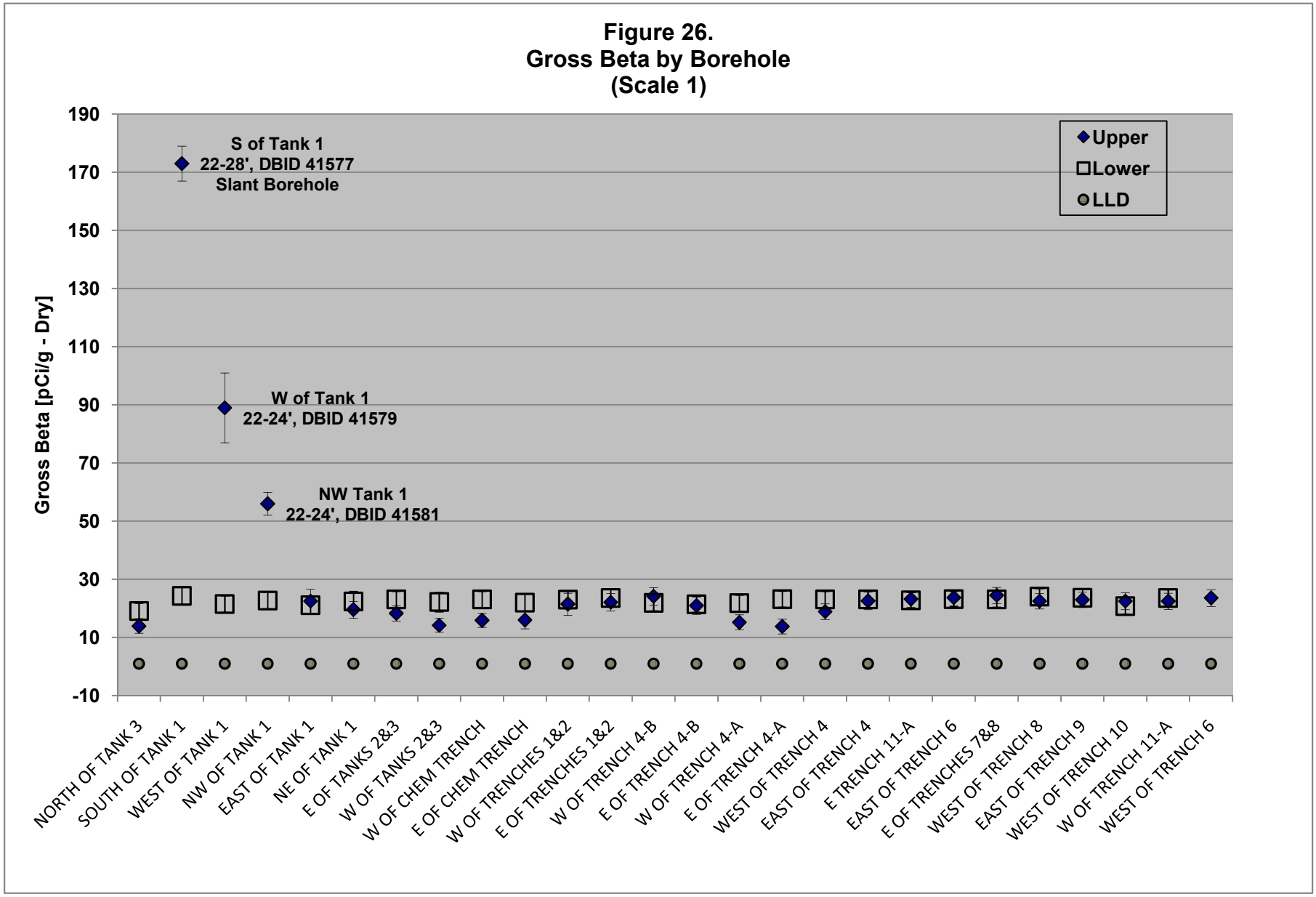


Figure 26.
Gross Beta by Borehole
(Scale 1)
Gross Beta [pCi/g - Dry]
190
170
150
130
110
90
70
50
30
10
-10
S of Tank 1
22-28', DBID 41577
Slant Borehole
W of Tank 1
22-24', DBID 41579
NW Tank 1
22-24', DBID 41581
Upper
Lower
LLD
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

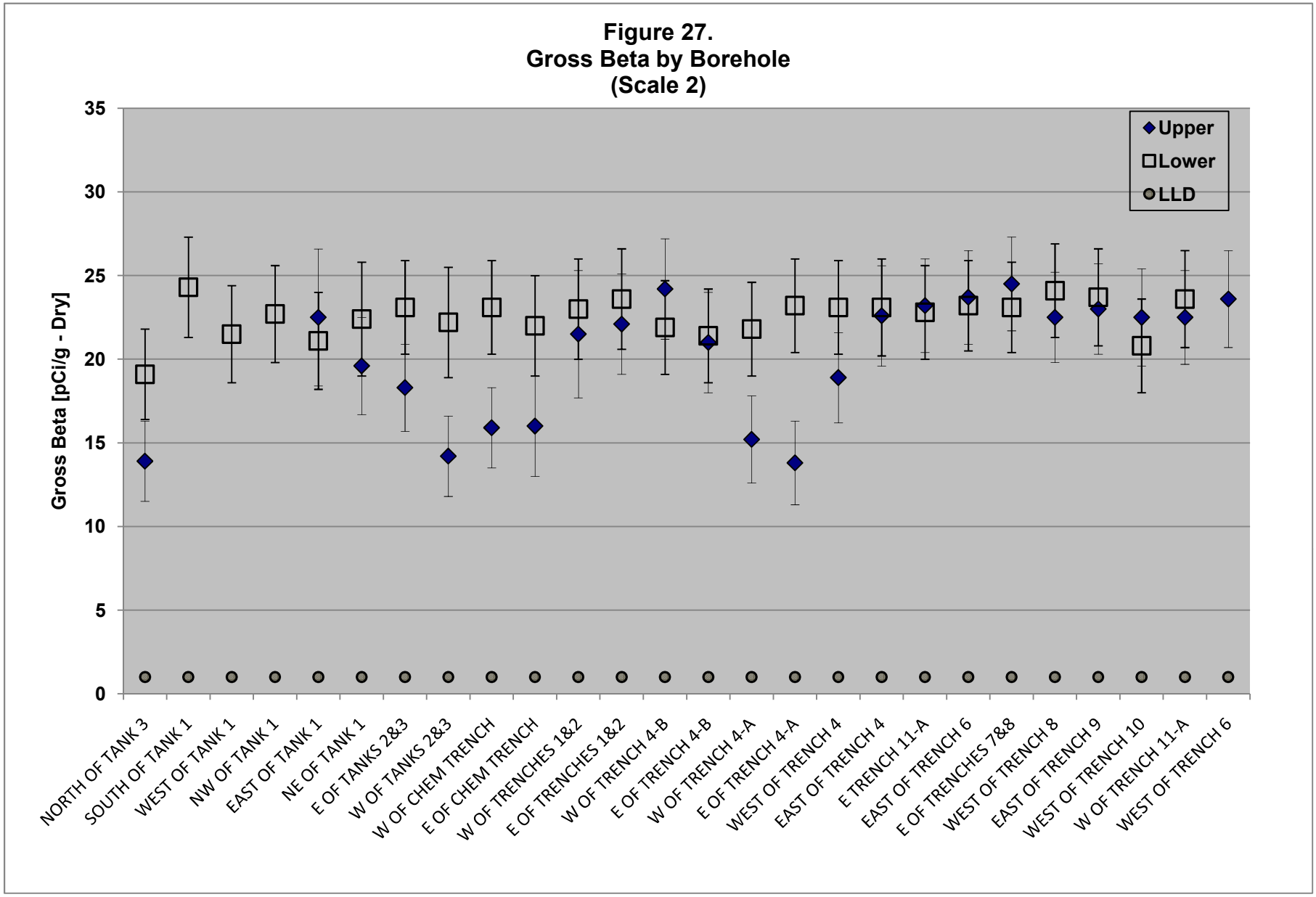


Figure 27.
Gross Beta by Borehole
(Scale 2)
Gross Beta [pCi/g - Dry]
35
30
25
20
15
10
5
0
Upper
Lower
LLD
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

Figure 28.
Co-60
(Scale 1)

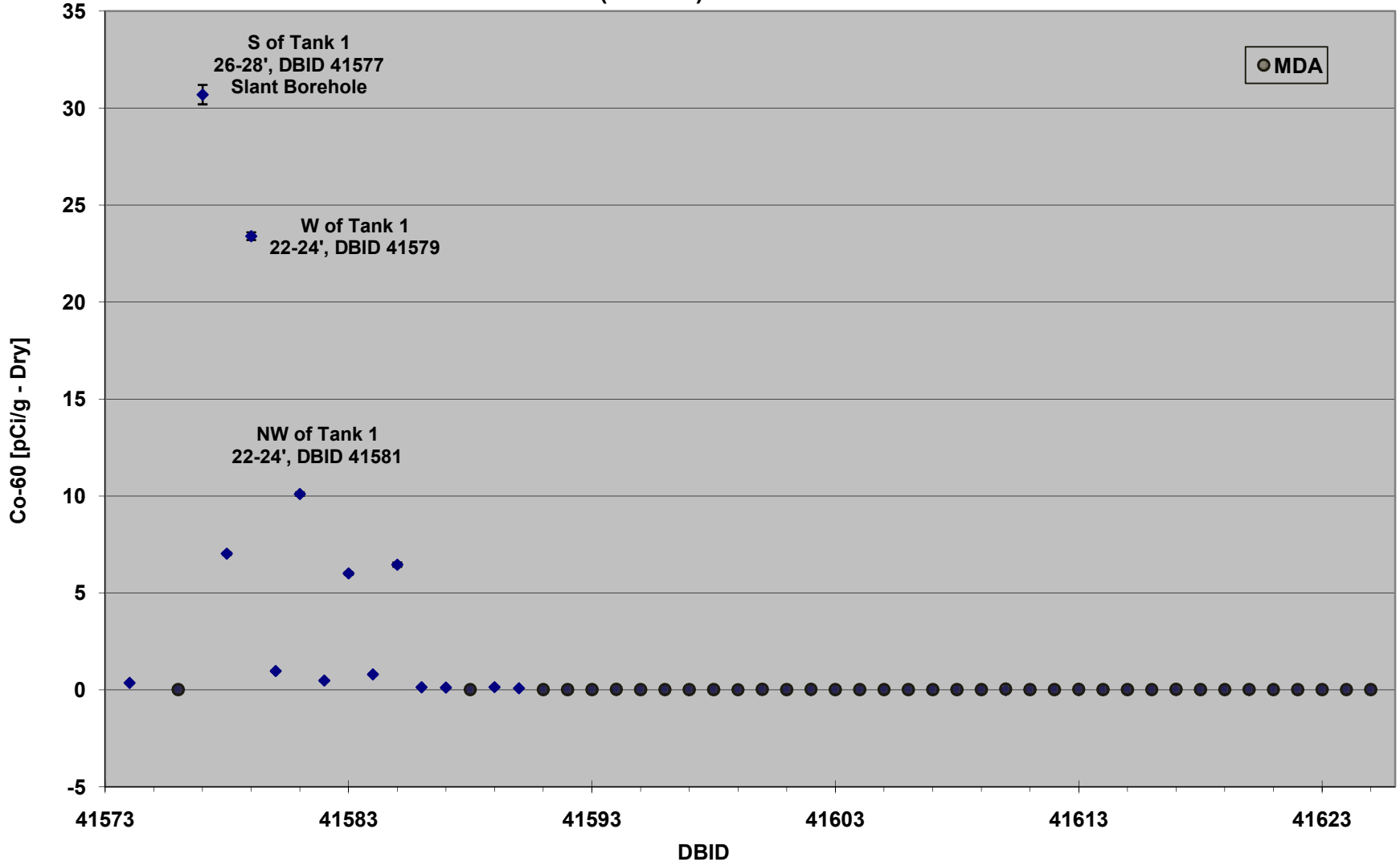


Figure 29.
Co-60
(Scale 2)

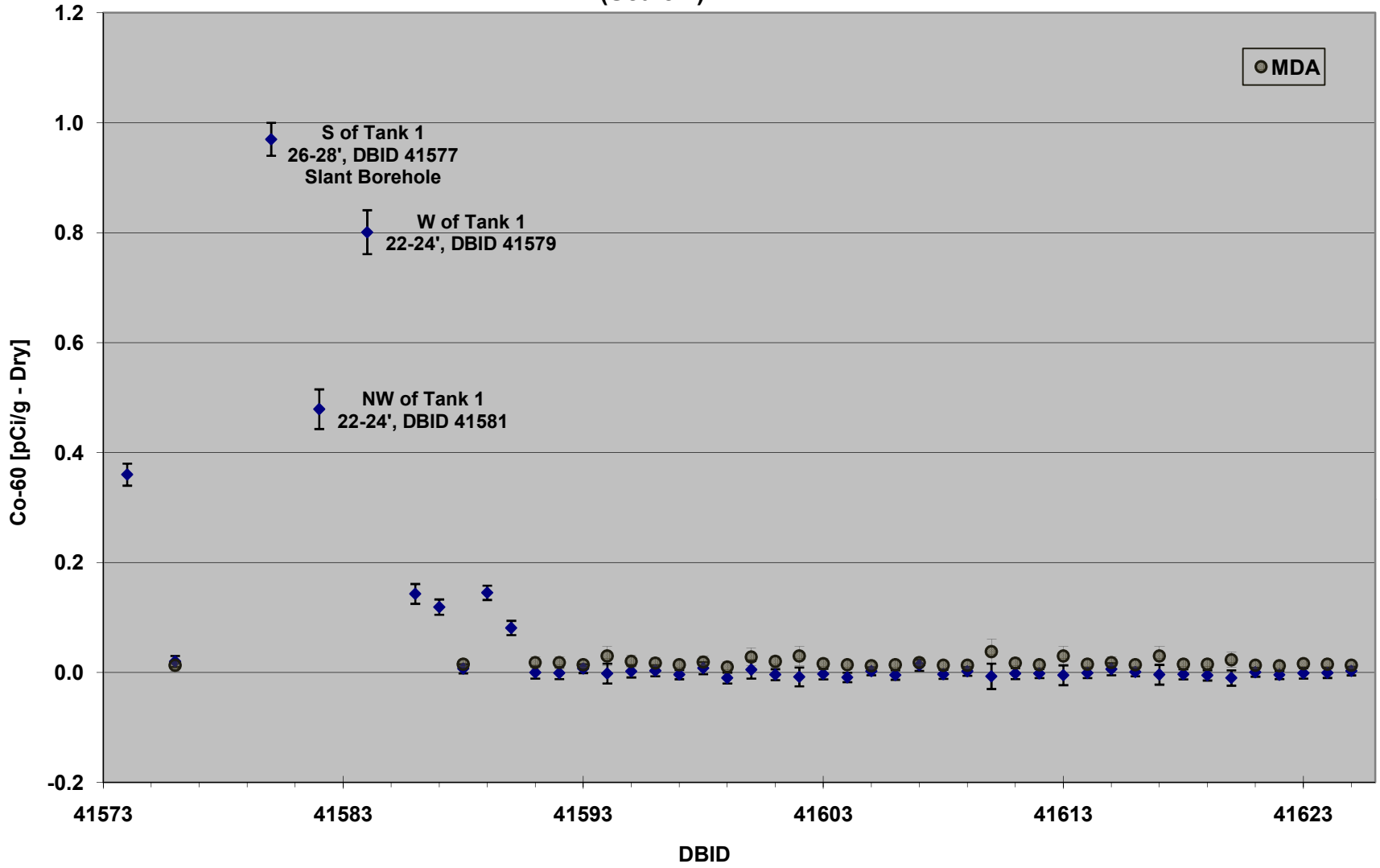


Figure 30.
Co-60 by Depth
(Scale 1)

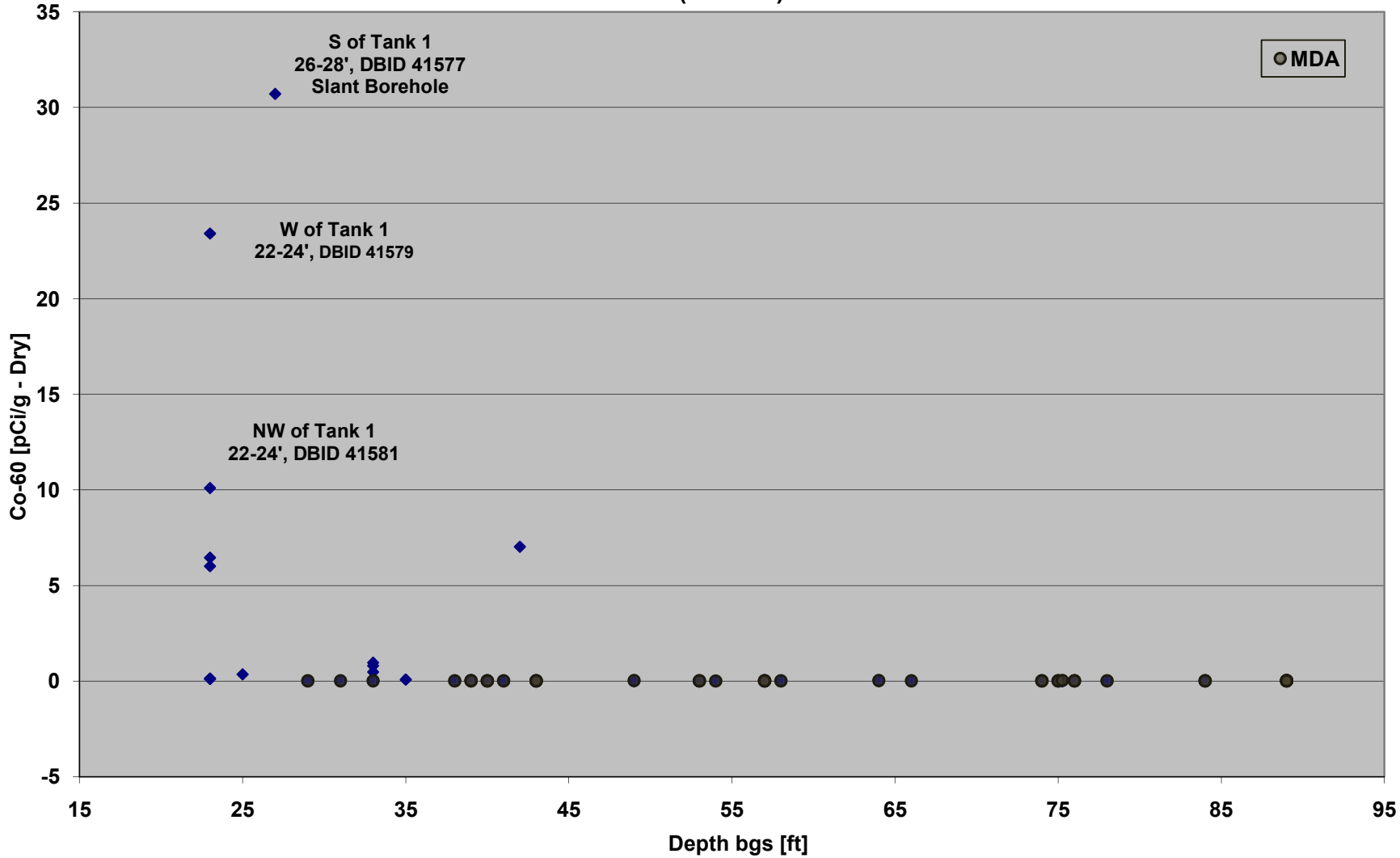
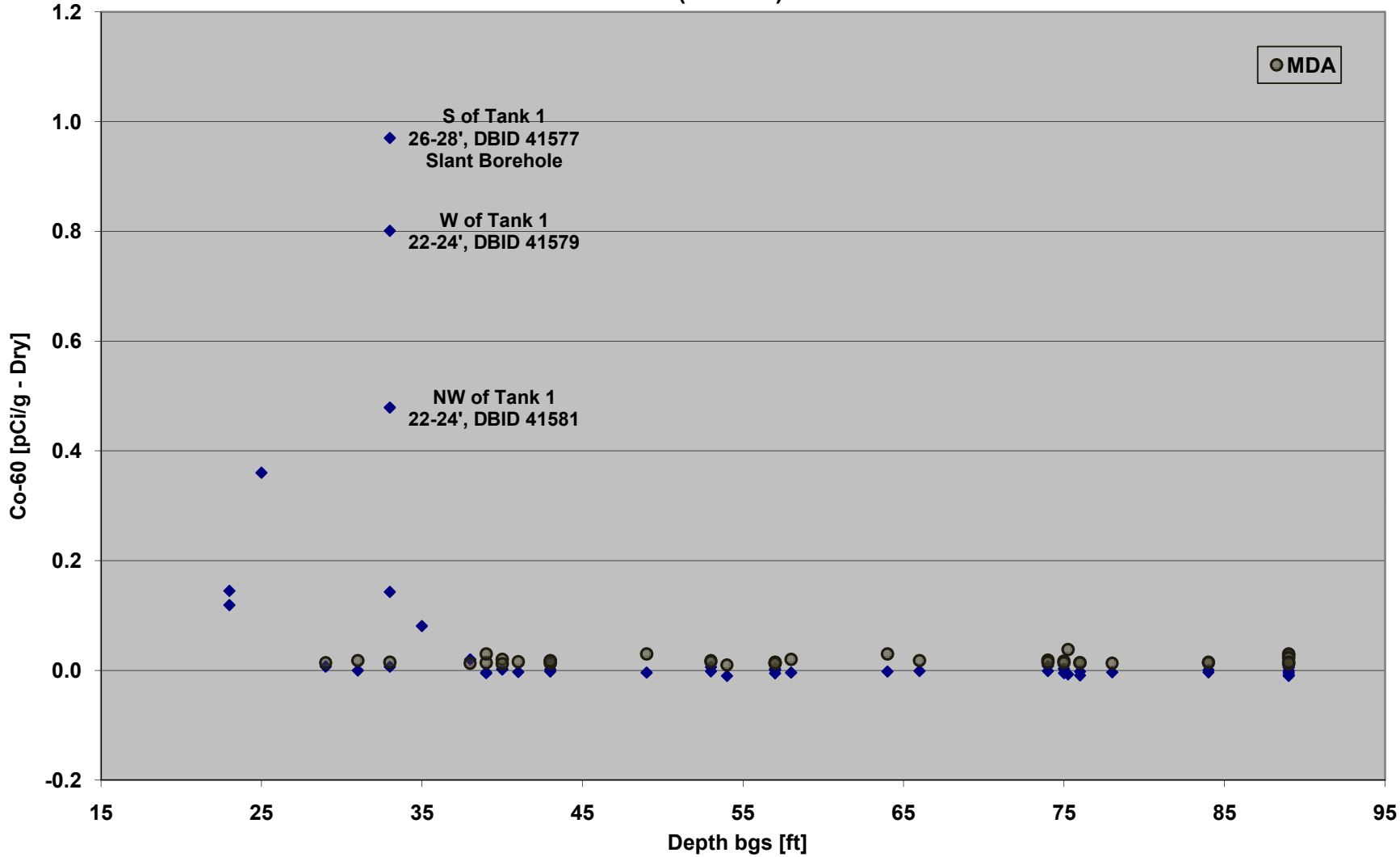


Figure 31.
Co-60 by Depth
(Scale 2)



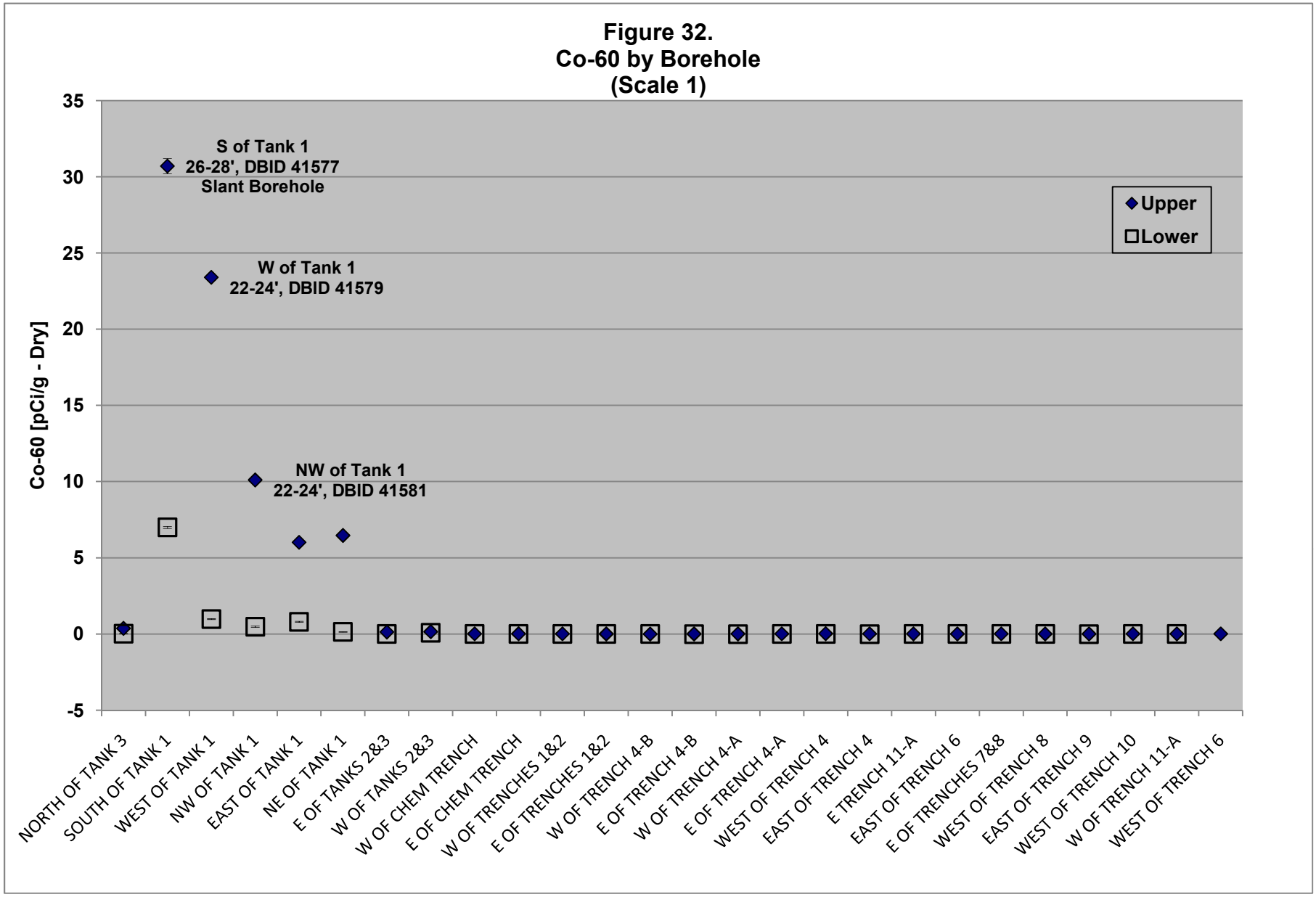


Figure 32.
Co-60 by Borehole
(Scale 1)
Co-60 [pCi/g - Dry]
35
30
25
20
15
10
5
0
-5
S of Tank 1
26-28', DBID 41577
Slant Borehole
W of Tank 1
22-24', DBID 41579
NW of Tank 1
22-24', DBID 41581
Upper
Lower
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

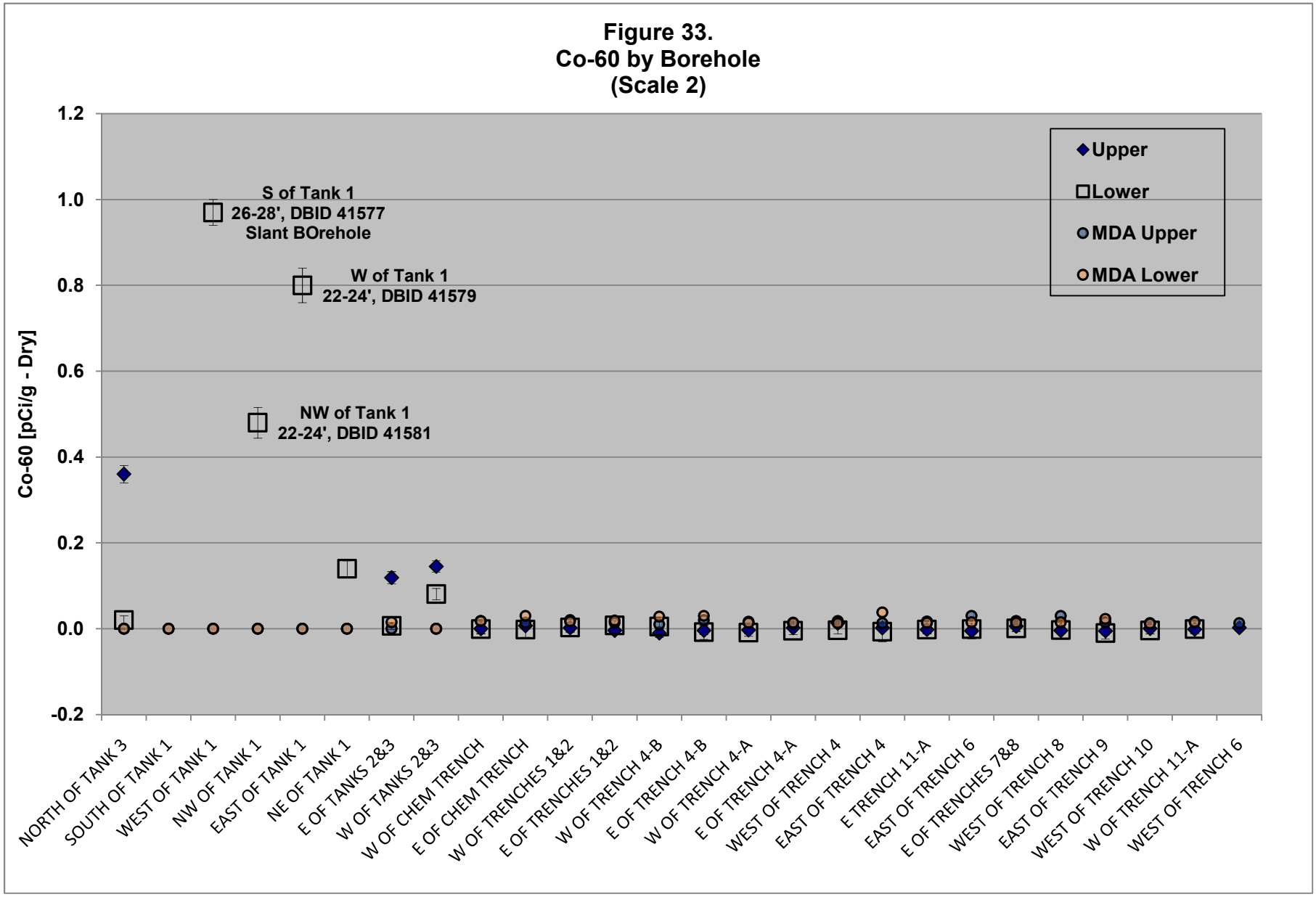


Figure 33.
Co-60 by Borehole
(Scale 2)
Co-60 [pCi/g - Dry]
1.2
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
S of Tank 1
26-28', DBID 41577
Slant BOrehole
W of Tank 1
22-24', DBID 41579
NW of Tank 1
22-24', DBID 41581
Upper
Lower
MDA Upper
MDA Lower
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

Figure 34.
Cs-137
(Scale 1)

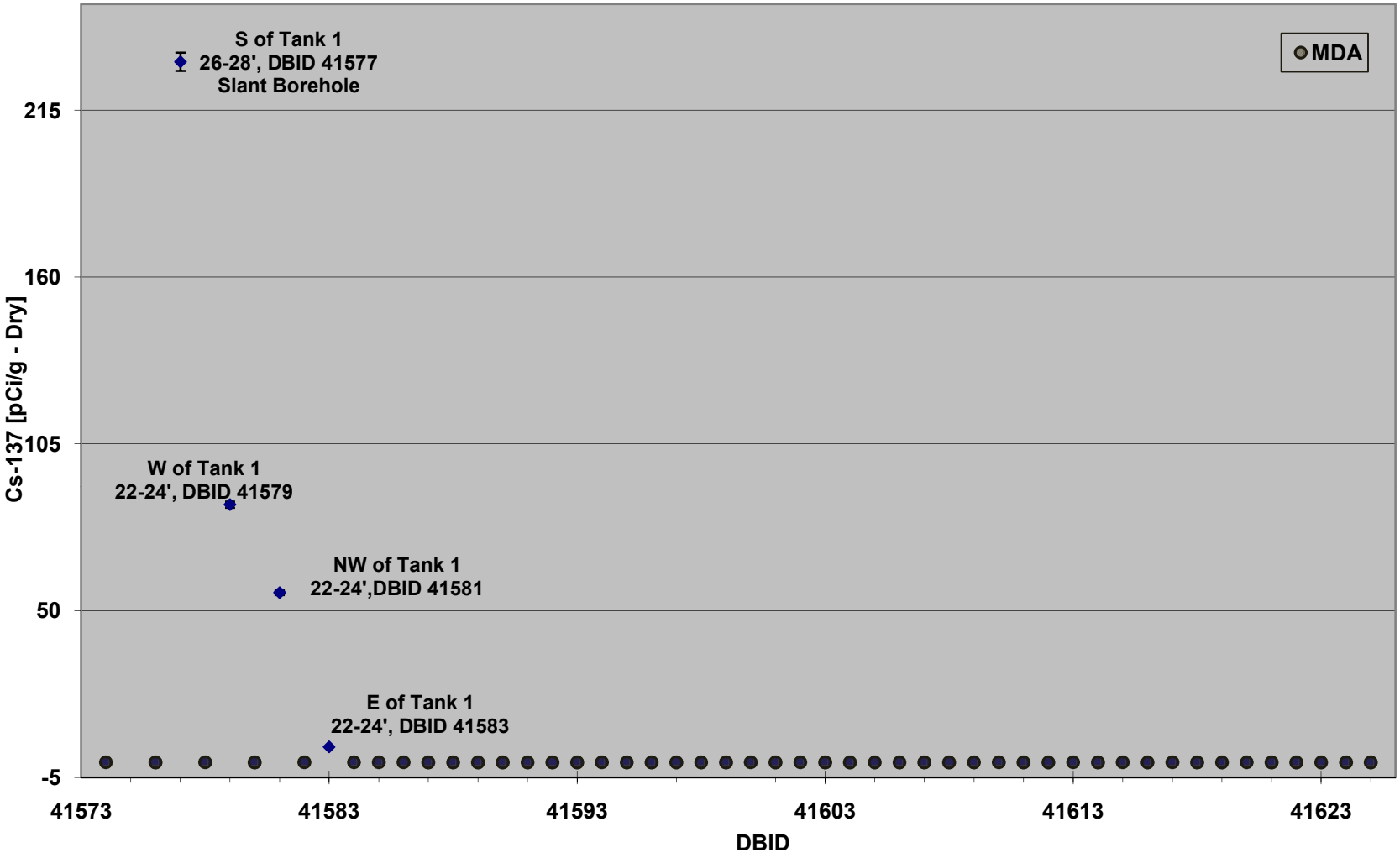


Figure 35.
Cs-137
(Scale 2)

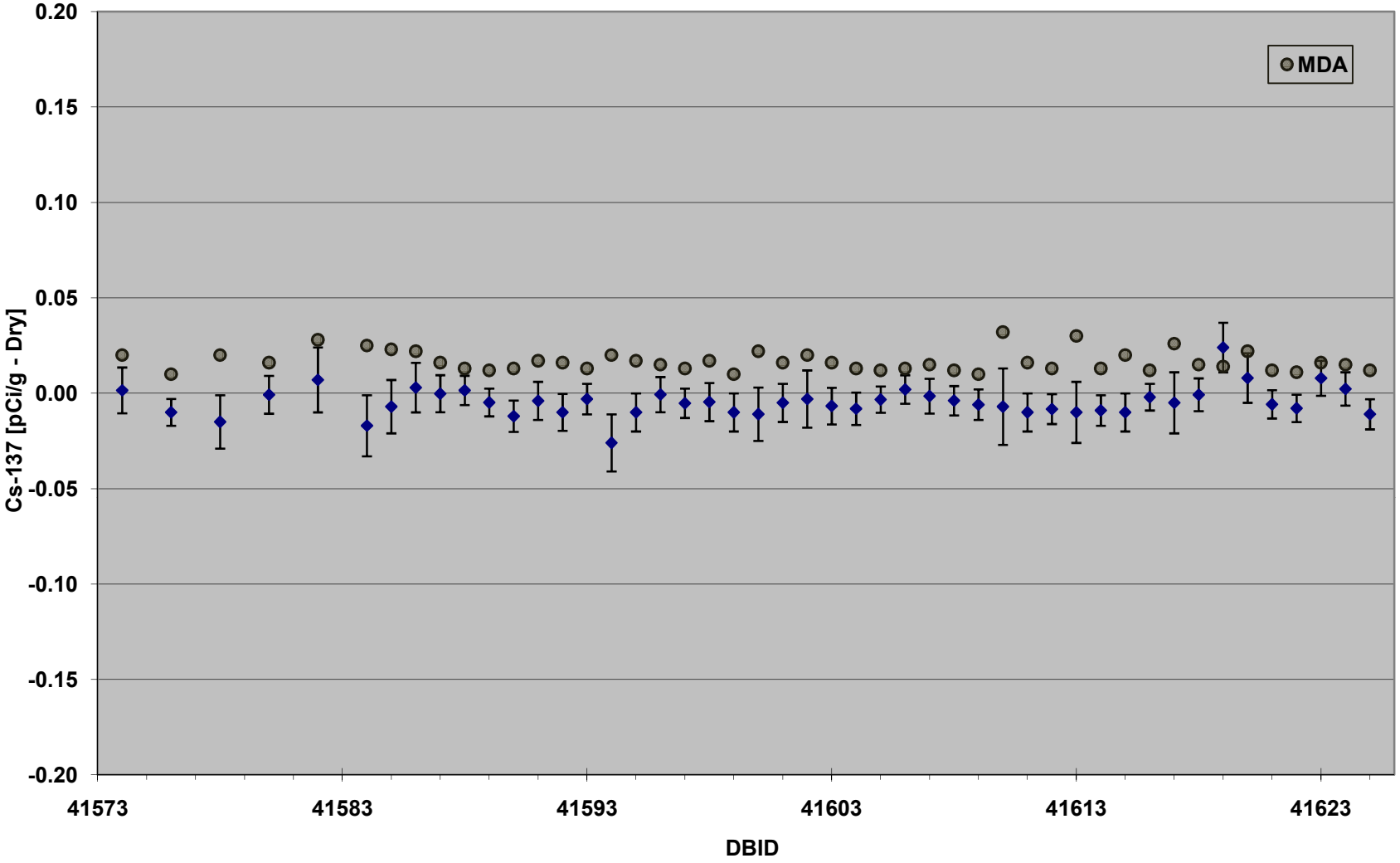


Figure 36.
Cs-137 by Depth
(Scale 1)

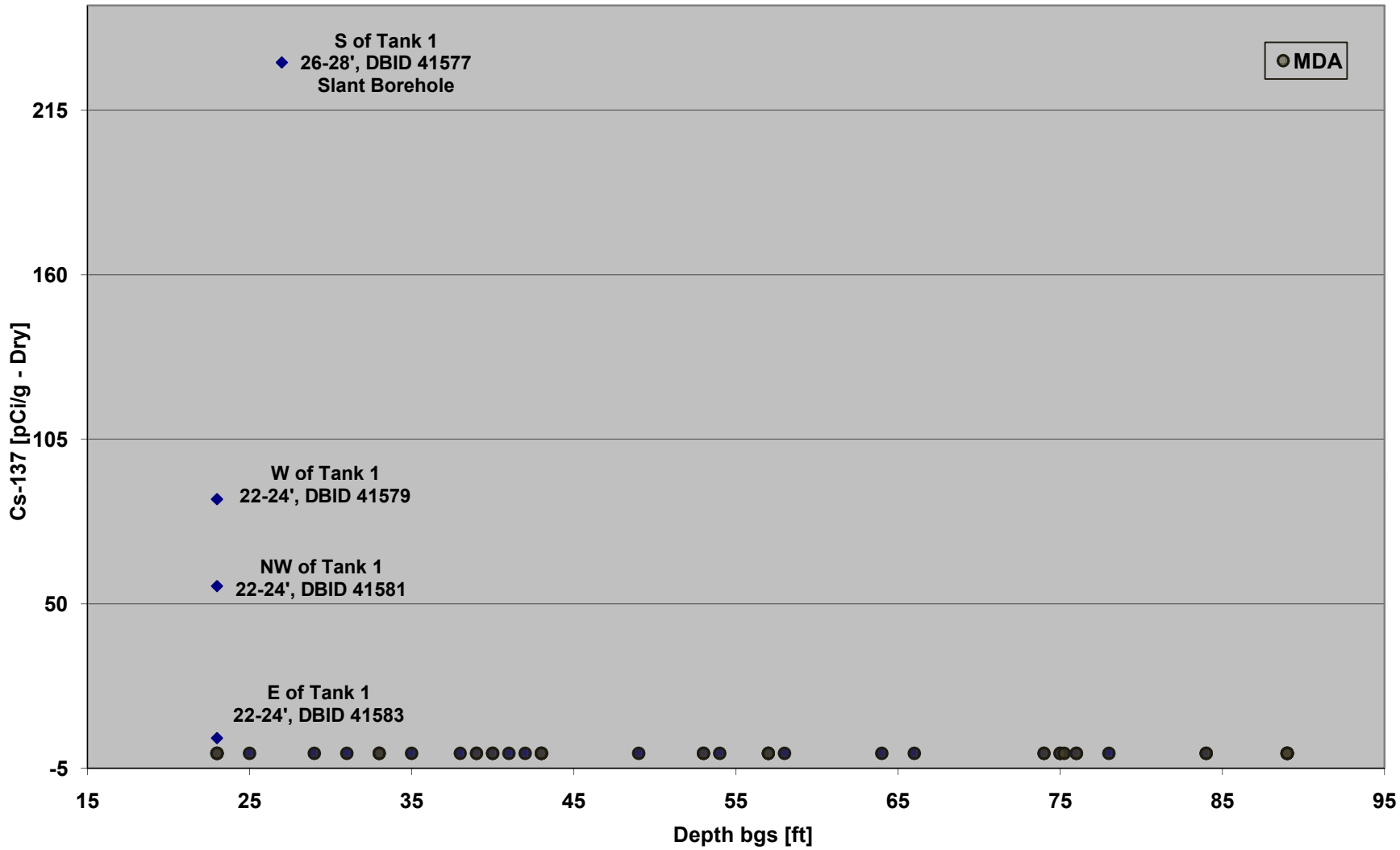
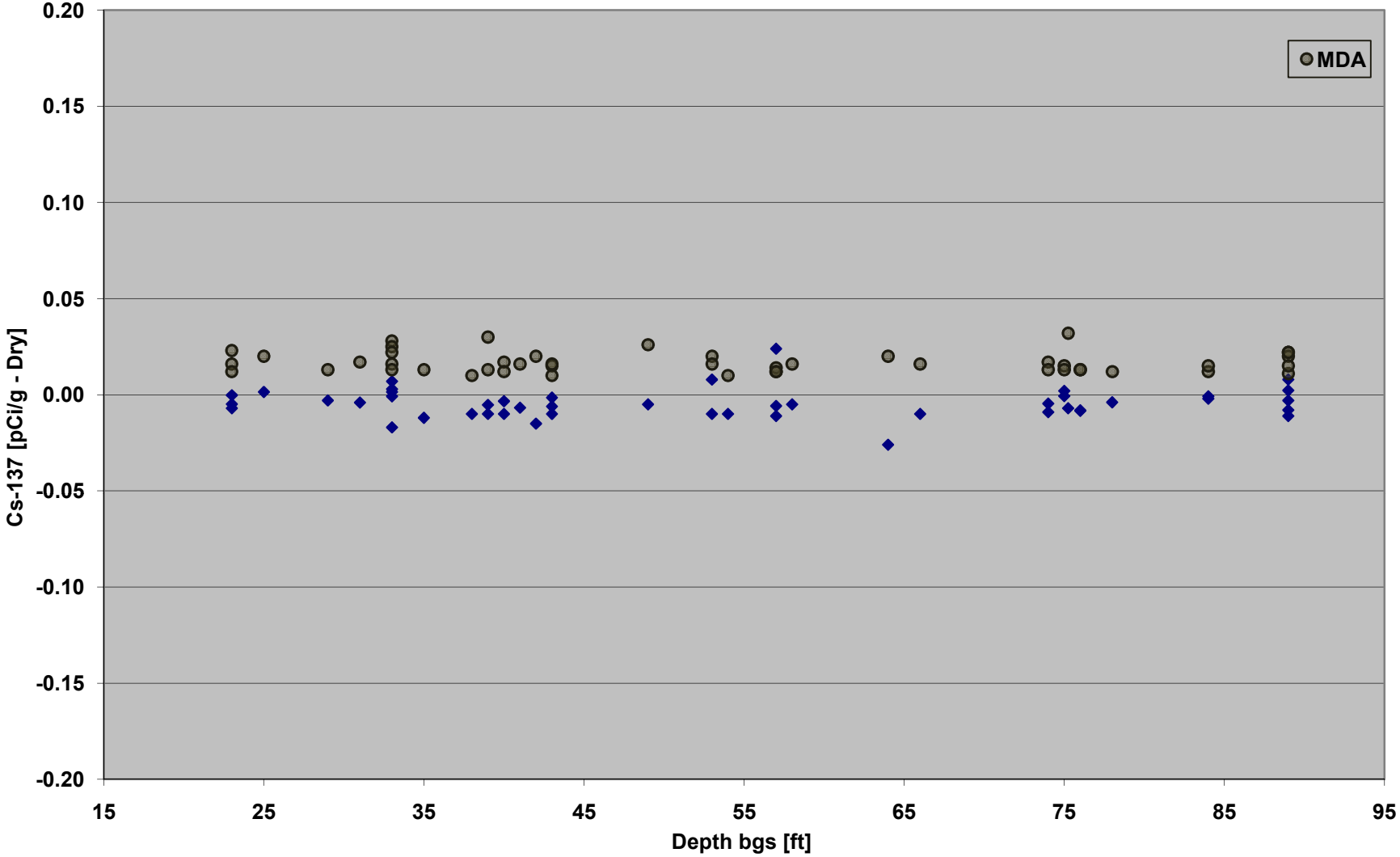


Figure 37.
Cs-137 by Depth
(Scale 2)



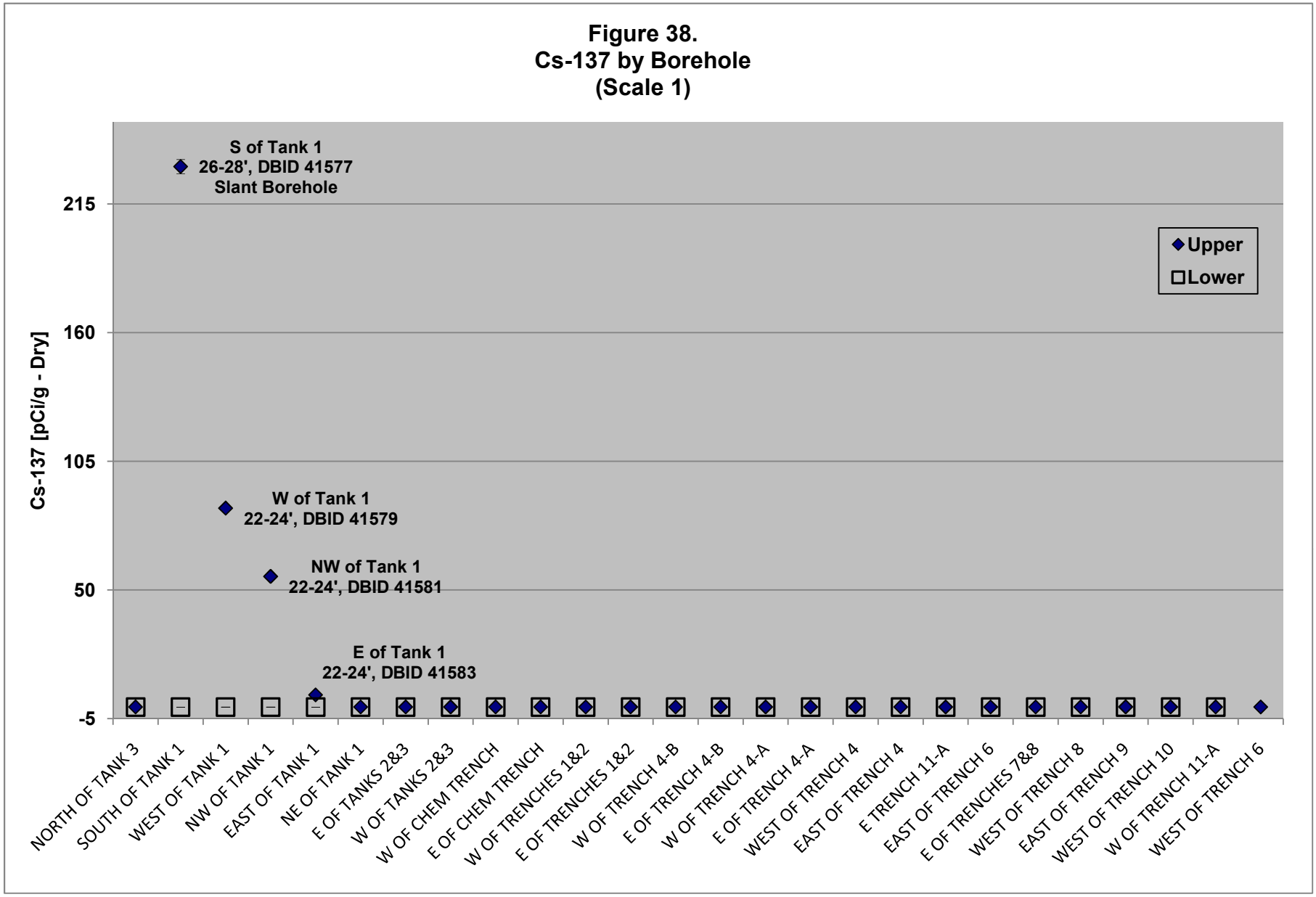


Figure 38.
Cs-137 by Borehole
(Scale 1)
S of Tank 1
26-28', DBID 41577
Slant Borehole
W of Tank 1
22-24', DBID 41579
NW of Tank 1
22-24', DBID 41581
E of Tank 1
22-24', DBID 41583
Upper
Lower
Cs-137 [pCi/g - Dry]
215
160
105
50
-5
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

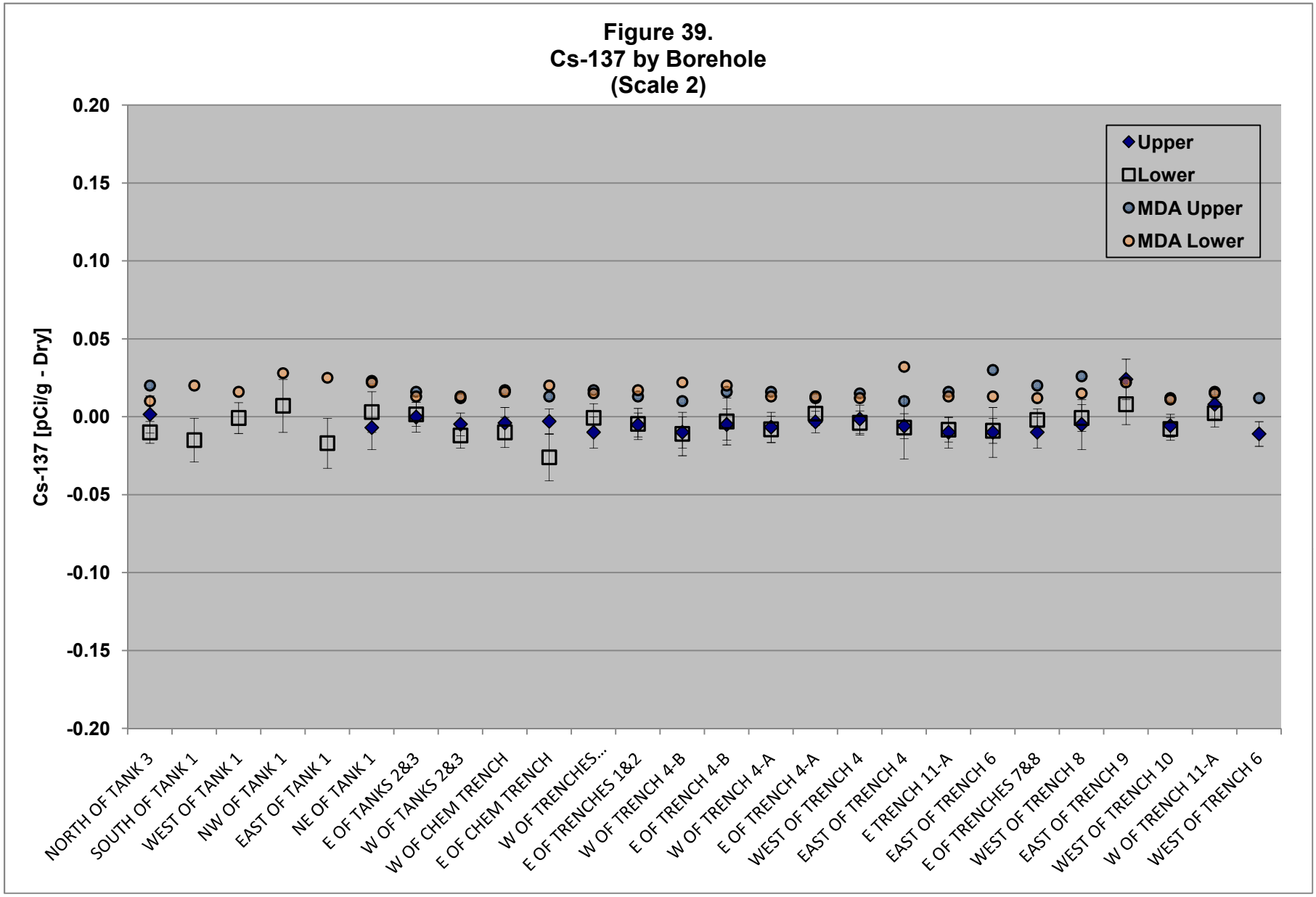


Figure 39.
Cs-137 by Borehole
(Scale 2)
Cs-137 [pCi/g - Dry]
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
Upper
Lower
MDA Upper
MDA Lower
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES...
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

Figure 40.
Sr-90

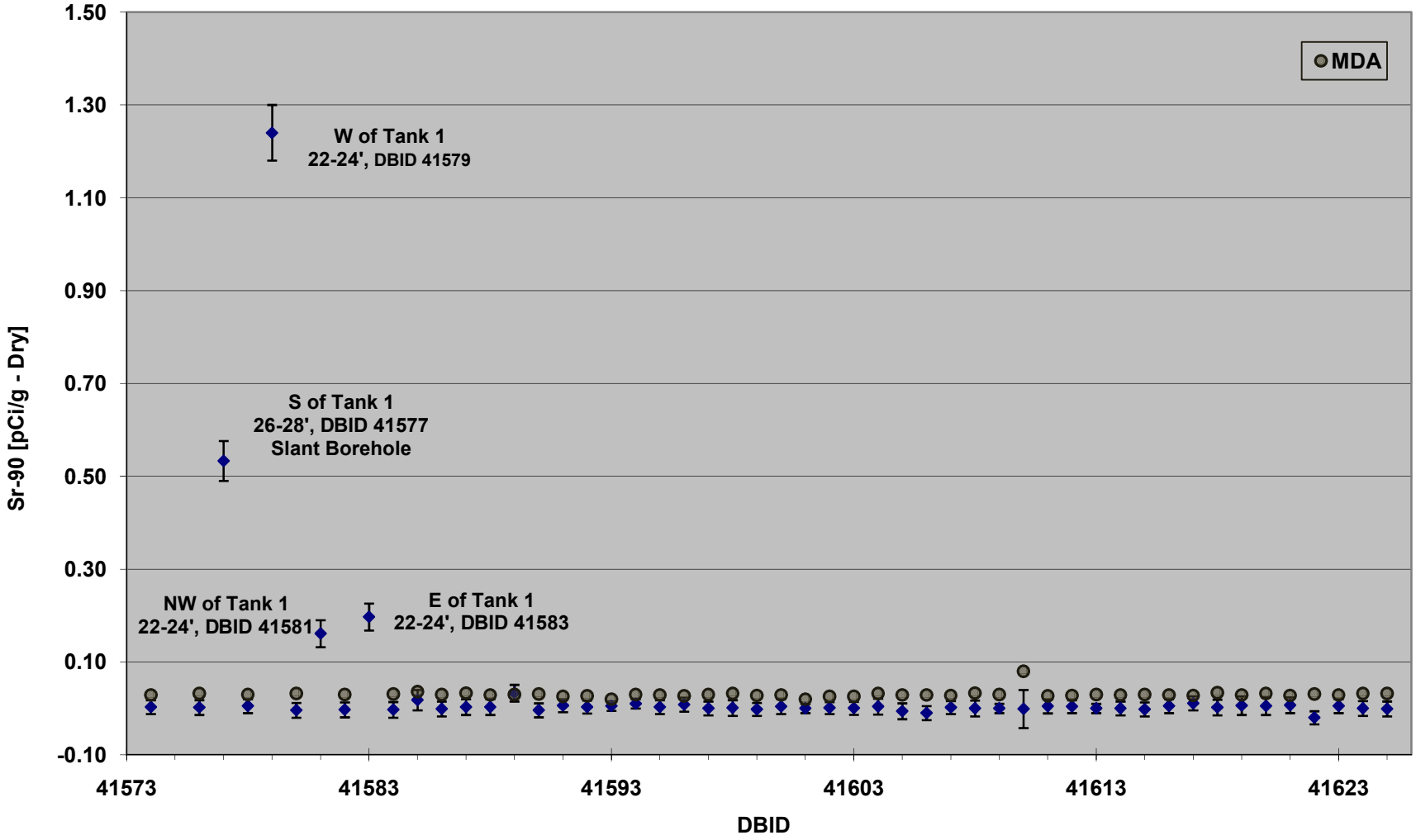
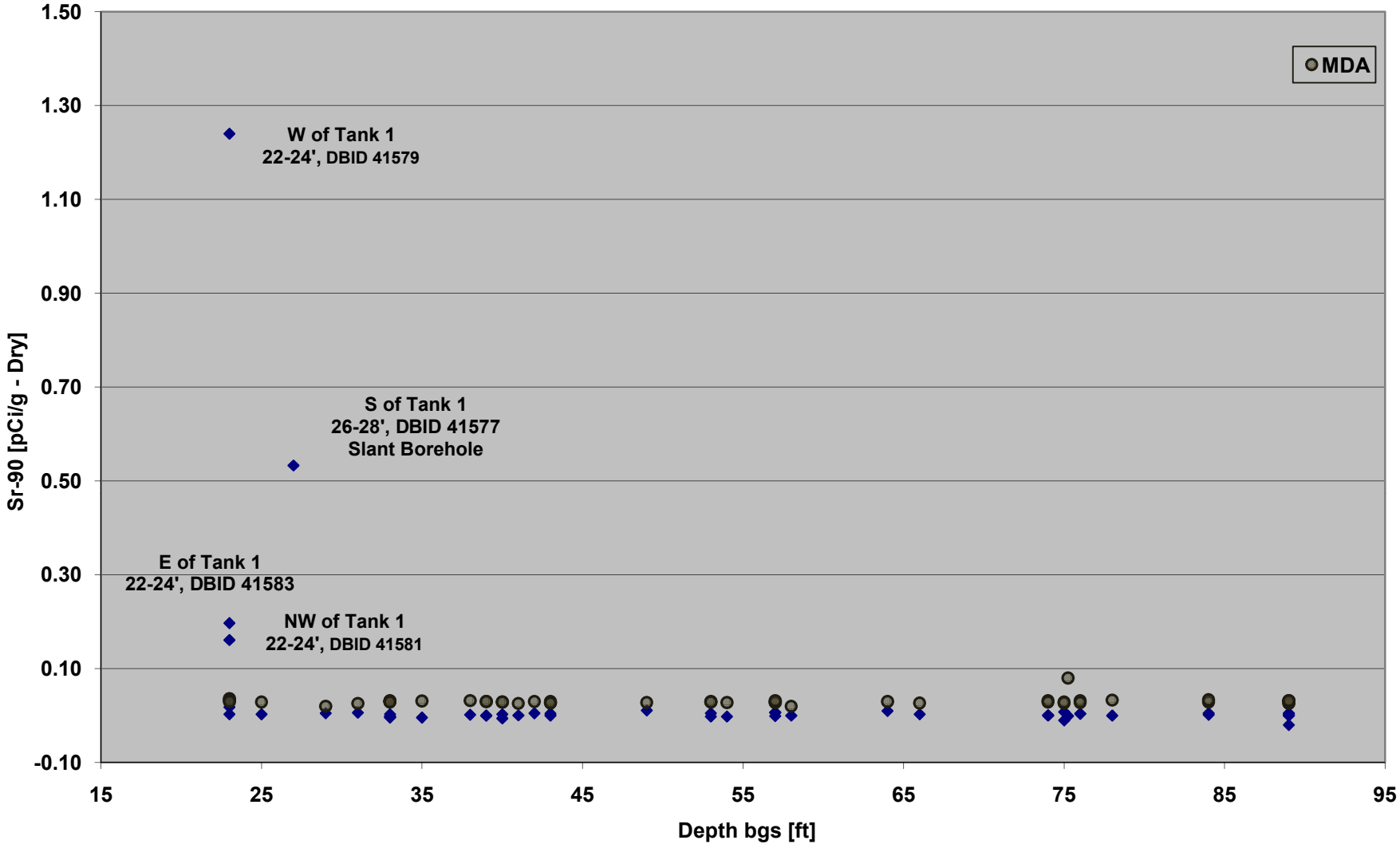


Figure 41.
Sr-90 by Depth



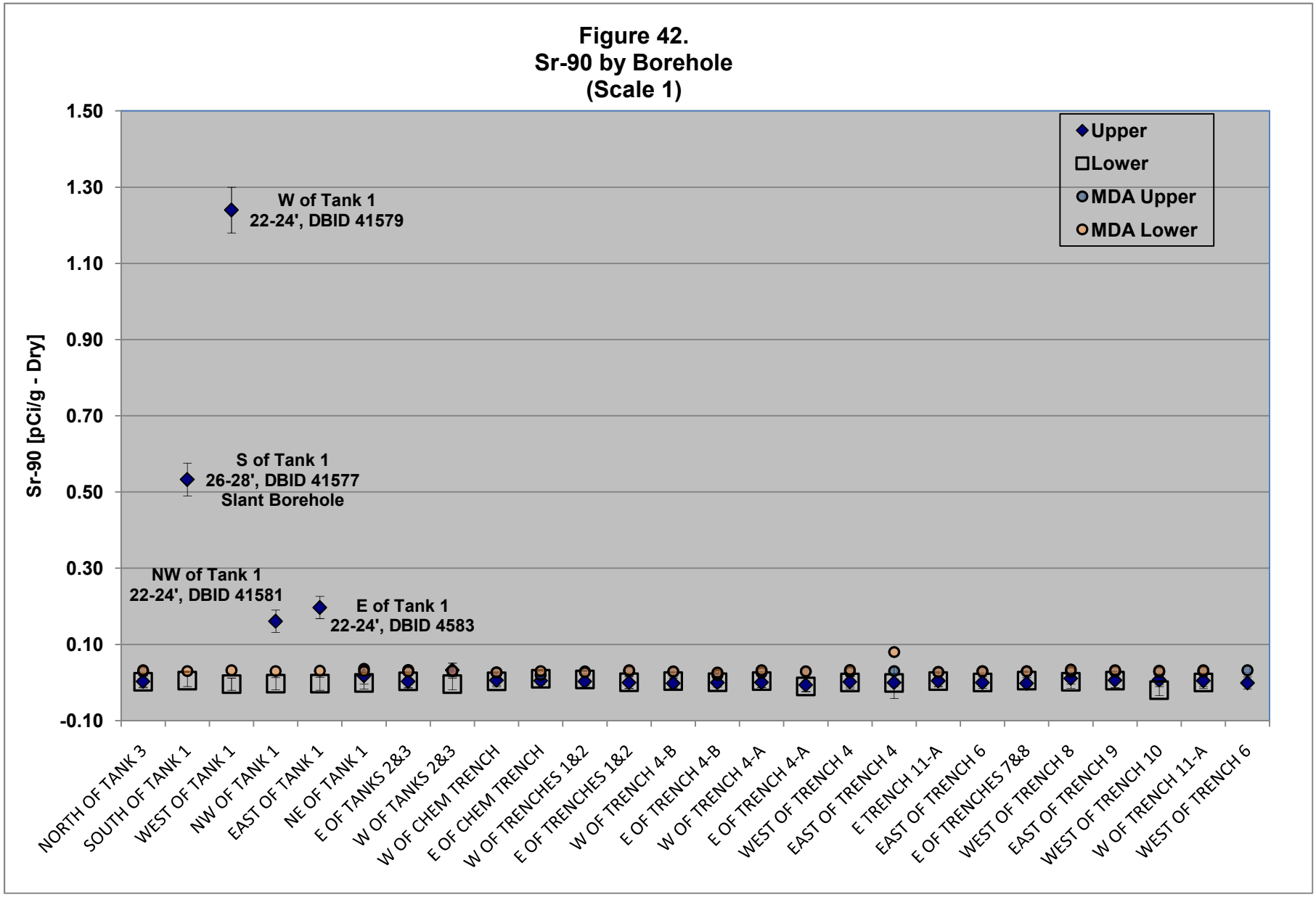


Figure 42.
Sr-90 by Borehole
(Scale 1)
Sr-90 [pCi/g - Dry]
1.50
1.30
1.10
0.90
0.70
0.50
0.30
0.10
-0.10
Upper
Lower
MDA Upper
MDA Lower
W of Tank 1
22-24', DBID 41579
S of Tank 1
26-28', DBID 41577
Slant Borehole
NW of Tank 1
22-24', DBID 41581
E of Tank 1
22-24', DBID 4583
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

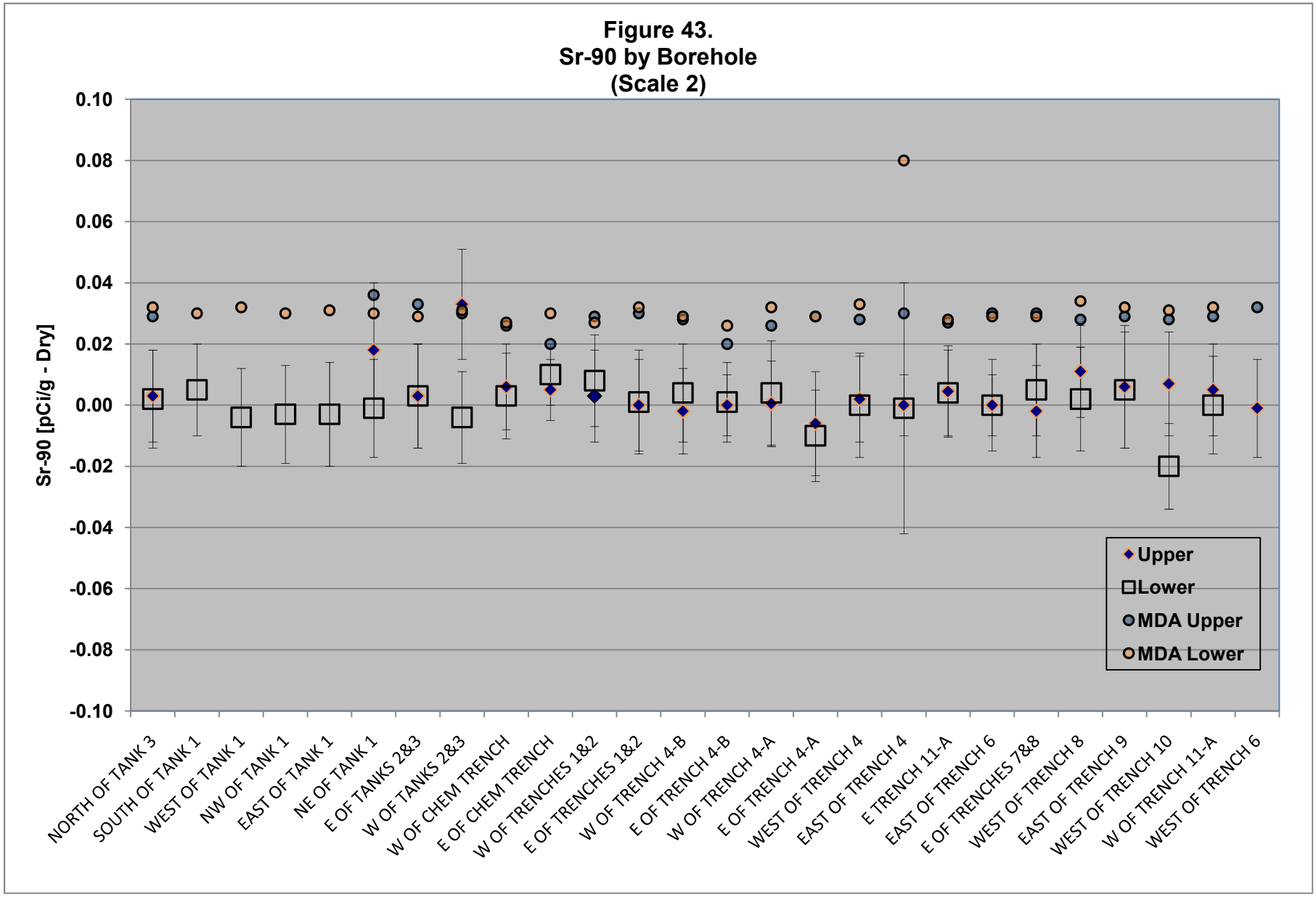


Figure 43.
Sr-90 by Borehole
(Scale 2)
Sr-90 [pCi/g - Dry]
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
-0.08
-0.10
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6
Upper
Lower
MDA Upper
MDA Lower

Figure 44.
Ni-63

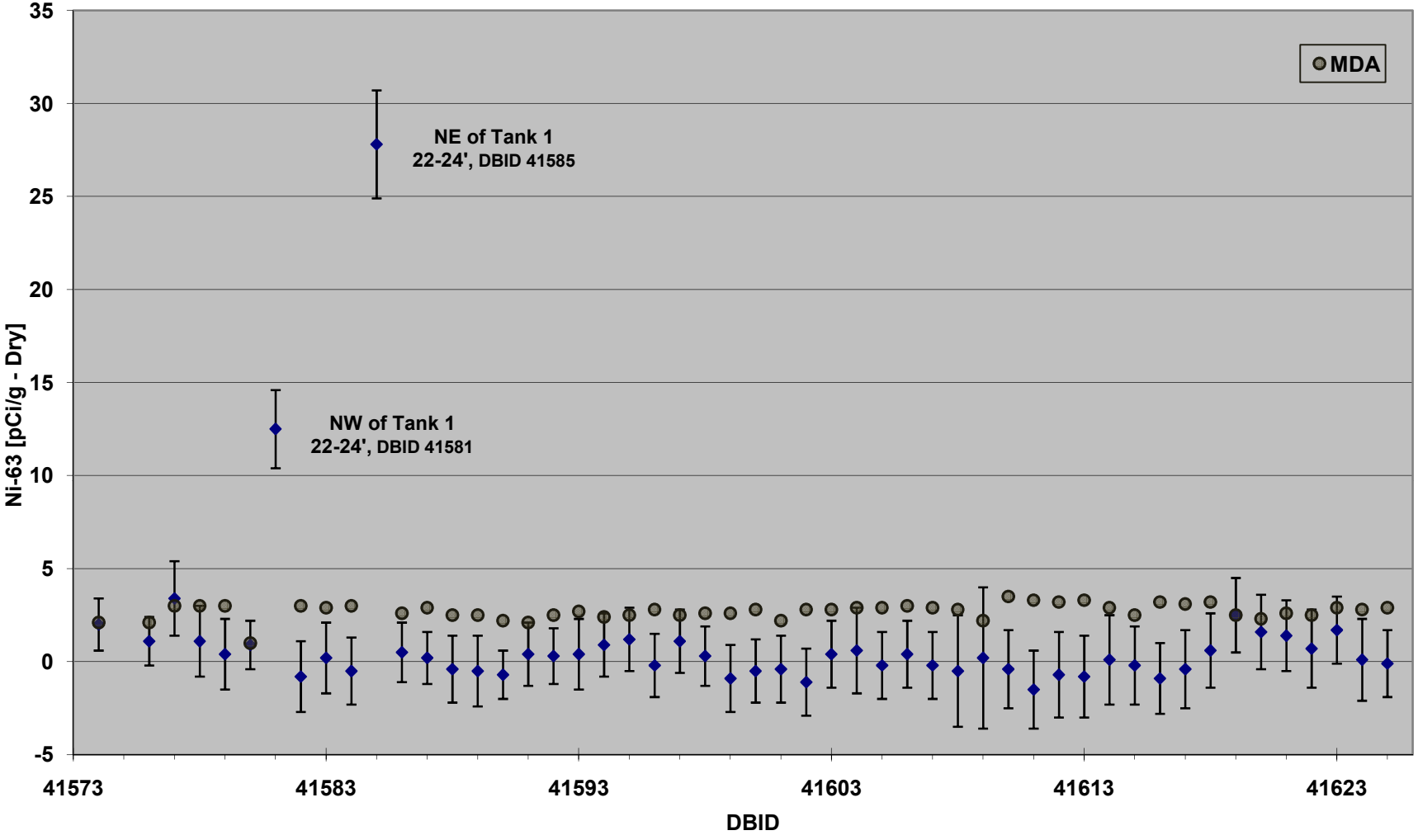


Figure 45.
Ni-63 by Depth

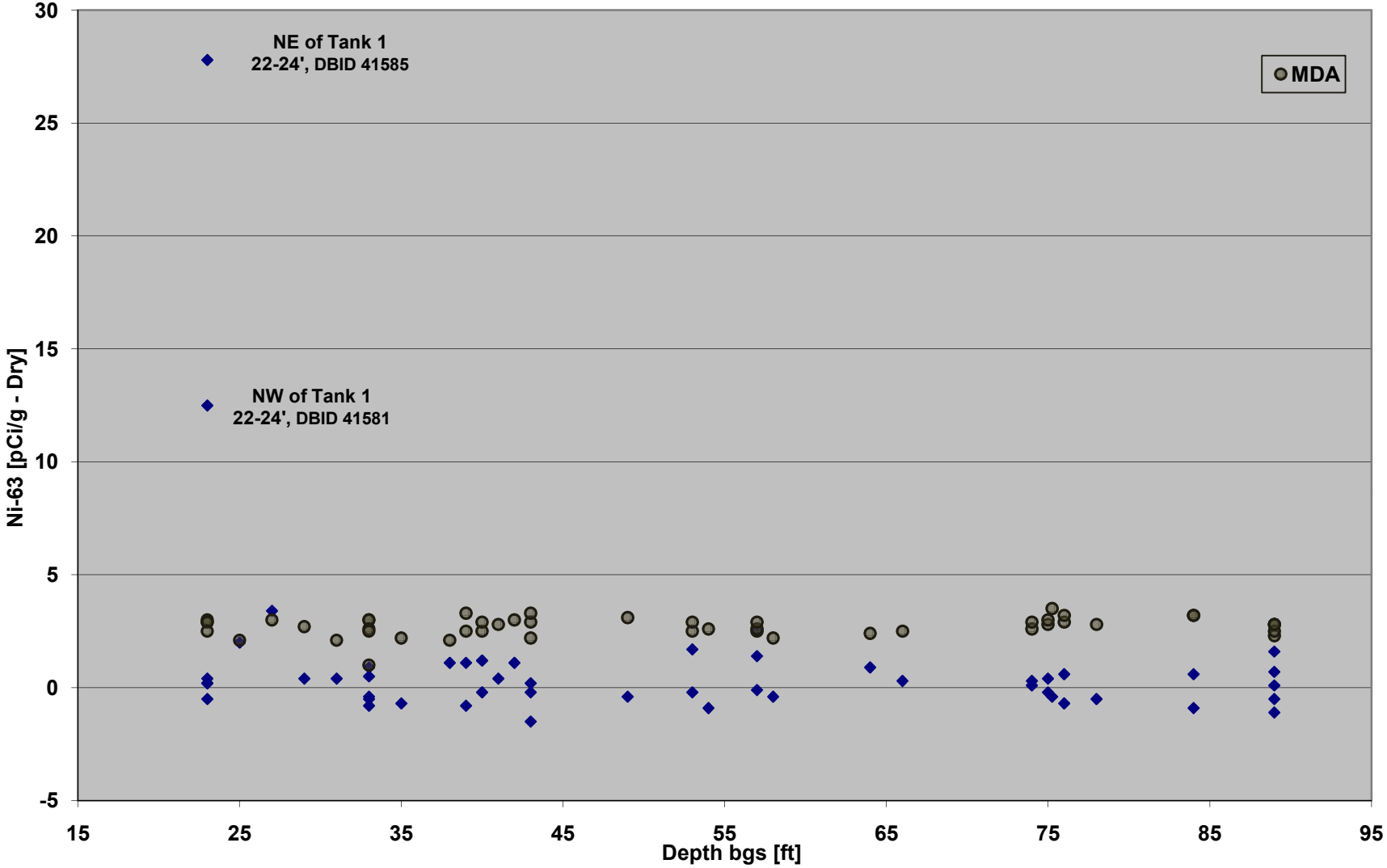


Figure 46.
H-3
(Scale 1)

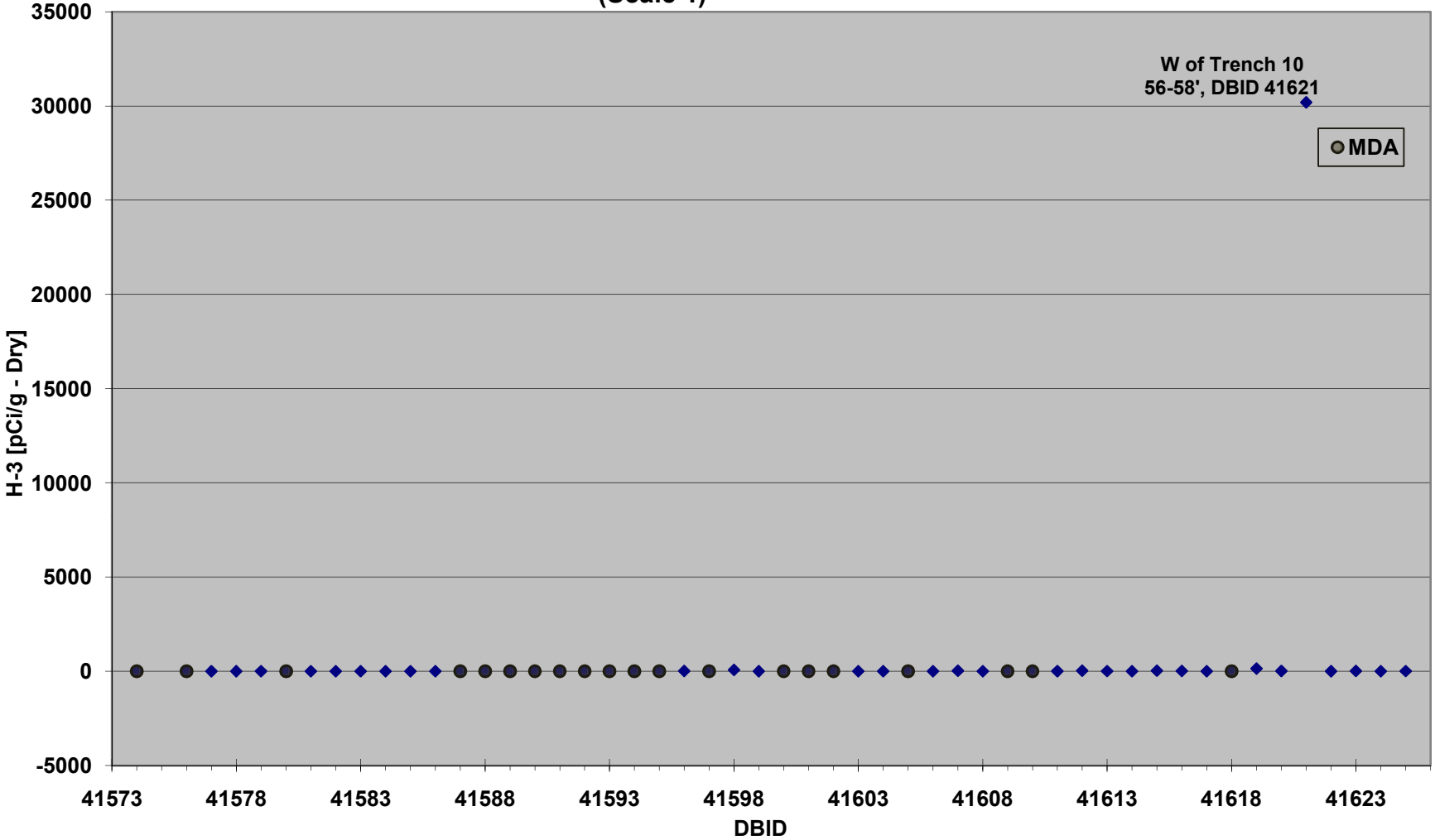


Figure 47.
H-3
(Scale 2)

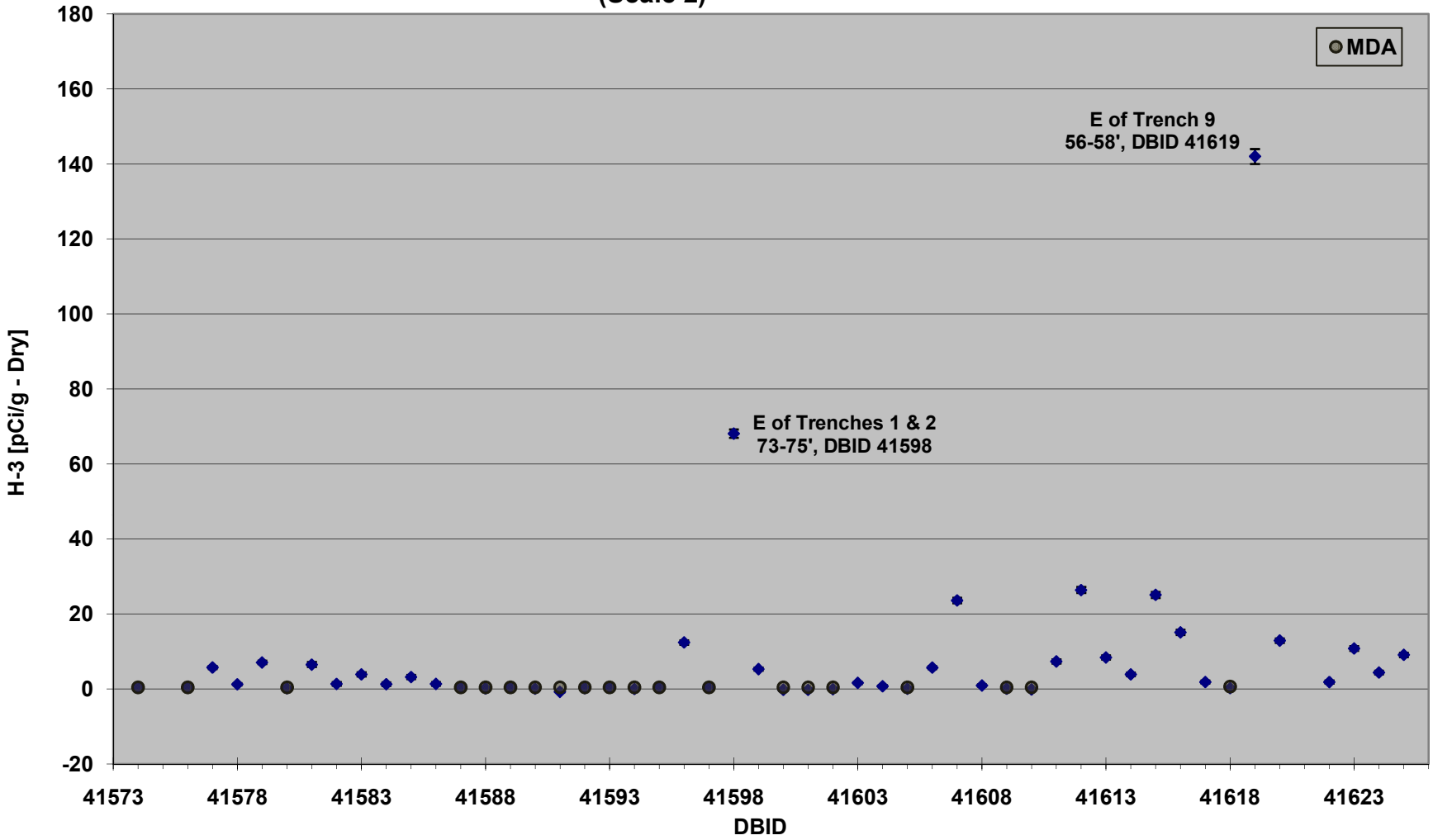


Figure 48.
H-3 by Depth
(Scale 1)

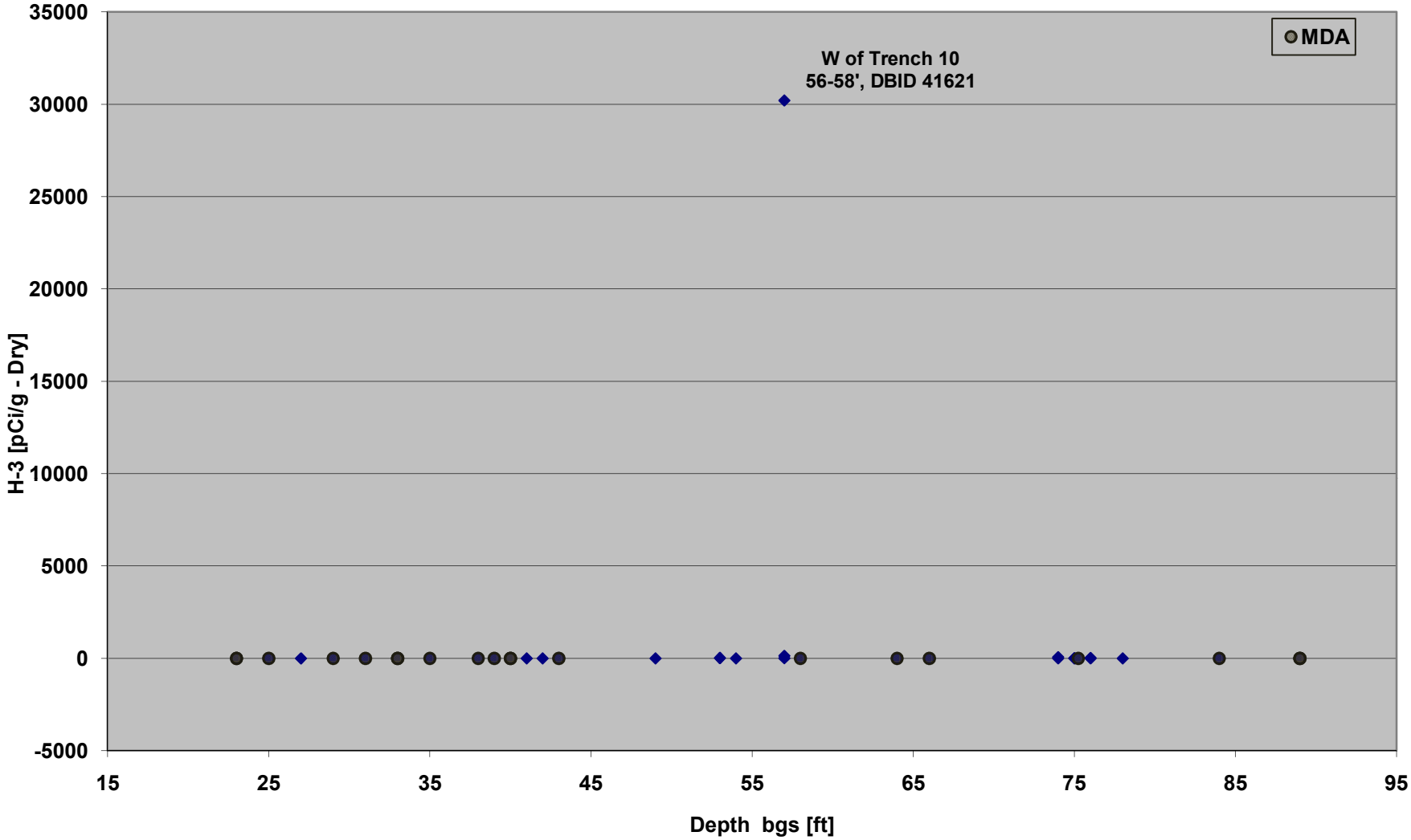
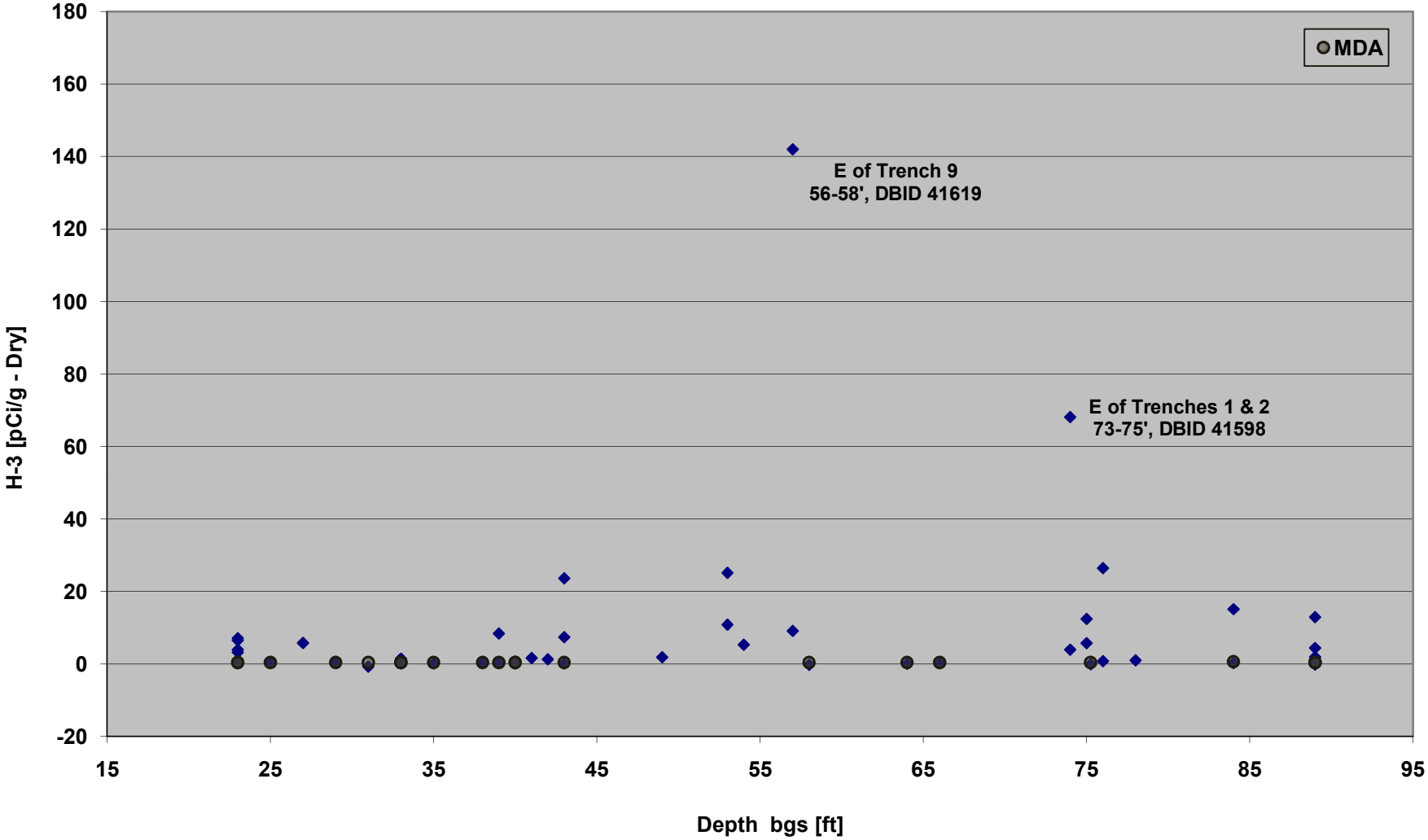


Figure 49.
H-3 by Depth
(Scale 2)



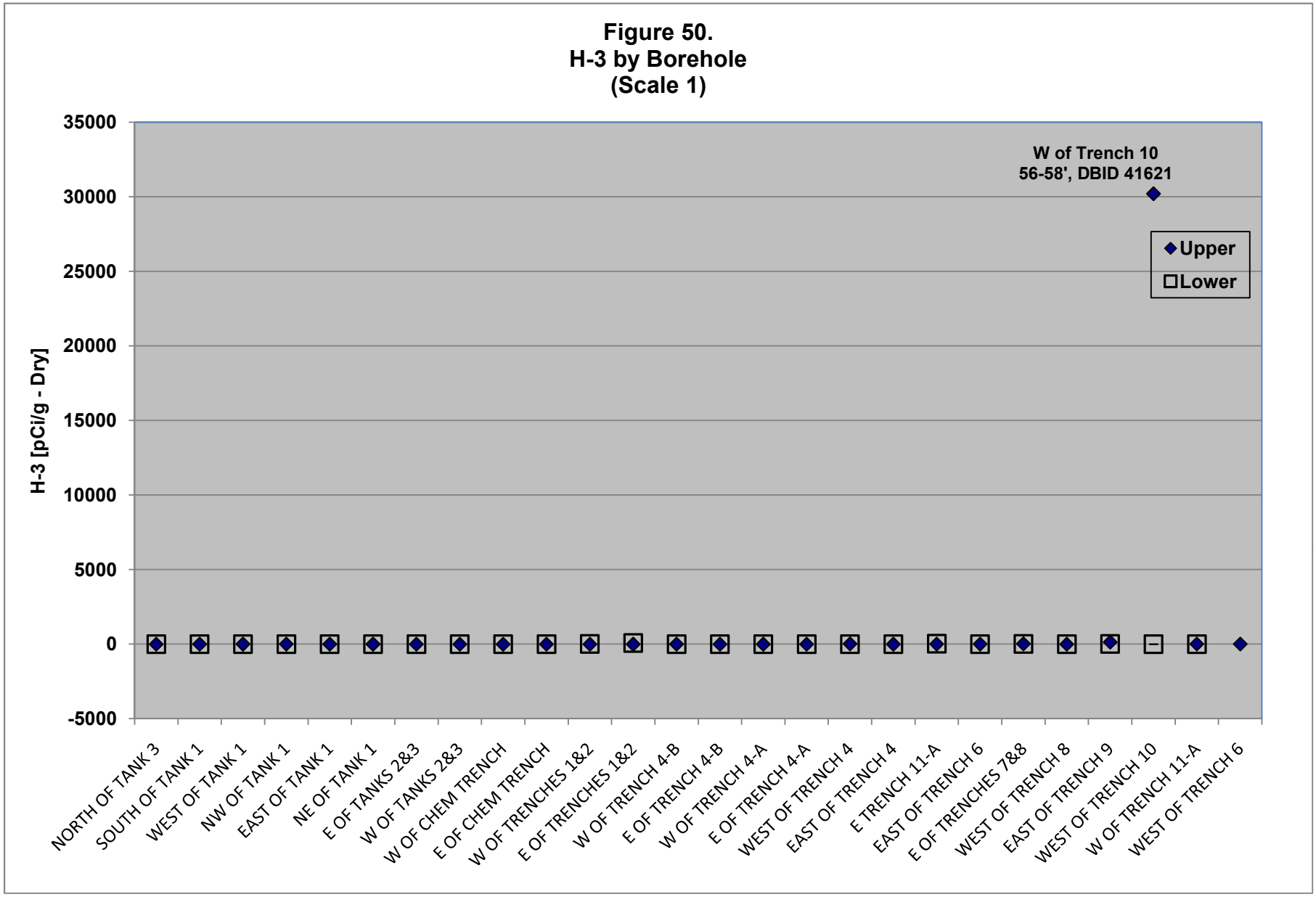


Figure 50.
H-3 by Borehole
(Scale 1)
H-3 [pCi/g - Dry]
35000
30000
25000
20000
15000
10000
5000
0
-5000
W of Trench 10
56-58', DBID 41621
Upper
Lower
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

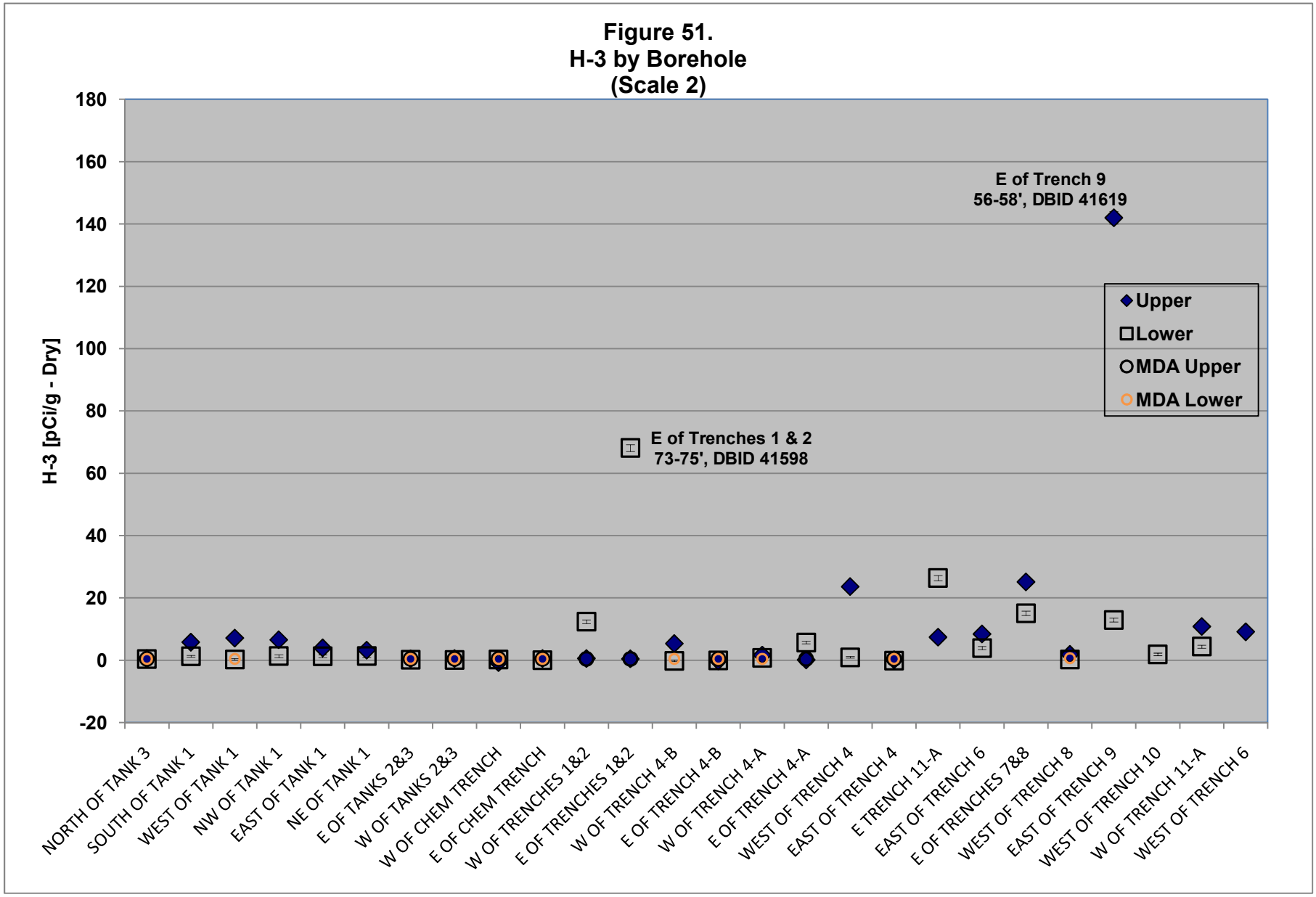


Figure 51.
H-3 by Borehole
(Scale 2)
H-3 [pCi/g - Dry]
180
160
140
120
100
80
60
40
20
0
-20
E of Trench 9
56-58', DBID 41619
E of Trenches 1 & 2
73-75', DBID 41598
Upper
Lower
MDA Upper
MDA Lower
NORTH OF TANK 3
SOUTH OF TANK 1
WEST OF TANK 1
NW OF TANK 1
EAST OF TANK 1
NE OF TANK 1
E OF TANKS 2&3
W OF TANKS 2&3
W OF CHEM TRENCH
E OF CHEM TRENCH
W OF TRENCHES 1&2
E OF TRENCHES 1&2
W OF TRENCH 4-B
E OF TRENCH 4-B
W OF TRENCH 4-A
E OF TRENCH 4-A
WEST OF TRENCH 4
EAST OF TRENCH 4
E TRENCH 11-A
EAST OF TRENCH 6
E OF TRENCHES 7&8
WEST OF TRENCH 8
EAST OF TRENCH 9
WEST OF TRENCH 10
W OF TRENCH 11-A
WEST OF TRENCH 6

Figure 52.
K-40

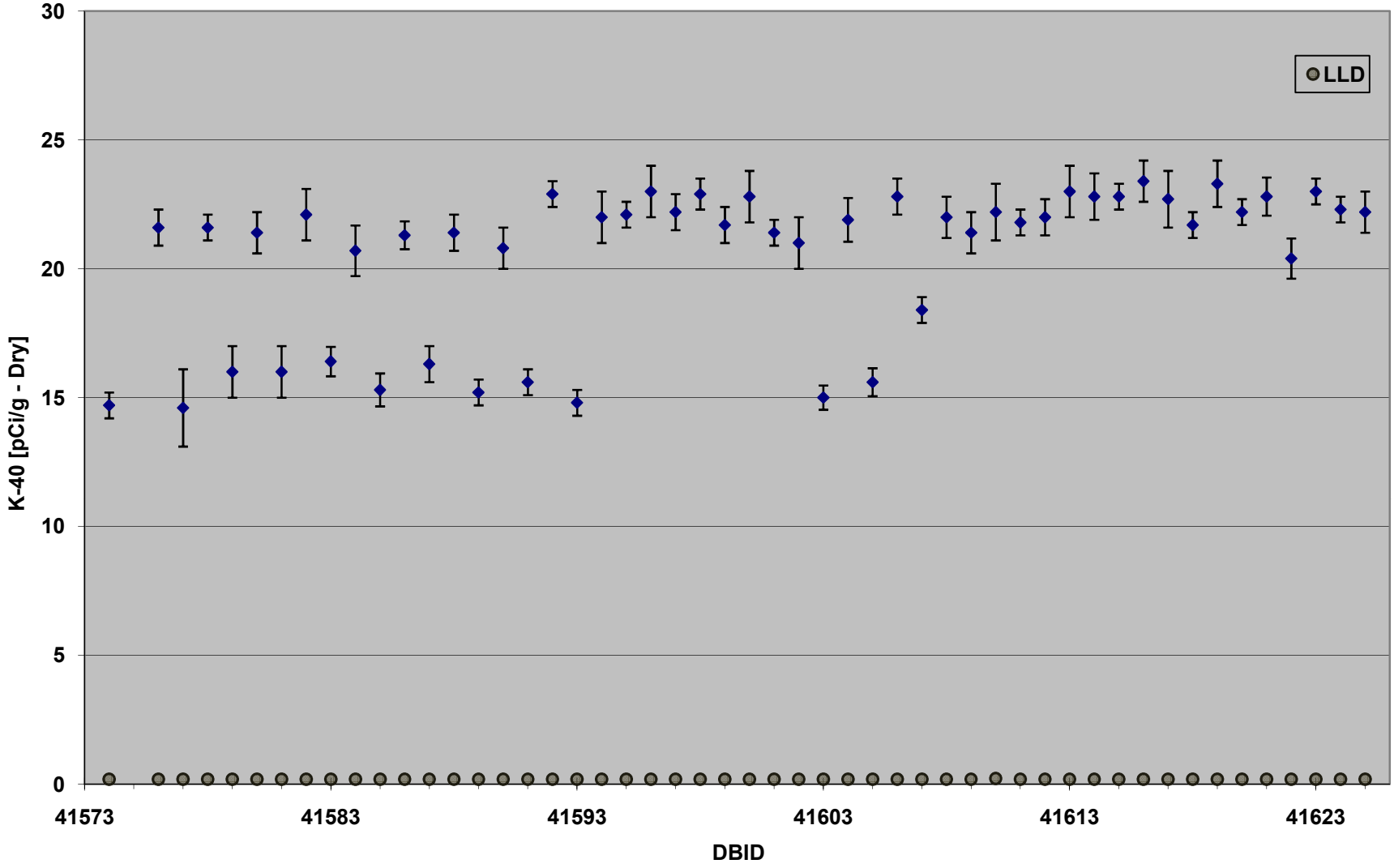


Figure 53.
K-40 by Depth

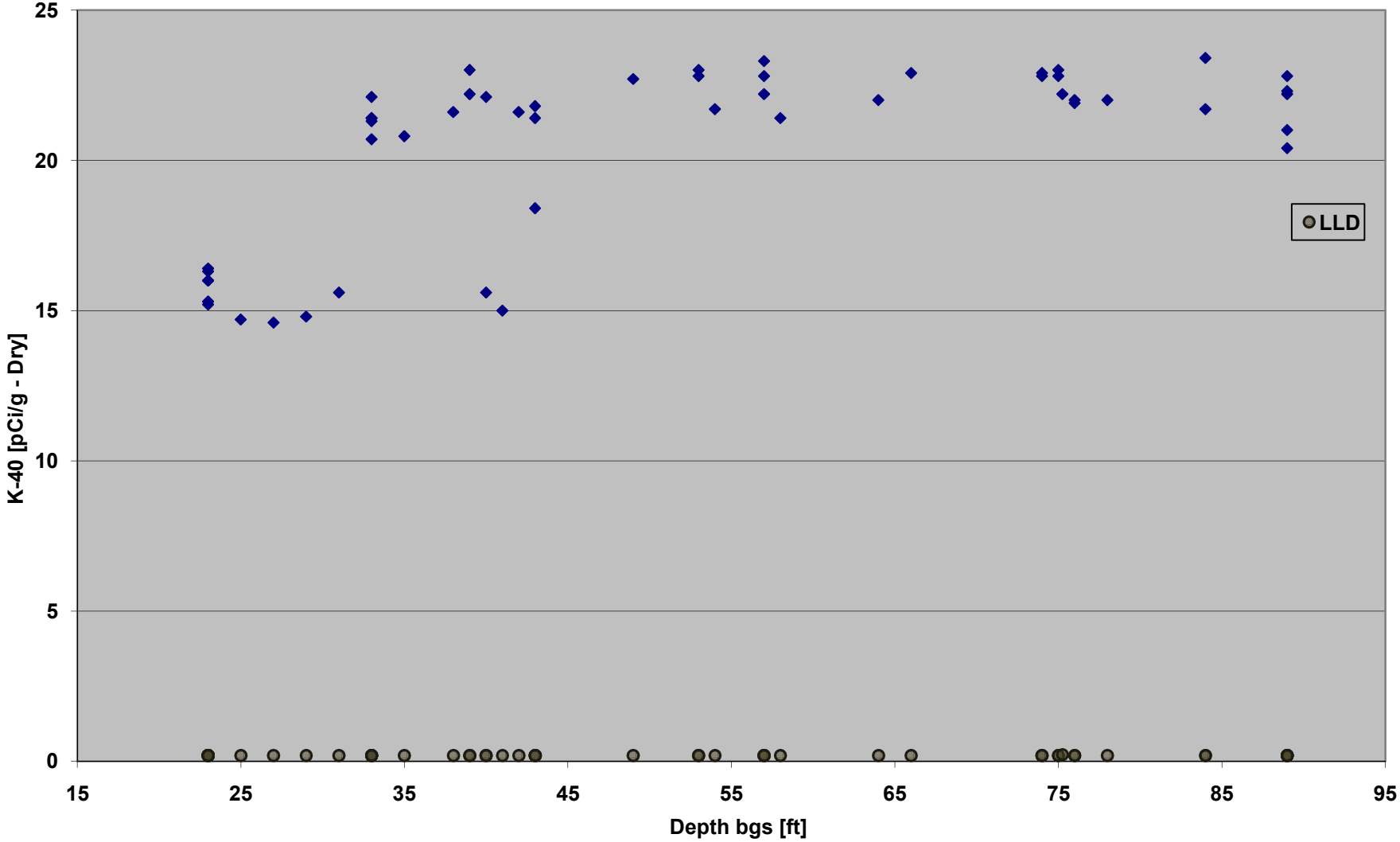


Figure 54.
K-40 by Borehole

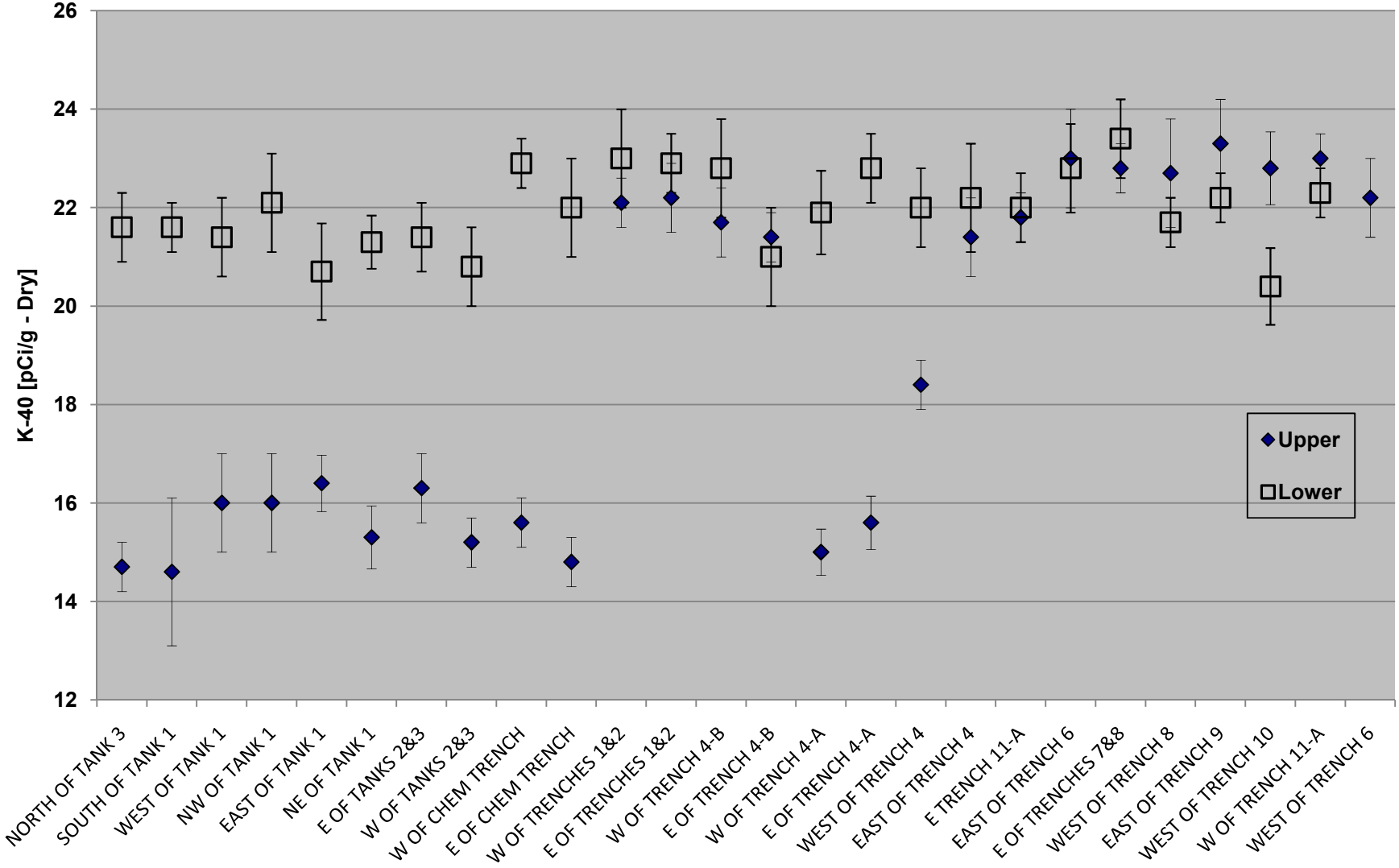


Figure 55.
pH

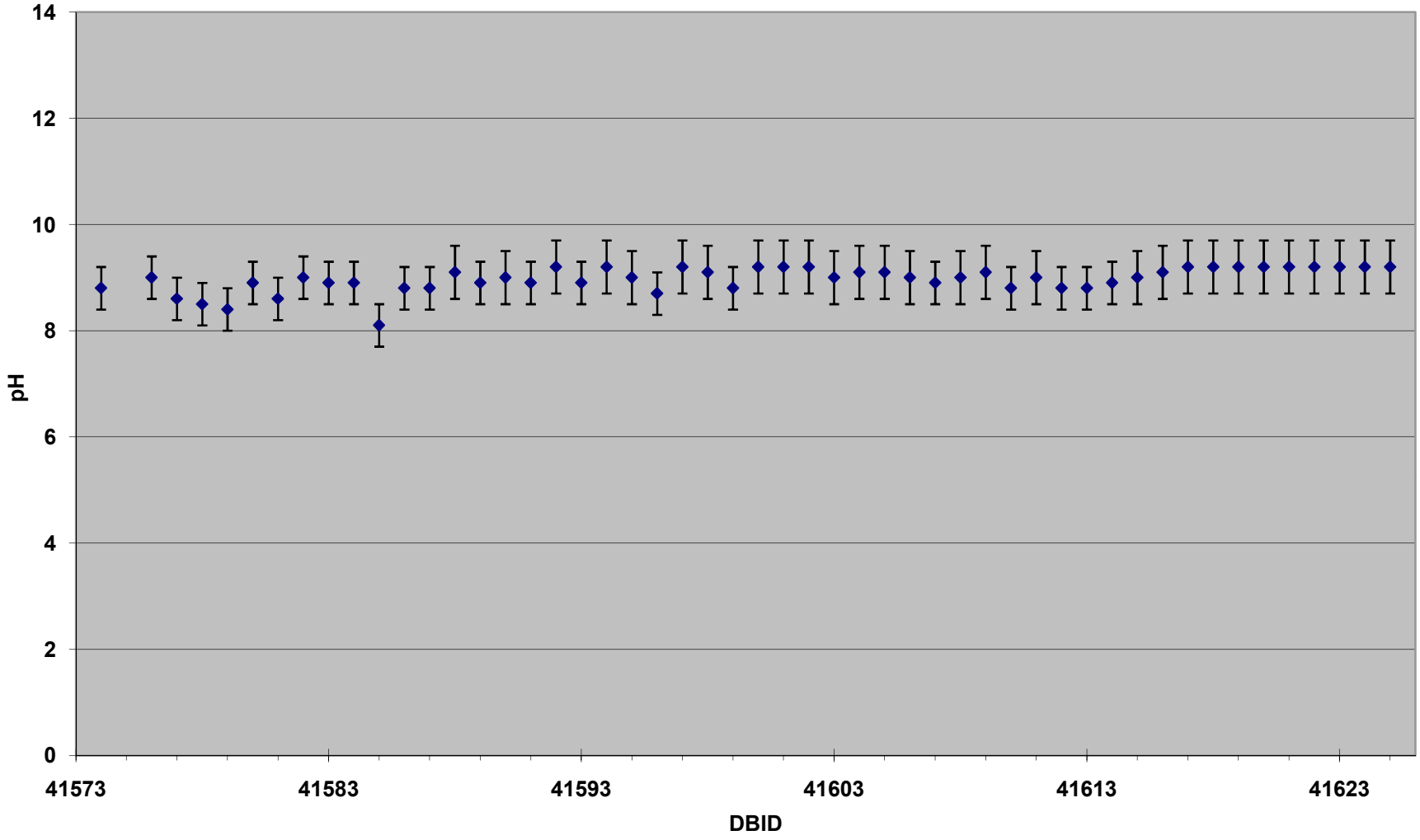


Figure 56.
pH by Depth

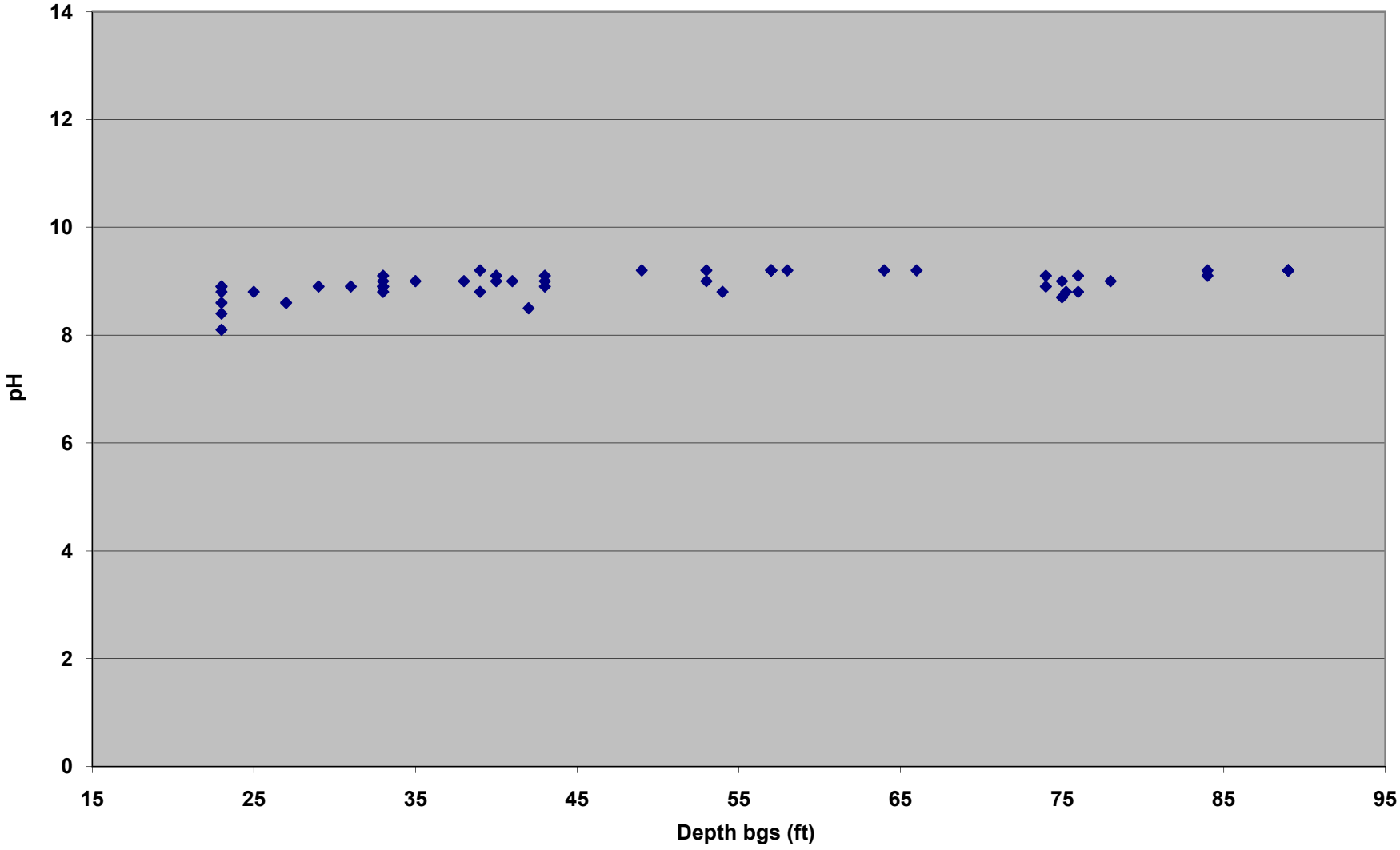


Figure 57.
% Moisture Content

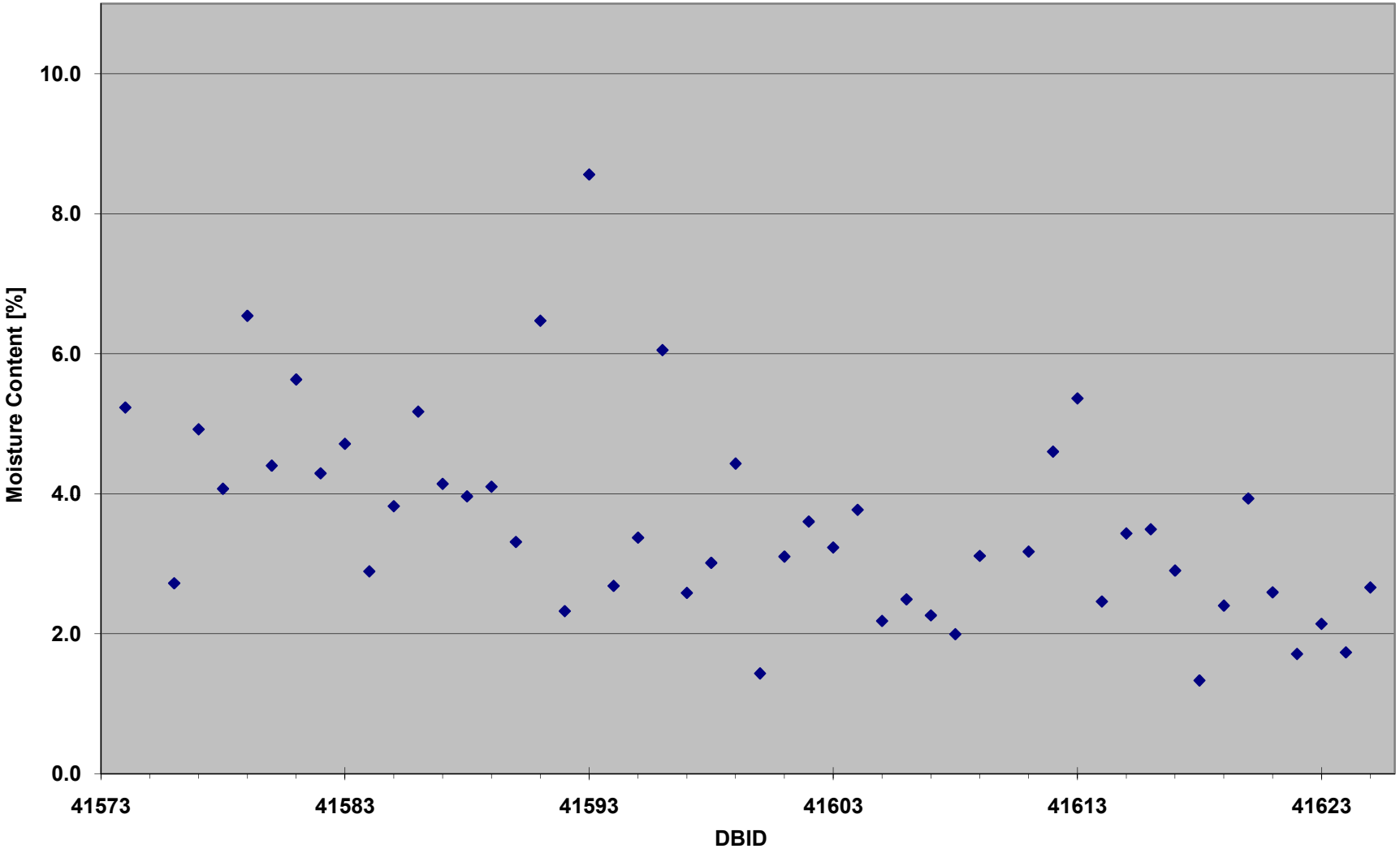


Figure 58.
% Moisture Content by Depth

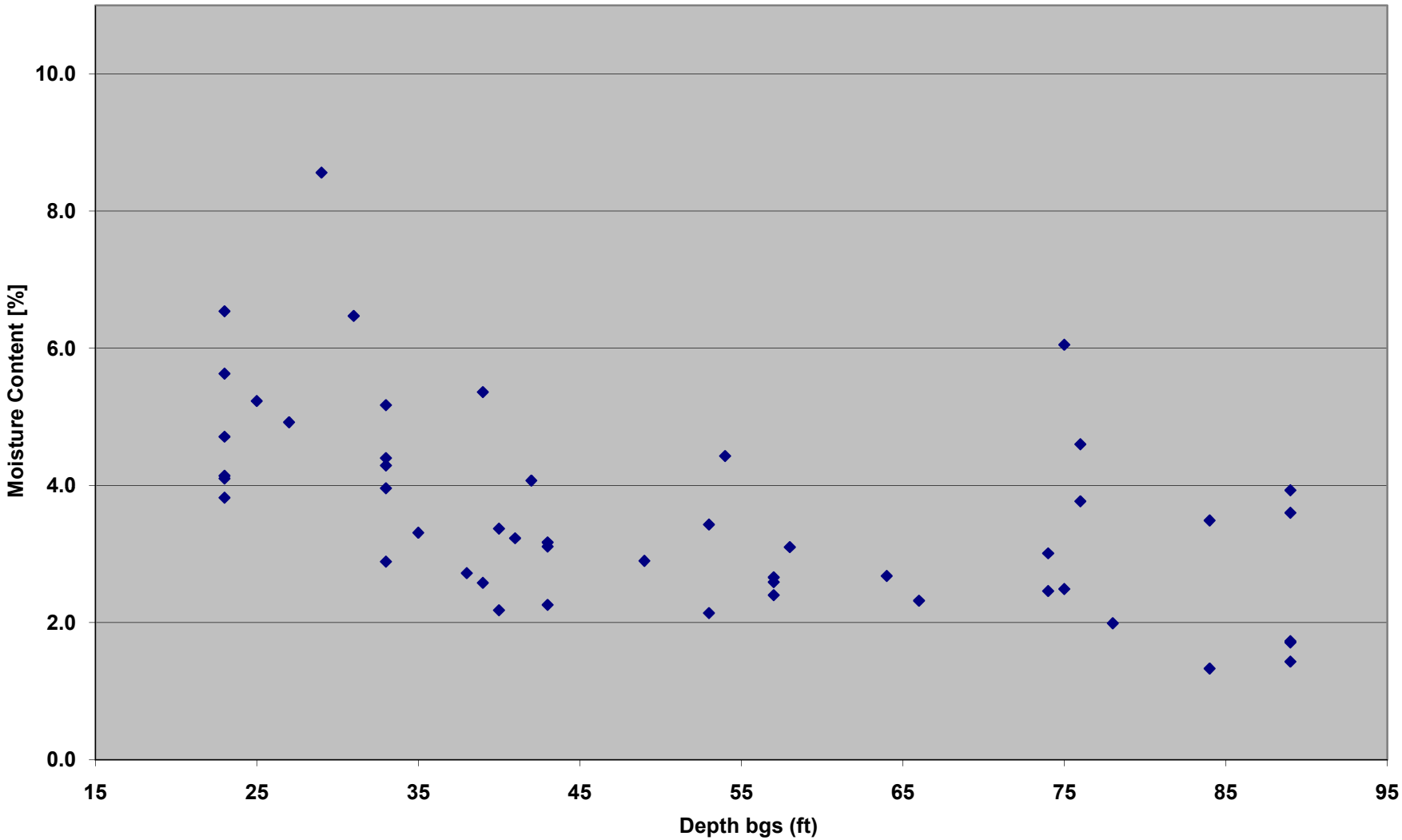
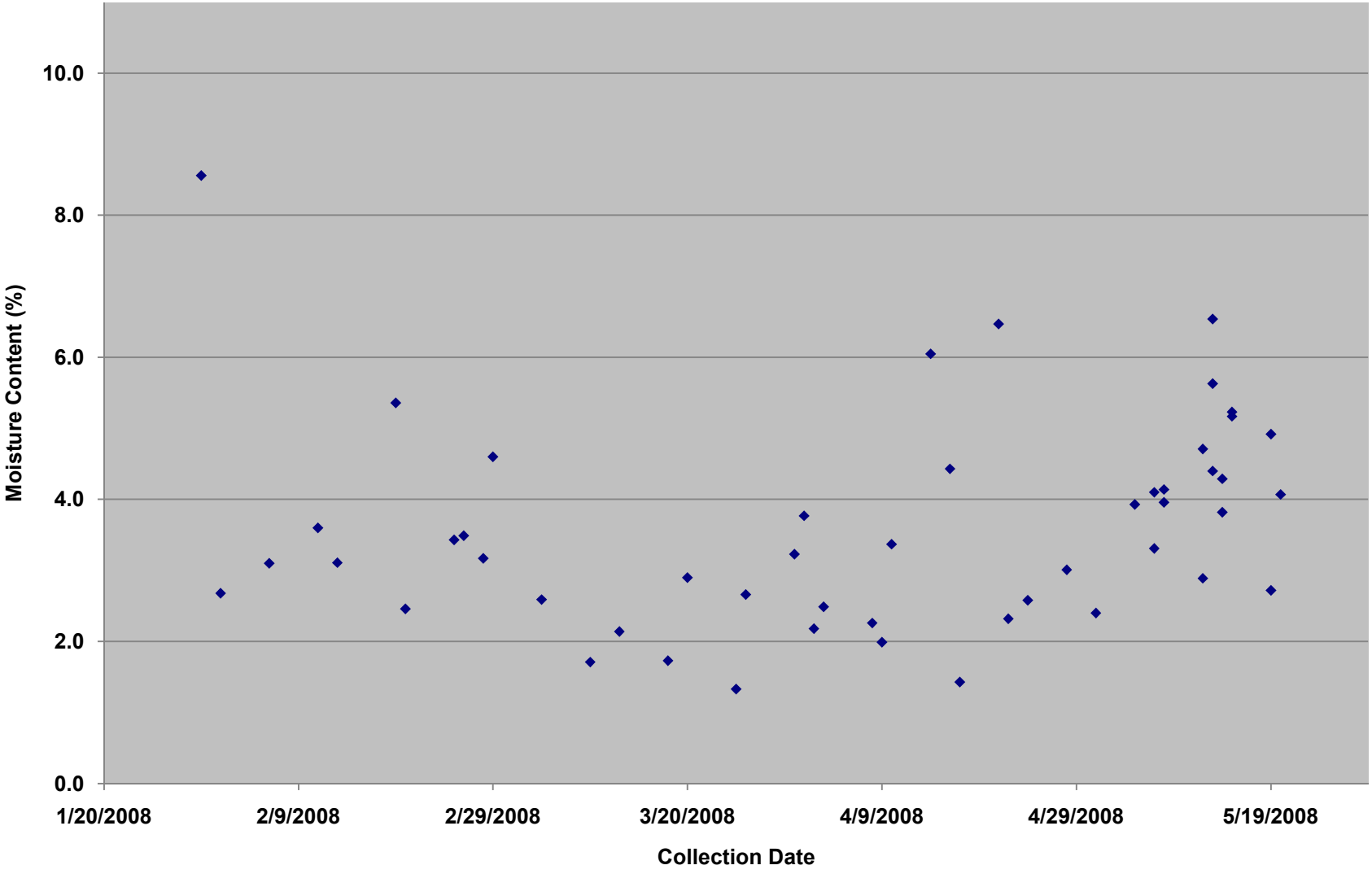



Figure 59.
% Moisture Content by Collection Date