

**INTERIM CHANGE NOTICE
(ICN)**

A. Document No.: PNNL-13023 Revision No: 1		Effective Date of ICN: December 10, 2004
Document Title: RCRA Groundwater Monitoring Plan for Single-Shell Tank Waste Management Area A-AX at the Hanford Site		Change Requested By: S. M. Narbutovskih
Document's Original Author: S. M. Narbutovskih and D. G. Horton		
B. Action: Make changes in the monitoring plan as described below in Section D. Attach this ICN to the front of the document just before the title page.		
C. Effect of Change: This ICN documents a change in the critical mean values used for statistical upgradient/downgradient comparisons in FY2005.		
D. Reason for Change/Description of Change: Reason for Change: Update groundwater quality monitoring plan at WMA A-AX (PNNL-13023) to document the new critical means used for statistical upgradient/downgradient comparisons beginning October 1, FY2004. Description of Change: (1) Draw a line through Table 4.2 on page 4.8 and attach the new Table 4.2 to that page to update the critical means used for statistical upgradient/downgradient comparisons in FY2005.		
E. Document Management Decisions: Original reviewers are retired, and thus, not available to review changes in the document.		
F. Approval Signatures (Please Sign and Date)		Type of Change: (Check one): <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Major
Process Quality Department: T. G. Walker <i>Thomas G. Walker</i>		Date: <i>12/8/04</i>
Approval Authority: S. P. Luttrell <i>S. P. Luttrell</i>		Date: <i>12/8/04</i>
Other Approvals: S. M. Narbutovskih, Technical <i>S. M. Narbutovskih</i>		Date: <i>Dec 8, 04</i>

Table 4.2. Critical Means Values for Waste Management Area A-AX for Fiscal Year 2005 Comparisons^(a)

Constituent, unit	n	df	t _c	Average Background	Standard Deviation	Critical Mean	Upgradient/ Downgradient Comparison Value
Specific conductance, $\mu\text{S}/\text{cm}$	8	7	5.7282	378.6	23.6	522	522
Field pH	8	7	6.4295	8.078	0.070	[7.60, 8.55]	[7.60, 8.55]
Total organic carbon, $\mu\text{g}/\text{L}$	6 ^(b)	5	7.3884	401.875	146.210	1,568	1,570 ^(c)
Total organic halides, ^(d) $\mu\text{g}/\text{L}$	8	7	5.7282	4.15	3.115	23.1	23.1

(a) Based on semiannual sampling events from December 2002 to June 2004 for upgradient well 299-E24-20 and from quarterly sampling events from January 2004 to September 2004 for upgradient well 299-E24-22.

(b) Excluded suspected TOC values collected in June 2003 from well 299-E24-20 and in September 2004 from well 299-E24-22.

(c) Rounded to the nearest tens..

(d) Critical mean calculated from values reported below vendor's specified method detection limit.

df = Degrees of freedom (n-1).

n = Number of background replicate averages.

t_c = Bonferroni critical t-value for appropriate df and 28 comparisons.

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