


O R I S E
OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION

January 15, 2009

Mr. Michael LaFranzo
U.S. Nuclear Regulatory Commission
Region III
2443 Warrenville Road
Lisle, IL 60532-4351

**SUBJECT: ORISE CONTRACT NO. DE-AC05-06OR23100
ANALYTICAL RESULTS FOR EIGHT WIPE SAMPLES ASSOCIATED
WITH WALMART IN MIDDLETOWN, OHIO
(DOCKET NO. 99990001; REPORT NO. 2008-014) [RFTA NO. 09-001]
DCN: 1782-LR-01-0**

Dear Mr. LaFranzo:

The Oak Ridge Institute for Science and Education (ORISE) received seven wipe samples and one blank wipe on December 15, 2008. These samples were associated with the WalMart in Middletown, Ohio. At your request, the samples were analyzed for hydrogen-3 (H-3) with a detection limit of 100 dpm/wipe. After adding 10 mL of scintillation cocktail and distilled water, the wipes were counted with a liquid scintillation analyzer (AP2, Revision 16; CP4, Revision 3). After the first count, each wipe was spiked with a known amount of tritium and recounted. The sample collection information is presented in Table 1. The tritium data are presented in Table 2.

ORISE's Quality Control (QC) requirements were met for these analyses. The QC files are available for your review upon request.

My contact information is listed below. You may also contact Wade Ivey at 865.576.9184 with any questions or comments.

Sincerely,



Dale Condra, Manager
Laboratory

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TABLE 1

**SAMPLE IDENTIFICATIONS
AND COLLECTION DATA
WALMART
MIDDLETOWN, OHIO**

ORISE Sample ID	NRC Region III Sample ID	Collection Date	Collection Time
1782R0001-1	1	12/10/08	~12:52 PM
1782R0001-2	2	12/10/08	~12:52 PM
1782R0001-3	3	12/10/08	~12:54 PM
1782R0001-4	4	12/10/08	~12:54 PM
1782R0001-5	5	12/10/08	~12:56 PM
1782R0001-6	6	12/10/08	~12:56 PM
1782R0001-7	7	12/10/08	~12:58 PM
1782R0001-8	8	12/10/08	~12:58 PM

TABLE 2
CONCENTRATIONS OF TRITIUM
IN WIPE SAMPLES
BY LIQUID SCINTILLATION ANALYSIS
AP2, REVISION 16; C4, REVISION 3
WALMART
MIDDLETOWN, OHIO

ORISE Sample ID	NRC Region III Sample ID	Tritium Concentrations (pCi/wipe)
1782R0001-1	1	7 ± 11 ^a , 20 ^b
1782R0001-2	2	14 ± 11 , 17
1782R0001-3	3	5 ± 25 , 45
1782R0001-4	4	10 ± 14 , 24
1782R0001-5	5	11 ± 12 , 19
1782R0001-6	6	11 ± 17 , 30
1782R0001-7	7	12 ± 19 , 33
1782R0001-8	8	10.9 ± 7.7 , 12.0

^aUncertainties represent the 95% confidence level, based on total propagated uncertainties.

^bMDCs are after the commas.

Note: A submitter can run a resolution test by using Preflight (included with Adobe® Acrobat 6/7/8/9 Professional). Preflight guidance can be found on the NRC’s “Electronic Submittals” Web page (<http://www.nrc.gov/site-help/e-submittals.html>) under the heading “Submittal Instructions,” click on the “Reference Materials for Electronic Submissions” link. This information is available in PDF document form and in video clips.

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PDF Settings Example Table:

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Compatibility	1.5, 1.6, 1.7 or 1.8
Optimize for Fast Web	<input checked="" type="checkbox"/> (selected)
Embed Thumbnails	<input type="checkbox"/> (unselected)
Auto-Rotate	Off
Binding	Left
Resolution (ppi)	300

Images Options		Recommend Optimal on Adobe® Acrobat 9.0.x
<i>Color Images:</i>	Downsample	Off
	For images above	300 ppi
	Compression	Zip
<i>Grayscale:</i>	Quality	8-bit
	Downsample	Off
	For images above	300 ppi
<i>Monochrome:</i>	Compression	Zip
	Quality	8-bit
	Downsample	Off
	For images above	450 ppi
	Compression	CCITT - Group 4
	Anti-Alias to Gray	Off

Fonts Options	Recommend Optimal on Adobe® Acrobat 9.0.x
Embed All Fonts ¹	<input checked="" type="checkbox"/> (selected)
Subset embedded fonts when percent of characters used is less than 100%	<input checked="" type="checkbox"/> (selected)
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Color Options	Recommend Optimal on Adobe® Acrobat 9.0.x
Setting File	None
Color Management Policy	Tag Everything for Color Management
Intent	Preserve
Gray	None
RGB	SRGB IEC61966-2.1
CMYK	US Web Coated (SWOP)v2
Preserve Overprint Settings	<input checked="" type="checkbox"/> (selected)
Preserve Under Color Removal	<input checked="" type="checkbox"/> (selected)
Transfer Function	Preserve
Preserve Halftone	<input type="checkbox"/> (unselected)

Advanced Options	Recommend Optimal on Adobe® Acrobat 9.0.x
Use Prologue ps & Epilogue ps	<input type="checkbox"/> (unselected)
Allow PS to Override Job Options	<input checked="" type="checkbox"/> (selected)
Preserve Level 2 cöpypage semantics	<input checked="" type="checkbox"/> (selected)
Save Job Ticket	<input checked="" type="checkbox"/> (selected)
Illustrator Mode	<input checked="" type="checkbox"/> (selected)
Gradients to Smooth Shades	<input checked="" type="checkbox"/> (selected)
ASCII Format	<input type="checkbox"/> (unselected)
Process DSC Comments	<input checked="" type="checkbox"/> (selected)
Log DSC Warnings	<input type="checkbox"/> (unselected)
Resize for EPS	<input checked="" type="checkbox"/> (selected)
Preserve EPS Info	<input checked="" type="checkbox"/> (selected)
OPI Comments	<input checked="" type="checkbox"/> (selected)
Preserve Doc Info from DSC	<input checked="" type="checkbox"/> (selected)

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