006178

Department of Energy

Ohio Field Office
Fernald Closure Project
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(513) 648-3155

MAY 16 2006

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0125-06

Mr. Thomas Schneider, Project Manager
Ohio Environmental Protection Agency
Southwest District Office
401 East Fifth Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF ERRATA PAGES FOR APPENDIX A OF THE FINAL CERTIFICATION REPORT FOR AREA 9, PHASE III ABANDONED OUTFALL LINE

Reference: Letter DOE-0285-05, J. Reising to J. Saric/T. Schneider, "Transmittal of the Final Certification Report for Area 9, Phase III Abandoned Outfall Line," dated July 20, 2006

Enclosed are replacement tables for certification results presented in Appendix A of the final Certification Report for Area 9, Phase III Abandoned Outfall Line. All tables in Appendix A of the July 2005 Certification Report should be replaced with the enclosed tables, as the reporting units were incorrect for many of the organic constituents. Additionally, the maximum result for aroclor-1254 in A9P3-C05 exceeded the FRL, but statistics had not been run. The replacement pages contain the proper units and statistics for the noted discrepancies, and there is no change to the conclusion reached in Section 5.2 of the Certification Report (i.e., certification activities for Area 9, Phase III are complete).

If you have any questions or require additional information, please contact me at (513) 648-3139.

Sincerely,

Johnny W. Reising
Director

Enclosure

Enclosure

cc w/enclosure:
J. Desormeau, OH/FCP
T. Schneider, OEPA-Dayton (three copies of enclosure)
G. Jablonowski, USEPA-V, SRF-5J
M. Cullerton, Tetra Tech
M. Shupe, HSI GeoTrans
S. Helmer, ODH
AR Coordinator, Fluor Fernald, Inc./MS6

cc w/o enclosure:
J. Chiou, Fluor Fernald, Inc./MS88
F. Johnston, Fluor Fernald, Inc./MS12
C. Murphy, Fluor Fernald, Inc./MS1

Certification Unit A9P3-C01

	Primary COCs					Secondary COCs									
SAMPLE ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Technetium-99	Antimony	Arsenic	Beryllium	Cadmium	Copper	Fluoride	Hexavalent Chromium	Lead
A9P3-C01-1	0.747 -	0.47 J	0.483 J	0.47 J	1.67 U	0.0272 U	0.262 U	0.062 UJ	3.47 -	0.266 -	0.262 -	10. J	3.02 J	0.0598 UJ	5.65 J
A9P3-C01-2	0.862 -	0.701 J	0.746 J	0.701 J	4.28 J	0.0306 U	0.385 U	0.0561 UJ	3.8 -	0.555 -	0.238 -	11. J	2.18 J	0.0607 UJ	8.14 J
A9P3-C01-3	0.842 -	0.57 -	0.561 -	0.57 -	3.13 -	0.0725 U	0.262 U	0.0539 UJ	3.83 -	0.657 J	0.283 -	13.5 J	1.97 J	0.0593 U	9.47 J
A9P3-C01-5	0.884 -	0.74 -	0.744 -	0.74 -	3.85 -	0.0307 U	0.336 U	0.0568 UJ	5.48 -	0.559 J	0.271 -	12.7 J	2.64 J	0.0619 U	8.69 J
A9P3-C01-6	0.845 -	0.635 -	0.649 -	0.635 -	1.22 U	0.0252 U	0.308 U	0.055 UJ	5.59 -	0.611 -	0.457 -	16.1 J	4.41 J	0.583 U	10.2 J
A9P3-C01-7	0.53 -	0.255 -	0.259 -	0.255 -	2.69 J	0.0184 U	0.329 -	0.052 J	3.67 -	0.143 -	0.283 -	10.2 J	0.945 J	0.603 J	4.75 J
A9P3-C01-9	1.12 J	0.988 J	1.09 -	0.988 J	6.12 -	0.0365 U	0.293 U	0.0568 UJ	9.28 -	0.707 -	0.38 -	18.3 J	2.73 J	0.619 U	16.8 J
A9P3-C01-9-D	1.81 J	1.24 J	1.26 -	1.24 J	9.23 -	0.0615 U	0.315 U	0.0576 UJ	10.5 -	0.791 -	0.461 -	22.8 J	2.4 J	0.614 U	18.9 J
A9P3-C01-10	1.4 -	0.8 -	0.796 -	0.8 -	4.71 J	0.0382 U	0.4 U	0.0724 J	10.9 -	0.64 -	0.462 -	20.4 J	3.3 J	0.625 U	15 J
A9P3-C01-11	1.62 -	0.953 -	0.951 -	0.953 -	7.09 -	0.0457 U	0.392 U	0.0591 UJ	12.0 J	0.654 -	0.399 -	20.6 -	2.21 J	0.667 U	14.8 J
A9P3-C01-13	0.528 -	0.339 -	0.345 -	0.339 -	1.49 -	0.0309 U	0.269 U	0.0569 UJ	5.52 -	0.291 -	0.258 -	10.4 J	1.68 J	0.574 U	10 J
A9P3-C01-14	0.44 -	0.191 -	0.195 -	0.191 -	1.46 U	0.0326 U	0.253 U	0.0507 UJ	2.84 -	0.123 -	0.182 J	4.2 J	0.865 J	0.529 U	3.35 J
A9P3-C01-15	0.791 -	0.277 -	0.277 -	0.277 -	1.72 U	0.0396 U	0.264 U	0.0509 UJ	4.72 -	0.186 -	0.235 -	8.2 J	1.04 J	0.558 U	4.61 J
A9P3-C01-17	0.732 -	0.706 -	0.726 -	0.706 -	3.78 -	0.0399 U	0.248 U	0.0553 UJ	3.25 -	0.663 -	0.423 -	14.8 J	2.18 J	0.0607 U	9.08 J
A9P3-C01-18	0.929 -	0.767 -	0.765 -	0.767 -	4. -	0.0593 U	0.366 U	0.4 UJ	6.6 -	0.7 -	0.44 -	15.5 J	1.25 J	0.766 J	10.2 J
A9P3-C01-19	0.801 -	0.457 -	0.487 -	0.457 -	2.28 J	0.0304 U	0.387 U	0.383 UJ	6.1 -	0.44 -	0.42 -	12.8 J	0.938 J	0.603 UJ	7.7 J
A9P3-C01-B1C	0.762 -	0.525 -	0.612 J	0.525 -	2.76 -	0.0107 U	0.271 U	0.0554 UJ	4.01 -	0.598 -	0.29 -	13.4 J	3.44 J	0.0613 U	8.83 J
A9P3-C01-B1N	1.09 -	0.902 -	1.05 J	0.902 -	4.27 -	0.013 U	0.219 U	0.0595 UJ	8.22 -	0.812 -	0.393 -	16.6 J	3.06 J	0.065 U	12.6 J
A9P3-C01-B1S	1.3 -	1.1 -	1.12 J	1.1 -	4.06 -	0.0229 U	0.22 U	0.0626 UJ	9.88 -	0.829 -	0.523 -	17.8 J	2.82 J	0.0686 U	15.7 J
Limit	1.5	1.4	1.5	1.4	82	0.82	1	0.61	9.6	0.62	0.91	20	850	11	400
Units	pCi/g	pCi/g	pCi/g	pCi/g	mg/kg	pCi/g	pCi/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Conf. Level	95%	95%	95%	95%	95%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	1.81	1.24	1.26	1.24	9.23	0.0725 U	0.329	0.0724	12.0	0.829	0.523	22.8	4.41	0.766	18.9
Max. >= Limit	Yes	No	No	No	No	No	No	No	Yes	Yes	No	Yes	No	No	No
W-statistic Prob. #	47.5% (LN)	- -	- -	- -	- -	- -	- -	- -	27.6% (LN)	4.9% (N)	- -	97.0% (N)	- -	- -	- -
Test Procedure	Lognormal	- -	- -	- -	- -	- -	- -	- -	Lognormal	Wilcoxon	- -	Normal	- -	- -	- -
Sample Size	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Nondetects	0	0	0	0	4	18	17	14	0	0	0	0	0	16	0
% Nondetects	0%	0%	0%	0%	22%	100%	94%	78%	0%	0%	0%	0%	0%	89%	0%
Est. Mean*	0.942	- -	- -	- -	- -	- -	- -	- -	6.15	0.605	- -	13.9	- -	- -	- -
UCL	1.12	- -	- -	- -	- -	- -	- -	- -	7.24	0.657	- -	15.4	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.152	- -	- -	- -	- -	- -
Pass / Fail	pass	- -	- -	- -	- -	- -	- -	- -	pass	Fail *	- -	pass	- -	- -	- -
a posteriori Sample	5	- -	- -	- -	- -	- -	- -	- -	4	35	- -	4	- -	- -	- -
Size calculation	Pass	- -	- -	- -	- -	- -	- -	- -	Pass	Fail *	- -	Pass	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency(Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)

The maximum value of the two duplicates was used in all statistical equations.

#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.

The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.

* See Section 5.1 for discussion.

Certification Unit A9P3-C01

(cont.)

	Secondary COCs										
SAMPLE ID	Manganese	Molybdenum	Nickel	Silver	Zinc	Carbon Tetrachloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Aroclor-1254	Aroclor-1260
A9P3-C01-1	321 -	1.8 -	10.4 -	0.0516 J	21.7 -	0.88 U	0.9 UJ	0.9 U	0.9 U	3.7 U	3.7 U
A9P3-C01-2	490 -	1.33 -	15.3 -	0.0428 J	38.2 J	0.91 U	0.9 U	0.9 U	0.9 U	3.8 U	3.8 U
A9P3-C01-3	494 -	2.02 J	19. J	0.049 J	45. J	0.9 U	0.9 UJ	0.9 U	0.9 U	3.7 U	3.7 UJ
A9P3-C01-5	523 -	1.32 J	17.2 J	0.0443 J	57.9 J	0.9 U	0.9 U	0.9 U	0.9 U	3.8 U	3.8 UJ
A9P3-C01-6	610 -	2.13 -	17 J	0.0462 J	49.6 -	0.9 U	0.9 U	0.9 U	0.9 U	3.8 U	3.8 U
A9P3-C01-7	314 -	1.36 -	9.28 J	0.027 J	22.2 -	1 U	1 U	1 U	1 U	3.5 U	3.5 U
A9P3-C01-9	859 -	1.95 -	20.9 J	0.0564 J	68.9 -	0.9 U	0.9 U	0.9 U	0.9 U	3.8 U	3.8 U
A9P3-C01-9-D	847 -	2.97 -	31.5 J	0.0632 J	78.8 -	1 U	1 U	1 U	1 U	3.8 U	3.8 U
A9P3-C01-10	669 J	3.12 -	22.4 J	0.0479 J	76.1 -	1 U	1 U	1 U	1 U	5.6 -	3.9 U
A9P3-C01-11	459 -	3.16 -	21.1 -	0.0525 J	83 -	0.92 U	0.9 U	0.9 U	0.5 J	4 U	4 U
A9P3-C01-13	338 J	1.69 -	11.7 -	0.0344 J	30.7 -	1 U	1 U	1 U	1 U	3.8 U	3.8 U
A9P3-C01-14	113 J	1.31 -	4 -	0.0187 J	9.9 -	1.1 U	1.1 U	1.1 U	1.1 U	3.4 U	3.4 U
A9P3-C01-15	200 J	2.14 -	9.4 -	0.0236 J	22.5 J	1.2 U	1.2 U	1.2 U	1.2 U	3.4 U	3.4 U
A9P3-C01-17	406 J	1.61 -	20.1 J	0.052 J	52.4 -	0.9 U	0.9 U	0.9 U	0.9 U	3.7 U	3.7 U
A9P3-C01-18	421 -	1.5 -	20.2 J	0.057 J	56.1 J	0.9 U	0.9 U	0.9 U	1.2 -	3.9 U	3.9 U
A9P3-C01-19	469 -	2.5 -	16.3 J	0.043 J	37.9 J	0.9 U	0.9 U	0.9 U	3.5 -	3.7 U	3.7 U
A9P3-C01-B1C	432 J	1.81 -	18.2 J	0.0512 J	44.2 -	1 U	1 U	1 U	1 U	3.8 U	3.8 U
A9P3-C01-B1N	387 J	1.11 -	19.4 J	0.0903 J	75. -	1 U	1 U	1 U	1 U	4.1 U	4.1 U
A9P3-C01-B1S	689 J	1.44 -	23.4 J	0.0927 J	75. -	1.1 U	1.1 U	1.1 U	1.1 U	4.2 U	4.2 U
Limit	1400	13	34	1	82	91	1000	190	59	40	40
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	859	3.16	31.5	0.0927	83	1.2 U	1.2 U	1.2 U	3.5	5.6	4.2 U
Max. >= Limit	No	No	No	No	Yes	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	40.7% (N)	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	Normal	- -	- -	- -	- -	- -	- -
Sample Size	18	18	18	18	18	18	18	18	18	18	18
Nondetects	0	0	0	0	0	18	18	18	15	17	18
% Nondetects	0%	0%	0%	0%	0%	100%	100%	100%	83%	94%	100%
Est. Mean*	- -	- -	- -	- -	48.7	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	55.7	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	pass	- -	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	3	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	Pass	- -	- -	- -	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency(Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)

The maximum value of the two duplicates was used in all statistical equations.

#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption. The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.

Certification Unit A9P3-C01a Beryllium vs. Background

Beryllium (mg/kg) Subsurface

	A9P3-C01	Background
Samples	18	140
Average	0.529	0.775
Median	0.605	0.745
Std. Dev.	0.231	0.36
Minimum	0.123	0.220
Maximum	0.829	3.05
Lower Quartile	0.291	0.540
Upper Quartile	0.660	0.940
UCL-Mean (90%)	0.601	0.814
t-Test Prob.	**0.0053**	
F-test (SD) Prob.	**0.0393**	
W-test (median) P	**0.0036**	
K-S (distr.) Prob.	**0.0089**	

INTERPRETATION
A9P3 < Background at the 99% level
Std. Dev. Dissimilar
A9P3< Background at the 99% level
A9P3 < Background at the 99% level

CONCLUSION: There is strong evidence that A9P3 is less than Background.

Note: Back is lognormal; A9P3 is normal; F-test (equality of std. Dev.) fails - best test is W-test, but, results are overwhelming any way you look at it.

Certification Unit A9P3-C02

	Primary COCs					Secondary COCs									
SAMPLE_ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Technetium-99	Antimony	Arsenic	Beryllium	Cadmium	Copper	Fluoride	Hexavalent Chromium	Lead
A9P3-C02-1	0.483 -	0.198 -	0.221 -	0.198 -	2.83 -	0.022 U	0.244 U	0.0959 U	4.47 -	0.147 -	0.207 -	8.8 -	0.737 J	0.555 U	4.04 J
A9P3-C02-2	0.573 -	0.264 -	0.277 -	0.264 -	2.37 -	0.0295 U	0.24 U	0.0796 U	3.95 -	0.154 -	0.202 -	10.3 -	0.844 J	0.538 U	4.24 J
A9P3-C02-3	0.577 -	0.236 -	0.236 -	0.236 -	2.51 -	0.0321 U	0.251 U	0.106 U	4.82 -	0.167 -	0.232 -	8.5 -	1.05 J	0.539 U	4.63 J
A9P3-C02-5	0.488 -	0.243 -	0.25 -	0.243 -	2.75 -	0.0367 U	0.372 U	0.0851 U	4.86 J	0.262 -	0.265 -	11.4 J	1.37 J	0.577 U	6.52 J
A9P3-C02-5-D	0.462 -	0.191 -	0.191 -	0.191 -	0.819 U	0.0306 U	0.383 U	0.123 U	4.95 J	0.15 -	0.231 -	9.5 J	1.06 J	0.545 U	3.46 J
A9P3-C02-6	0.458 -	0.223 -	0.227 -	0.223 -	1.72 -	0.0195 U	0.384 U	0.0696 U	4.71 J	0.186 -	0.214 -	9.1 J	1.21 J	0.516 U	4.82 J
A9P3-C02-7	0.721 -	0.261 -	0.272 -	0.261 -	1.84 -	0.0356 U	0.281 U	0.0694 J	5.47 -	0.229 -	0.26 -	11.7 -	1.48 J	0.569 U	5.47 J
A9P3-C02-9	0.463 -	0.282 -	0.295 -	0.282 -	1.54 -	0.0214 U	0.401 U	0.0714 U	3.7 J	0.185 -	0.226 -	10 J	0.812 J	0.877 J	4.32 J
A9P3-C02-10	0.511 -	0.305 -	0.303 -	0.305 -	2.23 -	0.0183 U	0.294 U	0.071 U	2.96 J	0.13 -	0.166 J	9.2 J	0.514 UJ	0.536 U	3.25 J
A9P3-C02-11	0.779 -	0.296 -	0.307 -	0.296 -	3.48 -	0.0245 U	0.296 U	0.11 U	5.19 J	0.262 -	0.234 -	13.4 J	0.572 UJ	0.538 U	6.74 J
A9P3-C02-13	0.753 -	0.529 -	0.53 -	0.529 -	2.68 -	0.0391 U	0.471 -	0.0551 UJ	6.4 -	0.42 -	0.32 -	11.9 J	2.17 -	0.608 U	6.67 -
A9P3-C02-14	1.37 -	0.717 -	0.703 -	0.717 -	9.72 -	0.0334 U	0.376 -	0.0576 UJ	5.9 -	0.49 -	0.38 -	14.8 J	2.68 -	0.602 U	12.3 -
A9P3-C02-15	2.12 -	1.21 -	1.22 -	1.21 -	5.63 -	0.0671 U	0.362 U	0.0617 UJ	9.37 -	0.844 -	0.507 -	23.2 J	2.7 -	0.678 U	16.8 J
Limit	1.5	1.4	1.5	1.4	82	0.82	1	0.61	9.6	0.62	0.91	20	850	11	400
Units	pCi/g	pCi/g	pCi/g	pCi/g	mg/kg	pCi/g	pCi/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Conf. Level	95%	95%	95%	95%	95%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	2.12	1.21	1.22	1.21	9.72	0.0671 U	0.471	0.0694	9.4	0.844	0.507	23.2	2.7	0.877	16.8
Max. >= Limit	Yes	No	No	No	No	No	No	No	No	Yes	No	Yes	No	No	No
W-statistic Prob. #	< 0.01% (LN)	- -	- -	- -	- -	- -	- -	- -	- -	18.9% (LN)	- -	6.2% (LN)	- -	- -	- -
Test Procedure	Median (Sign)	- -	- -	- -	- -	- -	- -	- -	- -	Lognormal	- -	Lognormal	- -	- -	- -
Sample Size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Nondetects	0	0	0	0	0	12	10	11	0	0	0	0	2	11	0
% Nondetects	0%	0%	0%	0%	0%	100%	83%	92%	0%	0%	0%	0%	17%	92%	0%
Est. Mean*	0.575	- -	- -	- -	- -	- -	- -	- -	- -	0.287	- -	11.8	- -	- -	- -
UCL	0.779	- -	- -	- -	- -	- -	- -	- -	- -	0.378	- -	13.4	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	Pass	- -	- -	- -	- -	- -	- -	- -	- -	pass	- -	pass	- -	- -	- -
a posteriori Sample	7	- -	- -	- -	- -	- -	- -	- -	- -	3	- -	2	- -	- -	- -
Size calculation	Pass	- -	- -	- -	- -	- -	- -	- -	- -	Pass	- -	Pass	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)

The maximum value of the two duplicates was used in all statistical equations.

#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption. The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.

• See Section 5.1 for discussion

006173

Certification Unit A9P3-C02

(cont.)

	Secondary COCs										
SAMPLE_ID	Manganese	Molybdenum	Nickel	Silver	Zinc	Carbon Tetrachloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Aroclor-1254	Aroclor-1260
A9P3-C02-1	227 J	1.54 -	8.8 J	0.0253 J	20.2 J	1 U	1 U	1 U	1 U	3.4 U	3.4 U
A9P3-C02-2	254 J	1.68 -	10.6 J	0.0236 J	29.1 J	1 U	1 U	1 U	1 U	3.9 -	3.4 U
A9P3-C02-3	214 J	1.39 -	7.9 J	0.0233 J	24.9 J	0.9 U	0.9 U	0.9 U	0.9 U	3.5 U	3.5 U
A9P3-C02-5	330 J	1.53 -	10.5 J	0.0291 J	33.2 -	1 U	1 U	1 U	1 U	3.5 U	3.5 U
A9P3-C02-5-D	299 J	1.61 -	8.8 J	0.0266 J	29.2 -	1 U	1 U	1 U	1 U	3.5 U	3.5 U
A9P3-C02-6	218 J	1.22 -	8.7 J	0.0281 J	26.5 -	1 U	1 U	1 U	1 U	3.4 U	3.4 U
A9P3-C02-7	165 J	2.25 -	9.31 -	0.0278 J	29.3 -	1.2 U	1.2 U	1.2 U	1.2 U	3.5 U	3.5 U
A9P3-C02-9	277 J	1.29 -	10.6 J	0.0288 J	30.8 -	1.1 U	1.1 U	1.1 U	1.1 U	3.5 U	3.5 U
A9P3-C02-10	164 J	1.31 -	5.9 J	0.0221 J	22.7 -	1 U	1 U	1 U	1 U	3.5 U	3.5 U
A9P3-C02-11	123 J	1.86 -	10.3 J	0.0282 J	31.3 -	1.1 U	1.1 U	1.1 U	1.1 U	3.6 U	3.6 U
A9P3-C02-13	535 J	1 -	16.5 J	0.034 -	46.8 J	0.9 U	0.9 U	0.9 U	0.9 U	3.7 U	3.7 U
A9P3-C02-14	518 J	1.6 -	15 J	0.052 -	58.1 J	0.9 U	0.9 U	0.9 U	5.7 -	3.9 U	3.9 U
A9P3-C02-15	649 J	2.28 -	24.9 J	0.0723 J	89.3 -	1 U	1 U	1 U	0.6 J	1.4 J	4.1 U
Limit	1400	13	34	1	82	91	1000	190	59	40	40
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	649	2.28	24.9	0.0723	89.3	1.2 U	1.2 U	1.2 U	5.7	3.9	4.1 U
Max. >= Limit	No	No	No	No	Yes	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	9.3% (LN)	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	Lognormal	- -	- -	- -	- -	- -	- -
Sample Size	12	12	12	12	12	12	12	12	12	12	12
Nondetects	0	0	0	0	0	12	12	12	10	10	12
% Nondetects	0%	0%	0%	0%	0%	100%	100%	100%	83%	83%	100%
Est. Mean*	- -	- -	- -	- -	36.7	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	44.5	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	pass	- -	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	2	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	Pass	- -	- -	- -	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)

The maximum value of the two duplicates was used in all statistical equations.

#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.

The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.

* See Section 5.1 for discussion

Certification Unit A9P3-C03

	Primary COCs					Secondary COCs									
SAMPLE_ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Technetium-99	Antimony	Arsenic	Beryllium	Cadmium	Copper	Fluoride	Hexavalent Chromium	Lead
A9P3-C03-1	1.46 -	0.895 -	0.864 -	0.895 -	3.02 -	0.0523 U	0.324 U	0.0603 UJ	7.32 -	0.723 -	0.522 -	18.4 J	3.1 -	0.681 J	14.7 J
A9P3-C03-2	1.2 -	0.757 -	0.757 -	0.757 -	4.57 -	0.0476 U	0.305 U	0.0584 UJ	4.84 -	0.472 -	0.36 -	12.2 J	2.33 -	0.619 U	12.2 J
A9P3-C03-3	0.355 -	0.185 -	0.174 -	0.185 -	2 -	0.0197 U	0.285 U	0.0515 U	5.66 J	0.166 -	0.17 J	29.2 J	0.822 J	0.552 U	4.16 J
A9P3-C03-5	1.05 -	0.915 -	0.919 -	0.915 -	4.57 -	0.0358 U	0.44 U	0.0633 U	7.33 J	0.8 -	0.766 -	20.8 J	2.23 J	0.658 U	14.4 J
A9P3-C03-6	0.382 -	0.149 -	0.149 -	0.149 -	1.35 -	0.0228 U	0.287 U	0.0598 U	3.72 -	0.109 J	0.144 J	4.1 J	0.762 J	0.91 J	2.22 J
A9P3-C03-7	0.411 -	0.241 -	0.246 -	0.241 -	1.14 -	0.0233 U	0.274 U	0.0514 U	2.58 -	0.0999 -	0.134 J	3.83 J	0.99 J	0.966 J	1.97 J
A9P3-C03-9	0.344 -	0.195 -	0.203 -	0.195 -	1.15 U	0.0263 U	0.318 U	0.052 U	2.95 -	0.157 -	0.197 J	3.3 J	1.12 -	0.542 U	2.64 J
A9P3-C03-10	0.524 -	0.318 -	0.344 -	0.318 -	1.95 -	0.0238 U	0.334 U	0.0539 UJ	3.19 -	0.172 -	0.249 -	5 J	1.01 -	0.565 U	3.25 J
A9P3-C03-11	0.411 -	0.238 -	0.241 -	0.238 -	1.1 U	0.0276 U	0.336 U	0.0518 UJ	2.64 -	0.107 -	0.185 J	5.9 J	0.888 J	0.535 U	2.5 J
A9P3-C03-13	0.424 J	0.259 J	0.255 -	0.259 J	1.4 U	0.0327 U	0.317 U	0.0507 UJ	2.78 -	0.101 -	0.138 J	3 J	0.664 J	0.542 U	1.64 J
A9P3-C03-14	0.309 J	0.217 J	0.212 -	0.217 J	1.71 -	0.0305 U	0.319 U	0.0511 UJ	1.84 -	0.098 -	0.113 J	2.7 J	0.744 J	0.556 U	1.98 J
A9P3-C03-14-D	0.445 J	0.286 J	0.293 -	0.286 J	2.59 -	0.035 U	0.294 U	0.0504 UJ	1.8 -	0.0932 -	0.122 J	2.9 J	0.802 J	0.545 U	1.91 J
A9P3-C03-15	0.645 -	0.371 -	0.398 -	0.371 -	1.35 -	0.0191 U	0.249 U	0.0568 UJ	2.9 -	0.228 -	0.244 -	5.7 -	1.16 -	0.597 U	4.42 J
A9P3-C03-17	0.366 -	0.24 -	0.23 -	0.24 -	1.43 U	0.0199 U	0.379 U	0.344 U	1.75 -	0.202 -	0.175 J	5.66 -	0.572 U	0.55 U	6.34 J
A9P3-C03-18	0.507 -	0.38 -	0.387 -	0.38 -	3.5 -	0.0331 U	0.392 U	0.332 U	1.64 -	0.38 -	0.123 J	4.76 -	0.55 U	0.544 U	3.06 J
A9P3-C03-19							0.472 U	0.187 U	5.81 J	0.329 -	0.203 -	6.4 -	0.337 J	0.0413 J	4.91 J
A9P3-E128-SM-1	1.08 -	0.494 -	0.512 -	0.494 -	3.4 U	0.0196 U									
A9P3-C03-20W							0.297 U								
A9P3-C03-21W							0.31 U								
A9P3-C03-22E							0.297 U								
Limit	1.5	1.4	1.5	1.4	82	0.82	1	0.61	9.6	0.62	0.91	20	850	11	400
Units	pCi/g	pCi/g	pCi/g	pCi/g	mg/kg	pCi/g	pCi/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Conf. Level	95%	95%	95%	95%	95%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	1.46	0.915	0.919	0.915	4.57	0.0523 U	0.472 U	0.344 U	7.33	0.8	0.766	29.2	3.1	0.966	14.7
Max. >= Limit	No	No	No	No	No	No	No	No	No	Yes	No	Yes	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	- -	- -	- -	8.3% (LN)	- -	4.2% (LN)	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	- -	- -	- -	Lognormal	- -	Median (Sign)	- -	- -	- -
Sample Size	15	15	15	15	15	15	18	15	15	15	15	15	15	15	15
Nondetects	0	0	0	0	5	15	18	15	0	0	0	0	2	11	0
% Nondetects	0%	0%	0%	0%	33%	100%	100%	100%	0%	0%	0%	0%	13%	73%	0%
Est. Mean*	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.275	- -	5.7	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.383	- -	6.4	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	- -	- -	- -	pass	- -	Pass	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	- -	- -	- -	- -	- -	3	- -	7	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	- -	- -	- -	Pass	- -	Pass	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
* See Section 5.1 for discussion

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(cont.)

	Secondary COCs										
SAMPLE_ID	Manganese	Molybdenum	Nickel	Silver	Zinc	Carbon Tetrachloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Aroclor-1254	Aroclor-1260
A9P3-C03-1	672 J	1.44 -	21.7 J	0.0675 J	73.5 -	0.9 U	0.9 U	0.9 U	0.9 J	2.2 J	1.5 J
A9P3-C03-2	467 J	0.982 J	15.1 J	0.0533 J	47.9 -	1 U	1 U	1 U	2 -	6 -	3 J
A9P3-C03-3	239 J	0.834 J	6.1 J	0.0187 J	29.7 -	1 U	1 U	1 U	1 U	3.5 U	3.5 U
A9P3-C03-5	772 J	1.16 -	21.1 J	0.0752 J	77.4 -	1.1 U	1.1 U	1.1 U	1.1 U	4.3 U	4.3 U
A9P3-C03-6	307 J	0.497 J	8.9 J	0.0148 J	10.5 J	1 U	1 U	1 U	1 U	2 J	3.5 U
A9P3-C03-7	238 J	0.471 J	7 J	0.0187 J	13.8 J	1.1 U	1.1 U	1.1 U	1.1 U	3.5 U	3.5 U
A9P3-C03-9	182 -	0.444 J	7.3 J	0.0269 J	13.8 J	1 U	1 U	1 U	1 U	3.5 U	3.5 U
A9P3-C03-10	300 -	0.542 J	8.9 J	0.0323 J	17 J	1 U	1 U	1 U	1 U	3.6 U	3.6 U
A9P3-C03-11	180 -	0.36 J	7.1 J	0.0205 J	13 J	1 U	1 U	1 U	1 U	3.5 U	3.5 U
A9P3-C03-13	289 -	0.407 J	6.2 J	0.0114 J	9.9 J	1.1 U	1.1 U	1.1 U	1.1 U	3.4 U	3.4 U
A9P3-C03-14	170 -	0.367 J	5.2 J	0.0164 J	10.8 J	1.1 U	1.1 U	1.1 U	1.1 U	3.4 U	3.4 U
A9P3-C03-14-D	193 -	0.34 J	5.5 J	0.0157 J	10.6 J	1 U	1 U	1 U	1 U	3.4 U	3.4 U
A9P3-C03-15	271 J	0.639 J	8.6 J	0.0254 J	21.4 J	0.9 U	0.9 U	0.9 U	0.9 U	3.8 U	3.8 U
A9P3-C03-17	166 J	0.705 J	7.66 -	0.253 U	24.1 U	1 U	1 U	1 U	1 U	1 J	3.5 U
A9P3-C03-18	170 J	0.593 J	8.15 -	0.244 U	16.4 U	1 U	1 U	1 U	1 U	1.7 J	3.5 U
A9P3-C03-19	417 J	0.808 J	9.64 -	0.214 U	21.1 -	0.9 U	0.9 U	0.9 U	0.8 J	0.9 J	3.8 U
A9P3-E128-SM-1											
A9P3-C03-20W											
A9P3-C03-21W											
A9P3-C03-22E											
Limit	1400	13	34	1	82	91	1000	190	59	40	40
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	772	1.44	21.7	0.253 U	77.4	1.1 U	1.1 U	1.1 U	2	6	3
Max. >= Limit	No	No	No	No	No	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Sample Size	15	15	15	15	15	15	15	15	15	15	15
Nondetects	0	0	0	3	2	15	15	15	11	9	13
% Nondetects	0%	0%	0%	20%	13%	100%	100%	100%	73%	60%	87%
Est. Mean*	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)

The maximum value of the two duplicates was used in all statistical equations.

#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption. The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.

* See Section 5.1 for discussion

Certification Unit A9P3-C04

	Primary COCs					Secondary COCs									
SAMPLE_ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Technetium-99	Antimony	Arsenic	Beryllium	Cadmium	Copper	Fluoride	Hexavalent Chromium	Lead
A9P3-C04-1	1.33 -	0.633 -	0.634 -	0.633 -	2.08 U	0.0436 U	0.412 -	0.0761 U	7.55 J	0.596 -	0.484 U	15.9 J	1.83 J	0.635 J	14.3 J
A9P3-C04-3	0.547 -	0.275 -	0.278 -	0.275 -	1.52 U	0.0362 U	0.342 U	0.0713 U	6.11 J	0.385 -	0.264 U	10.3 J	0.985 J	0.586 U	9.21 J
A9P3-C04-4	1.05 -	0.54 -	0.538 -	0.54 -	4.67 J	0.0561 -	0.383 U	0.0541 U	6.51 J	0.552 -	0.371 U	17.7 J	1.64 J	0.596 U	11.9 J
A9P3-C04-5	1.23 -	0.66 -	0.675 -	0.66 -	4.17 J	0.0953 -	0.389 U	0.0541 U	7.45 J	0.674 -	0.516 U	16.1 J	1.67 J	0.575 U	20.5 J
A9P3-C04-6	0.955 -	0.584 -	0.607 -	0.584 -	2.78 J	0.049 U	0.362 U	0.0547 UJ	4.25 J	0.313 -	0.205 U	11.5 J	0.896 J	0.561 U	8.41 J
A9P3-C04-8	0.777 -	0.557 -	0.552 -	0.557 -	5.13 J	0.0698 -	0.751 -	0.0513 UJ	6.61 J	0.491 -	0.354 U	15.8 J	2.25 J	0.749 J	13.1 J
A9P3-C04-9	1.39 -	0.767 -	0.75 -	0.767 -	4.84 J	0.051 U	0.443 U	0.057 UJ	7.06 J	0.556 -	0.365 U	17.5 J	1.25 J	0.909 J	15.4 J
A9P3-C04-9-D	1.31 -	0.71 -	0.743 -	0.71 -	2.37 U	0.0479 U	0.361 U	0.0971 U	7.29 J	0.579 -	0.373 U	19.1 J	1.21 J	1.4 -	15 J
A9P3-C04-11	0.704 -	0.407 -	0.393 -	0.407 -	2.81 J	0.0474 U	0.334 U	0.0534 UJ	5.05 J	0.403 -	0.256 U	8 J	1.1 J	0.597 U	8.36 J
A9P3-C04-12	1.18 -	0.783 -	0.773 -	0.783 -	5.19 J	0.178 -	0.392 U	0.0664 U	7.6 J	0.666 -	0.567 J	20.4 J	1.32 J	0.574 U	25.7 J
A9P3-C04-13	0.632 -	0.198 -	0.199 -	0.198 -	4.26 J	0.165 -	0.319 U	0.0861 U	4.45 J	0.256 -	0.285 U	8.1 J	1.44 J	0.534 U	19.1 J
A9P3-C04-14	1.61 -	0.957 -	0.955 -	0.957 -	6.73 J	0.13 -	0.407 U	0.079 U	10.2 J	0.875 -	0.679 J	26.1 J	1.8 J	0.641 J	36.4 J
A9P3-C04-15	0.617 -	0.369 -	0.446 -	0.369 -	2.28 J	0.0309 U	0.316 U	0.0548 U	5.46 J	0.419 -	0.358 U	14 J	1.24 J	0.588 U	9.71 J
A9P3-C04-17	0.611 -	0.376 -	0.384 -	0.376 -	2.62 -	0.0543 -	0.395 -	0.054 UJ	3.19 J	0.188 -	0.21 -	9 J	0.822 J	0.544 U	4.78 J
Limit	1.5	1.4	1.5	1.4	50	0.82	1	0.61	9.6	0.62	0.91	20	850	11	400
Units	pCi/g	pCi/g	pCi/g	pCi/g	mg/kg	pCi/g	pCi/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Conf. Level	95%	95%	95%	95%	95%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	1.61	0.957	0.955	0.957	6.73	0.178	0.751	0.0861 U	10.2	0.875	0.679	26.1	2.25	1.4	36.4
Max. >= Limit	Yes	No	No	No	No	No	No	No	Yes	Yes	No	Yes	No	No	No
W-statistic Prob. #	34.3% (LN)	- -	- -	- -	- -	- -	- -	- -	79.3% (N)	96.4% (N)	- -	53.9% (LN)	- -	- -	- -
Test Procedure	Lognormal	- -	- -	- -	- -	- -	- -	- -	Normal	Normal	- -	Lognormal	- -	- -	- -
Sample Size	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Nondetects	0	0	0	0	2	5	10	13	0	0	10	0	0	9	0
% Nondetects	0%	0%	0%	0%	15%	38%	77%	100%	0%	0%	77%	0%	0%	69%	0%
Est. Mean*	0.977	- -	- -	- -	- -	- -	- -	- -	6.29	0.492	- -	14.9	- -	- -	- -
UCL	1.21	- -	- -	- -	- -	- -	- -	- -	6.98	0.564	- -	17.4	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	pass	- -	- -	- -	- -	- -	- -	- -	pass	pass	- -	pass	- -	- -	- -
a posteriori Sample	5	- -	- -	- -	- -	- -	- -	- -	3	11	- -	6	- -	- -	- -
Size calculation	Pass	- -	- -	- -	- -	- -	- -	- -	Pass	Pass	- -	Pass	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
* See Section 5.1 for discussion

Certification Unit A9P3-C04

(cont.)

	Secondary COCs										
SAMPLE_ID	Manganese	Molybdenum	Nickel	Silver	Zinc	Carbon Tetrachloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Aroclor-1254	Aroclor-1260
A9P3-C04-1	644 -	2.06 -	18.8 J	0.0523 J	67.7 J	0.9 U	0.9 U	0.9 U	0.9 U	11.2 U	11.2 U
A9P3-C04-3	289 -	1.96 -	12.2 J	0.0315 J	47 J	0.9 U	0.9 U	0.9 U	0.9 U	10.8 U	10.8 U
A9P3-C04-4	517 -	1.76 -	18.6 J	0.0535 J	57.1 J	0.9 U	0.9 U	0.9 U	0.9 U	10.8 U	10.8 U
A9P3-C04-5	608 -	1.73 -	16.5 J	0.0716 J	75.1 J	1 U	1 U	1 U	1 U	10.9 U	10.9 U
A9P3-C04-6	322 -	1.5 -	13.2 J	0.0271 J	30.9 J	0.9 U	0.9 U	0.9 U	0.9 U	10.9 U	10.9 U
A9P3-C04-8	485 -	1.81 -	17.1 J	0.0472 J	54.7 J	0.9 U	0.9 U	0.9 U	0.9 U	10.5 U	10.5 U
A9P3-C04-9	516 -	1.83 -	18.3 J	0.0506 J	59.4 J	0.9 U	0.9 U	0.9 U	0.9 U	11.4 U	11.4 U
A9P3-C04-9-D	582 -	2.25 -	20.8 J	0.0515 J	60.7 J	0.9 U	0.9 U	0.9 U	0.9 U	11.4 U	11.4 U
A9P3-C04-11	375 -	1.33 -	10.8 J	0.0372 J	39.1 J	0.9 U	0.9 U	0.9 U	0.9 U	10.9 U	10.9 U
A9P3-C04-12	669 -	1.79 -	21.9 J	0.0858 J	78.2 J	1.2 U	1.2 U	1.2 U	1.2 U	11.1 U	11.1 U
A9P3-C04-13	390 -	1.62 -	9.8 J	0.0312 J	32.2 J	1 U	1 U	1 U	1 U	10.3 U	10.3 U
A9P3-C04-14	778 -	2.56 -	27.7 J	0.103 J	101 J	1.1 U	1.1 U	1.1 U	1.1 U	12 U	12 U
A9P3-C04-15	764 -	1.52 -	16.7 J	0.0427 J	43.4 J	1 U	1 U	1 U	1 U	10.7 U	10.7 U
A9P3-C04-17	428 -	0.823 J	10.7 J	0.0289 J	32.3 J	0.9 U	0.9 U	0.9 U	0.9 U	4.1 -	3.6 U
Limit	1400	13	34	1	82	91	1000	190	59	40	40
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	778	2.56	27.7	0.103	101	1.2 U	1.2 U	1.2 U	1.2 U	4.1	12 U
Max. >= Limit	No	No	No	No	Yes	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	66.5% (LN)	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	Lognormal	- -	- -	- -	- -	- -	- -
Sample Size	13	13	13	13	14	13	13	13	13	13	13
Nondetects	0	0	0	0	0	13	13	13	13	12	13
% Nondetects	0%	0%	0%	0%	0%	100%	100%	100%	100%	92%	100%
Est. Mean*	- -	- -	- -	- -	55.9	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	64.7	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	pass	- -	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	4	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	Pass	- -	- -	- -	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
* See Section 5.1 for discussion

Certification Unit A9P3-C05

	Primary COCs					Secondary COCs									
SAMPLE_ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Technetium-99	Antimony	Arsenic	Beryllium	Cadmium	Copper	Fluoride	Hexavalent Chromium	Lead
A9P3-C05-2	1 -	0.592 J	0.608 J	0.592 J	4.89 J	0.0218 U	0.306 U	0.372 UJ	5.34 -	0.41 -	0.322 -	11.4 J	3 U	0.795 J	8.2 J
A9P3-C05-3	1.01 -	0.681 J	0.703 J	0.681 J	7.46 J	0.0224 U	0.304 U	0.376 UJ	5.02 -	0.42 -	0.325 -	11 J	3.02 U	0.568 U	8.08 J
A9P3-C05-4	0.784 -	0.562 J	0.564 J	0.562 J	3.94 J	0.034 -	0.335 U	0.399 UJ	5.8 -	0.401 -	0.387 -	11.7 J	3.24 U	0.609 U	12.7 J
A9P3-C05-5	0.746 -	0.485 J	0.499 J	0.485 J	5.55 J	0.0218 U	0.442 -	0.394 UJ	6.35 -	0.402 -	0.385 -	21.1 J	3.16 U	0.591 U	15.9 J
A9P3-C05-6	0.525 -	0.203 J	0.215 J	0.203 J	0.671 U	0.0113 U	0.281 U	0.355 UJ	3.31 -	0.128 -	0.169 J	6.47 J	2.86 U	0.535 U	3.89 J
A9P3-C05-9	1.14 -	0.947 J	0.988 J	0.947 J	2.76 U	0.0544 U	0.515 -	0.414 UJ	6.07 -	0.896 -	0.413 -	12.9 J	3.26 U	0.651 U	13.9 J
A9P3-C05-10	1.11 -	0.848 J	0.861 J	0.848 J	18.1 J	0.0576 U	0.366 U	0.434 UJ	5.32 -	0.431 -	0.427 -	12.1 J	3.51 U	0.674 U	10.8 J
A9P3-C05-10-D	1.04 -	0.716 J	0.719 J	0.716 J	13.2 J	0.0423 U	0.353 U	0.423 UJ	5.85 -	0.513 -	0.457 -	13.3 J	3.42 U	0.763 J	13.1 J
A9P3-C05-11	0.953 -	0.705 J	0.693 J	0.705 J	20.8 J	0.056 U	0.407 -	0.422 UJ	5.49 -	0.429 -	0.68 -	16.4 J	3.03 U	0.654 U	19.6 J
A9P3-C05-12	0.781 -	0.523 -	0.515 -	0.523 -	8.2 -	0.0595 -	0.797 -	0.955 U	7.16 J	0.433 -	1.31 -	17.2 J	2.96 J	0.602 U	21.3 J
A9P3-C05-13	0.846 -	0.268 -	0.276 -	0.268 -	3.17 -	0.0366 U	1.07 -	0.672 U	14.1 J	0.184 -	0.23 J	8.47 J	1.04 J	0.612 U	4.26 J
A9P3-C05-15	0.744 -	0.311 -	0.287 -	0.311 -	1.85 -	0.0484 -	3.69 -	0.549 U	3.35 J	0.116 -	0.188 -	3.74 J	1.07 J	0.551 U	5.13 J
A9P3-C05-16	1.03 -	0.868 J	0.868 J	0.868 J	12 J	0.0719 -	6.72 -	0.408 UJ	5.47 -	0.481 -	0.562 -	13.3 J	3.1 U	0.736 J	19.5 J
Limit	1.5	1.4	1.5	1.4	50	0.82	1	0.61	9.6	0.62	0.91	20	850	11	400
Units	pCi/g	pCi/g	pCi/g	pCi/g	mg/kg	pCi/g	pC/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Conf. Level	95%	95%	95%	95%	95%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	1.14	0.947	0.988	0.947	20.8	0.0719	6.72 *	0.955 U	14.1	0.896	1.31	21.1	2.96	0.763	21.3
Max. >= Limit	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	7.0% (LN)	< 0.01% (LN)	4.7% (LN)	4.4% (N)	70.4% (LN)	95.8% (N)	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	Median (Sign)	Proportions (Sign)	Median (Sign)	Wilcoxon	Lognormal	Normal	- -	- -	- -
Sample Size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Nondetects	0	0	0	0	2	8	5	12	0	0	0	0	9	10	0
% Nondetects	0%	0%	0%	0%	17%	67%	42%	100%	0%	0%	0%	0%	75%	83%	0%
Est. Mean*	- -	- -	- -	- -	- -	- -	0.4245	0.2055	5.65	0.415	0.452	12.2	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	0.797	- -	6.07	0.433	0.596	14.1	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	0.0007	- -	0.008	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	Pass	pass	Pass	pass	pass	pass	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	- -	- -	17	2	5	6	3	3	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	Fail *	Pass	Pass	Pass	Pass	Pass	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
* See Section 5.1 A9P3-C05 for discussion.

Certification Unit A9P3-C05

(cont.)

	Secondary COCs										
SAMPLE_ID	Manganese	Molybdenum	Nickel	Silver	Zinc	Carbon Tetrachloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Aroclor-1254	Aroclor-1260
A9P3-C05-2	506 -	0.953 J	13.7 J	0.0357 J	39.3 -	1.2 UNV	1.2 UNV	1.2 UNV	1.2 UNV	3.6 UNV	3.6 UNV
A9P3-C05-3	474 -	0.909 J	13.7 J	0.038 J	39.9 -	1.1 UNV	1.1 UNV	1.1 UNV	1.1 UNV	0.82 NV	3.7 UNV
A9P3-C05-4	525 -	1 -	13.9 J	0.0627 J	47.8 -	0.98 UNV	0.98 UNV	0.98 UNV	0.98 UNV	2.8 NV	1.6 NV
A9P3-C05-5	480 -	1.38 -	15.9 J	0.0856 J	49.5 -	0.91 UNV	0.91 UNV	0.91 UNV	0.91 UNV	13 NV	2.9 NV
A9P3-C05-6	241 -	1.03 -	7.95 J	0.0142 J	16.9 -	1 UNV	1 UNV	1 UNV	1 UNV	3.5 UNV	3.5 UNV
A9P3-C05-9	483 -	0.599 J	25.3 J	0.0483 J	58.4 -	0.91 UNV	0.91 UNV	0.91 UNV	0.91 UNV	7.9 NV	1.3 NV
A9P3-C05-10	449 -	1.02 -	14 J	0.0591 J	42.2 -	1.2 UNV	1.2 UNV	1.2 UNV	1.2 UNV	5.9 NV	4.2 UNV
A9P3-C05-10-D	522 -	0.967 J	16 J	0.0699 J	50.1 -	1.3 UNV	1.3 UNV	1.3 UNV	1.3 UNV	7.6 NV	1.7 NV
A9P3-C05-11	451 -	0.862 J	14.6 J	0.125 J	70.5 -	1 UNV	1 UNV	1 UNV	1 UNV	9.7 NV	4.2 NV
A9P3-C05-12	443 -	1.49 -	17.5 -	0.214 J	87.3 -	1.1 UNV	1.1 UNV	1.1 UNV	1.1 UNV	140 NV	19 NV
A9P3-C05-13	717 -	1.54 -	9.87 -	0.0294 J	18.6 -	1.2 UNV	1.2 UNV	1.2 UNV	1.2 UNV	2.4 NV	3.9 UNV
A9P3-C05-15	437 -	0.313 J	7.33 -	0.0216 J	11.8 -	0.97 UNV	0.97 UNV	0.97 UNV	0.97 UNV	10 NV	1.1 NV
A9P3-C05-16	490 -	0.702 J	17.4 J	0.0939 J	57.9 -	1 UNV	1 UNV	1 UNV	1 UNV	60 NV	8.9 NV
Limit	1400	13	34	1	82	91	1000	190	59	40	40
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	717	1.54	25.3	0.214	87.3	1.3 UNV	1.3 UNV	1.3 UNV	1.3 UNV	140	19
Max. >= Limit	No	No	No	No	Yes	No	No	No	No	Yes	No
W-statistic Prob. #	- -	- -	- -	- -	69.1% (N)	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	Normal	- -	- -	- -	- -	- -	- -
Sample Size	12	12	12	12	12	12	12	12	12	12	12
Nondetects	0	0	0	0	0	12	12	12	12	2	4
% Nondetects	0%	0%	0%	0%	0%	100%	100%	100%	100%	17%	33%
Est. Mean*	- -	- -	- -	- -	45.7	- -	- -	- -	- -	7.75	- -
UCL	- -	- -	- -	- -	54.5	- -	- -	- -	- -	10	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	pass	- -	- -	- -	- -	pass	- -
a posteriori Sample	- -	- -	- -	- -	3	- -	- -	- -	- -	9	- -
Size calculation	- -	- -	- -	- -	Pass	- -	- -	- -	- -	Pass	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
• See Section 5.1 A9P3-C05 for discussion.

Certification Unit A9P3-C05a Soil

SAMPLE_ID	Technetium-99
A9P3-C05-2	0.306 U
A9P3-C05-3	0.304 U
A9P3-C05-4	0.335 U
A9P3-C05-5	0.442 -
A9P3-C05-6	0.281 U
A9P3-C05-10	0.366 U
A9P3-C05-10-D	0.353 U
A9P3-C05-11	0.407 -
Limit	1
Units	pCi/g
Conf. Level	90%
Max. Result	0.442
Max. >= Limit	No
W-statistic Prob. #	1.8% (LN)
Test Procedure	Proportions (Sign)
Sample Size	7
Nondetects	5
% Nondetects	71%
Est. Mean*	0.168
UCL	- -
Prob. > Limit	1.17%
Pass / Fail	Pass
a posteriori Sample	2
Size calculation	Pass

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
* See Section 5.1 for discussion

Certification Unit A9P3-C05b Sediment

SAMPLE_ID	Technetium-99
A9P3-C05-9	0.515 -
A9P3-C05-12	0.797 -
A9P3-C05-13	1.07 -
A9P3-C05-15	3.69 -
A9P3-C05-16	6.72 -
Sediment Limit	200000
Units	pCi/g
Conf. Level	90%
Max. Result	6.72
Max. >= Limit	No
W-statistic Prob. #	47.6% (LN)
Test Procedure	Lognormal
Sample Size	5
Nondetects	0
% Nondetects	0%
Est. Mean*	- -
UCL	- -
Prob. > Limit	- -
Pass / Fail	- -
a posteriori Sample	1
Size calculation	Pass

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
* See Section 5.1 for discussion

Certification Unit A9P3-C06

	Primary COCs					Secondary COCs									
SAMPLE_ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Technetium-99	Antimony	Arsenic	Beryllium	Cadmium	Copper	Fluoride	Hexavalent Chromium	Lead
A9P3-C06-1	0.541 -	0.246 -	0.239 -	0.246 -	2 -	0.0273 U	0.236 U	0.0523 UJ	2.94 -	0.187 -	0.185 J	5.89 J	0.581 U	0.551 U	4.23 J
A9P3-C06-2	0.413 -	0.178 -	0.182 -	0.178 -	2.1 -	0.0312 U	0.222 U	0.0511 UJ	3.4 -	0.14 -	0.17 J	3.1 J	0.562 U	0.727 J	2.4 J
A9P3-C06-4	1 -	0.545 J	0.57 J	0.545 J	4.89 J	0.0359 U	0.438 -	0.371 UJ	5.6 -	0.334 -	0.325 -	14.3 J	1.52 J	0.59 U	9.56 J
A9P3-C06-6	0.957 -	0.509 J	0.509 J	0.509 J	3.03 J	0.0511 U	0.296 U	0.376 UJ	6.22 -	0.389 -	0.358 -	11 J	0.724 J	0.784 J	10.5 J
A9P3-C06-7	0.706 -	0.519 J	0.514 J	0.519 J	3.04 J	0.0408 U	0.274 U	0.386 UJ	4.27 -	0.36 -	0.282 -	10.1 J	0.686 J	0.562 U	8.94 J
A9P3-C06-8	0.794 -	0.541 J	0.525 J	0.541 J	2.21 U	0.0462 U	0.267 U	0.377 UJ	4.38 -	0.363 -	0.309 -	9.31 J	0.922 J	0.574 U	8.11 J
A9P3-C06-9	0.693 -	0.469 J	0.47 J	0.469 J	3.08 J	0.0532 U	0.276 U	0.372 UJ	2.89 -	0.307 -	0.261 -	8.29 J	0.911 J	1.02 J	6.45 J
A9P3-C06-11	0.99 -	0.467 J	0.465 J	0.467 J	5.13 J	0.0577 U	0.311 -	0.369 UJ	4.71 -	0.378 -	0.369 -	12.1 J	0.934 J	0.892 J	10.1 J
A9P3-C06-12	0.906 -	0.56 J	0.567 J	0.56 J	5.36 J	0.0522 U	0.282 U	0.377 UJ	4.42 -	0.402 -	0.368 -	10.6 J	1.39 J	0.596 U	10 J
A9P3-C06-12-D	1.04 -	0.686 J	0.715 J	0.686 J	2.99 U	0.0552 U	0.282 U	0.373 UJ	4.47 -	0.4 -	0.394 -	10.6 J	1.13 J	0.578 U	12.9 J
A9P3-C06-13	0.648 -	0.249 -	0.275 -	0.249 -	2.23 -	0.036 U	0.311 U	0.107 U	3.51 J	0.243 -	0.248 -	7.1 J	0.592 UJ	0.568 U	7.1 J
A9P3-C06-14	0.495 -	0.303 -	0.302 -	0.303 -	2.58 -	0.0347 U	0.315 U	0.0767 U	3.87 J	0.196 -	0.313 -	7.71 J	0.65 UJ	0.639 U	6.59 J
A9P3-C06-16	0.482 -	0.311 -	0.309 -	0.311 -	1.16 -	0.0377 U	0.309 U	0.0619 U	3.77 J	0.174 -	0.18 J	5.21 J	0.566 UJ	0.85 J	4.32 J
A9P3-C06-17	1.55 -	0.313 -	0.315 -	0.313 -	1.3 -	0.0337 U	0.311 U	0.125 U	3.16 J	0.178 -	0.455 -	7.88 J	0.738 UJ	0.72 U	9.65 J
A9P3-C06-18	0.426 -	0.229 -	0.231 -	0.229 -	1.29 U	0.0273 U	0.317 U	0.0627 U	3 J	0.143 -	0.186 J	3.75 J	0.616 UJ	0.609 U	3.62 J
Limit	1.5	1.4	1.5	1.4	50	0.82	1	0.61	9.6	0.62	0.91	20	850	11	400
Units	pCi/g	pCi/g	pCi/g	pCi/g	mg/kg	pCi/g	pCi/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Conf. Level	95%	95%	95%	95%	95%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	1.55	0.686	0.715	0.686	5.36	0.0577 U	0.438	0.396	6.22	0.402	0.455	14.3	1.52	1.02	12.9
Max. >= Limit	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No
W-statistic Prob. #	58.0% (LN)	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Test Procedure	Lognormal	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Sample Size	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Nondetects	0	0	0	0	2	14	12	14	0	0	0	0	7	9	0
% Nondetects	0%	0%	0%	0%	14%	100%	86%	100%	0%	0%	0%	0%	50%	64%	0%
Est. Mean*	0.770	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
UCL	0.95	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	pass	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
a posteriori Sample	4	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Size calculation	Pass	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
* See Section 5.1 for discussion

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Certification Unit A9P3-C06

(cont.)

	Secondary COCs										
SAMPLE_ID	Manganese	Molybdenum	Nickel	Silver	Zinc	Carbon Tetrachloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Aroclor-1254	Aroclor-1260
A9P3-C06-1	298 -	0.668 -	7.54 J	0.0237 J	20.1 J	1 U	1 U	1 U	1 U	3.5 U	3.5 U
A9P3-C06-2	642 -	0.51 -	6.7 J	0.014 J	13.1 J	1 U	1 U	1 U	1 U	1.4 J	3.4 U
A9P3-C06-4	455 -	0.908 J	12.3 -	0.0703 J	34 J	1 U	1 U	1 U	1 U	7.7 -	2 J
A9P3-C06-6	444 -	1.02 -	13.4 -	0.0434 J	39.4 J	1 U	1 U	1 U	1 U	1.1 J	3.8 U
A9P3-C06-7	380 -	0.906 J	11.7 -	0.0395 J	34.8 J	1 U	1 U	1 U	1 U	3.7 U	3.7 U
A9P3-C06-8	314 -	0.797 J	11.7 -	0.0436 J	33.9 J	1 U	1 U	1 U	1 U	11 -	3.6 J
A9P3-C06-9	196 -	0.584 J	9.64 -	0.034 J	28.6 J	1.1 U	1.1 U	1.1 U	1.1 U	7 -	2.1 J
A9P3-C06-11	321 -	0.953 J	12.6 -	0.0664 J	37.6 J	1 U	1 U	1 U	1 U	37 -	7.5 -
A9P3-C06-12	410 -	1.22 -	13.1 -	0.0494 J	39.2 J	1.1 U	1.1 U	1.1 U	1.1 U	18 -	3.8 -
A9P3-C06-12-D	393 -	1.1 -	12.6 -	0.0537 J	39.6 J	1 U	1 U	1 U	1 U	26 -	6 -
A9P3-C06-13	272 J	0.819 -	10.6 -	0.0488 -	33.9 J	1 U	1 U	1 U	1 U	34 -	18 -
A9P3-C06-14	454 J	0.814 J	11.5 -	0.0413 -	38 J	0.9 U	0.9 U	0.9 U	0.9 U	17 -	3.4 J
A9P3-C06-16	300 J	0.713 J	8.94 -	0.0229 J	24.8 J	0.9 U	0.9 U	0.9 U	0.9 U	10 J	1.7 J
A9P3-C06-17	286 J	1.13 -	11.4 -	0.0663 J	61.6 J	1.2 U	1.2 U	1.2 U	2.2 J	37 -	6.2 J
A9P3-C06-18	411 J	0.621 J	7.83 -	0.0177 J	18.3 J	1 U	1 U	1 U	1 U	5.9 -	3.7 U
Limit	1400	13	34	1	82	91	1000	190	59	40	40
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	642	1.22	13.4	0.070	61.6	1.2 U	1.2 U	1.2 U	2.2	37	18
Max. >= Limit	No	No	No	No	No	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Sample Size	14	14	14	14	14	14	14	14	14	14	14
Nondetects	0	0	0	0	0	14	14	14	13	2	5
% Nondetects	0%	0%	0%	0%	0%	100%	100%	100%	93%	14%	36%
Est. Mean*	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
* See Section 5.1 for discussion

Certification Unit A9P3-C07

	Primary COCs					Secondary COCs									
SAMPLE_ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Technetium-99	Antimony	Arsenic	Beryllium	Cadmium	Copper	Fluoride	Hexavalent Chromium	Lead
A9P3-C07-1	1.13 J	0.7 -	0.702 -	0.7 -	4.06 -	0.0357 U	0.294 U	0.443 UJ	10 J	0.64 -	0.58 -	15.6 J	0.707 U	0.693 U	11.5 J
A9P3-C07-3	1.04 J	0.659 -	0.662 -	0.659 -	3.12 -	0.0245 U	0.328 U	0.409 UJ	6.5 -	0.63 -	0.57 -	16.6 J	0.672 U	0.641 U	16.9 J
A9P3-C07-4	1.2 J	0.722 -	0.719 -	0.722 -	3.2 -	0.0286 U	0.29 U	0.42 UJ	6.7 -	0.71 -	0.57 -	16.6 J	0.675 U	0.683 U	12.9 J
A9P3-C07-5	1.14 J	0.659 -	0.657 -	0.659 -	2.54 -	0.0237 U	0.306 U	0.427 UJ	5.6 -	0.66 -	0.58 -	14 J	0.695 U	0.675 U	9.9 J
A9P3-C07-5-D	1.13 J	0.661 -	0.726 -	0.661 -	2.63 -	0.0246 U	0.325 U	0.42 UJ	6.4 -	0.64 -	0.59 -	14.8 J	0.69 U	0.675 U	11.4 J
A9P3-C07-7	0.919 -	0.486 J	0.495 J	0.486 J	3.48 -	0.0391 U	0.274 U	0.416 UJ	4.06 -	0.35 -	0.377 -	7.99 -	0.662 U	0.623 U	6.2 J
A9P3-C07-8	0.692 -	0.439 J	0.452 J	0.439 J	1.36 -	0.0336 U	0.276 U	0.427 UJ	5.1 -	0.48 -	0.472 -	12.2 -	0.687 U	0.64 U	9.95 J
A9P3-C07-10	0.58 J	0.314 J	0.326 -	0.314 J	2.47 J	0.0289 U	0.413 -	0.392 UJ	3.4 -	0.24 -	0.27 -	5.9 J	1.09 J	0.602 U	4.5 J
A9P3-C07-11	0.723 -	0.436 -	0.423 -	0.436 -	3.22 -	0.0397 U	0.3 U	0.393 UJ	4.05 -	0.339 -	0.383 -	9.9 J	0.59 U	0.599 U	8.98 J
A9P3-C07-12	0.717 -	0.406 -	0.418 -	0.406 -	2.56 -	0.0364 U	0.253 U	0.0522 UJ	4.25 J	0.166 -	0.182 J	4.75 -	0.577 U	0.572 U	4.45 J
A9P3-C07-14	0.367 -	0.255 -	0.253 -	0.255 -	1.09 J	0.012 U	0.305 U	0.0517 UJ	1.68 -	0.0959 -	0.135 J	2.59 -	0.575 U	0.54 U	1.88 J
A9P3-C07-15	0.576 -	0.349 -	0.348 -	0.349 -	1.29 J	0.0135 U	0.298 U	0.0543 UJ	2.98 -	0.204 -	0.273 -	6.24 -	0.61 U	0.556 U	3.62 J
A9P3-C07-16	0.946 -	0.552 -	0.557 -	0.552 -	3.26 -	0.0191 U	0.309 U	0.0602 UJ	4.72 -	0.393 -	0.388 -	10.4 -	0.666 U	0.631 U	6.96 J
Limit	1.5	1.4	1.5	1.4	50	0.82	1	0.61	9.6	0.62	0.91	20	850	11	400
Units	pCi/g	pCi/g	pCi/g	pCi/g	mg/kg	pCi/g	pCi/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Conf. Level	95%	95%	95%	95%	95%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	1.14	0.722	0.726	0.722	4.06	0.0397 U	0.413	0.443 UJ	10.00	0.71	0.59	16.6	1.09	0.693 U	16.9
Max. >= Limit	No	No	No	No	No	No	No	No	Yes	Yes	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	- -	- -	79.4% (LN)	39.5% (N)	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	- -	- -	Lognormal	Normal	- -	- -	- -	- -	- -
Sample Size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Nondetects	0	0	0	0	0	12	11	12	0	0	0	0	11	12	0
% Nondetects	0%	0%	0%	0%	0%	100%	92%	100%	0%	0%	0%	0%	92%	100%	0%
Est. Mean*	- -	- -	- -	- -	- -	- -	- -	- -	5.06	0.409	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	- -	- -	6.26	0.493	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	- -	- -	pass	pass	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	- -	- -	- -	- -	3	6	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	- -	- -	Pass	Pass	- -	- -	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
* See Section 5.1 for discussion

Certification Unit A9P3-C07

(cont.)

	Secondary COCs										
SAMPLE_ID	Manganese	Molybdenum	Nickel	Silver	Zinc	Carbon Tetrachloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Aroclor-1254	Aroclor-1260
A9P3-C07-1	453 -	0.87 J	18.3 J	0.075 J	61.6 -	1.1 U	1.1 U	1.1 U	1.1 U	4.3 U	4.3 U
A9P3-C07-3	625 -	1.2 -	16.8 J	0.087 J	62 -	1 U	1 U	1 U	1 U	4.1 U	4.1 U
A9P3-C07-4	658 -	1.1 -	19.8 J	0.077 J	63.5 -	1.1 U	1.1 U	1.1 U	1.1 U	4.3 U	4.3 U
A9P3-C07-5	562 -	0.98 J	17 J	0.062 J	54.3 -	1.1 U	1.1 U	1.1 U	1.1 U	4.2 U	4.2 U
A9P3-C07-5-D	623 -	1.1 -	16.8 J	0.066 J	54.7 -	1.1 U	1.1 U	1.1 U	1.1 U	4.2 U	4.2 U
A9P3-C07-7	412 -	0.792 J	11.5 J	0.0373 J	28.4 J	1 U	1 U	1 U	1 U	4 U	4 U
A9P3-C07-8	492 -	0.961 J	14.5 J	0.0576 J	43.2 J	1.1 U	1.1 U	1.1 U	1.1 U	4.1 U	4.1 U
A9P3-C07-10	275 J	1 -	8.2 J	0.028 J	21.2 J	1.2 U	0.7 J	1.2 U	1.2 U	3.9 U	3.9 U
A9P3-C07-11	392 -	0.86 J	11 J	0.0547 J	36 J	1 U	1 U	1 U	1 U	4 U	4 U
A9P3-C07-12	306 J	1.11 -	10.1 J	0.0282 J	12.9 J	0.9 U	0.9 U	0.9 U	0.9 U	3.5 U	3.5 U
A9P3-C07-14	189 -	0.447 -	5.5 J	0.0159 J	10.3 J	1 U	1 U	1 U	1 U	3.5 U	3.5 U
A9P3-C07-15	313 -	0.55 J	8.25 J	0.0261 J	19.1 J	0.9 U	0.9 U	0.9 U	1 -	3.7 U	3.7 U
A9P3-C07-16	487 -	0.86 J	14.9 J	0.0485 J	37.7 J	0.9 U	0.9 U	0.9 U	0.9 U	4 U	4 U
Limit	1400	13	34	1	82	91	1000	190	59	40	40
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	658	1.2	19.8	0.087	63.5	1.2 U	0.7	1.2 U	1	4.3 U	4.3 U
Max. >= Limit	No	No	No	No	No	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Sample Size	12	12	12	12	12	12	12	12	12	12	12
Nondetects	0	0	0	0	0	12	11	12	11	12	12
% Nondetects	0%	0%	0%	0%	0%	100%	92%	100%	92%	100%	100%
Est. Mean*	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
* See Section 5.1 for discussion

Certification Unit A9P3-C08

	Primary COCs					Secondary COCs									
SAMPLE_ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Technetium-99	Antimony	Arsenic	Beryllium	Cadmium	Copper	Fluoride	Hexavalent Chromium	Lead
A9P3-C08-2	0.414 -	0.268 -	0.265 -	0.268 -	1.8 J	0.0139 U	0.267 U	0.0523 UJ	3.49 -	0.352 -	0.284 -	8.85 -	0.591 U	0.56 U	6.82 J
A9P3-C08-3	0.62 J	0.341 -	0.339 -	0.341 -	3.67 -	0.0275 U	0.318 U	0.0522 UJ	2.32 J	0.106 -	0.119 J	2.67 -	0.577 U	0.533 U	2.31 J
A9P3-C08-5	0.418 -	0.223 -	0.249 -	0.223 -	1.31 U	0.0257 U	0.285 U	0.0524 UJ	8.35 -	0.18 -	0.34 -	6.88 -	0.58 U	0.572 U	3.42 J
A9P3-C08-6	0.749 -	0.509 -	0.529 -	0.509 -	3.61 -	0.0471 U	0.296 U	0.0596 UJ	3.62 -	0.351 -	0.392 -	9.67 -	0.653 U	0.634 U	6.81 J
A9P3-C08-7	1 -	0.591 -	0.6 -	0.591 -	2.81 -	0.0501 U	0.327 U	0.0639 UJ	5.5 -	0.493 -	0.45 -	10.8 J	0.692 U	0.666 U	9.24 J
A9P3-C08-8	0.734 -	0.568 -	0.559 -	0.568 -	2.98 -	0.0476 U	0.334 U	0.064 UJ	2.98 -	0.41 -	0.411 -	11.9 J	0.702 U	0.684 U	7.23 J
A9P3-C08-9	0.265 -	0.211 -	0.196 -	0.211 -	2.67 U	0.0544 U	0.253 U	0.0508 UJ	2.47 -	0.131 -	0.147 J	4.0 J	0.557 U	0.547 U	2.47 J
A9P3-C08-11	0.72 -	0.547 -	0.568 -	0.547 -	2.81 -	0.0155 U	0.243 U	0.433 UJ	4.27 -	0.462 -	0.338 -	10.6 -	0.701 U	0.839 J	7.34 J
A9P3-C08-12	0.931 J	0.505 -	0.529 -	0.505 -	2.2 -	0.0324 U	0.502 UJ	0.407 UJ	3.83 -	0.433 -	0.306 -	10.4 -	0.64 U	0.625 U	7.01 J
A9P3-C08-13	0.695 J	0.535 -	0.544 -	0.535 -	2.13 -	0.0269 U	0.41 U	0.411 UJ	4.7 -	0.404 -	0.301 -	10.9 -	0.601 U	0.651 U	8.68 J
A9P3-C08-13-D	0.902 J	0.526 -	0.538 -	0.526 -	2.77 -	0.0326 U	0.47 U	0.409 UJ	4.81 -	0.394 -	0.336 -	10.9 -	0.638 U	0.627 U	9.79 J
A9P3-C08-14	0.898 -	0.552 -	0.562 -	0.552 -	4.29 J	0.0355 U	0.302 U	0.0639 UJ	4.59 -	0.381 -	0.349 -	10.3 J	0.691 U	0.678 U	7.61 J
A9P3-C08-16	0.417 -	0.198 -	0.2 -	0.198 -	1.7 J	0.029 U	0.293 U	0.0509 UJ	4.91 -	0.111 -	0.135 J	3.61 J	0.464 U	0.567 U	2.96 J
Limit	1.5	1.4	1.5	1.4	50	0.82	1	0.61	9.6	0.62	0.91	20	850	11	400
Units	pCi/g	pCi/g	pCi/g	pCi/g	mg/kg	pCi/g	pCi/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Conf. Level	95%	95%	95%	95%	95%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	1	0.591	0.6	0.591	4.29	0.0544 U	0.502 UJ	0.433 UJ	8.35	0.493	0.45	11.9	0.702 U	0.839	9.79
Max. >= Limit	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Sample Size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Nondetects	0	0	0	0	2	12	12	12	0	0	0	0	12	11	0
% Nondetects	0%	0%	0%	0%	17%	100%	100%	100%	0%	0%	0%	0%	100%	92%	0%
Est. Mean*	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
The test is performed on the raw data (untransformed) data (N) and the log-transformed data (LN) to test for lognormality.
* See Section 5.1 for discussion

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(cont.)

	Secondary COCs										
SAMPLE_ID	Manganese	Molybdenum	Nickel	Silver	Zinc	Carbon Tetrachloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Aroclor-1254	Aroclor-1260
A9P3-C08-2	399 J	0.757 J	10.1 J	0.0335 J	31.6 J	1.1 U	1.1 U	1.1 U	1.1 U	3.6 U	3.6 U
A9P3-C08-3	183 -	0.413 J	7.12 -	0.0217 J	14.3 J	1.1 U	1.1 U	1.1 U	0.7 J	3.5 U	3.5 U
A9P3-C08-5	957 -	1.37 -	13.8 -	0.0298 J	23.8 -	1 U	1 U	1 U	1 U	3.5 U	3.5 U
A9P3-C08-6	327 -	0.794 J	12.6 -	0.0417 J	31.9 -	1 U	1 U	1 U	1 U	4 U	4 U
A9P3-C08-7	505 J	1.23 -	12.6 -	0.0513 J	36.7 -	1.1 U	1.1 U	1.1 U	1.8 -	2.6 J	4.2 U
A9P3-C08-8	185 J	0.519 J	11.3 -	0.0453 J	33.4 -	1.1 U	4.4 -	1.1 U	1.1 U	4.3 U	4.3 U
A9P3-C08-9	229 J	0.41 J	5.8 -	0.023 J	11.3 -	1 U	1 U	1 U	1 U	1.2 J	3.4 U
A9P3-C08-11	381 J	0.789 J	13.4 -	0.0381 J	36.5 -	1.2 U	1.2 U	1.2 U	1.2 U	3.3 U	3.3 U
A9P3-C08-12	358 -	0.649 J	11.8 -	0.241 J	35.9 -	1.1 U	1.1 U	1.1 U	1 J	4 UJ	4 UJ
A9P3-C08-13	402 -	0.98 J	12. -	0.037 J	37.8 -	1 U	1 U	1 U	1.1 -	4.1 UJ	4.1 UJ
A9P3-C08-13-D	426 -	0.952 J	11.9 -	0.0418 J	37.8 -	1 U	1 U	1 U	1 U	4.1 UJ	4.1 UJ
A9P3-C08-14	244 J	0.459 J	12.2 J	0.0373 J	35.9 J	1.1 U	1.1 U	1.1 U	1.2 -	4.3 U	4.3 U
A9P3-C08-16	257 J	0.432 J	6.33 J	0.0163 J	14.2 J	1 U	1 U	1 U	1 U	3.4 U	3.4 U
Limit	1400	13	34	1	82	91	1000	190	59	40	40
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	957	1.37	13.8	0.241	37.8	1.2 U	4.4	1.2 U	1.8	2.6	4.3 U
Max. >= Limit	No	No	No	No	No	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Sample Size	12	12	12	12	12	12	12	12	12	12	12
Nondetects	0	0	0	0	0	12	11	12	7	10	12
% Nondetects	0%	0%	0%	0%	0%	100%	92%	100%	58%	83%	100%
Est. Mean*	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
The maximum value of the two duplicates was used in all statistical equations.
#: This is the highest reported probability of the Shapiro-Wilk W-statistic for tests for the validity of the normality assumption.
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* See Section 5.1 for discussion

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	Primary COCs					Secondary COCs									
SAMPLE_ID	Radium-226	Radium-228	Thorium-228	Thorium-232	Uranium, Total	Cesium-137	Technetium-99	Antimony	Arsenic	Beryllium	Cadmium	Copper	Fluoride	Hexavalent Chromium	Lead
A9P3-C09-1	1.03 -	0.709 J	0.725 J	0.709 J	2.74 U	0.0572 U	0.282 U	0.402 U	6.29 -	0.536 J	0.056 U	16.1 -	0.61 U	0.63 U	12.4 -
A9P3-C09-3	0.83 -	0.543 J	0.544 J	0.543 J	4.78 -	0.0465 U	0.267 U	0.384 U	5.4 -	0.363 J	0.0535 U	11 -	0.633 U	0.592 U	9.94 -
A9P3-C09-4	1.49 -	0.664 J	0.663 J	0.664 J	2.42 U	0.0537 U	0.355 U	0.402 U	4.46 -	0.369 J	0.056 U	12.8 -	0.606 U	0.625 U	9.88 -
A9P3-C09-5	1.06 -	0.7 J	0.698 J	0.7 J	7.16 -	0.0457 U	0.33 -	0.398 U	5.99 -	0.483 J	0.0554 U	13.9 -	0.629 U	0.609 U	10.8 -
A9P3-C09-5-D	1.1 -	0.67 J	0.669 J	0.67 J	4.64 -	0.0601 U	0.281 U	0.395 U	6.5 -	0.474 J	0.055 U	14 -	0.627 U	0.714 J	10.1 -
A9P3-C09-7	0.68 -	0.479 J	0.482 J	0.479 J	3.44 -	0.0179 U	0.276 U	0.384 U	3.96 -	0.222 J	0.0535 U	7.37 -	0.631 U	0.612 U	6.73 -
A9P3-C09-8	0.922 -	0.767 J	0.763 J	0.767 J	4.74 -	0.0501 U	1.27 -	0.407 U	6.36 -	0.538 J	0.0567 U	15.7 -	0.622 U	0.64 U	10.8 -
A9P3-C09-9	1.15 -	0.806 J	0.787 J	0.806 J	5.57 -	0.257 -	1.74 -	0.417 U	6.09 -	0.562 J	0.0581 U	17.1 -	1.19 J	0.748 J	15.7 -
A9P3-C09-12	0.925 -	0.78 J	0.781 J	0.78 J	1.73 U	0.0471 U	0.296 U	0.412 U	6.62 -	0.53 J	0.0574 U	15.6 -	0.614 U	0.629 U	11.8 -
A9P3-C09-13	1.23 -	0.656 J	0.649 J	0.656 J	5.07 -	0.0959 -	1.27 -	0.408 U	6.56 -	0.582 J	0.0568 U	17.8 -	0.53 U	0.642 U	12.2 -
A9P3-C09-14	1.03 -	0.694 J	0.712 J	0.694 J	3.14 -	0.0209 U	0.676 -	0.411 U	6.36 -	0.527 J	0.0573 U	13.8 -	0.627 U	0.64 U	8.31 -
A9P3-C09-15	1.25 -	0.703 J	0.711 J	0.703 J	3.91 -	0.0276 U	0.516 -	0.411 U	6.52 -	0.557 J	0.0572 U	14.5 -	0.633 U	0.624 U	8.48 -
A9P3-C09-16	1.2 -	0.715 J	0.714 J	0.715 J	3.64 -	0.025 U	0.283 U	0.406 U	6.45 -	0.571 J	0.0566 U	14.7 -	0.631 U	0.655 U	9.14 -
Limit	1.5	1.4	1.5	1.4	50	0.82	1	0.61	9.6	0.62	0.91	20	850	11	400
Units	pCi/g	pCi/g	pCi/g	pCi/g	mg/kg	pCi/g	pCi/g	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Conf. Level	95%	95%	95%	95%	95%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	1.49	0.806	0.787	0.806	7.16	0.257	1.74	0.417 U	6.62	0.582	0.0581 U	17.8	1.19	0.748	15.7
Max. >= Limit	No	No	No	No	No	No	Yes	No	No	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	2.3% (LN)	- -	- -	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	Wilcoxon	- -	- -	- -	- -	- -	- -	- -	- -
Sample Size	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Nondetects	0	0	0	0	3	10	6	12	0	0	12	0	11	10	0
% Nondetects	0%	0%	0%	0%	25%	83%	50%	100%	0%	0%	100%	0%	92%	83%	0%
Est. Mean*	- -	- -	- -	- -	- -	- -	0.254	- -	- -	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	0.676	- -	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	0.0081	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	pass	- -	- -	- -	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	- -	- -	10	- -	- -	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	Pass	- -	- -	- -	- -	- -	- -	- -	- -

Note: Est. Mean = Estimated measure of central tendency (Normal: Mean; LogNormal: Est. Mean; Non-Parametric: Median)
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* See Section 5.1 for discussion

Certification Unit A9P3-C09

(cont.)

	Secondary COCs										
SAMPLE_ID	Manganese	Molybdenum	Nickel	Silver	Zinc	Carbon Tetrachloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1-Dichloroethene	Aroclor-1254	Aroclor-1260
A9P3-C09-1	585 -	0.755 J	15.4 -	0.106 U	52.1 J	1 U	1 U	1 U	1 U	1.7 J	3.9 U
A9P3-C09-3	424 -	0.797 J	10.6 -	0.101 U	34.7 J	0.9 U	0.9 U	0.9 U	0.9 U	3.8 U	3.8 U
A9P3-C09-4	582 -	0.58 J	11.4 -	0.106 U	36.6 J	0.9 U	0.9 U	0.9 U	0.9 U	3.9 U	3.9 U
A9P3-C09-5	513 -	0.629 J	14.1 -	0.105 U	45.4 J	0.9 U	0.9 U	0.9 U	0.9 U	3.9 U	3.9 U
A9P3-C09-5-D	552 -	0.643 J	15.2 -	0.104 U	48.2 J	0.9 U	0.9 U	0.9 U	0.9 U	3.9 U	3.9 U
A9P3-C09-7	378 -	0.514 J	8.64 -	0.101 U	24.9 J	1 U	1 U	1 U	1 U	3.8 U	3.8 U
A9P3-C09-8	563 -	1.04 J	15.6 -	0.107 U	50.5 J	0.9 U	0.3 J	0.9 U	0.9 U	4 U	4 U
A9P3-C09-9	522 -	0.775 J	15.2 -	0.11 U	56 J	0.9 U	0.9 U	0.9 U	0.9 U	7.5 -	2.7 J
A9P3-C09-12	552 -	0.75 J	15 -	0.108 U	51.2 J	1 U	1 U	1 U	1 U	1.4 J	4 U
A9P3-C09-13	625 -	1.01 J	16.4 -	0.107 U	56.6 J	1.1 U	1.1 U	1.1 U	1.1 U	3.9 J	1.2 J
A9P3-C09-14	568 -	0.726 J	16.1 -	0.108 U	47.2 J	1 U	1 U	1 U	1 U	4 U	4 U
A9P3-C09-15	594 -	0.481 J	16.6 -	0.108 U	48.3 J	1 U	1 U	1 U	1 U	0.9 J	4 U
A9P3-C09-16	611 -	0.501 J	17.2 -	0.107 U	49 J	1.2 U	1.2 U	1.2 U	1.2 U	4 U	4 U
Limit	1400	13	34	1	82	91	1000	190	59	40	40
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Conf. Level	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Max. Result	625	1.04	17.2	0.11 U	56.6	1.2 U	0.3	1.2 U	1.2 U	7.5	2.7
Max. >= Limit	No	No	No	No	No	No	No	No	No	No	No
W-statistic Prob. #	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Test Procedure	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Sample Size	12	12	12	12	12	12	12	12	12	12	12
Nondetects	0	0	0	12	0	12	11	12	12	7	10
% Nondetects	0%	0%	0%	100%	0%	100%	92%	100%	100%	58%	83%
Est. Mean*	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
UCL	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Prob. > Limit	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Pass / Fail	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
a posteriori Sample	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
Size calculation	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

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