Analytical Data Package Prepared For

CH2M Hill Plateau Remediation

Radiochemical Analysis By

TestAmerica TARL

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Data Package Contains _____ Pages

Report Nbr: 45260

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06038	X11-004	B27T66	J0I280425-1	L7K1P1AA	9L7K1P10	0274333
		B27T66	J0I280425-1	L7K1P1AC	9L7K1P10	0274334
		B27T66	J0I280425-1	L7K1P1AD	9L7K1P10	0274336
		B27T66	J0I280425-1	L7K1P1AE	9L7K1P10	0274338
		B27T37	J0I280425-10	L7K4Q1AA	9L7K4Q10	0274333
		B27T37	J0I280425-10	L7K4Q1AC	9L7K4Q10	0274334
		B27T37	J0I280425-10	L7K4Q1AD	9L7K4Q10	0274336
		B27T37	J0I280425-10	L7K4Q1AE	9L7K4Q10	0274338
	X11-004	B27T12	J0I280425-11	L7K4R1AA	9L7K4R10	0274333
		B27T12	J0I280425-11	L7K4R1AC	9L7K4R10	0274334
		B27T12	J0I280425-11	L7K4R1AD	9L7K4R10	0274336
		B27T12	J0I280425-11	L7K4R1AE	9L7K4R10	0274338
		B27T86	J0I280425-2	L7K2T1AA	9L7K2T10	0274333
		B27T86	J0I280425-2	L7K2T1AC	9L7K2T10	0274334
		B27T86	J0I280425-2	L7K2T1AD	9L7K2T10	0274336

Comments:

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SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06038	X11-004	B27T86	J0I280425-2	L7K2T1AE	9L7K2T10	0274338
		B27T81	J0I280425-3	L7K241AA	9L7K2410	0274333
		B27T81	J0I280425-3	L7K241AC	9L7K2410	0274334
		B27T81	J0I280425-3	L7K241AD	9L7K2410	0274336
		B27T81	J0I280425-3	L7K241AE	9L7K2410	0274338
		B27T27	J0I280425-4	L7K3L1AA	9L7K3L10	0274333
		B27T27	J0I280425-4	L7K3L1AC	9L7K3L10	0274334
		B27T27	J0I280425-4	L7K3L1AD	9L7K3L10	0274336
		B27T27	J0I280425-4	L7K3L1AE	9L7K3L10	0274338
		B27T46	J0I280425-5	L7K3Q1AA	9L7K3Q10	0274333
		B27T46	J0I280425-5	L7K3Q1AC	9L7K3Q10	0274334
		B27T46	J0I280425-5	L7K3Q1AD	9L7K3Q10	0274336
		B27T46	J0I280425-5	L7K3Q1AE	9L7K3Q10	0274338
		B27T47	J0I280425-6	L7K3V1AA	9L7K3V10	0274333
		B27T47	J0I280425-6	L7K3V1AC	9L7K3V10	0274334
		B27T47	J0I280425-6	L7K3V1AD	9L7K3V10	0274336
		B27T47	J0I280425-6	L7K3V1AE	9L7K3V10	0274338
		B27T61	J0I280425-7	L7K351AA	9L7K3510	0274333
		B27T61	J0I280425-7	L7K351AC	9L7K3510	0274334
		B27T61	J0I280425-7	L7K351AD	9L7K3510	0274336
		B27T61	J0I280425-7	L7K351AE	9L7K3510	0274338
		B285T2	J0I280425-8	L7K4D1AA	9L7K4D10	0274333
		B285T2	J0I280425-8	L7K4D1AC	9L7K4D10	0274334
		B285T2	J0I280425-8	L7K4D1AD	9L7K4D10	0274336
		B285T2	J0I280425-8	L7K4D1AE	9L7K4D10	0274338
		B27T91	J0I280425-9	L7K4K1AA	9L7K4K10	0274333

Comments:

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W06038	X11-004	B27T91	J0I280425-9	L7K4K1AC	9L7K4K10	0274334
		B27T91	J0I280425-9	L7K4K1AD	9L7K4K10	0274336
		B27T91	J0I280425-9	L7K4K1AE	9L7K4K10	0274338

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

TestAmerica Laboratories, Inc.

CH2M Hill Plateau Remediation Company
P.O. Box 1600
Mail Stop – R3-60
Richland, WA 99352

November 29, 2010

Attention: Mike Neely

SAF Number	:	X11-004
Date SDG Closed	:	September 27, 2010
Number of Samples	:	Eleven (11)
Sample Type	:	Water
SDG Number	:	W06038
Data Deliverable	:	30-Day / Summary

CASE NARRATIVE

I. Introduction

On September 27, 2010 eleven water samples were received at TestAmerica (TARL). Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the CH2M specific IDs:

CH2M ID#	TARL ID#	DATE OF RECEIPT	MATRIX
B27T66	L7K1P	09/27/10	WATER
B27T86	L7K2T	09/27/10	WATER
B27T81	L7K24	09/27/10	WATER
B27T27	L7K3L	09/27/10	WATER
B27T46	L7K3Q	09/27/10	WATER
B27T47	L7K3V	09/27/10	WATER
B27T61	L7K35	09/27/10	WATER
B285T2	L7K4D	09/27/10	WATER
B27T91	L7K4K	09/27/10	WATER
B27T37	L7K4Q	09/27/10	WATER
B27T12	L7K4R	09/27/10	WATER

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Alpha Spectroscopy
Thorium-228,230,232 by method RL-ALP-005 (RICH-RC-5084)*
Gamma Spectroscopy
Gamma Spec (LL) by method RL-GAM-001 (RICH-RC-5017)*
Iodine-129 (LL) by method RL-GAM-002 (RICH-RC-5025)*
Liquid Scintillation Counting
Carbon-14 by method RL-LSC-008 (RICH-RC-5022)*

*SOP ID's changed effective 7-01-2008. Attached is a cross reference until SOP ID's are changed in all systems.

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Alpha Spectroscopy
Thorium-228,230,232 by method RL-ALP-005 (RICH-RC-5084):
The LCS, batch blank, sample and sample duplicate (B27T66) results are within contractual requirements.

Gamma Spectroscopy
Gamma Spec (LL) by method RL-GAM-001 (RICH-RC-5017):
There was insufficient volume for a duplicate. Sample B27T81 was recounted on a different detector for the duplicate (B27T81 DUP). Except as noted, the LCS, batch blank, samples and sample duplicate (B27T81) results are within contractual requirements.

Iodine-129 (LL) by method RL-GAM-002 (RICH-RC-5025):
Sample B27T37 has an elevated tracer recovery of 116%. Suspect indigenous iodine. The data calculation program assumes a maximum recovery of 100%. Except as noted, the LCS, batch blank, samples and sample duplicate (B27T27) results are within contractual requirements.

Liquid Scintillation Counting
Carbon-14 by method RL-LSC-008 (RICH-RC-5022):
The LCS, batch blank, samples and sample duplicate (B27T86) results are within contractual requirements.

CH2M Hill Plateau Remediation Company
November 29, 2010

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

Sandra Seger
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**	
EPA 901.1	Cs-134, I-131	RL-GAM-001	
EPA 900.0	Alpha & Beta	RL-GPC-001	
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002	
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002	
EPA 903.1	Ra-226	RL-RA-001	
EPA 904.0	Ra-228	RL-RA-001	
EPA 905.0	Sr-89/90	RL-GPC-003	
ASTM D5174	Uranium	RL-KPA-003	
EPA 906.0	Tritium	RL-LSC-005	

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) ***u_c - Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, ***u_c the combined uncertainty.*** The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
Asbestos	RL-ASB-001	N/A	NIOSH 7400	Fiber Counting by Phase Contrast Microscopy based on NIOSH 7400
Asbestos	RL-ASB-002	N/A	NIOSH 9002	Sample Prep and Analysis for Asbestos (bulk) by Polarized Light Microsopy based on NIOSH 9002
Alpha - Gross	ARCHIVED	RICH-RB-5035	Liquid Scintillation Anal/ Packard	DETERMINATION OF GROSS ALPHA IN NASAL SMEARS BY LIQUID SCINTILLATION COUNTING
Alpha - Gross	RL-GPC-001	RICH-RC-5014	9310 / EPA SW846 900.0 / EPA 600	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN WATER BY METHOD 9310
Alpha - Gross	RL-GPC-007	RICH-RC-5020	SM 7110B EPA 680	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN SOIL, SHORELINE SOIL, FOOD AND VEGETATION
Alpha - Gross	RL-GPC-002	RICH-RC-5021	00-02 EPA 520	DETERMINATION OF GROSS ALPHA ACTIVITY IN WATER BY COPRECIPITATION
Alpha - Gross	RL-GPC-008	RICH-RC-5036	ER100 / LANL	PREPARATION OF AIR FILTERS FOR GROSS ALPHA/BETA AND COMPOSITING AIR FILTERS
Am	RL-ALP-003	RICH-RC-5072	Mod RP 725 / DOE0089T EXT Chromatography	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
Am	RL-ALP-010	RICH-RC-5080	Am03/Pu11HASL 300 NAS-NS-3006	SEQUENTIAL SEPARATION OF PLUTONIUM AND AMERICIUM
Beta - Gross	RL-GPC-001	RICH-RC-5014	9310 / EPA SW846 900.0 / EPA 600	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN WATER BY METHOD 9310
Beta - Gross	RL-GPC-007	RICH-RC-5020	SM 7110B EPA 680	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN SOIL, SHORELINE SOIL, FOOD AND VEGETATION
Beta - Gross	RL-GPC-008	RICH-RC-5036	ER100 / LANL	PREPARATION OF AIR FILTERS FOR GROSS ALPHA/BETA AND COMPOSITING AIR FILTERS
C14	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
C14	RL-LSC-008	RICH-RC-5022	EPA C-01 / EPA 520	CARBON 14 BY DIGESTION METHOD
C14	RL-LSC-009	RICH-RC-5040	Mod C14 / EPA 680	DETERMINATION OF CARBON-14 BY BENZENE SYNTHESIS
C14	RL-LSC-010	RICH-RC-5046	EPA C-01 / EPA 520	DETERMINATION OF CARBON-14 IN GRAPHITE AND SOIL
C14	RL-LSC-011	RICH-RC-5047	Mod H-02 / EPA 520	DETERMINATION OF CARBON-14 IN WATER BY DIRECT COUNTING
Cm	RL-ALP-003	RICH-RC-5072	Mod RP 725 / DOE0089T EXT Chromatography	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
Coliform	RL-WC-001	RICH-WC-5001	9222B	DETERMINATION OF TOTAL COLIFORM: MULTIPLE TUBE FERMENTATION TECHNIQUE
Coliform	RL-WC-002	RICH-WC-5002	9131	TOTAL COLIFORMS BY MEMBRANE FILTRATION
Coliform	RL-WC-005	RICH-WC-5007	9223	TOTAL COLIFORM BY THE COLILERT METHOD
Cr6+	RL-WC-003	RICH-WC-5003	7196A, SW846	DETERMINATION OF HEXAVALENT CHROMIUM [Cr(VI)] IN WATER, SOIL, AND SIMILAR MATRICES
Cr6+	RL-WC-004	RICH-WC-5005	3060 / SW846	DETERMINATION OF HEXAVALENT CHROMIUM (CrVI) IN SOLID MATRICES WITH ALKALINE DIGESTION
Fe	RL-LSC-015	RICH-RC-5074	EXT Chromatography ModFe55/PNL-ALO-435	SEPARATION OF IRON AND NICKEL BY EXTRACTION CHROMATOGRAPHY
Fe55	RL-LSC-016	RICH-RC-5023	R4-73-014 / EPA HASL 300	DETERMINATION OF IRON-55 AND IRON-59 IN WATER
Fe59	RL-LSC-016	RICH-RC-5023	R4-73-014 / EPA HASL 300	DETERMINATION OF IRON-55 AND IRON-59 IN WATER
Gamma	RL-GAM-001	RICH-RC-5017	901.0 / HASL 300 ASTM D3649	PREPARATION OF ALL MATRICES FOR ANALYSIS BY GAMMA SPECTROSCOPY
H3	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
H3	RL-LSC-003	RICH-RB-5034	7500-3 / SM	DETERMINATION OF TRITIUM IN URINE BY DISTILLATION
H3	RL-LSC-004	RICH-RC-5004	H3 / EPA LV539	DETERMINATION OF TRITIUM IN AIR
H3	RL-LSC-005	RICH-RC-5007	Mod 906.0 / EPA 600	SEPARATION OF TRITIUM IN WATER AND AQUEOUS COMPONENT OF WINE
H3	RL-LSC-007	RICH-RC-5024	H-3 by EB EPA LV539 / HASL 300	DETERMINATION OF LOW LEVEL TRITIUM IN WATER BY ELECTROLYTIC ENRICHMENT
H3	RL-LSC-002	RICH-RC-5037	H-3 in Water/Tissue / LV 539	DETERMINATION OF TRITIUM BY CRYOGENIC DISTILLATION
H3	RL-LSC-006	RICH-RC-5048	H-3 in Water/Tissue / LV 539	TRITIUM PREPARATION IN MILK SAMPLES
I129	RL-GAM-002	RICH-RC-5025	R4-73-0141/EPA ASTM D2334 (Discontinued)	DETERMINATION OF IODINE-131 AND 129 IN WATER BY SOLVENT EXTRACTION METHOD
I131	RL-GAM-002	RICH-RC-5025	R4-73-0141/EPA ASTM D2334 (Discontinued)	DETERMINATION OF IODINE-131 AND 129 IN WATER BY SOLVENT EXTRACTION METHOD
I131	ARCHIVED	RICH-RC-5049	HASL 300 (1983)	DETERMINATION OF IODINE-131 IN MILK BY BATCH ION-EXCHANGE
Metals	ARCHIVED	BHI-MT-0001	6010	ICP-AE SPECTROSCOPY, SPECTROMETRIC METHOD FOR TRACE ELEMENT ANALYSIS, METHOD 6010A FOR Bechtel
Metals	RL-MT-001	RICH-MT-0001	6010B	ICP-AES for TRACE ELEMENT ANALYSIS, METHOD 6010B

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
Metals	RL-MT-002	RICH-MT-0002	SW486 3050B	ACID DIGESTION FOR ICP ANALYSIS
Metals	RL-MT-003	RICH-MT-0003	NIOSH 7300	DIGESTION PREP based on METHOD NIOSH 7300
Ni	RL-LSC-015	RICH-RC-5074	EXT Chromatography Mod Fe55/PNL-ALO-435	SEPARATION OF IRON AND NICKEL BY EXTRACTION CHROMATOGRAPHY
Ni63	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
Ni63	RL-LSC-017	RICH-RC-5069	EXT Chromatography Mod RP300 / DOE0089T	SEPARATION OF Ni-63 BY EXTRACTION CHROMATOGRAPHY
Np	RL-ALP-013	RICH-RC-5009	NAS-NS-3050	DETERMINATION OF NEPTUNIUM-237 BY LIQUID-LIQUID EXTRACTION IN ALL MATRICES
Np	RL-ALP-006	RICH-RC-5064	EXT Chromatography	SEPARATION OF NEPTUNIUM BY EXTRACTION CHROMATOGRAPHY
P32	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
Pb	RL-ALP-011	RICH-RC-5076	EXT Chromatography	DETERMINATION OF LEAD-210 BY EXTRACTION CHROMATOGRAPHY
Po	RL-ALP-007	RICH-RB-5001	NAS-NS-3037 HASL 300	DETERMINATION OF POLONIUM-210 IN URINE
Po	RL-ALP-012	RICH-RC-5012	Po-01 / HASL 300 Mod U01 HASL 300	SEPARATION OF ISOTOPIC URANIUM AND POLONIUM-210 IN WATER, SOIL AND FILTERS
Prep - Bioassay	ARCHIVED	RICH-RB-0001		PREPARATION FOR RAPID BIOASSAY ANALYSES
Prep - Bioassay	RL-PRP-001	RICH-RB-5002	Mod Pu06 / HASL 300	PREPARATION OF URINE AND BLOOD SAMPLES
Prep - Bioassay	ARCHIVED	RICH-RB-5004	ASTM D1429-95	DETERMINATION OF SPECIFIC GRAVITY OF URINE
Prep - Bioassay	RL-RPL-002	RICH-RB-5036	Pub 6490/6601 / PNL	PREPARATION OF SYNTHETIC URINE AND FECES USING RECIPES FROM HPS N13.30 PREFORMANCE TESTING
Prep - Bioassay	RL-PRP-002	RICH-RB-5037	LA-10300-M R200 ASTM D3865	PREPARATION OF FECAL SAMPLES USING HYDROFLUORIC ACID DIGESTION
Prep - Bioassay	RL-RPL-003	RICH-RC-5028	ICRP Publication 23	PREPARATION OF SYNTHETIC URINE AND FECES
Prep - Count	RL-ALP-016	RICH-RC-5003	G-03 / HASL 300	COPRECIPITATION OF SOME ACTINIDES ON NEODYMIUM FLUORIDE FOR ALPHA-PARTICLE SPECTROMETRY
Prep - Count	RL-ALP-015	RICH-RC-5059	G-03 / HASL 300 Anal Chem 1972	ELECTRODEPOSITION OF ACTINIDES
Prep - Count	RL-ALP-014	RICH-RC-5085	Morrison & Freiser NAS-NS-3050	ANHYDROUS ETHER EXTRACTION OF URANIUM
Prep - Env	RL-KPA-001	RICH-RC-5015	ASTM / D5174-97	ENVIRONMENTAL SAMPLE PREPARATION FOR URANIUM BY LASER-INDUCED PHOSPHORESCENCE
Prep - Env	RL-PRP-004	RICH-RC-5016	Sr02 / HASL 300	PREPARATION OF ENVIRONMENTAL MATRICES
Prep - Env	RL-PRP-007	RICH-RC-5045	Mod Pu02 / HASL 300	PREPARATION OF MIXED BED RESINS AND PRE-FILTERS
Prep - Env	RL-PRP-008	RICH-RC-5068	Mod ER100 / LA10300	PREPARATION OF SOIL, VEGETATION AND AIR FILTERS BY MIXED STRONG ACID LEACHING
Prep - Resin	RL-ALP-017	RICH-RC-5018	Mod Pu11 / Mod 300	ION-EXCHANGE PREPARATION
Prep - Soil	RL-PRP-005	RICH-RC-5013	Pu02A / HASL 300	PREPARATION OF SOIL SAMPLES
Prep - Soil	RL-PRP-005	RICH-RC-5019	D6259 / ASTM SW 846/3015/3051/3052	PREPARATION AND DISSOLUTION OF SEDIMENTS AND SOIL BY MICROWAVE BOMB DIGESTION
Prep - Soil	RL-PRP-006	RICH-RC-5052	Pu02A / HASL 300	COMPLETE DISSOLUTION BY MIXED ACIDS IN A TEFLON BEAKER
Prep - Soil	RL-PRP-009	RICH-RC-5077	Mod ER100 / LA10300	PREPARATION OF SMALL SOIL SAMPLES FOR GAMMA SPEC AND/OR RADIOCHEM ANAL BY ACID DIGESTION
Prep - Urine	RL-PRP-010	RICH-RC-5086	AnalyticaChemActa1992 RP800 / DOE0089T	URINE AND WATER SAMPLE PREPARATION BY CALCIUM PHOSPHATE PRECIPITATION
Prep - Water	RL-PRP-010	RICH-RC-5086	AnalyticaChemActa1992 RP800 / DOE0089T	URINE AND WATER SAMPLE PREPARATION BY CALCIUM PHOSPHATE PRECIPITATION
Pu	ARCHIVED	RICH-RB-5015	Pu11 / HASL 300	RAPID DETERMINATION OF PLUTONIUM IN FECES
Pu	RL-ALP-002	RICH-RC-5010	Pu11 / HASL 300	DETERMINATION OF ISOTOPIC PLUTONIUM IN ALL MATRICES
Pu	RL-ALP-010	RICH-RC-5080	Am03 HASL 300 Pu11 / HASL 300	SEQUENTIAL SEPARATION OF PLUTONIUM AND AMERICIUM
Pu	RL-ALP-001	RICH-RC-5087	AnalyticaChemActa1992 RP800 / DOE0089T	DETERMINATION OF PLUTONIUM BY EXTRACTION CHROMATOGRAPHY
Ra	RL-RA-001	RICH-RC-5005	903.1 / EPA 600	RADIUM-226 AND RADIUM-228 SEPARATION IN RADIOCHEMICAL MATRICES - ADAPTED FROM EPA 903.1 AND 904.0
Ra	RL-RA-001	RICH-RC-5005	904.0 / EPA 600	RADIUM-226 AND RADIUM-228 SEPARATION IN RADIOCHEMICAL MATRICES - ADAPTED FROM EPA 903.1 AND 904.0
Ra	RL-RA-002	RICH-RC-5027	Mod D2460/ ASTM 903.0 / EPA 600	DETERMINATION OF TOTAL RADIUM
Rn	RL-LSC-019	RICH-RC-5082	913.0 / EPA	DETERMINATION OF RADON-222 - ADAPTED FROM METHOD 913.0

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
S35	ARCHIVED	RICH-RB-5020	Hillebrand, Lundeell, Bright, Hoffman 1953	DETERMINATION OF SULFUR-35 IN URINE
Se79	RL-LSC-012	RICH-RC-5043	Selenium / NAS-NS-3030	RADIOCHEMICAL DETERMINATION OF SELENIUM-79
Solubility	ARCHIVED	RICH-RC-5035	Kalfward&Thomas PNL3716	DETERMINATION OF SOLUBILITY OF RADIOACTIVE PARTICLE CONSTITUENTS
Sr	RL-GPC-005	RICH-RB-5007	Mod Sr02 / HASL 300 Mod 905.0 / EPA 600	DETERMINATION OF TOTAL STRONTIUM IN URINE
Sr	RL-GPC-006	RICH-RB-5021	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	DETERMINATION OF STRONTIUM IN FECES
Sr	ARCHIVED	RICH-RB-5022	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	DETERMINATION OF TOTAL STRONTIUM IN URINE FOR RAPID ANALYSIS
Sr	ARCHIVED	RICH-RD-5031	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	RAPID DETERMINATION OF TOTAL STRONTIUM IN FECES
Sr	RL-GPC-003	RICH-RC-5006	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	STRONTIUM SEPARATION IN ENVIROMENTAL MATRICES
Sr - Yt	RL-GPC-004	RICH-RC-5073	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	YTTRIUM-90 SEPARATION FOR STRONTIUM-90 DETERMINATION IN ALL MATRICES
Tc	RL-LSC-014	RICH-RC-5065	EXT Chromatography Mod RP550 / DOE0089T	DETERMINATION OF TECHNETIUM-99 BY EXTRACTION CHROMATOGRAPHY
Tc	RL-LSC-013	RICH-RC-5078	Tc01 / HASL 300	SEPARATION OF TECHNETIUM-99 IN ALL MATRICES
Th	RL-ALP-008	RICH-RB-5006	Mod Th01 / HASL 300	SEPARATION OF THORIUM FROM URINE AND FECAL SAMPLES
Th	RL-ALP-005	RICH-RC-5084	Mod Th01 / HASL 300 Anal Chim Acta 1982	DETERMINATION OF THORIUM ISOTOPIC IN ENVIRONMENTAL MATRICES
U	RL-ALP-012	RICH-RC-5012	Po-01 / HASL 300 Mod U01 / HASL 300	SEPARATION OF ISOTOPIC URANIUM AND POLONIUM-210 IN WATER, SOIL AND FILTERS
U	RL-KPA-002	RICH-RC-5031	Mod U01 / HASL 300	SEPARATION OF TOTAL URANIUM IN WATER AND URINE
U	RL-KPA-003	RICH-RC-5058	D5174 / ASTM	DETERMINATION OF URANIUM BY PHOSPHORESCENCE ANALYSIS
U	RL-ALP-004	RICH-RC-5067	EXT Chromatography Mod RP725 / DOE0089T	SEPARATION OF URANIUM BY EXTRACTION CHROMATOGRAPHY
U	RL-ALP-003	RICH-RC-5072	EXT Chrom Mod RP725 & 800 / DOE0089T	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
U	RL-ALP-009	RICH-RC-5079	EXT Chromatography Mod RP725 / DOE0089T	DETERMINATION OF ISOTOPIC URANIUM IN ALL MATRICES

11/29/2010 2:52:54 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 45260 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9L7K1P10	B27T66		MW6-SBB-A1	X11-004	W06038					09/26/2010 13:11

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
0274334	C-14	14762-75-5	1.29E+00	pCi/L	3.3E+00	3.8E+00	U	7.95E+00	100.0	C14_LSC	2.00E-01	L	11/10/2010 08:33	I
0274336	BE-7	13966-02-4	-5.91E+00	pCi/L	2.2E+01	2.2E+01	U	3.80E+01		GAMMALL_GS	2.0013E+00	L	11/04/2010 10:40	I
0274336	CO-60	10198-40-0	-1.56E+00	pCi/L	1.7E+00	1.7E+00	U	2.75E+00		GAMMALL_GS	2.0013E+00	L	11/04/2010 10:40	I
0274336	CS-134	13967-70-9	5.03E-01	pCi/L	2.3E+00	2.3E+00	U	4.11E+00		GAMMALL_GS	2.0013E+00	L	11/04/2010 10:40	I
0274336	CS-137	10045-97-3	2.25E-01	pCi/L	1.8E+00	1.8E+00	U	3.17E+00		GAMMALL_GS	2.0013E+00	L	11/04/2010 10:40	I
0274336	EU-152	14683-23-9	2.09E+00	pCi/L	4.7E+00	4.7E+00	U	8.36E+00		GAMMALL_GS	2.0013E+00	L	11/04/2010 10:40	I
0274336	EU-154	15585-10-1	2.74E+00	pCi/L	4.4E+00	4.4E+00	U	9.13E+00		GAMMALL_GS	2.0013E+00	L	11/04/2010 10:40	I
0274336	EU-155	14391-16-3	4.01E-01	pCi/L	4.4E+00	4.4E+00	U	7.55E+00		GAMMALL_GS	2.0013E+00	L	11/04/2010 10:40	I
0274336	K-40	13966-00-2	-6.68E+01	pCi/L	5.1E+01	5.1E+01	U	1.05E+02		GAMMALL_GS	2.0013E+00	L	11/04/2010 10:40	I
0274336	RU-106	13967-48-1	-8.49E+00	pCi/L	1.7E+01	1.7E+01	U	2.88E+01		GAMMALL_GS	2.0013E+00	L	11/04/2010 10:40	I
0274336	SB-125	14234-35-6	-1.49E+00	pCi/L	4.6E+00	4.6E+00	U	7.84E+00		GAMMALL_GS	2.0013E+00	L	11/04/2010 10:40	I
0274338	I-129	15046-84-1	-1.10E-02	pCi/L	8.4E-02	8.4E-02	U	1.52E-01	94.1	I129LL_SEP_LEPS	3.7425E+00	L	11/22/2010 10:57	I
0274333	TH-228	14274-82-9	2.76E-02	pCi/L	9.6E-02	9.6E-02	U	2.60E-01	92.3	THISO_IE_PRECIP	2.007E-01	L	10/19/2010 20:33	I
0274333	TH-230	14269-63-7	8.99E-02	pCi/L	1.3E-01	1.3E-01	U	2.15E-01	92.3	THISO_IE_PRECIP	2.007E-01	L	10/19/2010 20:33	I
0274333	TH-232	Th-232	3.60E-02	pCi/L	9.2E-02	9.2E-02	U	2.15E-01	92.3	THISO_IE_PRECIP	2.007E-01	L	10/19/2010 20:33	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9L7K2410	B27T81		MW6-SBB-A1	X11-004	W06038					09/26/2010 09:56

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
0274334	C-14	14762-75-5	4.95E+01	pCi/L	4.8E+00	5.7E+00		7.94E+00	100.0	C14_LSC	2.00E-01	L	11/10/2010 10:41	I
0274336	BE-7	13966-02-4	-2.88E+00	pCi/L	2.4E+01	2.4E+01	U	4.06E+01		GAMMALL_GS	2.0022E+00	L	11/04/2010 18:21	I
0274336	CO-60	10198-40-0	2.44E+00	pCi/L	1.8E+00	1.8E+00	U	3.84E+00		GAMMALL_GS	2.0022E+00	L	11/04/2010 18:21	I
0274336	CS-134	13967-70-9	8.28E-01	pCi/L	2.1E+00	2.1E+00	U	3.88E+00		GAMMALL_GS	2.0022E+00	L	11/04/2010 18:21	I
0274336	CS-137	10045-97-3	1.17E+00	pCi/L	1.9E+00	1.9E+00	U	3.56E+00		GAMMALL_GS	2.0022E+00	L	11/04/2010 18:21	I
0274336	EU-152	14683-23-9	-2.67E+00	pCi/L	4.9E+00	4.9E+00	U	8.04E+00		GAMMALL_GS	2.0022E+00	L	11/04/2010 18:21	I
0274336	EU-154	15585-10-1	-2.04E+00	pCi/L	5.1E+00	5.1E+00	U	9.00E+00		GAMMALL_GS	2.0022E+00	L	11/04/2010 18:21	I
0274336	EU-155	14391-16-3	-3.50E+00	pCi/L	4.0E+00	4.0E+00	U	6.61E+00		GAMMALL_GS	2.0022E+00	L	11/04/2010 18:21	I
0274336	K-40	13966-00-2	-8.22E+01	pCi/L	5.1E+01	5.1E+01	U	1.04E+02		GAMMALL_GS	2.0022E+00	L	11/04/2010 18:21	I
0274336	RU-106	13967-48-1	-1.20E+01	pCi/L	1.6E+01	1.6E+01	U	2.63E+01		GAMMALL_GS	2.0022E+00	L	11/04/2010 18:21	I
0274336	SB-125	14234-35-6	3.92E-01	pCi/L	4.6E+00	4.6E+00	U	8.04E+00		GAMMALL_GS	2.0022E+00	L	11/04/2010 18:21	I

TestAmerica

rptFeadRadSummaryEdd v3.48

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

1

11/29/2010 2:52:54 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 45260 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

0274338	I-129	15046-84-1	1.58E-02	pCi/L	8.4E-02	8.4E-02	U	1.57E-01	91.4	I129LL_SEP_LEPS	3.7975E+00	L	11/22/2010	18:10	I
0274333	TH-228	14274-82-9	1.34E-01	pCi/L	2.0E-01	2.0E-01	U	3.72E-01	94.8	THISO_IE_PRECIP	2.006E-01	L	10/19/2010	20:36	I
0274333	TH-230	14269-63-7	0.00E+00	pCi/L	1.1E-01	1.1E-01	U	2.46E-01	94.8	THISO_IE_PRECIP	2.006E-01	L	10/19/2010	20:36	I
0274333	TH-232	Th-232	0.00E+00	pCi/L	1.1E-01	1.1E-01	U	2.46E-01	94.8	THISO_IE_PRECIP	2.006E-01	L	10/19/2010	20:36	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9L7K2T10	B27T86		MW6-SBB-A1	X11-004	W06038					09/26/2010 07:58

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
0274334	C-14	14762-75-5	6.72E+00	pCi/L	3.5E+00	4.0E+00	U	7.93E+00	100.0	C14_LSC	2.00E-01	L	11/10/2010 09:16	I
0274336	BE-7	13966-02-4	4.86E+00	pCi/L	2.2E+01	2.2E+01	U	3.93E+01		GAMMALL_GS	2.0019E+00	L	11/04/2010 14:14	I
0274336	CO-60	10198-40-0	1.32E-01	pCi/L	1.8E+00	1.8E+00	U	3.47E+00		GAMMALL_GS	2.0019E+00	L	11/04/2010 14:14	I
0274336	CS-134	13967-70-9	-1.57E+00	pCi/L	2.1E+00	2.1E+00	U	3.48E+00		GAMMALL_GS	2.0019E+00	L	11/04/2010 14:14	I
0274336	CS-137	10045-97-3	-5.84E-01	pCi/L	1.9E+00	1.9E+00	U	3.30E+00		GAMMALL_GS	2.0019E+00	L	11/04/2010 14:14	I
0274336	EU-152	14683-23-9	2.38E+00	pCi/L	4.8E+00	4.8E+00	U	8.45E+00		GAMMALL_GS	2.0019E+00	L	11/04/2010 14:14	I
0274336	EU-154	15585-10-1	1.75E+00	pCi/L	6.0E+00	6.0E+00	U	1.13E+01		GAMMALL_GS	2.0019E+00	L	11/04/2010 14:14	I
0274336	EU-155	14391-16-3	-5.17E-01	pCi/L	4.4E+00	4.4E+00	U	7.59E+00		GAMMALL_GS	2.0019E+00	L	11/04/2010 14:14	I
0274336	K-40	13966-00-2	-5.91E+01	pCi/L	5.1E+01	5.1E+01	U	1.06E+02		GAMMALL_GS	2.0019E+00	L	11/04/2010 14:14	I
0274336	RU-106	13967-48-1	-6.71E+00	pCi/L	1.6E+01	1.6E+01	U	2.76E+01		GAMMALL_GS	2.0019E+00	L	11/04/2010 14:14	I
0274336	SB-125	14234-35-6	-2.21E+00	pCi/L	4.6E+00	4.6E+00	U	7.65E+00		GAMMALL_GS	2.0019E+00	L	11/04/2010 14:14	I
0274338	I-129	15046-84-1	-1.84E-02	pCi/L	9.0E-02	9.0E-02	U	1.60E-01	94.1	I129LL_SEP_LEPS	3.724E+00	L	11/22/2010 14:21	I
0274333	TH-228	14274-82-9	2.62E-02	pCi/L	9.1E-02	9.1E-02	U	2.47E-01	81.8	THISO_IE_PRECIP	2.00E-01	L	10/19/2010 20:34	I
0274333	TH-230	14269-63-7	-1.71E-02	pCi/L	8.9E-02	8.9E-02	U	2.41E-01	81.8	THISO_IE_PRECIP	2.00E-01	L	10/19/2010 20:34	I
0274333	TH-232	Th-232	-8.54E-03	pCi/L	8.7E-02	8.7E-02	U	2.04E-01	81.8	THISO_IE_PRECIP	2.00E-01	L	10/19/2010 20:34	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9L7K3510	B27T61		MW6-SBB-A1	X11-004	W06038					09/26/2010 09:13

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
0274334	C-14	14762-75-5	4.62E+00	pCi/L	3.4E+00	3.9E+00	U	7.95E+00	100.0	C14_LSC	2.00E-01	L	11/10/2010 13:32	I
0274336	BE-7	13966-02-4	-1.39E+01	pCi/L	2.6E+01	2.6E+01	U	4.36E+01		GAMMALL_GS	2.0024E+00	L	11/05/2010 07:45	I
0274336	CO-60	10198-40-0	1.07E+00	pCi/L	2.0E+00	2.0E+00	U	3.98E+00		GAMMALL_GS	2.0024E+00	L	11/05/2010 07:45	I
0274336	CS-134	13967-70-9	-4.02E-01	pCi/L	2.5E+00	2.5E+00	U	4.41E+00		GAMMALL_GS	2.0024E+00	L	11/05/2010 07:45	I
0274336	CS-137	10045-97-3	-1.83E-01	pCi/L	2.3E+00	2.3E+00	U	3.97E+00		GAMMALL_GS	2.0024E+00	L	11/05/2010 07:45	I
0274336	EU-152	14683-23-9	2.73E+00	pCi/L	5.4E+00	5.4E+00	U	9.58E+00		GAMMALL_GS	2.0024E+00	L	11/05/2010 07:45	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

11/29/2010 2:52:54 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 45260 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

0274336	EU-154	15585-10-1	-2.61E+00	pCi/L	6.6E+00	6.6E+00	U	1.14E+01		GAMMALL_GS	2.0024E+00	L	11/05/2010	07:45	I
0274336	EU-155	14391-16-3	-2.32E+00	pCi/L	3.8E+00	3.8E+00	U	6.27E+00		GAMMALL_GS	2.0024E+00	L	11/05/2010	07:45	I
0274336	K-40	13966-00-2	1.21E+01	pCi/L	5.5E+01	5.5E+01	U	4.08E+01		GAMMALL_GS	2.0024E+00	L	11/05/2010	07:45	I
0274336	RU-106	13967-48-1	1.56E+01	pCi/L	2.0E+01	2.0E+01	U	3.70E+01		GAMMALL_GS	2.0024E+00	L	11/05/2010	07:45	I
0274336	SB-125	14234-35-6	-6.63E+00	pCi/L	5.2E+00	5.2E+00	U	8.05E+00		GAMMALL_GS	2.0024E+00	L	11/05/2010	07:45	I
0274338	I-129	15046-84-1	8.36E-02	pCi/L	1.3E-01	1.3E-01	U	2.17E-01	92.7	I129LL_SEP_LEPS	3.867E+00	L	11/23/2010	14:07	I
0274333	TH-228	14274-82-9	1.69E-01	pCi/L	2.4E-01	2.4E-01	U	4.19E-01	79.6	THISO_IE_PRECIP	2.004E-01	L	10/19/2010	20:36	I
0274333	TH-230	14269-63-7	5.80E-02	pCi/L	1.4E-01	1.4E-01	U	2.95E-01	79.6	THISO_IE_PRECIP	2.004E-01	L	10/19/2010	20:36	I
0274333	TH-232	Th-232	0.00E+00	pCi/L	1.4E-01	1.4E-01	U	2.95E-01	79.6	THISO_IE_PRECIP	2.004E-01	L	10/19/2010	20:36	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9L7K3L10	B27T27		MW6-SBB-A1	X11-004	W06038					09/26/2010 13:06

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
0274334	C-14	14762-75-5	3.16E+00	pCi/L	3.4E+00	3.8E+00	U	7.95E+00	100.0	C14_LSC	2.00E-01	L	11/10/2010 11:24	I
0274336	BE-7	13966-02-4	8.23E+00	pCi/L	2.4E+01	2.4E+01	U	4.27E+01		GAMMALL_GS	2.0021E+00	L	11/04/2010 22:48	I
0274336	CO-60	10198-40-0	2.72E-01	pCi/L	1.8E+00	1.8E+00	U	3.47E+00		GAMMALL_GS	2.0021E+00	L	11/04/2010 22:48	I
0274336	CS-134	13967-70-9	-7.33E-01	pCi/L	2.0E+00	2.0E+00	U	3.41E+00		GAMMALL_GS	2.0021E+00	L	11/04/2010 22:48	I
0274336	CS-137	10045-97-3	1.23E+00	pCi/L	1.8E+00	1.8E+00	U	3.41E+00		GAMMALL_GS	2.0021E+00	L	11/04/2010 22:48	I
0274336	EU-152	14683-23-9	-6.20E-01	pCi/L	4.8E+00	4.8E+00	U	8.32E+00		GAMMALL_GS	2.0021E+00	L	11/04/2010 22:48	I
0274336	EU-154	15585-10-1	1.78E+00	pCi/L	5.6E+00	5.6E+00	U	1.07E+01		GAMMALL_GS	2.0021E+00	L	11/04/2010 22:48	I
0274336	EU-155	14391-16-3	6.97E-01	pCi/L	3.9E+00	3.9E+00	U	6.72E+00		GAMMALL_GS	2.0021E+00	L	11/04/2010 22:48	I
0274336	K-40	13966-00-2	-5.27E+01	pCi/L	5.2E+01	5.2E+01	U	1.08E+02		GAMMALL_GS	2.0021E+00	L	11/04/2010 22:48	I
0274336	RU-106	13967-48-1	-1.87E+01	pCi/L	1.8E+01	1.8E+01	U	2.91E+01		GAMMALL_GS	2.0021E+00	L	11/04/2010 22:48	I
0274336	SB-125	14234-35-6	-7.01E-01	pCi/L	4.8E+00	4.8E+00	U	8.27E+00		GAMMALL_GS	2.0021E+00	L	11/04/2010 22:48	I
0274338	I-129	15046-84-1	2.57E-02	pCi/L	1.3E-01	1.3E-01	U	2.15E-01	96.2	I129LL_SEP_LEPS	3.7428E+00	L	11/23/2010 07:10	I
0274333	TH-228	14274-82-9	-1.02E-02	pCi/L	1.5E-01	1.5E-01	U	3.38E-01	99.3	THISO_IE_PRECIP	1.993E-01	L	10/19/2010 20:36	I
0274333	TH-230	14269-63-7	-2.00E-02	pCi/L	1.5E-01	1.5E-01	U	3.83E-01	99.3	THISO_IE_PRECIP	1.993E-01	L	10/19/2010 20:36	I
0274333	TH-232	Th-232	0.00E+00	pCi/L	1.5E-01	1.5E-01	U	3.31E-01	99.3	THISO_IE_PRECIP	1.993E-01	L	10/19/2010 20:36	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9L7K3Q10	B27T46		MW6-SBB-A1	X11-004	W06038					09/26/2010 08:41

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
0274334	C-14	14762-75-5	9.13E+00	pCi/L	3.6E+00	4.1E+00		7.94E+00	100.0	C14_LSC	2.00E-01	L	11/10/2010 12:07	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

11/29/2010 2:52:54 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 45260 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

0274336	BE-7	13966-02-4	-1.49E+01	pCi/L	2.2E+01	2.2E+01	U	3.66E+01		GAMMALL_GS	2.0016E+00	L	11/05/2010	07:44	I
0274336	CO-60	10198-40-0	9.31E-01	pCi/L	1.9E+00	1.9E+00	U	3.80E+00		GAMMALL_GS	2.0016E+00	L	11/05/2010	07:44	I
0274336	CS-134	13967-70-9	-4.87E-01	pCi/L	2.2E+00	2.2E+00	U	3.72E+00		GAMMALL_GS	2.0016E+00	L	11/05/2010	07:44	I
0274336	CS-137	10045-97-3	8.50E-01	pCi/L	1.9E+00	1.9E+00	U	3.44E+00		GAMMALL_GS	2.0016E+00	L	11/05/2010	07:44	I
0274336	EU-152	14683-23-9	2.88E+00	pCi/L	4.7E+00	4.7E+00	U	8.44E+00		GAMMALL_GS	2.0016E+00	L	11/05/2010	07:44	I
0274336	EU-154	15585-10-1	5.73E+00	pCi/L	5.4E+00	5.4E+00	U	1.13E+01		GAMMALL_GS	2.0016E+00	L	11/05/2010	07:44	I
0274336	EU-155	14391-16-3	4.98E+00	pCi/L	4.8E+00	4.8E+00	U	7.83E+00		GAMMALL_GS	2.0016E+00	L	11/05/2010	07:44	I
0274336	K-40	13966-00-2	-7.23E+01	pCi/L	5.0E+01	5.0E+01	U	1.04E+02		GAMMALL_GS	2.0016E+00	L	11/05/2010	07:44	I
0274336	RU-106	13967-48-1	1.41E+00	pCi/L	1.7E+01	1.7E+01	U	3.08E+01		GAMMALL_GS	2.0016E+00	L	11/05/2010	07:44	I
0274336	SB-125	14234-35-6	-3.90E+00	pCi/L	4.6E+00	4.6E+00	U	7.41E+00		GAMMALL_GS	2.0016E+00	L	11/05/2010	07:44	I
0274338	I-129	15046-84-1	-7.03E-02	pCi/L	1.3E-01	1.3E-01	U	2.12E-01	90.8	I129LL_SEP_LEPS	3.9164E+00	L	11/23/2010	10:40	I
0274333	TH-228	14274-82-9	0.00E+00	pCi/L	1.8E-01	1.8E-01	U	3.90E-01	86.7	THISO_IE_PRECIP	2.011E-01	L	10/19/2010	20:36	I
0274333	TH-230	14269-63-7	0.00E+00	pCi/L	1.7E-01	1.7E-01	U	3.81E-01	86.7	THISO_IE_PRECIP	2.011E-01	L	10/19/2010	20:36	I
0274333	TH-232	Th-232	0.00E+00	pCi/L	1.7E-01	1.7E-01	U	3.81E-01	86.7	THISO_IE_PRECIP	2.011E-01	L	10/19/2010	20:36	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9L7K3V10	B27T47		MW6-SBB-A1	X11-004	W06038					09/26/2010 08:41

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
0274334	C-14	14762-75-5	7.66E+00	pCi/L	3.6E+00	4.0E+00	U	7.94E+00	100.0	C14_LSC	2.00E-01	L	11/10/2010 12:49	I
0274336	BE-7	13966-02-4	8.90E+00	pCi/L	1.3E+01	1.3E+01	U	2.41E+01		GAMMALL_GS	2.00E+00	L	11/05/2010 07:45	I
0274336	CO-60	10198-40-0	4.31E-01	pCi/L	1.1E+00	1.1E+00	U	2.21E+00		GAMMALL_GS	2.00E+00	L	11/05/2010 07:45	I
0274336	CS-134	13967-70-9	-2.92E-01	pCi/L	1.2E+00	1.2E+00	U	2.10E+00		GAMMALL_GS	2.00E+00	L	11/05/2010 07:45	I
0274336	CS-137	10045-97-3	1.51E+00	pCi/L	1.1E+00	1.1E+00	U	2.21E+00		GAMMALL_GS	2.00E+00	L	11/05/2010 07:45	I
0274336	EU-152	14683-23-9	-5.06E-01	pCi/L	2.6E+00	2.6E+00	U	4.40E+00		GAMMALL_GS	2.00E+00	L	11/05/2010 07:45	I
0274336	EU-154	15585-10-1	2.34E+00	pCi/L	3.1E+00	3.1E+00	U	6.34E+00		GAMMALL_GS	2.00E+00	L	11/05/2010 07:45	I
0274336	EU-155	14391-16-3	-3.43E-01	pCi/L	1.9E+00	1.9E+00	U	3.36E+00		GAMMALL_GS	2.00E+00	L	11/05/2010 07:45	I
0274336	K-40	13966-00-2	-7.86E+00	pCi/L	2.3E+01	2.3E+01	U	4.59E+01		GAMMALL_GS	2.00E+00	L	11/05/2010 07:45	I
0274336	RU-106	13967-48-1	-2.37E+00	pCi/L	9.4E+00	9.4E+00	U	1.63E+01		GAMMALL_GS	2.00E+00	L	11/05/2010 07:45	I
0274336	SB-125	14234-35-6	-5.04E-01	pCi/L	2.5E+00	2.5E+00	U	4.31E+00		GAMMALL_GS	2.00E+00	L	11/05/2010 07:45	I
0274338	I-129	15046-84-1	-7.69E-02	pCi/L	1.0E-01	1.0E-01	U	1.67E-01	84.1	I129LL_SEP_LEPS	3.9029E+00	L	11/23/2010 10:40	I
0274333	TH-228	14274-82-9	4.26E-01	pCi/L	4.2E-01	4.2E-01	U	5.24E-01	81.5	THISO_IE_PRECIP	2.004E-01	L	10/19/2010 20:36	I
0274333	TH-230	14269-63-7	9.05E-02	pCi/L	1.8E-01	1.8E-01	U	3.99E-01	81.5	THISO_IE_PRECIP	2.004E-01	L	10/19/2010 20:36	I
0274333	TH-232	Th-232	0.00E+00	pCi/L	1.8E-01	1.8E-01	U	3.99E-01	81.5	THISO_IE_PRECIP	2.004E-01	L	10/19/2010 20:36	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

11/29/2010 2:52:54 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 45260 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9L7K4D10	B285T2		MW6-SBB-A1	X11-004	W06038					09/26/2010 11:23

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
0274334	C-14	14762-75-5	-6.14E-01	pCi/L	3.3E+00	3.7E+00	U	7.94E+00	100.0	C14_LSC	2.00E-01	L	11/10/2010 14:15	I
0274336	BE-7	13966-02-4	5.66E+00	pCi/L	2.2E+01	2.2E+01	U	3.87E+01		GAMMALL_GS	2.0012E+00	L	11/05/2010 07:46	I
0274336	CO-60	10198-40-0	5.16E-02	pCi/L	1.6E+00	1.6E+00	U	3.04E+00		GAMMALL_GS	2.0012E+00	L	11/05/2010 07:46	I
0274336	CS-134	13967-70-9	-2.16E-01	pCi/L	1.8E+00	1.8E+00	U	3.14E+00		GAMMALL_GS	2.0012E+00	L	11/05/2010 07:46	I
0274336	CS-137	10045-97-3	1.52E+00	pCi/L	1.7E+00	1.7E+00	U	3.19E+00		GAMMALL_GS	2.0012E+00	L	11/05/2010 07:46	I
0274336	EU-152	14683-23-9	-9.58E-01	pCi/L	4.1E+00	4.1E+00	U	7.17E+00		GAMMALL_GS	2.0012E+00	L	11/05/2010 07:46	I
0274336	EU-154	15585-10-1	-9.92E-02	pCi/L	4.6E+00	4.6E+00	U	8.54E+00		GAMMALL_GS	2.0012E+00	L	11/05/2010 07:46	I
0274336	EU-155	14391-16-3	9.76E-01	pCi/L	2.9E+00	2.9E+00	U	5.16E+00		GAMMALL_GS	2.0012E+00	L	11/05/2010 07:46	I
0274336	K-40	13966-00-2	-1.76E+01	pCi/L	3.8E+01	3.8E+01	U	7.91E+01		GAMMALL_GS	2.0012E+00	L	11/05/2010 07:46	I
0274336	RU-106	13967-48-1	-1.20E+01	pCi/L	1.5E+01	1.5E+01	U	2.51E+01		GAMMALL_GS	2.0012E+00	L	11/05/2010 07:46	I
0274336	SB-125	14234-35-6	1.19E+00	pCi/L	4.0E+00	4.0E+00	U	7.16E+00		GAMMALL_GS	2.0012E+00	L	11/05/2010 07:46	I
0274338	I-129	15046-84-1	2.96E-02	pCi/L	9.3E-02	9.3E-02	U	1.73E-01	93.8	I129LL_SEP_LEPS	3.869E+00	L	11/23/2010 14:08	I
0274333	TH-228	14274-82-9	2.01E-01	pCi/L	2.3E-01	2.4E-01	U	3.54E-01	95.7	THISO_IE_PRECIP	2.00E-01	L	10/19/2010 20:36	I
0274333	TH-230	14269-63-7	4.91E-02	pCi/L	1.1E-01	1.1E-01	U	2.50E-01	95.7	THISO_IE_PRECIP	2.00E-01	L	10/19/2010 20:36	I
0274333	TH-232	Th-232	0.00E+00	pCi/L	1.1E-01	1.1E-01	U	2.50E-01	95.7	THISO_IE_PRECIP	2.00E-01	L	10/19/2010 20:36	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9L7K4K10	B27T91		MW6-SBB-A1	X11-004	W06038					09/26/2010 08:25

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
0274334	C-14	14762-75-5	5.36E+00	pCi/L	3.5E+00	3.9E+00	U	7.94E+00	100.0	C14_LSC	2.00E-01	L	11/10/2010 14:58	I
0274336	BE-7	13966-02-4	-2.86E+00	pCi/L	1.7E+01	1.7E+01	U	2.88E+01		GAMMALL_GS	2.0018E+00	L	11/05/2010 07:46	I
0274336	CO-60	10198-40-0	1.54E+00	pCi/L	1.5E+00	1.5E+00	U	3.00E+00		GAMMALL_GS	2.0018E+00	L	11/05/2010 07:46	I
0274336	CS-134	13967-70-9	-1.48E+00	pCi/L	1.5E+00	1.5E+00	U	2.34E+00		GAMMALL_GS	2.0018E+00	L	11/05/2010 07:46	I
0274336	CS-137	10045-97-3	7.74E-01	pCi/L	1.2E+00	1.2E+00	U	2.30E+00		GAMMALL_GS	2.0018E+00	L	11/05/2010 07:46	I
0274336	EU-152	14683-23-9	7.76E-01	pCi/L	3.6E+00	3.6E+00	U	6.28E+00		GAMMALL_GS	2.0018E+00	L	11/05/2010 07:46	I
0274336	EU-154	15585-10-1	2.03E+00	pCi/L	3.8E+00	3.8E+00	U	7.45E+00		GAMMALL_GS	2.0018E+00	L	11/05/2010 07:46	I
0274336	EU-155	14391-16-3	-1.42E+00	pCi/L	2.8E+00	2.8E+00	U	4.77E+00		GAMMALL_GS	2.0018E+00	L	11/05/2010 07:46	I
0274336	K-40	13966-00-2	2.77E+01	pCi/L	2.2E+01	2.2E+01	U	4.21E+01		GAMMALL_GS	2.0018E+00	L	11/05/2010 07:46	I
0274336	RU-106	13967-48-1	-1.68E+01	pCi/L	1.3E+01	1.3E+01	U	1.98E+01		GAMMALL_GS	2.0018E+00	L	11/05/2010 07:46	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

11/29/2010 2:52:54 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 45260 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

0274336	SB-125	14234-35-6	-1.83E+00	pCi/L	3.2E+00	3.2E+00	U	5.38E+00		GAMMALL_GS	2.0018E+00	L	11/05/2010	07:46	I
0274338	I-129	15046-84-1	-5.79E-02	pCi/L	1.2E-01	1.2E-01	U	2.01E-01	91.1	I129LL_SEP_LEPS	3.8302E+00	L	11/23/2010	17:32	I
0274333	TH-228	14274-82-9	2.16E-01	pCi/L	2.0E-01	2.0E-01		1.95E-01	95.1	THISO_IE_PRECIP	2.001E-01	L	10/19/2010	20:36	I
0274333	TH-230	14269-63-7	-5.77E-03	pCi/L	8.7E-02	8.7E-02	U	1.91E-01	95.1	THISO_IE_PRECIP	2.001E-01	L	10/19/2010	20:36	I
0274333	TH-232	Th-232	-5.77E-03	pCi/L	8.7E-02	8.7E-02	U	1.91E-01	95.1	THISO_IE_PRECIP	2.001E-01	L	10/19/2010	20:36	I

SIS 11/29/10

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9L7K4Q10	B27T37		MW6-SBB-A1	X11-004	W06038					09/26/2010 10:11

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
0274334	C-14	14762-75-5	1.34E+01	pCi/L	3.7E+00	4.3E+00		7.94E+00	100.0	C14_LSC	2.00E-01	L	11/10/2010 15:40	I
0274336	BE-7	13966-02-4	-8.50E+00	pCi/L	1.8E+01	1.8E+01	U	3.07E+01		GAMMALL_GS	2.0019E+00	L	11/05/2010 07:47	I
0274336	CO-60	10198-40-0	9.52E-01	pCi/L	1.8E+00	1.8E+00	U	3.36E+00		GAMMALL_GS	2.0019E+00	L	11/05/2010 07:47	I
0274336	CS-134	13967-70-9	4.04E-01	pCi/L	1.5E+00	1.5E+00	U	2.77E+00		GAMMALL_GS	2.0019E+00	L	11/05/2010 07:47	I
0274336	CS-137	10045-97-3	-3.10E-01	pCi/L	1.6E+00	1.6E+00	U	2.78E+00		GAMMALL_GS	2.0019E+00	L	11/05/2010 07:47	I
0274336	EU-152	14683-23-9	-3.05E+00	pCi/L	3.9E+00	3.9E+00	U	6.29E+00		GAMMALL_GS	2.0019E+00	L	11/05/2010 07:47	I
0274336	EU-154	15585-10-1	-4.29E+00	pCi/L	5.2E+00	5.2E+00	U	8.58E+00		GAMMALL_GS	2.0019E+00	L	11/05/2010 07:47	I
0274336	EU-155	14391-16-3	-6.18E-01	pCi/L	3.5E+00	3.5E+00	U	5.86E+00		GAMMALL_GS	2.0019E+00	L	11/05/2010 07:47	I
0274336	K-40	13966-00-2	-3.61E+01	pCi/L	4.8E+01	4.8E+01	U	9.68E+01		GAMMALL_GS	2.0019E+00	L	11/05/2010 07:47	I
0274336	RU-106	13967-48-1	-3.62E+00	pCi/L	1.4E+01	1.4E+01	U	2.33E+01		GAMMALL_GS	2.0019E+00	L	11/05/2010 07:47	I
0274336	SB-125	14234-35-6	-1.10E+00	pCi/L	3.6E+00	3.6E+00	U	6.23E+00		GAMMALL_GS	2.0019E+00	L	11/05/2010 07:47	I
0274338	I-129	15046-84-1	-2.55E-02	pCi/L	8.2E-02	8.2E-02	U	1.44E-01	100.0	I129LL_SEP_LEPS	3.8621E+00	L	11/23/2010 17:33	I
0274333	TH-228	14274-82-9	8.65E-02	pCi/L	1.9E-01	1.9E-01	U	4.22E-01	84.1	THISO_IE_PRECIP	1.994E-01	L	10/20/2010 00:33	I
0274333	TH-230	14269-63-7	0.00E+00	pCi/L	1.3E-01	1.3E-01	U	2.79E-01	84.1	THISO_IE_PRECIP	1.994E-01	L	10/20/2010 00:33	I
0274333	TH-232	Th-232	0.00E+00	pCi/L	1.3E-01	1.3E-01	U	2.79E-01	84.1	THISO_IE_PRECIP	1.994E-01	L	10/20/2010 00:33	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9L7K4R10	B27T12		MW6-SBB-A1	X11-004	W06038					09/26/2010 10:46

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
0274334	C-14	14762-75-5	3.30E+00	pCi/L	3.4E+00	3.8E+00	U	7.95E+00	100.0	C14_LSC	2.00E-01	L	11/10/2010 17:06	I
0274336	BE-7	13966-02-4	9.54E+00	pCi/L	2.2E+01	2.2E+01	U	4.09E+01		GAMMALL_GS	2.0022E+00	L	11/05/2010 11:13	I
0274336	CO-60	10198-40-0	1.19E+00	pCi/L	1.8E+00	1.8E+00	U	3.66E+00		GAMMALL_GS	2.0022E+00	L	11/05/2010 11:13	I
0274336	CS-134	13967-70-9	5.16E-01	pCi/L	2.1E+00	2.1E+00	U	3.78E+00		GAMMALL_GS	2.0022E+00	L	11/05/2010 11:13	I
0274336	CS-137	10045-97-3	-9.24E-01	pCi/L	2.0E+00	2.0E+00	U	3.37E+00		GAMMALL_GS	2.0022E+00	L	11/05/2010 11:13	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

11/29/2010 2:52:54 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 45260 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

0274336	EU-152	14683-23-9	-1.22E+00	pCi/L	4.5E+00	4.5E+00	U	7.66E+00		GAMMALL_GS	2.0022E+00	L	11/05/2010	11:13	I
0274336	EU-154	15585-10-1	6.01E+00	pCi/L	6.0E+00	6.0E+00	U	1.21E+01		GAMMALL_GS	2.0022E+00	L	11/05/2010	11:13	I
0274336	EU-155	14391-16-3	1.02E+00	pCi/L	4.5E+00	4.5E+00	U	7.73E+00		GAMMALL_GS	2.0022E+00	L	11/05/2010	11:13	I
0274336	K-40	13966-00-2	-9.39E+01	pCi/L	5.0E+01	5.0E+01	U	1.01E+02		GAMMALL_GS	2.0022E+00	L	11/05/2010	11:13	I
0274336	RU-106	13967-48-1	-2.64E+00	pCi/L	1.6E+01	1.6E+01	U	2.88E+01		GAMMALL_GS	2.0022E+00	L	11/05/2010	11:13	I
0274336	SB-125	14234-35-6	2.47E+00	pCi/L	5.0E+00	5.0E+00	U	8.86E+00		GAMMALL_GS	2.0022E+00	L	11/05/2010	11:13	I
0274338	I-129	15046-84-1	5.82E-02	pCi/L	1.2E-01	1.2E-01	U	2.23E-01	88.1	I129LL_SEP_LEPS	3.8023E+00	L	11/23/2010	20:59	I
0274333	TH-228	14274-82-9	7.04E-02	pCi/L	1.6E-01	1.6E-01	U	3.58E-01	93.6	THISO_IE_PRECIP	1.999E-01	L	10/20/2010	00:33	I
0274333	TH-230	14269-63-7	-2.12E-02	pCi/L	1.6E-01	1.6E-01	U	4.06E-01	93.6	THISO_IE_PRECIP	1.999E-01	L	10/20/2010	00:33	I
0274333	TH-232	Th-232	0.00E+00	pCi/L	1.6E-01	1.6E-01	U	3.50E-01	93.6	THISO_IE_PRECIP	1.999E-01	L	10/20/2010	00:33	I

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 29, 2010

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id:	L7VF21AB	**Sdg/Rept Nbr:**	W06038	45260	**Collection Date:** 09/26/2010 07:58
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AP	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274334	C-14	8.94E-01	pCi/L	3.7E+00	U	7.95E+00	100.0		C14_LSC	2.00E-01	11/10/2010				D
BLK	14762-75-5			3.3E+00						L	17:49				

TestAmerica

rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

1

Monday, November 29, 2010

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id:	L7VF91AB	**Sdg/Rept Nbr:**	W06038	45260	**Collection Date:** 09/26/2010 09:56
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AR	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274336	BE-7	7.25E+00	pCi/L	1.8E+01	U	3.18E+01			GAMMALL_GS	2.0024E+00	11/05/2010				D
BLK	13966-02-4			1.8E+01						L	11:14				
0274336	CO-60	-2.74E-01	pCi/L	1.6E+00	U	2.90E+00			GAMMALL_GS	2.0024E+00	11/05/2010				D
BLK	10198-40-0			1.6E+00						L	11:14				
0274336	CS-134	-1.25E+00	pCi/L	1.7E+00	U	2.78E+00			GAMMALL_GS	2.0024E+00	11/05/2010				D
BLK	13967-70-9			1.7E+00						L	11:14				
0274336	CS-137	6.12E-01	pCi/L	1.6E+00	U	2.90E+00			GAMMALL_GS	2.0024E+00	11/05/2010				D
BLK	10045-97-3			1.6E+00						L	11:14				
0274336	EU-152	-3.41E+00	pCi/L	3.9E+00	U	6.49E+00			GAMMALL_GS	2.0024E+00	11/05/2010				D
BLK	14683-23-9			3.9E+00						L	11:14				
0274336	EU-154	-1.80E+00	pCi/L	4.8E+00	U	8.33E+00			GAMMALL_GS	2.0024E+00	11/05/2010				D
BLK	15585-10-1			4.8E+00						L	11:14				
0274336	EU-155	4.15E-01	pCi/L	2.4E+00	U	4.29E+00			GAMMALL_GS	2.0024E+00	11/05/2010				D
BLK	14391-16-3			2.4E+00						L	11:14				
0274336	K-40	-5.39E+01	pCi/L	3.7E+01	U	7.40E+01			GAMMALL_GS	2.0024E+00	11/05/2010				D
BLK	13966-00-2			3.7E+01						L	11:14				
0274336	RU-106	5.10E+00	pCi/L	1.4E+01	U	2.67E+01			GAMMALL_GS	2.0024E+00	11/05/2010				D
BLK	13967-48-1			1.4E+01						L	11:14				
0274336	SB-125	2.15E-01	pCi/L	4.0E+00	U	7.05E+00			GAMMALL_GS	2.0024E+00	11/05/2010				D
BLK	14234-35-6			4.0E+00						L	11:14				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 29, 2010

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id:	L7VFX1AB	**Sdg/Rept Nbr:**	W06038	45260	**Collection Date:** 09/26/2010 13:11
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AT	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274333	TH-228	0.00E+00	pCi/L	1.8E-01	U	4.03E-01	84.0		THISO_IE_PR	2.007E-01	10/20/2010				D
BLK	14274-82-9			1.8E-01						L	00:33				
0274333	TH-230	0.00E+00	pCi/L	1.8E-01	U	3.94E-01	84.0		THISO_IE_PR	2.007E-01	10/20/2010				D
BLK	14269-63-7			1.8E-01						L	00:33				
0274333	TH-232	0.00E+00	pCi/L	1.8E-01	U	3.94E-01	84.0		THISO_IE_PR	2.007E-01	10/20/2010				D
BLK	Th-232			1.8E-01						L	00:33				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 29, 2010

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R FormatType: FEAD VersionNbr: 05 File Name: h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id:	L7VGC1AB	**Sdg/Rept Nbr:**	W06038	45260	**Collection Date:** 09/26/2010 13:06
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AV	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274338	I-129	-7.59E-02	pCi/L	8.6E-02	U	1.41E-01	90.8		I129LL_SEP_L	3.9181E+00	11/23/2010				D
BLK	15046-84-1			8.6E-02						L	21:00				

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 29, 2010

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id:	L7VF21CS	**Sdg/Rept Nbr:**	W06038	45260	**Collection Date:** 09/26/2010 07:58
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AQ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274334	C-14	7.26E+03	pCi/L	4.2E+02		3.19E+02	100.0	7.24E+03	C14_LSC	5.00E-03	11/10/2010			70	D
BS	14762-75-5			3.0E+02				100.1		L	18:32			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 29, 2010

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id: L7VF91CS **Sdg/Rept Nbr:** W06038 45260 **Collection Date:** 09/26/2010 09:56

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AS	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274336	CO-60	3.60E+01	pCi/L	7.7E+00		4.80E+00		3.83E+01	GAMMALL_GS	2.0012E+00	11/05/2010			70	D
BS	10198-40-0			7.7E+00				93.9		L	11:15			130	
0274336	CS-137	5.31E+01	pCi/L	9.7E+00		4.36E+00		5.00E+01	GAMMALL_GS	2.0012E+00	11/05/2010			70	D
BS	10045-97-3			9.7E+00				106.3		L	11:15			130	
0274336	EU-152	7.90E+01	pCi/L	1.6E+01		1.15E+01		7.68E+01	GAMMALL_GS	2.0012E+00	11/05/2010			70	D
BS	14683-23-9			1.6E+01				102.9		L	11:15			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 29, 2010

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id: L7VFX1CS **Sdg/Rept Nbr:** W06038 45260 **Collection Date:** 09/26/2010 13:11

Client Id: NA **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** BS **Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AU	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274333	TH-230	1.00E+01	pCi/L	2.5E+00		4.38E-01	74.6	1.13E+01	THISO_IE_PR	1.996E-01	10/20/2010			70	D
BS	14269-63-7			2.0E+00				88.9		L	00:33			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 29, 2010

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id:	L7VGC1CS	**Sdg/Rept Nbr:**	W06038	45260	**Collection Date:** 09/26/2010 13:06
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
	MW6-SBB-A19981								AW	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274338	I-129	1.02E+01	pCi/L	1.2E+00		3.18E-01	99.0	9.85E+00	I129LL_SEP_L	3.9214E+00	11/24/2010			70	D
BS	15046-84-1			1.2E+00				103.0		L	06:45			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 29, 2010

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id: L7K1P1FR **Sdg/Rept Nbr:** W06038 45260 **Collection Date:** 09/26/2010 13:11

Client Id: B27T66 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X11-004	MW6-SBB-A19981								AL	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274333	TH-228	1.84E-01	pCi/L	1.9E-01	U	2.21E-01	92.6		THISO_IE_PR	2.002E-01	10/19/2010	147.9	1.2		D
DUP	14274-82-9	2.76E-02		1.9E-01						L	20:34	20.0	3		
0274333	TH-230	0.00E+00	pCi/L	9.2E-02	U	2.16E-01	92.6		THISO_IE_PR	2.002E-01	10/19/2010	200.0	1.4		D
DUP	14269-63-7	8.99E-02		9.2E-02						L	20:34	20.0	3		
0274333	TH-232	0.00E+00	pCi/L	9.2E-02	U	2.16E-01	92.6		THISO_IE_PR	2.002E-01	10/19/2010	200.0	0.6		D
DUP	Th-232	3.60E-02		9.2E-02						L	20:34	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 29, 2010

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id: L7K241FR **Sdg/Rept Nbr:** W06038 45260 **Collection Date:** 09/26/2010 09:56

Client Id: B27T81 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X11-004	MW6-SBB-A19981								AM	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274336	BE-7	1.00E+01	pCi/L	1.9E+01	U	3.42E+01			GAMMALL_GS	2.0022E+00	11/05/2010	360.9	1.		D
DUP	13966-02-4	-2.88E+00		1.9E+01						L	07:43	20.0	3		
0274336	CO-60	-1.09E-01	pCi/L	1.8E+00	U	3.22E+00			GAMMALL_GS	2.0022E+00	11/05/2010	218.6	2.		D
DUP	10198-40-0	2.44E+00		1.8E+00						L	07:43	20.0	3		
0274336	CS-134	5.20E-01	pCi/L	1.6E+00	U	2.96E+00			GAMMALL_GS	2.0022E+00	11/05/2010	45.7	0.3		D
DUP	13967-70-9	8.28E-01		1.6E+00						L	07:43	20.0	3		
0274336	CS-137	-9.83E-02	pCi/L	1.6E+00	U	2.77E+00			GAMMALL_GS	2.0022E+00	11/05/2010	236.7	1.1		D
DUP	10045-97-3	1.17E+00		1.6E+00						L	07:43	20.0	3		
0274336	EU-152	-2.40E-01	pCi/L	4.2E+00	U	7.43E+00			GAMMALL_GS	2.0022E+00	11/05/2010	0.0	0.8		D
DUP	14683-23-9	-2.67E+00		4.2E+00						L	07:43	20.0	3		
0274336	EU-154	-7.04E-01	pCi/L	4.1E+00	U	7.47E+00			GAMMALL_GS	2.0022E+00	11/05/2010	0.0	0.5		D
DUP	15585-10-1	-2.04E+00		4.1E+00						L	07:43	20.0	3		
0274336	EU-155	1.67E+00	pCi/L	2.5E+00	U	4.55E+00			GAMMALL_GS	2.0022E+00	11/05/2010	0.0	3.		D
DUP	14391-16-3	-3.50E+00		2.5E+00						L	07:43	20.0	3		
0274336	K-40	-6.70E+01	pCi/L	3.6E+01	U	6.95E+01			GAMMALL_GS	2.0022E+00	11/05/2010	0.0	0.6		D
DUP	13966-00-2	-8.22E+01		3.6E+01						L	07:43	20.0	3		
0274336	RU-106	2.10E+00	pCi/L	1.4E+01	U	2.48E+01			GAMMALL_GS	2.0022E+00	11/05/2010	0.0	1.5		D
DUP	13967-48-1	-1.20E+01		1.4E+01						L	07:43	20.0	3		
0274336	SB-125	9.23E-01	pCi/L	3.8E+00	U	6.94E+00			GAMMALL_GS	2.0022E+00	11/05/2010	80.8	0.2		D
DUP	14234-35-6	3.92E-01		3.8E+00						L	07:43	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 29, 2010

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id:	L7K2T1FR	**Sdg/Rept Nbr:**	W06038	45260	**Collection Date:** 09/26/2010 07:58
Client Id:	B27T86	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X11-004	MW6-SBB-A19981								AN	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274334	C-14	4.21E+00	pCi/L	3.9E+00	U	7.95E+00	100.0		C14_LSC	2.00E-01	11/10/2010	45.8	0.9		D
DUP	14762-75-5	6.72E+00		3.4E+00						L	09:58	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, November 29, 2010

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06038.Edd, h:\Reportdb\edd\FeadIV\Rad\45260.Edd

Lab Sample Id:	L7K3L1FR	**Sdg/Rept Nbr:**	W06038	45260	**Collection Date:** 09/26/2010 13:06
Client Id:	B27T27	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 09/27/2010

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
X11-004	MW6-SBB-A19981								AO	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
0274338	I-129	5.69E-02	pCi/L	8.6E-02	U	1.67E-01	94.3		I129LL_SEP_L	3.8486E+00	11/23/2010	75.5	0.5		D
DUP	15046-84-1	2.57E-02		8.6E-02						L	07:10	20.0	3		

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).
B Qual- Analyte was found in the associated laboratory blank above the MDC.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

10/27/2010 2:46:17 PM

Lot No., Due Date: J0I280425; 10/27/2010
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 0274333; RTHISO Thiso by ALP
SDG, Matrix: W06038; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?	✓		
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

LMA 10/27/10

First Level Lisa Antonsen Date 10/27/10

TestAmerica Richland
QAS_RADCALCv4.8.44

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 0274333

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: [signature] Date: 11/1/10

LS-038B, Rev. 10, 9/07

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

11/9/2010 9:51:44 AM

Lot No., Due Date: J0I280425; 10/27/2010
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 0274336; RGAMMA Gamma by GER
SDG, Matrix: W06038; WATER

1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes ✓	No	N/A
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes ✓	No	N/A
2.2 Are the QC appropriate for the analysis included in the batch?	Yes ✓	No	N/A
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes ✓	No	N/A
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes	No	N/A ✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A ✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes ✓	No	N/A
3.5 Are the sample yields and MDAs within contract limits?	Yes ✓	No	N/A
4.0 Raw Data			
4.1 Were results calculated in the correct units?	Yes ✓	No	N/A
4.2 Were analysis volumes entered correctly?	Yes ✓	No	N/A
4.3 Were Yields entered correctly?	Yes ✓	No	N/A
4.4 Were spectra reviewed/meet contractual requirements?	Yes ✓	No	N/A
4.5 Were raw counts reviewed for anomalies?	Yes ✓	No	N/A
5.0 Other			
5.1 Are all nonconformances included and noted?	Yes	No	N/A ✓
5.2 Are all required forms filled out?	Yes ✓	No	N/A
5.3 Was the correct methodology used?	Yes ✓	No	N/A
5.4 Was transcription checked?	Yes ✓	No	N/A
5.5 Were all calculations checked at a minimum frequency?	Yes	No	N/A ✓
5.6 Are worksheet entries complete and correct?	Yes ✓	No	N/A

6.0 Comments on any No response:
The sample was re-counted in order to create a duplicate.

First Level [signature] **Date** 11-9-10

TestAmerica Richland
QAS_RADCALCv4.8.44

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 0274336

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie C. Date: 11/9/10

LS-038B, Rev. 10, 9/07

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

11/29/2010 9:23:58 AM

Lot No., Due Date: J0I280425; 10/27/2010
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 0274338; RGAMLEPS Gamma by LEPS
SDG, Matrix: W06038; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?	✓		
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?			✓
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?	✓		
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?			✓
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:
Please see NCM # 10-17037

First Level John Thornton **Date** 11-29-10

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 0274338

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓	✓	
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Non-conformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie C Date: 11/29/10

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-17037**
NCM Initiated By: John Norton
Date Opened: 11/29/2010
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: None
Lot #'s (Sample #'s): J0I280425 (10),
QC Batches: None.,

Nonconformance: Tracer yield out of limits
Subcategory: Unknown

Problem Description / Root Cause

Name	Date	Description
John Norton	11/29/2010	The tracer yield from this sample was greater than the accepted limit of 115%.

Corrective Action

Name	Date	Corrective Action
John Norton	11/29/2010	The gamma spectrum from this sample does not show a peak at the appropriate energy for I-129, the sample can be re-analyzed at client request.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 11/29/2010

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

11/15/2010 1:38:57 PM

Lot No., Due Date: J0I280425; 10/27/2010
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 0274334; RC14 C-14 by LSC
SDG, Matrix: W06038; WATER

	Yes	No	N/A
1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	✓		
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	✓		
2.2 Are the QC appropriate for the analysis included in the batch?	✓		
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	✓		
2.4 Does the Worksheets include a Tracer Vial label for each sample?			✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	✓		
3.2 Is the LCS result, yield, and MDA within contract limits?	✓		
3.3 Are the MS/MSD results, yields, and MDA within contract limits?			✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	✓		
3.5 Are the sample yields and MDAs within contract limits?	✓		
4.0 Raw Data			
4.1 Were results calculated in the correct units?	✓		
4.2 Were analysis volumes entered correctly?	✓		
4.3 Were Yields entered correctly?	✓		
4.4 Were spectra reviewed/meet contractual requirements?			✓
4.5 Were raw counts reviewed for anomalies?	✓		
5.0 Other			
5.1 Are all nonconformances included and noted?			✓
5.2 Are all required forms filled out?	✓		
5.3 Was the correct methodology used?	✓		
5.4 Was transcription checked?	✓		
5.5 Were all calculations checked at a minimum frequency?			✓
5.6 Are worksheet entries complete and correct?	✓		

6.0 Comments on any No response:

First Level [signature] **Date** 11-15-10

TestAmerica Richland
QAS_RADCALCv4.8.44

Page 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 0274334

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie G Date: 11/10/10

LS-038B, Rev. 10, 9/07

CHPRC PGW

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # X11-004-58

Page 1 of 1

Collector: ~~CA Snyder~~ CHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650
SAF No.: X11-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300118ES20
Project Title: FDURA, OCTOBER 2010	Logbook No: HNF-N-506 25/83	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated Richland	Method of Shipment: Government Vehicle	Bill of Lading/Air Bill No.: N/A
Protocol: CERCLA	Priority: 30 Days PRIORITY	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time — Total Activity Exemption: Yes ☑ No ☐
Do not combine samples from this SAF with other data sets. Need SDG to be stand alone.
100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401922.
Please report all TICs.

L7K1P

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B27T66	N	W	9-26-10	1311	1x20-mL P	Activity Scan	6 Months	None
B27T66	N	W	↓	↓	2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None
B27T66	N	W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B27T66	N	W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B27T66	N	W	↓	↓	1x1000-mL G/P	Isotopic Thorium	6 Months	HNO3 to pH <2

JQI280425
SDGW06038

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
~~CA Snyder~~ CHPRC			SEP 2 6 2010 1437	SSU #1			SEP 2 6 2010 1432
~~SSU-1~~			SEP 2 7 2010 1080	B.E. Briggs CHPRC			SEP 2 7 2010 1080
B.E. Briggs CHPRC			SEP 2 7 2010 1240	ANGEL Garcia			SEP 2 7 2010 1240
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (05/10)

CHPRC PGW	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X11-004-90 Page 1 of 1

Collector: SE Hamaker	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650
SAF No: CHPRC X11-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300118ES20
Project Title: FDURA, OCTOBER 2010	Logbook No: HNF-N-506 34179	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated, Richland	Method of Shipment: Government Vehicle	Bill of Lading/Air Bill No.: N/A
Protocol: CERCLA	Priority: 30 Days PRIORITY	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
Do not combine samples from this SAF with other data sets. Need SDG to be stand alone.
100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401922.
Please report all TICs.
L7K2T

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B27T86	N	W	9-26-10	0758	1x20-mL P	Activity Scan	6 Months	None
B27T86	N	W			2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None
B27T86	N	W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B27T86	N	W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B27T86	N	W			1x1000-mL G/P	Isotopic Thorium	6 Months	HNO3 to pH <2

JQI280425
SDG1W06038

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
SE Hamaker / SE Hamaker 1430	SEP 26 2010	SSU-1 / 1430	SEP 26 2010
SSU-1	SEP 27 2010 0800	B.E. Briggs CHPRC / BE Briggs	SEP 27 2010 0800
B.E. Briggs CHPRC / BE Briggs	SEP 27 2010 1240	TAKR / Angel Garcia	SEP 27 2010 1240

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (05/10)

CHPRC PGW

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # X11-004-82

Page 1 of 1

Collector CA Snyder CHPRC	**Contact/Requester** Karen Waters-Husted	**Telephone No.** 376-4650
SAF No. X11-004	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** 300118ES20
Project Title FDURA, OCTOBER 2010	**Logbook No:** HNF-N-506 25/83	**Ice Chest No.** N/A
Shipped To (Lab) TestAmerica Incorporated Richland	**Method of Shipment** Government Vehicle	**Bill of Lading/Air Bill No.** N/A
Protocol CERCLA	**Priority:** 30 Days **PRIORITY**	**Offsite Property No.** N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Do not combine samples from this SAF with other data sets. Need SDG to be stand alone.
100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401922.
Please report all TICs.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B27T81	N	W	9-26-10	0956	1x20-mL P	Activity Scan	6 Months	None
B27T81	N	W	↑	↓	2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None
B27T81	N	W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B27T81	N	W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B27T81	N	W	↓	↓	1x1000-mL G/P	Isotopic Thorium	6 Months	HNO3 to pH <2

L7K24

JCI280425
SDGTW06038

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CA Snyder CHPRC			SEP 2 6 2010 1432	SSU #1			SEP 2 6 2010 1432
SSU-1			SEP 2 7 2010 0800	B.E. Briggs CHPRC		BeBriggs	SEP 2 7 2010 0800
B.E. Briggs CHPRC		BeBriggs	SEP 2 7 2010 1240	AMBER Garcia			SEP 2 7 2010 1240

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liquid	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (05/10)

CHPRC PGW	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X11-004-18
		Page 1 of 1

Collector: SE Hamaker CHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650
SAF No.: X11-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300118ES20
Project Title: EDURA, OCTOBER 2010	Logbook No: HNF-N-506 34/79	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated, Richland	Method of Shipment: Government Vehicle	Bill of Lading/Air Bill No.: N/A
Protocol: CERCLA	Priority: 30 Days PRIORITY	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time — Total Activity Exemption: Yes ☑ No ☐
Do not combine samples from this SAF with other data sets. Need SDG to be stand alone.
100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401922.
Please report all TICs.
L7K3L

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B27T27	N	W	9-26-10	1306	1x20-mL P	Activity Scan	6 Months	None
B27T27	N	W			2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None
B27T27	N	W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B27T27	N	W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B27T27	N	W			1x1000-mL G/P	Isotopic Thorium	6 Months	HNO3 to pH <2

JOI280425
JDGW06038

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
SE Hamaker CHPRC	Scott Hamaker	1430 SEP 26 2010	SSU-1	1430	SEP 26 2010
SSU-1		0800 SEP 27 2010	B.E. Briggs CHPRC	B.E. Briggs	0800 SEP 27 2010
B.E. Briggs CHPRC	B.E. Briggs	1240 SEP 27 2010		Angel Garcia	1240 SEP 27 2010
Relinquished By		Date/Time	Received By		Date/Time

Matrix *
S = Soil, SE = Sediment, SO = Solid, SL = Sludge, W = Water, O = Oil, A = Air, DS = Drum Solid, DL = Drum Liquid, T = Tissue, WI = Wipe, L = Liquid, V = Vegetation, X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (05/10)

CHPRC PGW

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # X11-004-34

Page 1 of 1

Collector: KE Hamilton CHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650
SAF No.: X11-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300118ES20
Project Title: FDURA, OCTOBER 2010	Logbook No: HNF-N-506 33 / 64	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated, Richland	Method of Shipment: Government Vehicle	Bill of Lading/Air Bill No.: N/A
Protocol: CERCLA	Priority: 30 Days PRIORITY	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
Do not combine samples from this SAF with other data sets. Need SDG to be stand alone.
100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401922.
Please report all TICs.

L7K3Q

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B27T46	N	W	09/26/10	0841	1x20-mL P	Activity Scan	6 Months	None
B27T46	N	W	/	/	2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None
B27T46	N	W	/	/	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B27T46	N	W	/	/	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B27T46	N	W	09/26/10	0841	1x1000-mL G/P	Isotopic Thorium	6 Months	HNO3 to pH <2

JOI280425
SDGW06038

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
KE Hamilton CHPRC	Ken E Hamilton	SEP 2 6 2010 1520	SSU-1		SEP 2 6 2010 1520
SSU-1		SEP 2 7 2010 0800	B.E. Briggs CHPRC	BeBriggs	SEP 2 7 2010 0800
B.E. Briggs CHPRC	BeBriggs	SEP 2 7 2010 1240		Angel Garcia Angel Garcia	SEP 2 7 2010 1240
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liquid	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (05/10)

CHPRC PGW	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X11-004-35 Page 1 of 1

Collector KE Hamilton CHPRC	**Contact/Requester** Karen Waters-Husted	**Telephone No.** 376-4650
SAF No. X11-004	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** 300118ES20
Project Title EDURA OCTOBER 2010	**Logbook No:** HNF-N-506 53 / 64	**Ice Chest No.** N/A
Shipped To (Lab) TestAmerica Incorporated Richland	**Method of Shipment** Government Vehicle	**Bill of Lading/Air Bill No.** N/A
Protocol CERCLA	**Priority:** 30 Days **PRIORITY**	**Offsite Property No.** N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Do not combine samples from this SAF with other data sets. Need SDG to be stand alone.
100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401922.
Please report all TICs.
L7K3V

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B27T47	N	W	09/26/10	0841	1x20-mL P	Activity Scan	6 Months	None
B27T47	N	W	/	/	2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None
B27T47	N	W	/	/	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B27T47	N	W	/	/	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B27T47	N	W	09/26/10	0841	1x1000-mL G/P	Isotopic Thorium	6 Months	HNO3 to pH <2

JOI280425
SDGTW6038

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
KE Hamilton CHPRC			SEP 2 6 2010 1520	SSU- 1			SEP 2 6 2010 1520
SSU-1			SEP 2 7 2010 0800	B.E. Briggs CHPRC			SEP 2 7 2010 0800
B.E. Briggs CHPRC			SEP 2 7 2010 1240	ANGEL Garcia			SEP 2 7 2010 1240

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liquid	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (05/10)

CHPRC PGW

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # X11-004-50

Page 1 of 1

Collector: SE Hamaker CHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650
SAF No.: X11-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300118ES20
Project Title: FDURA, OCTOBER 2010	Logbook No: HNF-N-506 34 / 79	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated, Richland	Method of Shipment: Government Vehicle	Bill of Lading/Air Bill No.: N/A
Protocol: CERCLA	Priority: 30 Days **PRIORITY**	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Do not combine samples from this SAF with other data sets. Need SDG to be stand alone.
100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401922.
Please report all TICs.
L7K35

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B27T61	N	W	9-26-10	0913	1x20-mL P	Activity Scan	6 Months	None
B27T61	N	W			2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None
B27T61	N	W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B27T61	N	W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B27T61	N	W			1x1000-mL G/P	Isotopic Thorium	6 Months	HNO3 to pH <2

JOI280425
SDGIW06038

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
SE Hamaker CHPRC			1430 SEP 26 2010	SSU-1		1430	SEP 26 2010
SSU-1			SEP 27 2010 0800	B.E. Briggs CHPRC			SEP 27 2010 0800
B.E. Briggs CHPRC			SEP 27 2010 1240				SEP 27 2010 1240
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wine	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (05/10)

CHPRC PGW
CA Snyder

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # X11-004-141

Page 1 of 1

Collector: CHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650
SAF No.: X11-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300118ES20
Project Title: EDURA, OCTOBER 2010	Logbook No: HNF-N-506 25 / 83	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated, Richland	Method of Shipment: Government Vehicle	Bill of Lading/Air Bill No.: N/A
Protocol: CERCLA	Priority: 30 Days PRIORITY	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time — Total Activity Exemption: Yes ☑ No ☐
Do not combine samples from this SAF with other data sets. Need SDG to be stand alone.
100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401922.
Please report all TICs.

L7K4D

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B285T2	N	W	9-26-10	1123	1x20-mL P	Activity Scan	6 Months	None
B285T2	N	W	↓	↓	2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None
B285T2	N	W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B285T2	N	W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B285T2	N	W	↓	↓	1x1000-mL G/P	Isotopic Thorium	6 Months	HNO3 to pH <2

JOI280425
SDG1W06038

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CA Snyder CHPRC			SEP 2 6 2010 1432	SSU #1			SEP 2 6 2010 1432
SSU-1			SEP 2 7 2010 0800	B.E. Briggs CHPRC			SEP 2 7 2010 0800
B.E. Briggs CHPRC			SEP 2 7 2010 1240	Angel Garcia			SEP 2 7 2010 1240

Matrix *

S = Soil	DS = Drum Solid		
SE = Sediment	DL = Drum Liquid		
SO = Solid	T = Tissue		
SL = Sludge	WI = Wine		
W = Water	L = Liquid		
O = Oil	V = Vegetation		
A = Air	X = Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (05/10)

CHPRC PGW	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X11-004-98
		Page 1 of 1

Collector: CA Snyder, CHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650
SAF No.: X11-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300118ES20
Project Title: FDURA, OCTOBER 2010	Logbook No: HNF-N-506 25183	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated, Richland	Method of Shipment: Government Vehicle	Bill of Lading/Air Bill No.: N/A
Protocol: CERCLA	Priority: 30 Days PRIORITY	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time — Total Activity Exemption: Yes ☑ No ☐
Do not combine samples from this SAF with other data sets. Need SDG to be stand alone.
100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401922.
Please report all TICs.
L7K4K

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B27T91	N	W	9-26-10	0825	1x20-mL P	Activity Scan	6 Months	None
B27T91	N	W	↓	↓	2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None
B27T91	N	W	↓	↓	1x4000-mL G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B27T91	N	W	↓	↓	2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B27T91	N	W	↓	↓	1x1000-mL G/P	Isotopic Thorium	6 Months	HNO3 to pH <2

JDI280425
SDGW06038

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CA Snyder, CHPRC			SEP 2 6 2010 1432	SSU #1			SEP 2 6 2010 1432
SSU-1			SEP 2 7 2010 0800	B.E. Briggs, CHPRC			SEP 2 7 2010 0800
B.E. Briggs, CHPRC			SEP 2 7 2010 1240	ANGEL Garcia Lopez			SEP 2 7 2010 1240
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S = Soil	DS = Drum Solid		
SE = Sediment	DL = Drum Liquid		
SO = Solid	T = Tissue		
SL = Sludge	WI = Wipe		
W = Water	L = Liquid		
O = Oil	V = Vegetation		
A = Air	X = Other		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (05/10)

CHPRC PGW

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # X11-004-26

Page 1 of 1

Collector: KE Hamilton, CHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650
SAF No.: X11-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300118ES20
Project Title: EDURA OCTOBER 2010	Logbook No: HNF-N-506 33 / 64	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated Richland	Method of Shipment: Government Vehicle	Bill of Lading/Air Bill No.: N/A
Protocol: CERCLA	Priority: 30 Days PRIORITY	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time — Total Activity Exemption: Yes ☑ No ☐
Do not combine samples from this SAF with other data sets. Need SDG to be stand alone.
100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401922.
Please report all TICs.

L7K4Q

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B27T37	N	W	09/26/10	1011	1x20-mL P	Activity Scan	6 Months	None
B27T37	N	W			2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None
B27T37	N	W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B27T37	N	W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B27T37	N	W	09/26/10	1011	1x1000-mL G/P	Isotopic Thorium	6 Months	HNO3 to pH <2

JQI280425
SDGW06038

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
KE Hamilton, CHPRC	SEP 26 2010 1520	SSU- 1	SEP 26 2010 1520
SSU-1	SEP 27 2010 0800	B.E. Briggs, CHPRC	SEP 27 2010 0800
B.E. Briggs, CHPRC	SEP 27 2010 1240	ANGEL GARCIA TRUE	SEP 27 2010 1240

Matrix *

S = Soil		DS = Drum Solid	
SE = Sediment		DL = Drum Liqui	
SO = Solid		T = Tissue	
SL = Sludge		WI = Wipe	
W = Water		L = Liquid	
O = Oil		V = Vegetation	
A = Air		X = Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (05/10)

CHPRC PGU	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X11-004-6 Page 1 of 1

Collector: SE Hamaker	Contact/Requester: Karen Waters-Husted	Telephone No.: 376-4650
SAF: CHPRC X11-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300118ES20
Project Title: FDURA OCTOBER 2010	Logbook No: HNF-N-506 34/79	Ice Chest No.: N/A
Shipped To (Lab): TestAmerica Incorporated Richland	Method of Shipment: Government Vehicle	Bill of Lading/Air Bill No.: N/A
Protocol: CERCLA	Priority: 30 Days PRIORITY	Offsite Property No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes ☑ No ☐
Do not combine samples from this SAF with other data sets. Need SDG to be stand alone.
100 Area Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401922.
Please report all TICs.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B27T12	N	W	9-26-10	1046	1x20-mL P	Activity Scan	6 Months	None
B27T12	N	W			2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None
B27T12	N	W			1x4000-mL G/P	GAMMALL_GS: List-1 (9)	6 Months	HNO3 to pH <2
B27T12	N	W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None
B27T12	N	W			1x1000-mL G/P	Isotopic Thorium	6 Months	HNO3 to pH <2

L7K4R

JOI280425
SDG406038

JOI280425

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
SE Hamaker CHPRC		1430	SEP 2 6 2010	SSU-1		1430	SEP 2 6 2010
SSU-1			SEP 2 7 2010 0800	B.E. Briggs CHPRC			SEP 2 7 2010 0800
B.E. Briggs CHPRC			SEP 2 7 2010 1240				SEP 2 7 2010 1240
Relinquished By			Date/Time	Received By			Date/Time

Matrix *: S = Soil; SE = Sediment; SO = Solid; SL = Sludge; W = Water; O = Oil; A = Air; DS = Drum Solid; DL = Drum Liqui; T = Tissue; WI = Wipe; L = Liquid; V = Vegetation; X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

A-6004-842 (05/10)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 9.27.10 @1240 GM Screen Results (out) .2 (in) .3 Initials [✓]

Client: PGW SDG #: W06038 NA [ ] SAF #: X11-004 NA [ ]

Work Order Number: JQT280425 Chain of Custody # X11-004-58; 16; 26; 98; 141; 50; 35; 34; 18; 82; 90

Shipping Container ID: Hand Delivery NA [✓] Air Bill # _____ NA [✓]

Item 1 through 5 for shipping container only. Initial appropriate response.

1. Custody Seals on shipping container intact? Yes [✓] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ] No Custody Seal [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: 4°C NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 11
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ___ tape
   - ✓ custody seals
   - ___ hazard labels
   - ✓ appropriate sample labels
9. Samples are:
   - ✓ in good condition
   - ___ broken
   - ___ leaking
   - ___ have air bubbles
   - (Only for samples requiring head space)

   (Both)
10. Sample pH taken? NA [ ] pH<2 [✓] pH>2 [✓] pH>9 [ ] Amount of HNO3 Added _____
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): NA [✓] _____

see other side for additional comments

Sample Custodian: [signature] Date: 9.27.10 @1240 THR

Client Informed on N/A by N/A Person contacted N/A

[✓] No action necessary, process as is.

Project Manager: [signature] Date 10/1/10

LS-023, Rev. 10, 10/09

10/13/2010 4:53:44 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

9N Thiso Prp PRP004, Sep ALP005(ALP016)
S1 Thorium-228,230,232 by Alpha Spec
01 STANDARD TEST SET

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 10/27/2010

Sep1 DT/Tm Tech:

Batch: 0274333 WATER pCi/L PM, Quote: SS , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,JorgensonD

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
116 1 **L7K1P-1-AA** J0I280425-1-SAMP 09/26/2010 13:11		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	200.70g,in	200.70g	THTC20172 10/03/10,pd 09/23/10,r	206		Scr:	Alpha: -1.17E-03 uCi/Sa	Beta: 2.67E-03 uCi/Sa
117 2 **L7K1P-1-AF-X** J0I280425-1-DUP 09/26/2010 13:11		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	200.20g,in	200.20g	THTC20173 10/03/10,pd 09/23/10,r			Scr:	Alpha: -1.17E-03 uCi/Sa	Beta: 2.67E-03 uCi/Sa
118 3 **L7K2T-1-AA** J0I280425-2-SAMP 09/26/2010 07:58		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	200.00g,in	200.00g	THTC20174 10/03/10,pd 09/23/10,r			Scr:	Alpha: -2.26E-03 uCi/Sa	Beta: 2.83E-03 uCi/Sa
121 4 **L7K24-1-AA** J0I280425-3-SAMP 09/26/2010 09:56		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	200.60g,in	200.60g	THTC20175 10/03/10,pd 09/23/10,r			Scr:	Alpha: 2.51E-03 uCi/Sa	Beta: 1.85E-03 uCi/Sa
123 5 **L7K3L-1-AA** J0I280425-4-SAMP 09/26/2010 13:06		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	199.30g,in	199.30g	THTC20176 10/03/10,pd 09/23/10,r			Scr:	Alpha: -1.32E-03 uCi/Sa	Beta: 2.01E-03 uCi/Sa
124 6 **L7K3Q-1-AA** J0I280425-5-SAMP 09/26/2010 08:41		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	201.10g,in	201.10g	THTC20177 10/03/10,pd 09/23/10,r			Scr:	Alpha: -6.83E-05 uCi/Sa	Beta: 1.85E-03 uCi/Sa
125 7 **L7K3V-1-AA** J0I280425-6-SAMP 09/26/2010 08:41		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	200.40g,in	200.40g	THTC20178 10/03/10,pd 09/23/10,r			Scr:	Alpha: 4.30E-04 uCi/Sa	Beta: 5.64E-04 uCi/Sa

10/13/2010 4:53:45 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 10/27/2010

9N Thiso Prp PRP004, Sep ALP005(ALP016)
S1 Thorium-228,230,232 by Alpha Spec
01 STANDARD TEST SET

Balance Id:1120482733

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,JorgensonD

Batch: 0274333 WATER pCi/L PM, Quote: SS , 57671
SEQ Batch, Test: None

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 L7K35-1-AA J01280425-7-SAMP 09/26/2010 09:13		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	200.40g,in	200.40g	THTC20179 10/03/10,pd 09/23/10,r		Scr:	Alpha: -1.86E-03 uCi/Sa		Beta: 2.87E-03 uCi/Sa
9 L7K4D-1-AA J01280425-8-SAMP 09/26/2010 11:23		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	200.00g,in	200.00g	THTC20180 10/03/10,pd 09/23/10,r		Scr:	Alpha: 4.61E-04 uCi/Sa		Beta: 1.37E-03 uCi/Sa
10 L7K4K-1-AA J01280425-9-SAMP 09/26/2010 08:25		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	200.10g,in	200.10g	THTC20181 10/03/10,pd 09/23/10,r		Scr:	Alpha: 1.51E-05 uCi/Sa		Beta: 1.53E-03 uCi/Sa
11 L7K4Q-1-AA J01280425-10-SAMP 09/26/2010 10:11		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	199.40g,in	199.40g	THTC20182 10/03/10,pd 09/23/10,r		Scr:	Alpha: 1.93E-03 uCi/Sa		Beta: 7.99E-05 uCi/Sa
12 L7K4R-1-AA J01280425-11-SAMP 09/26/2010 10:46		AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	199.90g,in	199.90g	THTC20183 10/03/10,pd 09/23/10,r		Scr:	Alpha: 2.95E-04 uCi/Sa		Beta: 2.01E-03 uCi/Sa
13 L7VFX-1-AA-B J0J010000-333-BLK 10/04/2010 11:36 pd		AmtRec: #Containers: 1	200.70g,in	200.70g	THTC20184 10/03/10,pd 09/23/10,r		Scr:	Alpha:		Beta:
14 L7VFX-1-AC-C J0J010000-333-LCS 10/04/2010 11:36 pd		AmtRec: #Containers: 1	199.60g,in	199.60g	THSI2571 10/03/10,pd 09/23/10,r		Scr:	Alpha:		Beta:

10/13/2010 4:53:46 PM

Sample Preparation/Analysis

9N Thiso Prp PRP004, Sep ALP005(ALP016)
S1 Thorium-228,230,232 by Alpha Spec
01 STANDARD TEST SET

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 10/27/2010

Sep1 DT/Tm Tech:

Batch: 0274333 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,JorgensonD

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments:

pH<2 JC 10/13/10

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

L7K1P1AA-SAMP Constituent List:

Th-228	RDL:1	pCi/L	LCL:	UCL:	RPD:	Th-230	RDL:1	pCi/L	LCL:70	UCL:130	RPD:20
Th-232	RDL:1	pCi/L	LCL:	UCL:	RPD:	Th-234	RDL:	pCi/L	LCL:20	UCL:115	RPD:20

L7VFX1AA-BLK:

Th-228	RDL:1	pCi/L	LCL:	UCL:	RPD:	Th-230	RDL:1	pCi/L	LCL:	UCL:	RPD:
Th-232	RDL:1	pCi/L	LCL:	UCL:	RPD:	Th-234	RDL:	pCi/L	LCL:20	UCL:115	RPD:20

L7VFX1AC-LCS:

Th-230	RDL:1	pCi/L	LCL:70	UCL:130	RPD:20	Th-234	RDL:	pCi/L	LCL:20	UCL:115	RPD:20

L7K1P1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
L7VFX1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
L7VFX1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

10/27/2010 2:45:43 PM

ICOC Fraction Transfer/Status Report

ByDate: 10/27/2009, 11/1/2010, Batch: '0274333', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
0274333						
AC		Rev1C	JorgensonD	10/18/2010 3:42:51		
SC			wagarr	IsBatched	10/4/2010 11:40:28 AM	ICOC_RADCALC v4.8.40
SC			JorgensonD	Sep1C	10/18/2010 3:42:51 PM	ALP-001 REVISION 2
SC			JorgensonD	Sep2C	10/19/2010 4:12:25 PM	RL-ALP-016 REVISION 1
SC			ClarkR	InCnt1	10/19/2010 4:14:38 PM	RL-CI-008 REVISION 1
SC			BlackCL	CalcC	10/20/2010 6:38:06 AM	RL-CI-008 REVISION 1
SC			antonsonl	Rev1C	10/27/2010 2:45:20 PM	RL-DR-001 Rev 2
AC			JorgensonD	10/19/2010 4:12:25		
AC			ClarkR	10/19/2010 4:14:38		
AC			BlackCL	10/20/2010 6:38:06		
AC			antonsonl	10/27/2010 2:45:20		

AC: Accepting Entry, SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

10/26/2010 7:16:39 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AW Gamma Prp GAM001
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 10/27/2010

Sep1 DT/Tm Tech:

Batch: 0274336 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 0274333 9NS1, 0274334 5SS3, 0274336 AWTA, 0274338 BNTB,

Prep Tech: ,Barcotl Back

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 L7K1P-1-AD J0I280425-1-SAMP 09/26/2010 13:11			2001.30g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	2001.30g		100mL	200	G5	1400	11/4/10 m	
								Scr:	Alpha: -1.17E-03 uCi/Sa	Beta: 2.67E-03 uCi/Sa	
2 L7K2T-1-AD J0I280425-2-SAMP 09/26/2010 07:58			2001.90g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	2001.90g				G5	1734	11/4/10 m	
								Scr:	Alpha: -2.26E-03 uCi/Sa	Beta: 2.83E-03 uCi/Sa	
3 L7K24-1-AD J0I280425-3-SAMP 09/26/2010 09:56			2002.20g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	2002.20g				G5	2141	11/4/10 0020	
								Scr:	Alpha: 2.51E-03 uCi/Sa	Beta: 1.85E-03 uCi/Sa	
4 L7K24-1-AF-X ISV J0I280425-3-DUP 09/26/2010 09:56			AmtRec: VIAL20,3XLP,3X4LP #Containers: 7					G5	1103	11/5/10 m	
								Scr:	Alpha: 2.51E-03 uCi/Sa	Beta: 1.85E-03 uCi/Sa	
5 L7K3L-1-AD J0I280425-4-SAMP 09/26/2010 13:06			2002.10g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	2002.10g				G5	0208	11/4/10 0020	
								Scr:	Alpha: -1.32E-03 uCi/Sa	Beta: 2.01E-03 uCi/Sa	
6 L7K3Q-1-AD J0I280425-5-SAMP 09/26/2010 08:41			2001.60g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	2001.60g				G5	1104	11/5/10 m	
								Scr:	Alpha: -6.83E-05 uCi/Sa	Beta: 1.85E-03 uCi/Sa	
7 L7K3V-1-AD J0I280425-6-SAMP 09/26/2010 08:41			2000.00g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	2000.00g				G11	1165		
								Scr:	Alpha: 4.30E-04 uCi/Sa	Beta: 5.64E-04 uCi/Sa	

TestAmerica Richland Wa. Key: In - Initial Amt, fl - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7
Prep_SamplePrep v4.8.49

10/26/2010 7:16:42 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AW Gamma Prp GAM001
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 10/27/2010

Sep1 DT/Tm Tech:

Batch: 0274336 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,Barcotl

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 L7K35-1-AD J0I280425-7-SAMP 09/26/2010 09:13			2002.40g,in AmtRec: VIAL20,3XLP,3X4LP	2002.40g #Containers: 7		100mL	200	G14 Scr:	1105 Alpha: -1.86E-03 uCi/Sa	11/5/10 m Beta: 2.87E-03 uCi/Sa	
9 L7K4D-1-AD J0I280425-8-SAMP 09/26/2010 11:23			2001.20g,in AmtRec: VIAL20,3XLP,3X4LP	2001.20g #Containers: 7				G7 Scr:	1106 Alpha: 4.61E-04 uCi/Sa	 Beta: 1.37E-03 uCi/Sa	
10 L7K4K-1-AD J0I280425-9-SAMP 09/26/2010 08:25			2001.80g,in AmtRec: VIAL20,3XLP,3X4LP	2001.80g #Containers: 7				G10 Scr:	1106 Alpha: 1.51E-05 uCi/Sa	 Beta: 1.53E-03 uCi/Sa	
11 L7K4Q-1-AD J0I280425-10-SAMP 09/26/2010 10:11			2001.90g,in AmtRec: VIAL20,3XLP,3X4LP	2001.90g #Containers: 7				G13 Scr:	1107 Alpha: 1.93E-03 uCi/Sa	 Beta: 7.99E-05 uCi/Sa	
12 L7K4R-1-AD J0I280425-11-SAMP 09/26/2010 10:46			2002.20g,in AmtRec: VIAL20,3XLP,3X4LP	2002.20g #Containers: 7				G5 Scr:	1433 Alpha: 2.95E-04 uCi/Sa	11/5/10 m Beta: 2.01E-03 uCi/Sa	
13 L7VF9-1-AA-B J0J010000-336-BLK 10/04/2010 11:36 pd			2002.40g,in AmtRec:	2002.40g #Containers: 1				G15 Scr:	1434 Alpha:	 Beta:	
14 L7VF9-1-AC-C J0J010000-336-LCS 10/04/2010 11:36 pd			2001.20g,in AmtRec:	2001.20g #Containers: 1	QCAG1675 09/16/10,pd 11/07/03,r			G14 Scr:	1435 Alpha:	 Beta:	

10/26/2010 7:16:43 AM

Sample Preparation/Analysis

AW Gamma Prp GAM001
TA Gamma by HPGE
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 10/27/2010

Sep1 DT/Tm Tech:

Batch: 0274336 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,Barcotl

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments: L7K24-SAMP "Comments:No dup due to ISV please recount on separate detector IB 10-26-10"

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

L7K1P1AD-SAMP Constituent List:

Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:

L7VF91AA-BLK:

Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:

L7VF91AC-LCS:

Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20						

L7K1P1AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
L7VF91AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
L7VF91AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

11/8/2010 1:04:01 PM

ICOC Fraction Transfer/Status Report

ByDate: 11/8/2009, 11/13/2010, Batch: '0274336', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
0274336						
AC		Rev1C	Barcotl	10/26/2010 8:01:36		
SC			wagarr	IsBatched	10/4/2010 11:40:28 AM	ICOC_RADCALC v4.8.40
SC			Barcotl	InPrep	10/26/2010 8:01:36 AM	RL-PRP-004 REVISION 1
SC			BockJ	Prep2C	11/4/2010 10:35:11 AM	RL-GAM-001 REVISION 1
SC			ClarkR	InCnt1	11/4/2010 10:41:39 AM	RL-CI-007 REVISION 1
SC			DAWKINSO	CalcC	11/5/2010 7:54:22 PM	RL-CI-007 REVISION 1
SC			nortonj	Rev1C	11/8/2010 1:02:59 PM	RL-DR-001 Rev 2
AC			BockJ	11/4/2010 10:35:11		
AC			ClarkR	11/4/2010 10:41:39		
AC			DAWKINSO	11/5/2010 7:54:22 PM		
AC			nortonj	11/8/2010 1:02:59 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

11/11/2010 11:34:34 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 10/27/2010

Sep1 DT/Tm Tech:

Batch: 0274338 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 0274333 9NS1, 0274334 5SS3, 0274336 AWTA, 0274338 BNTB,

Prep Tech: ,JorgensonD, ONEILL D

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 L7K1P-1-AE J0I280425-1-SAMP 09/26/2010 13:11		3742.50g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	ITA10171 10/15/10		34.8	200	L5	1417 Scr: Alpha: -1.17E-03 uCi/Sa	11/22/10 Beta: 2.67E-03 uCi/Sa	
2 L7K2T-1-AE J0I280425-2-SAMP 09/26/2010 07:58		3724.00g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	ITA10172 10/15/10		34.8		L5	1741 Scr: Alpha: -2.26E-03 uCi/Sa	11/22/10 Beta: 2.83E-03 uCi/Sa	
3 L7K24-1-AE J0I280425-3-SAMP 09/26/2010 09:56		3797.50g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	ITA10173 10/15/10		33.8		L5	2130 Scr: Alpha: 2.51E-03 uCi/Sa	11/22/10 Beta: 1.85E-03 uCi/Sa	
4 L7K3L-1-AE J0I280425-4-SAMP 09/26/2010 13:06		3742.80g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	ITA10174 10/15/10		35.6		L4	1030 Scr: Alpha: -1.32E-03 uCi/Sa	11/22/10 Beta: 2.01E-03 uCi/Sa	
5 L7K3L-1-AF-X J0I280425-4-DUP 09/26/2010 13:06		3848.60g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	ITA10175 10/15/10		34.9		L5	1030 Scr: Alpha: -1.32E-03 uCi/Sa	Beta: 2.01E-03 uCi/Sa	
6 L7K3Q-1-AE J0I280425-5-SAMP 09/26/2010 08:41		3916.40g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	ITA10176 10/15/10		33.6		L4	1400 Scr: Alpha: -6.83E-05 uCi/Sa	11/22/10 Beta: 1.85E-03 uCi/Sa	
7 L7K3V-1-AE J0I280425-6-SAMP 09/26/2010 08:41		3902.90g,in AmtRec: VIAL20,3XLP,3X4LP #Containers: 7	ITA10177 10/15/10		31.1		L5	1400 Scr: Alpha: 4.30E-04 uCi/Sa	Beta: 5.64E-04 uCi/Sa	

11/11/2010 11:34:35 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 10/27/2010

Sep1 DT/Tm Tech:

Batch: 0274338 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,JorgensonD

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 L7K35-1-AE J0I280425-7-SAMP 09/26/2010 09:13		3867.00g,in AmtRec: VIAL20,3XLP,3X4LP	ITA10178 10/15/10 #Containers: 7		34.3	200	L4	1721 Scr: Alpha: -1.86E-03 uCi/Sa	4/23/10 m	Beta: 2.87E-03 uCi/Sa
9 L7K4D-1-AE J0I280425-8-SAMP 09/26/2010 11:23		3869.00g,in AmtRec: VIAL20,3XLP,3X4LP	ITA10179 10/15/10 #Containers: 7		34.7		L5	1728 Scr: Alpha: 4.61E-04 uCi/Sa		Beta: 1.37E-03 uCi/Sa
10 L7K4K-1-AE J0I280425-9-SAMP 09/26/2010 08:25		3830.20g,in AmtRec: VIAL20,3XLP,3X4LP	ITA10180 10/15/10 #Containers: 7		33.7		L4	2052 Scr: Alpha: 1.51E-05 uCi/Sa	11/23/10 DD	Beta: 1.53E-03 uCi/Sa
11 L7K4Q-1-AE J0I280425-10-SAMP 09/26/2010 10:11		3862.10g,in AmtRec: VIAL20,3XLP,3X4LP	ita10181 11/03/10 #Containers: 7		42.9		L5	2053 Scr: Alpha: 1.93E-03 uCi/Sa		Beta: 7.99E-05 uCi/Sa
12 L7K4R-1-AE J0I280425-11-SAMP 09/26/2010 10:46		3802.30g,in AmtRec: VIAL20,3XLP,3X4LP	ita10182 11/03/10 #Containers: 7		32.6		L4	0019 Scr: Alpha: 2.95E-04 uCi/Sa		Beta: 2.01E-03 uCi/Sa
13 L7VGC-1-AA-B J0J010000-338-BLK 10/04/2010 11:36 pd		3918.10g,in AmtRec:	ita10183 11/03/10 #Containers: 1		33.6		L5	0020 Scr: Alpha:		Beta:
14 L7VGC-1-AC-C J0J010000-338-LCS 10/04/2010 11:36 pd		3921.40g,in AmtRec:	isd1156 10/16/10 #Containers: 1		37.5		L4	1005 Scr: Alpha:	11/24/10 m	Beta:

TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 14

Prep_SamplePrep v4.8.49

11/11/2010 11:34:36 AM

Sample Preparation/Analysis

Balance Id:1120482733

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 10/27/2010

Sep1 DT/Tm Tech:

Batch: 0274338 pCi/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,JorgensonD

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments: L7K24-SAMP "Comments:No dup due to ISV please recount on separate detector IB 10-26-10"

```
All Clients for Batch:
   384868, Pacific Northwest National Laboratory      Pacific Northwest National Lab,  SS , 57671

L7K1P1AE-SAMP Constituent List:
  I-129        RDL:0.50E+00    pCi/L    LCL:        UCL:        RPD:
L7VGC1AA-BLK:
  I-129        RDL:0.50E+00    pCi/L    LCL:        UCL:        RPD:
L7VGC1AC-LCS:
  I-129        RDL:5           pCi/L    LCL:70      UCL:130     RPD:20
L7K1P1AE-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
L7VGC1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
L7VGC1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```

11/29/2010 10:29:45 AM

ICOC Fraction Transfer/Status Report

ByDate: 11/29/2009, 12/4/2010, Batch: '0274338', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
0274338						
AC		Rev1C	JorgensonD	11/11/2010 11:34:16		
SC			wagarr	IsBatched	10/4/2010 11:40:28 AM	ICOC_RADCALC v4.8.40
SC			JorgensonD	Prep1C	11/11/2010 11:34:16 AM	RL-PRP-004 REVISION 1
SC			ONeillD	InPrep2	11/18/2010 1:54:54 PM	RL-GAM-002 REVISION 1
SC			ONeillD	Prep2C	11/22/2010 10:46:58 AM	RL-GAM-002 REVISION 1
SC			ClarkR	InCnt1	11/22/2010 10:49:19 AM	RL-CI-007 REVISION 1
SC			ClarkR	CalcC	11/24/2010 12:51:07 PM	RL-CI-007 REVISION 1
SC			nortonj	Rev1C	11/24/2010 2:36:41 PM	RL-DR-001 Rev 2
AC			ONeillD	11/18/2010 1:54:54		
AC			ONeillD	11/22/2010 10:46:58		
AC			ClarkR	11/22/2010 10:49:19		
AC			ClarkR	11/24/2010 12:51:07		
AC			nortonj	11/24/2010 2:36:41		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions v4.8.44

106,127

11/5/2010 2:26:48 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

AnalyDueDate: 10/27/2010

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

PRIORITY

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Batch: 0274334 **WATER** **pCi/L** **PM, Quote: SS , 57671**
SEQ Batch, Test: None All Tests: 0274333 9NS1, 0274334 5SS3, 0274336 AWTA, 0274338 BNTB,

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 L7K1P-1-AC J0I280425-1-SAMP 09/26/2010 13:11	AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7				Scr:	Alpha: -1.17E-03 uCi/Sa	Beta: 2.67E-03 uCi/Sa
2 L7K2T-1-AC J0I280425-2-SAMP 09/26/2010 07:58	AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7				Scr:	Alpha: -2.26E-03 uCi/Sa	Beta: 2.83E-03 uCi/Sa
3 L7K2T-1-AF-X J0I280425-2-DUP 09/26/2010 07:58	AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7				Scr:	Alpha: -2.26E-03 uCi/Sa	Beta: 2.83E-03 uCi/Sa
4 L7K24-1-AC J0I280425-3-SAMP 09/26/2010 09:56	AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7				Scr:	Alpha: 2.51E-03 uCi/Sa	Beta: 1.85E-03 uCi/Sa
5 L7K3L-1-AC J0I280425-4-SAMP 09/26/2010 13:06	AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7				Scr:	Alpha: -1.32E-03 uCi/Sa	Beta: 2.01E-03 uCi/Sa
6 L7K3Q-1-AC J0I280425-5-SAMP 09/26/2010 08:41	AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7				Scr:	Alpha: -6.83E-05 uCi/Sa	Beta: 1.85E-03 uCi/Sa
7 L7K3V-1-AC J0I280425-6-SAMP 09/26/2010 08:41	AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7				Scr:	Alpha: 4.30E-04 uCi/Sa	Beta: 5.64E-04 uCi/Sa

11/5/2010 2:26:48 PM

Sample Preparation/Analysis

384868, Pacific Northwest National Laboratory ,
Pacific Northwest National Lab

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

AnalyDueDate: 10/27/2010

Batch: 0274334 **WATER** **pCi/L** **PM, Quote: SS , 57671**
SEQ Batch, Test: None

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 L7K35-1-AC								
J0I280425-7-SAMP								
09/26/2010 09:13		AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7			Scr:	Alpha: -1.86E-03 uCi/Sa	Beta: 2.87E-03 uCi/Sa
9 L7K4D-1-AC								
J0I280425-8-SAMP								
09/26/2010 11:23		AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7			Scr:	Alpha: 4.61E-04 uCi/Sa	Beta: 1.37E-03 uCi/Sa
10 L7K4K-1-AC								
J0I280425-9-SAMP								
09/26/2010 08:25		AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7			Scr:	Alpha: 1.51E-05 uCi/Sa	Beta: 1.53E-03 uCi/Sa
11 L7K4Q-1-AC								
J0I280425-10-SAMP								
09/26/2010 10:11		AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7			Scr:	Alpha: 1.93E-03 uCi/Sa	Beta: 7.99E-05 uCi/Sa
12 L7K4R-1-AC								
J0I280425-11-SAMP								
09/26/2010 10:46		AmtRec: VIAL20,3XLP,3X4LP	#Containers: 7			Scr:	Alpha: 2.95E-04 uCi/Sa	Beta: 2.01E-03 uCi/Sa
13 L7VF2-1-AA-B								
J0J010000-334-BLK								
10/04/2010 11:39 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
14 L7VF2-1-AC-C								
J0J010000-334-LCS								
10/04/2010 11:39 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

11/5/2010 2:26:49 PM

Sample Preparation/Analysis

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

AnalyDueDate: 10/27/2010

Batch: 0274334 pCi/L
SEQ Batch, Test: None

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 L7VF2-1-AD-BN								
J0J010000-334-IBLK								
10/04/2010 11:39 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
16 L7VF2-1-AE-BN								
J0J010000-334-IBLK								
10/04/2010 11:39 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments: L7K24-SAMP "Comments:No dup due to ISV please recount on separate detector IB 10-26-10"

```
All Clients for Batch:
   384868, Pacific Northwest National Laboratory      Pacific Northwest National Lab,  SS , 57671

L7K1P1AC-SAMP Constituent List:
  C-14        RDL:2.00E+02    pCi/L    LCL:70      UCL:130     RPD:20
L7VF21AA-BLK:
  C-14        RDL:2.00E+02    pCi/L    LCL:        UCL:        RPD:
L7VF21AC-LCS:
  C-14        RDL:200         pCi/L    LCL:70      UCL:130     RPD:20
L7VF21AD-IBLK:
  C-14        RDL:2.00E+02    pCi/L    LCL:        UCL:        RPD:
L7VF21AE-IBLK:
  C-14        RDL:2.00E+02    pCi/L    LCL:        UCL:        RPD:
L7K1P1AC-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
L7VF21AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
L7VF21AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
L7VF21AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
L7VF21AE-IBLK:
```

11/5/2010 2:26:49 PM

Sample Preparation/Analysis

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:

Pipet #: _____

AnalyDueDate: 10/27/2010

Sep1 DT/Tm Tech:

Batch: 0274334 **pCi/L**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

11/15/2010 1:38:10 PM

ICOC Fraction Transfer/Status Report

ByDate: 11/15/2009, 11/20/2010, Batch: '0274334', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
0274334						
AC		Rev1C	ClarkR	11/9/2010 2:26:27 PM		
SC			wagarr	IsBatched	10/4/2010 11:40:28 AM	ICOC_RADCALC v4.8.40
SC			ClarkR	InCnt1	11/9/2010 2:26:27 PM	RL-CI-005 REVISION 1
SC			BlackCL	CalcC	11/11/2010 9:22:31 AM	RL-CI-005 REVISION 1
SC			WagnerF	Sep1C	11/11/2010 9:39:03 AM	RL-LSC-008 REVISION 1
SC			NelsonT	Sep1C	11/11/2010 9:39:24 AM	RL-LSC-008 REVISION 1
SC			BlackCL	InCnt1	11/11/2010 10:50:14 AM	RL-CI-005 REVISION 1
SC			nortonj	Rev1C	11/15/2010 1:37:46 PM	RL-DR-001 Rev 2
AC			BlackCL	11/11/2010 9:22:31		
AC			WagnerF	11/11/2010 9:39:03		
AC			NelsonT	11/11/2010 9:39:24		
AC			BlackCL	11/11/2010 10:50:14		
AC			nortonj	11/15/2010 1:37:46		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

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Grp Rec Cnt:6

ICOCFractions v4.8.44