

**APPENDIX C: SOIL AND MISCELLANEOUS SAMPLE
ANALYTICAL RESULTS**

INDEX

TestAmerica Analytical Report F7K210247, 12-19-2007 1
 Samples BD-38, 42 to 48, NB-136 to 141

TestAmerica Analytical Report F7K210252, 1-2-2008..... 58
 Samples BD-19, 28, 34, 35, , 40, 41
 Samples NB-104, 106 to 108, 139, 141 to 144

TestAmerica Analytical Report F7K210277, 12-10-2007 127
 Samples NB-112 to 115, 120, 121, 126 to 133

TestAmerica Analytical Report F7K210313, 12-10-2007 193
 Samples BD-24, 41, NB-87 to 89, 109 to 113, 115 to 119

TestAmerica Analytical Report F7K210337, 12-26-2007 255
 Samples NB-90 to 102, 134, 135

TestAmerica Analytical Report F7K210350, 12-10-2007 322
 Samples NB-102, 103, 105, 109, 122-125

TestAmerica Analytical Report F7K280308, 12-21-2007 362
 Samples D04, D05, D08, D13, D15-230-1
 Samples D01, D02, D03, D04-230-2
 Samples D01, D02, D03-230-3, D01-110-3

TestAmerica Analytical Report F7K280316, 12-21-2007 391
 Samples BD-21 to 23, 25 to 27, 29 to 33, 36, 37, 39

TestAmerica Analytical Report F7K280318, 12-19-2007 462
 Samples BD-17, 18, 20, 21

TestAmerica Analytical Report F7L050305, 1-7-2008 484
 Samples D05, D08, D13, D15-230-1, BD1, BD2-230-1-DUST

RECEIVED JUN 1 2 2008



ANALYTICAL REPORT

PROJECT NO. 313010.202

Hematite Site

Lot #: F7K210247

Paul Ely

Energy Solutions, LLC
1009 Commerce Park Drive
Suite 100
Oak Ridge, TN 37830

TESTAMERICA LABORATORIES, INC.


Ivan Vania
Project Manager

December 19, 2007

Case Narrative
LOT NUMBER: F7K210247

This report contains the analytical results for the 40 samples received under chain of custody by TestAmerica St. Louis on November 21, 2007. These samples are associated with your Hematite Site project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Neptunium by Alpha Spectroscopy

The Neptunium LCS tracer recovery is outside acceptance limits. LCS spike recoveries are within QC limits demonstrating acceptable sample preparation and instrument performance. There is an apparent anomaly in the sample preparation, isolated to the LCS and not indicative of the batch.

Affected Samples:

F7K210247 (1): BD-38-2.5-SL	F7K210247 (24): BD-48-5.5-SL
F7K210247 (3): BD-38-5-SL	F7K210247 (25): NB-136-0.5-SL
F7K210247 (5): BD-42-4.5-SL	F7K210247 (28): NB-137-0.5-SL
F7K210247 (7): BD-43-2.5-SL	F7K210247 (29): NB-137-4.5-SL
F7K210247 (10): BD-44-2.5-SL	F7K210247 (31): NB-138-0.5-SL
F7K210247 (13): BD-45-2.5-SL	F7K210247 (34): NB-139-0.5-SL
F7K210247 (16): BD-46-2.5-SL	F7K210247 (36): NB-140-0.5-SL
F7K210247 (22): BD-48-2.5-SL	F7K210247 (39): NB-141-0.5-SL

Technetium-99 by LSC

The RPD/RER is not within method acceptance criteria. The sample is non-homogeneous. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F7K210247 (34): NB-139-0.5-SL	F7K210247 (39): NB-141-0.5-SL
F7K210247 (36): NB-140-0.5-SL	

There were no nonconformances or observations noted with any other analysis on this lot.

METHODS SUMMARY**F7K210247**

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EML GA-01-R MOD	
Isotopic Plutonium by Alpha Spectroscopy	EML A-01-R	
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Neptunium by Alpha Spectroscopy	EML A-01-R MOD	
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

SAMPLE SUMMARY

F7K210247

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KCQR5	001	BD-38-2.5-SL	11/20/07	14:10
KCQR8	002	BD-38-4.5-SL	11/20/07	14:10
KCQTA	003	BD-38-5-SL	11/20/07	14:15
KCQTF	004	BD-42-2.5-SL	11/20/07	14:00
KCQTK	005	BD-42-4.5-SL	11/20/07	14:00
KCQTO	006	BD-42-9-SL	11/20/07	15:40
KCQT0	007	BD-43-2.5-SL	11/20/07	13:10
KCQT2	008	BD-43-4.5-SL	11/20/07	13:10
KCQT6	009	BD-43-5-SL	11/20/07	13:20
KCQT8	010	BD-44-2.5-SL	11/19/07	17:25
KCQT9	011	BD-44-4.5-SL	11/19/07	17:25
KCQVA	012	BD-44-8.5-SL	11/19/07	17:40
KCQVC	013	BD-45-2.5-SL	11/08/07	18:20
KCQVD	014	BD-45-4.5-SL	11/08/07	18:20
KCQVF	015	BD-45-13-SL	11/08/07	18:30
KCQVG	016	BD-46-2.5-SL	11/20/07	10:50
KCQVH	017	BD-46-4.5-SL	11/20/07	10:50
KCQVJ	018	BD-46-5-SL	11/20/07	11:00
KCQVL	019	BD-47-2.5-SL	11/19/07	08:25
KCQVN	020	BD-47-4.5-SL	11/19/07	08:25
KCQVQ	021	BD-47-6.5-SL	11/19/07	08:30
KCQVT	022	BD-48-2.5-SL	11/19/07	09:00
KCQV0	023	BD-48-4.5-SL	11/19/07	09:00
KCQV2	024	BD-48-5.5-SL	11/19/07	09:04
KCQV4	025	NB-136-0.5-SL	11/14/07	17:48
KCQV5	026	NB-136-4.5-SL	11/14/07	17:53
KCQV6	027	NB-136-17.5-SL	11/14/07	18:10
KCQV8	028	NB-137-0.5-SL	11/13/07	16:35
KCQV8	029	NB-137-4.5-SL	11/13/07	16:38
KCQWH	030	NB-137-13.5-SL	11/13/07	16:50
KCQWK	031	NB-138-0.5-SL	11/15/07	14:45
KCQWP	032	NB-138-4.5-SL	11/15/07	14:50
KCQWT	033	NB-138-14.5-SL	11/15/07	15:05
KCQWX	034	NB-139-0.5-SL	11/15/07	08:35
KCQW2	035	NB-139-15-SL	11/15/07	08:55
KCQW4	036	NB-140-0.5-SL	11/15/07	10:10

(Continued on next page)

SAMPLE SUMMARY**F7K210247**

<u>NO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KCQW5	037	NB-140-4.5-SL	11/15/07	10:16
KCQW8	038	NB-140-12.5-SL	11/15/07	10:27
KCQXA	039	NB-141-0.5-SL	11/13/07	17:15
KCQXC	040	NB-141-4.5-SL	11/13/07	17:20

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Energy Solutions, LLC

Client Sample ID: BD-38-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-001
 Work Order: KCOR5
 Matrix: SOLID

Date Collected: 11/20/07 1410
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0054	U	0.0063	pCi/g 1.00	Batch # 7339318 0.052	12/05/07	Yld % 99 12/08/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.014	U	0.010	pCi/g 1.00	Batch # 7339323 0.071	12/05/07	Yld % 91 12/12/07
Plutonium 239/40	-0.0039	U	0.0055	1.00	0.051	12/05/07	12/12/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.67	J	0.31	pCi/g 1.00	Batch # 7332482 0.46	11/28/07	Yld % 93 12/04/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	2.57		0.39	pCi/g 1.00	Batch # 7339326 0.06	12/05/07	Yld % 95 12/10/07
Uranium 235/236	0.084	J	0.066	1.00	0.053	12/05/07	12/10/07
Uranium 238	0.86	J	0.20	1.00	0.05	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.062	U	0.098	pCi/g 1.00	Batch # 7332236 0.16	11/28/07	Yld % 12/08/07
Cesium 137	0.028	U	0.050	1.00	0.085	11/28/07	12/08/07
Thorium 232	0.27	U	0.21	1.00	0.30	11/28/07	12/08/07
Uranium 235	0.10	U	0.22	1.00	0.38	11/28/07	12/08/07
Uranium 238	1.33	U	0.69	1.00	1.5	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.47		0.14		0.14	11/28/07	12/08/07
Lead 212	0.44		0.11		0.11	11/28/07	12/08/07
Lead 214	0.50		0.13		0.15	11/28/07	12/08/07
Potassium 40	7.5		1.6		1.1	11/28/07	12/08/07
Thallium 208	0.128		0.066		0.089	11/28/07	12/08/07

RE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K210247-001 less than the sample detection limit. 6 of 508

Energy Solutions, LLC

Client Sample ID: BD-38-2.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-001X
 Work Order: KCOR5
 Matrix: SOLID

Date Collected: 11/20/07 1410
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 @ Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332236	Yld %
Americium 241	0.0003	U	0.11	1.00	0.20	11/28/07	12/08/07
Cesium 137	0.037	U	0.049	1.00	0.080	11/28/07	12/08/07
Thorium 232	0.29	U	0.17	1.00	0.35	11/28/07	12/08/07
Uranium 235	0.16	U	0.26	1.00	0.43	11/28/07	12/08/07
Uranium 238	1.14	U	0.75	1.00	1.6	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.61		0.15		0.18	11/28/07	12/08/07
Lead 212	0.70		0.18		0.16	11/28/07	12/08/07
Lead 214	0.81		0.17		0.13	11/28/07	12/08/07
Potassium 40	8.8		1.5		1.3	11/28/07	12/08/07
Thallium 208	0.220		0.078		0.081	11/28/07	12/08/07
Tc-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7332482	Yld % 96
Technetium 99	0.29	U	0.28	1.00	0.45	11/28/07	12/04/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339318	Yld % 94
Neptunium 237	-0.0116	U	0.0096	1.00	0.067	12/05/07	12/08/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339323	Yld % 97
Plutonium 238	-0.0006	U	0.031	1.00	0.078	12/05/07	12/12/07
Plutonium 239/40	0.008	U	0.020	1.00	0.042	12/05/07	12/12/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339326	Yld % 92
Uranium 233/234	2.39		0.38	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.116	J	0.080	1.00	0.056	12/05/07	12/10/07
Uranium 238	0.85	J	0.20	1.00	0.06	12/05/07	12/10/07

RE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# B76210247 7 of 508

Energy Solutions, LLC

Client Sample ID: BD-38-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-002
 Work Order: KCOR8
 Matrix: SOLID

Date Collected: 11/20/07 1410
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.03	U	0.22	pCi/g 1.00	Batch # 7332482 0.46	11/28/07	Yld % 93 12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.0003	U	0.16	pCi/g 1.00	Batch # 7332236 0.27	11/28/07	Yld % 12/08/07
Cesium 137	-0.011	U	0.060	1.00	0.11	11/28/07	12/08/07
Thorium 232	1.40		0.32	1.00	0.20	11/28/07	12/08/07
Uranium 235	0.1	U	0.34	1.00	0.57	11/28/07	12/08/07
Uranium 238	0.3	U	1.2	1.0	2.1	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.40		0.32		0.20	11/28/07	12/08/07
Bismuth 214	1.05		0.20		0.20	11/28/07	12/08/07
Lead 212	1.16		0.19		0.15	11/28/07	12/08/07
Lead 214	1.26		0.20		0.15	11/28/07	12/08/07
Potassium 40	17.5		2.1		0.9	11/28/07	12/08/07
Thallium 208	0.397		0.095		0.077	11/28/07	12/08/07

RE(S)

are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-38-5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-003
 Work Order: KCOTA
 Matrix: SOLID

Date Collected: 11/20/07 1415
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.005	U	0.023	1.00	0.072	12/05/07	12/08/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.005	U	0.030	1.00	0.071	12/05/07	12/12/07
Plutonium 239/40	-0.0038	U	0.0053	1.00	0.049	12/05/07	12/12/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.87	J	0.20	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.062	J	0.056	1.00	0.034	12/05/07	12/10/07
Uranium 238	0.57	J	0.16	1.00	0.05	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.03	U	0.18	1.00	0.30	11/28/07	12/08/07
Cesium 137	-0.005	U	0.070	1.00	0.13	11/28/07	12/08/07
Thorium 232	0.75	J	0.28	1.00	0.59	11/28/07	12/08/07
Uranium 235	0.20	U	0.35	1.00	0.58	11/28/07	12/08/07
Uranium 238	0.8	U	1.4	1.0	2.5	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.75		0.28		0.59	11/28/07	12/08/07
Bismuth 214	1.20		0.27		0.19	11/28/07	12/08/07
Lead 212	1.42		0.31		0.25	11/28/07	12/08/07
Lead 214	1.27		0.24		0.25	11/28/07	12/08/07
Potassium 40	16.4		2.8		1.1	11/28/07	12/08/07
Thallium 208	0.50		0.14		0.1	11/28/07	12/08/07

RE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K210247 less than the sample detection limit. 9 of 508

Energy Solutions, LLC

Client Sample ID: BD-42-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-004
 Work Order: KCQTF
 Matrix: SOLID

Date Collected: 11/20/07 1400
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.41	U	0.29	1.00	0.46	11/28/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.016	U	0.064	1.00	0.11	11/28/07	12/08/07
Cesium 137	-0.01	U	0.13	1.00	0.1	11/28/07	12/08/07
Thorium 232	0.08	U	0.15	1.00	0.25	11/28/07	12/08/07
Uranium 235	-0.06	U	0.34	1.00	0.26	11/28/07	12/08/07
Uranium 238	0.01	U	0.47	1.00	0.91	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Lead 212	0.109		0.054		0.070	11/28/07	12/08/07
Lead 214	0.172		0.085		0.12	11/28/07	12/08/07
Potassium 40	2.10		0.78		0.61	11/28/07	12/08/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.71	J	0.29	1.00	0.16	12/05/07	12/10/07
Uranium 235/236	0.10	J	0.12	1.00	0.09	12/05/07	12/10/07
Uranium 238	1.00		0.35	1.00	0.08	12/05/07	12/10/07

VE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: BD-42-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-005
 Work Order: KCOTK
 Matrix: SOLID

Date Collected: 11/20/07 1400
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.005	U	0.023	1.00	0.072	12/05/07	12/08/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.007	U	0.029	1.00	0.065	12/05/07	12/12/07
Plutonium 239/40	0.004	U	0.020	1.00	0.052	12/05/07	12/12/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.02	U	0.22	1.00	0.44	11/28/07	12/04/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.40	J	0.14	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	-0.0050	U	0.0071	1.00	0.066	12/05/07	12/10/07
Uranium 238	0.34	J	0.13	1.00	0.07	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.019	U	0.076	1.00	0.13	11/28/07	12/08/07
Cesium 137	0.020	U	0.037	1.00	0.064	11/28/07	12/08/07
Thorium 232	0.25	J	0.16	1.00	0.22	11/28/07	12/08/07
Uranium 235	0.02	U	0.15	1.00	0.27	11/28/07	12/08/07
Uranium 238	0.30	U	0.59	1.00	1.0	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.25		0.16		0.22	11/28/07	12/08/07
Bismuth 214	0.50		0.11		0.05	11/28/07	12/08/07
Lead 212	0.44		0.10		0.09	11/28/07	12/08/07
Lead 214	0.422		0.097		0.069	11/28/07	12/08/07
Potassium 40	5.4		1.1		0.7	11/28/07	12/08/07
Thallium 208	0.189		0.048		0.027	11/28/07	12/08/07

RE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: BD-42-9-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-006
 Work Order: KCOTO
 Matrix: SOLID

Date Collected: 11/20/07 1540
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g	Batch # 7332236		Yld %
Americium 241	0.05	U	0.17	1.00	0.30	11/28/07	12/08/07
Cesium 137	-0.012	U	0.084	1.00	0.15	11/28/07	12/08/07
Thorium 232	0.75	J	0.24	1.00	0.40	11/28/07	12/08/07
Uranium 235	0.13	U	0.34	1.00	0.59	11/28/07	12/08/07
Uranium 238	1.60	U	0.90	1.00	2.0	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.75		0.24		0.40	11/28/07	12/08/07
Bismuth 214	1.05		0.25		0.25	11/28/07	12/08/07
Lead 212	1.28		0.30		0.25	11/28/07	12/08/07
Lead 214	1.01		0.19		0.20	11/28/07	12/08/07
Potassium 40	14.8		2.4		1.1	11/28/07	12/08/07
Thallium 208	0.273		0.096		0.11	11/28/07	12/08/07

TR(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: BD-43-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-007
 Work Order: KCOT0
 Matrix: SOLID

Date Collected: 11/20/07 1310
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0108	U	0.0098	pCi/g 1.00	Batch # 7339318 0.072	12/05/07	Yld % 82 12/08/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.016	U	0.038	pCi/g 1.00	Batch # 7339323 0.075	12/05/07	Yld % 89 12/12/07
Plutonium 239/40	-0.014	U	0.011	1.00	0.072	12/05/07	12/12/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.15	U	0.26	pCi/g 1.00	Batch # 7332482 0.43	11/28/07	Yld % 100 12/04/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.86		0.31	pCi/g 1.00	Batch # 7339326 0.06	12/05/07	Yld % 98 12/10/07
Uranium 235/236	0.104	J	0.072	1.00	0.050	12/05/07	12/10/07
Uranium 238	0.73	J	0.18	1.00	0.04	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.03	U	0.15	pCi/g 1.00	Batch # 7332236 0.26	11/28/07	Yld % 12/08/07
Cesium 137	0.023	U	0.048	1.00	0.083	11/28/07	12/08/07
Thorium 232	0.62	J	0.22	1.00	0.32	11/28/07	12/08/07
Uranium 235	0.17	U	0.34	1.00	0.58	11/28/07	12/08/07
Uranium 238	1.11	U	0.72	1.00	1.7	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.62		0.22		0.32	11/28/07	12/08/07
Bismuth 214	0.78		0.18		0.19	11/28/07	12/08/07
Lead 212	0.82		0.19		0.18	11/28/07	12/08/07
Lead 214	1.07		0.20		0.16	11/28/07	12/08/07
Potassium 40	12.4		1.8		1.0	11/28/07	12/08/07
Thallium 208	0.322		0.087		0.083	11/28/07	12/08/07

VE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K210247-007 is less than the sample detection limit. 13 of 508

Energy Solutions, LLC

Client Sample ID: BD-43-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-008
 Work Order: KCOT2
 Matrix: SOLID

Date Collected: 11/20/07 1310
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.21	U	0.26	1.00	0.42	11/28/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.01	U	0.17	1.00	0.29	11/28/07	12/08/07
Cesium 137	0.059	U	0.072	1.00	0.12	11/28/07	12/08/07
Thorium 232	0.81	J	0.22	1.00	0.39	11/28/07	12/08/07
Uranium 235	-0.08	U	0.69	1.00	0.66	11/28/07	12/08/07
Uranium 238	1.1	U	1.3	1.0	2.3	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.81		0.22		0.39	11/28/07	12/08/07
Bismuth 214	1.06		0.22		0.22	11/28/07	12/08/07
Lead 212	1.54		0.25		0.20	11/28/07	12/08/07
Lead 214	1.40		0.27		0.20	11/28/07	12/08/07
Potassium 40	21.5		2.6		1.1	11/28/07	12/08/07
Thallium 208	0.306		0.096		0.12	11/28/07	12/08/07

RE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: BD-43-5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-009
 Work Order: KCOT6
 Matrix: SOLID

Date Collected: 11/20/07 1320
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7332482	Yld % 85
Technetium 99	0.20	U	0.30	1.00	0.51	11/28/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332236	Yld %
Americium 241	-0.04	U	0.24	1.00	0.41	11/28/07	12/08/07
Cesium 137	0.04	U	0.10	1.00	0.18	11/28/07	12/08/07
Thorium 232	1.22		0.40	1.00	0.48	11/28/07	12/08/07
Uranium 235	0.34	U	0.46	1.00	0.77	11/28/07	12/08/07
Uranium 238	2.4	U	1.3	1.0	3.0	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.22		0.40		0.48	11/28/07	12/08/07
Bismuth 214	1.34		0.35		0.29	11/28/07	12/08/07
Lead 212	1.25		0.22		0.21	11/28/07	12/08/07
Lead 214	1.62		0.34		0.27	11/28/07	12/08/07
Potassium 40	20.5		3.4		1.3	11/28/07	12/08/07
Thallium 208	0.53		0.14		0.10	11/28/07	12/08/07

TR(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-44-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-010
 Work Order: KCOT8
 Matrix: SOLID

Date Collected: 11/19/07 1725
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.0007	U	0.024	1.00	0.068	12/05/07	12/08/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.022	U	0.013	1.00	0.081	12/05/07	12/12/07
Plutonium 239/40	-0.0056	U	0.0065	1.00	0.054	12/05/07	12/12/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.52	J	0.32	1.00	0.51	11/28/07	12/04/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.81	J	0.19	1.00	0.04	12/05/07	12/10/07
Uranium 235/236	0.035	J	0.041	1.00	0.032	12/05/07	12/10/07
Uranium 238	0.45	J	0.14	1.00	0.03	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.03	U	0.10	1.00	0.18	11/28/07	12/08/07
Cesium 137	0.002	U	0.055	1.00	0.11	11/28/07	12/08/07
Thorium 232	0.46	J	0.19	1.00	0.29	11/28/07	12/08/07
Uranium 235	-0.02	U	2.3	1.0	0.3	11/28/07	12/08/07
Uranium 238	1.15	U	0.94	1.00	1.2	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.46		0.19		0.29	11/28/07	12/08/07
Bismuth 214	0.68		0.16		0.12	11/28/07	12/08/07
Lead 212	0.49		0.12		0.11	11/28/07	12/08/07
Lead 214	0.54		0.14		0.15	11/28/07	12/08/07
Potassium 40	7.6		1.5		0.7	11/28/07	12/08/07
Thallium 208	0.182		0.058		0.048	11/28/07	12/08/07

RE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: BD-44-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-011
 Work Order: KCOT9
 Matrix: SOLID

Date Collected: 11/19/07 1725
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7332482	Yld % 96
Technetium 99	0.43	U	0.29	1.00	0.45	11/28/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332236	Yld %
Americium 241	0.004	U	0.078	1.00	0.14	11/28/07	12/08/07
Cesium 137	-0.005	U	0.15	1.00	0.08	11/28/07	12/08/07
Thorium 232	0.28	J	0.14	1.00	0.26	11/28/07	12/08/07
Uranium 235	0.20	U	0.25	1.00	0.40	11/28/07	12/08/07
Uranium 238	2.39		0.71	1.00	1.3	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.28		0.14		0.26	11/28/07	12/08/07
Bismuth 214	0.67		0.13		0.06	11/28/07	12/08/07
Lead 212	0.477		0.0999		0.091	11/28/07	12/08/07
Lead 214	0.55		0.11		0.08	11/28/07	12/08/07
Potassium 40	8.3		1.6		1.3	11/28/07	12/08/07
Thallium 208	0.134		0.055		0.070	11/28/07	12/08/07
Thorium 234	2.39		0.71		1.3	11/28/07	12/08/07

RE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: BD-44-8.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-012
 Work Order: KCOVA
 Matrix: SOLID

Date Collected: 11/19/07 1740
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332236	Yld %
Americium 241	0.0	U	0.20	1.00	0.34	11/28/07	12/08/07
Cesium 137	-0.005	U	0.083	1.00	0.15	11/28/07	12/08/07
Thorium 232	0.94	J	0.33	1.00	0.40	11/28/07	12/08/07
Uranium 235	0.30	U	0.47	1.00	0.79	11/28/07	12/08/07
Uranium 238	1.5	U	1.6	1.0	2.2	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.94		0.33		0.40	11/28/07	12/08/07
Bismuth 214	1.13		0.25		0.22	11/28/07	12/08/07
Lead 212	1.29		0.27		0.23	11/28/07	12/08/07
Lead 214	1.49		0.23		0.15	11/28/07	12/08/07
Potassium 40	20.7		3.0		0.9	11/28/07	12/08/07
Thallium 208	0.59		0.15		0.1	11/28/07	12/08/07

U(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit. 18 of 508

LOT# F7K210247

Energy Solutions, LLC

Client Sample ID: BD-45-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-013
 Work Order: KCOVC
 Matrix: SOLID

Date Collected: 11/08/07 1820
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.003	U	0.022	1.00	0.059	12/05/07	12/08/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.0104	U	0.0086	1.00	0.061	12/05/07	12/12/07
Plutonium 239/40	-0.0070	U	0.0070	1.00	0.054	12/05/07	12/12/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.09	U	0.26	1.00	0.46	11/28/07	12/04/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.89	J	0.20	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.075	J	0.061	1.00	0.034	12/05/07	12/10/07
Uranium 238	0.73	J	0.18	1.00	0.05	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.004	U	0.12	1.00	0.20	11/28/07	12/08/07
Cesium 137	0.042	U	0.051	1.00	0.083	11/28/07	12/08/07
Thorium 232	0.53	J	0.19	1.00	0.37	11/28/07	12/08/07
Uranium 235	0.08	U	0.32	1.00	0.56	11/28/07	12/08/07
Uranium 238	0.9	U	1.3	1.0	1.7	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.53		0.19		0.37	11/28/07	12/08/07
Bismuth 214	0.54		0.16		0.19	11/28/07	12/08/07
Lead 212	0.64		0.14		0.15	11/28/07	12/08/07
Lead 214	0.76		0.15		0.20	11/28/07	12/08/07
Potassium 40	10.8		1.7		1.0	11/28/07	12/08/07
Thallium 208	0.131		0.067		0.10	11/28/07	12/08/07

Y(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K210247 Result is greater than the sample detection limit. 19 of 508

Energy Solutions, LLC

Client Sample ID: BD-45-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-014
 Work Order: KCOVD
 Matrix: SOLID

Date Collected: 11/08/07 1820
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.34	U	0.32	1.00	0.53	11/28/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.07	U	0.13	1.00	0.22	11/28/07	12/08/07
Cesium 137	0.048	U	0.081	1.00	0.14	11/28/07	12/08/07
Thorium 232	0.93	J	0.28	1.00	0.45	11/28/07	12/08/07
Uranium 235	0.18	U	0.40	1.00	0.67	11/28/07	12/08/07
Uranium 238	1.35	U	0.78	1.00	2.3	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.93		0.28		0.45	11/28/07	12/08/07
Bismuth 214	1.43		0.27		0.19	11/28/07	12/08/07
Lead 212	1.56		0.27		0.22	11/28/07	12/08/07
Lead 214	1.53		0.25		0.20	11/28/07	12/08/07
Potassium 40	19.1		2.7		1.9	11/28/07	12/08/07
Thallium 208	0.50		0.12		0.09	11/28/07	12/08/07

U(S)

---ca are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: BD-45-13-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-015
 Work Order: KCOVF
 Matrix: SOLID

Date Collected: 11/08/07 1830
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332236	Yld %
Americium 241	0.04	U	0.12	1.00	0.21	11/28/07	12/08/07
Cesium 137	-0.015	U	0.099	1.00	0.18	11/28/07	12/08/07
Thorium 232	1.36		0.30	1.00	0.18	11/28/07	12/08/07
Uranium 235	0.16	U	0.37	1.00	0.62	11/28/07	12/08/07
Uranium 238	0.5	U	1.5	1.0	2.6	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.36		0.30		0.18	11/28/07	12/08/07
Bismuth 214	1.16		0.25		0.18	11/28/07	12/08/07
Lead 210	3.8		2.8		3.4	11/28/07	12/08/07
Lead 212	1.28		0.20		0.16	11/28/07	12/08/07
Lead 214	1.23		0.24		0.24	11/28/07	12/08/07
Potassium 40	18.9		3.0		1.0	11/28/07	12/08/07
Barium 208	0.41		0.11		0.08	11/28/07	12/08/07

VE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-46-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-016
 Work Order: KCOVG
 Matrix: SOLID

Date Collected: 11/20/07 1050
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.003	U	0.023	1.00	0.061	12/05/07	12/08/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.010	U	0.057	1.00	0.11	12/05/07	12/12/07
Plutonium 239/40	-0.005	U	0.023	1.00	0.071	12/05/07	12/12/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.65	J	0.30	1.00	0.45	11/28/07	12/04/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.30		0.25	1.00	0.05	12/05/07	12/11/07
Uranium 235/236	0.104	J	0.071	1.00	0.050	12/05/07	12/11/07
Uranium 238	0.56	J	0.15	1.00	0.05	12/05/07	12/11/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.02	U	0.10	1.00	0.18	11/28/07	12/08/07
Cesium 137	0.034	U	0.072	1.00	0.13	11/28/07	12/08/07
Thorium 232	0.48	J	0.20	1.00	0.40	11/28/07	12/08/07
Uranium 235	0.11	U	0.25	1.00	0.43	11/28/07	12/08/07
Uranium 238	0.29	U	0.90	1.00	1.6	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.48		0.20		0.40	11/28/07	12/08/07
Bismuth 214	0.65		0.19		0.18	11/28/07	12/08/07
Lead 212	0.57		0.12		0.11	11/28/07	12/08/07
Lead 214	0.62		0.15		0.19	11/28/07	12/08/07
Potassium 40	9.9		1.8		0.7	11/28/07	12/08/07
Thallium 208	0.238		0.081		0.096	11/28/07	12/08/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-46-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-017
 Work Order: KCOVH
 Matrix: SOLID

Date Collected: 11/20/07 1050
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7332482	
Technetium 99	0.17	U	0.26	1.00	0.43	11/28/07	12/04/07
Yield % 102							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332236	
Americium 241	-0.11	U	0.17	1.00	0.27	11/28/07	12/08/07
Cesium 137	-0.001	U	0.13	1.00	0.12	11/28/07	12/08/07
Thorium 232	1.06		0.26	1.00	0.47	11/28/07	12/08/07
Uranium 235	0.16	U	0.31	1.00	0.52	11/28/07	12/08/07
Uranium 238	2.8		1.5	1.0	1.7	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.06		0.26		0.47	11/28/07	12/08/07
Bismuth 214	1.47		0.25		0.12	11/28/07	12/08/07
Lead 212	1.19		0.19		0.15	11/28/07	12/08/07
Lead 214	1.31		0.23		0.15	11/28/07	12/08/07
Potassium 40	19.3		2.6		0.5	11/28/07	12/08/07
Thallium 208	0.47		0.10		0.06	11/28/07	12/08/07
Thorium 234	2.8		1.5		1.7	11/28/07	12/08/07

RE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-46-5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-018
 Work Order: KCOVJ
 Matrix: SOLID

Date Collected: 11/20/07 1100
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g	Batch # 7332236		Yld %
Americium 241	0.009	U	0.16	1.00	0.28	11/28/07	12/08/07
Cesium 137	0.027	U	0.067	1.00	0.12	11/28/07	12/08/07
Thorium 232	0.70	J	0.26	1.00	0.47	11/28/07	12/08/07
Uranium 235	0.13	U	0.29	1.00	0.51	11/28/07	12/08/07
Uranium 238	1.0	U	1.1	1.0	1.7	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.70		0.26		0.47	11/28/07	12/08/07
Bismuth 214	0.94		0.23		0.21	11/28/07	12/08/07
Lead 210	2.5		1.7		2.3	11/28/07	12/08/07
Lead 212	0.94		0.18		0.15	11/28/07	12/08/07
Lead 214	0.88		0.18		0.19	11/28/07	12/08/07
Potassium 40	13.6		2.3		0.8	11/28/07	12/08/07
Sodium 208	0.37		0.13		0.10	11/28/07	12/08/07

VE(8)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K210247 less than the sample detection limit. 24 of 508

Energy Solutions, LLC

Client Sample ID: BD-47-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-019
 Work Order: KCOVL
 Matrix: SOLID

Date Collected: 11/19/07 0825
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7342064	Yld % 71
Neptunium 237	-0.006	U	0.040	1.00	0.091	12/08/07	12/10/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339323	Yld % 97
Plutonium 238	0.002	U	0.021	1.00	0.057	12/05/07	12/12/07
Plutonium 239/40	0.0006	U	0.021	1.00	0.061	12/05/07	12/12/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7332482	Yld % 100
Technetium 99	0.21	U	0.26	1.00	0.44	11/28/07	12/04/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339326	Yld % 96
Uranium 233/234	0.186	J	0.089	1.00	0.054	12/05/07	12/11/07
Uranium 235/236	0.023	U	0.036	1.00	0.053	12/05/07	12/11/07
uranium 238	0.143	J	0.079	1.00	0.058	12/05/07	12/11/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332236	Yld %
Americium 241	0.03	U	0.11	1.00	0.19	11/28/07	12/08/07
Cesium 137	0.035	U	0.048	1.00	0.079	11/28/07	12/08/07
Thorium 232	0.63	J	0.18	1.00	0.26	11/28/07	12/08/07
Uranium 235	-0.05	U	1.0	1.0	0.5	11/28/07	12/08/07
Uranium 238	2.24		0.99	1.00	1.5	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.63		0.18		0.26	11/28/07	12/08/07
Bismuth 214	0.93		0.18		0.18	11/28/07	12/08/07
Lead 210	3.2		2.0		2.3	11/28/07	12/08/07
Lead 212	1.02		0.19		0.16	11/28/07	12/08/07
Lead 214	1.03		0.19		0.17	11/28/07	12/08/07
Potassium 40	14.4		1.8		0.8	11/28/07	12/08/07
Thallium 208	0.322		0.070		0.055	11/28/07	12/08/07
Thorium 234	2.24		0.99		1.5	11/28/07	12/08/07

RE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: BD-47-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-020
 Work Order: KCOVN
 Matrix: SOLID

Date Collected: 11/19/07 0825
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7332482	Yld % 99
Technetium 99	0.02	U	0.22	1.00	0.44	11/28/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332236	Yld %
Americium 241	0.0	U	0.073	1.00	0.13	11/28/07	12/08/07
Cesium 137	0.0007	U	0.035	1.00	0.066	11/28/07	12/08/07
Thorium 232	0.04	U	0.10	1.00	0.19	11/28/07	12/08/07
Uranium 235	-0.07	U	0.36	1.00	0.36	11/28/07	12/08/07
Uranium 238	-0.14	U	0.74	1.00	0.97	11/28/07	12/08/07
--- Other Detected Radionuclides ---							
Lead 212	0.222		0.094		0.11	11/28/07	12/08/07

RE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-47-6.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-021
 Work Order: KCOVO
 Matrix: SOLID

Date Collected: 11/19/07 0830
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
				pCi/g		Batch # 7332293	Yld %
Americium 241	-0.02	U	0.18	1.00	0.31	11/28/07	12/07/07
Cesium 137	0.040	U	0.071	1.00	0.12	11/28/07	12/07/07
Thorium 232	1.11		0.33	1.00	0.45	11/28/07	12/07/07
Uranium 235	0.21	U	0.44	1.00	0.75	11/28/07	12/07/07
Uranium 238	2.3		1.8	1.0	2.3	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	1.11		0.33		0.45	11/28/07	12/07/07
Bismuth 214	1.17		0.26		0.29	11/28/07	12/07/07
Lead 212	1.38		0.22		0.19	11/28/07	12/07/07
Lead 214	1.20		0.22		0.19	11/28/07	12/07/07
Potassium 40	19.2		2.6		1.3	11/28/07	12/07/07
Thallium 208	0.57		0.14		0.12	11/28/07	12/07/07
Thorium 234	2.3		1.8		2.3	11/28/07	12/07/07

TE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-47-6.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-021X
 Work Order: KCOVO
 Matrix: SOLID

Date Collected: 11/19/07 0830
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332293	Yld %
Americium 241	-0.02	U	2.3	1.0	0.4	11/28/07	12/07/07
Cesium 137	0.0005	U	0.12	1.00	0.22	11/28/07	12/07/07
Thorium 232	1.08		0.35	1.00	0.64	11/28/07	12/07/07
Uranium 235	0.20	U	0.41	1.00	0.69	11/28/07	12/07/07
Uranium 238	4.0		1.9	1.0	2.2	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	1.08		0.35		0.64	11/28/07	12/07/07
Bismuth 214	1.61		0.33		0.24	11/28/07	12/07/07
Lead 212	1.30		0.26		0.23	11/28/07	12/07/07
Lead 214	1.99		0.36		0.25	11/28/07	12/07/07
Potassium 40	20.9		3.5		2.5	11/28/07	12/07/07
Thallium 208	0.65		0.14		0.08	11/28/07	12/07/07
Thorium 234	4.0		1.9		2.2	11/28/07	12/07/07

TE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-48-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-022
 Work Order: KCOVT
 Matrix: SOLID

Date Collected: 11/19/07 0900
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.0	U	0.0087	1.00	0.027	12/05/07	12/08/07
Batch # 7339318 Yld % 99							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.038	U	0.045	1.00	0.063	12/05/07	12/12/07
Plutonium 239/40	0.008	U	0.020	1.00	0.042	12/05/07	12/12/07
Batch # 7339323 Yld % 93							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.21	U	0.29	1.00	0.48	11/28/07	12/04/07
Batch # 7332482 Yld % 90							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	2.75		0.40	1.00	0.06	12/05/07	12/11/07
Uranium 235/236	0.133	J	0.081	1.00	0.033	12/05/07	12/11/07
Uranium 238	1.21		0.24	1.00	0.05	12/05/07	12/11/07
Batch # 7339326 Yld % 96							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.0003	U	0.15	1.00	0.25	11/28/07	12/07/07
Cesium 137	0.074	U	0.069	1.00	0.10	11/28/07	12/07/07
Thorium 232	0.40	U	0.23	1.00	0.44	11/28/07	12/07/07
Uranium 235	0.25	U	0.30	1.00	0.49	11/28/07	12/07/07
Uranium 238	1.61	U	0.82	1.00	1.8	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.97		0.22		0.14	11/28/07	12/07/07
Lead 212	0.59		0.15		0.15	11/28/07	12/07/07
Lead 214	1.09		0.22		0.14	11/28/07	12/07/07
Potassium 40	11.6		2.2		1	11/28/07	12/07/07
Thallium 208	0.222		0.073		0.053	11/28/07	12/07/07

W(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K210247 **Result is greater than the sample detection limit.** 29 of 508

Energy Solutions, LLC

Client Sample ID: BD-48-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-023
 Work Order: KCOV0
 Matrix: SOLID

Date Collected: 11/19/07 0900
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7332482	Yld % 94
Technetium 99	0.11	U	0.26	1.00	0.46	11/28/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332293	Yld %
Americium 241	0.05	U	0.17	1.00	0.29	11/28/07	12/07/07
Cesium 137	0.054	U	0.077	1.00	0.13	11/28/07	12/07/07
Thorium 232	0.93	J	0.25	1.00	0.40	11/28/07	12/07/07
Uranium 235	0.20	U	0.37	1.00	0.63	11/28/07	12/07/07
Uranium 238	3.6		1.1	1.0	2.2	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.93		0.25		0.40	11/28/07	12/07/07
Bismuth 214	1.23		0.25		0.17	11/28/07	12/07/07
Lead 212	1.42		0.23		0.18	11/28/07	12/07/07
Lead 214	1.38		0.28		0.21	11/28/07	12/07/07
Potassium 40	18.8		2.4		1.1	11/28/07	12/07/07
Thallium 208	0.50		0.11		0.09	11/28/07	12/07/07
Thorium 234	3.6		1.1		2.2	11/28/07	12/07/07

RE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: BD-48-5.5-SL

Savern Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-024
 Work Order: KCOV2
 Matrix: SOLID

Date Collected: 11/19/07 0904
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (3 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.001	U	0.023	1.00	0.068	12/05/07	12/08/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.033	U	0.046	1.00	0.074	12/05/07	12/12/07
Plutonium 239/40	0.004	U	0.021	1.00	0.054	12/05/07	12/12/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.71		0.29	1.00	0.05	12/05/07	12/11/07
Uranium 235/236	0.035	J	0.041	1.00	0.032	12/05/07	12/11/07
Uranium 238	1.36		0.25	1.00	0.03	12/05/07	12/11/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Mercurium 241	-0.04	U	0.17	1.00	0.29	11/28/07	12/07/07
Cesium 137	0.058	U	0.066	1.00	0.11	11/28/07	12/07/07
Thorium 232	0.90	J	0.36	1.00	0.46	11/28/07	12/07/07
Uranium 235	0.04	U	0.31	1.00	0.54	11/28/07	12/07/07
Uranium 238	2.77		0.87	1.00	1.8	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.90		0.36		0.46	11/28/07	12/07/07
Bismuth 214	1.39		0.29		0.18	11/28/07	12/07/07
Lead 212	1.10		0.16		0.13	11/28/07	12/07/07
Lead 214	1.33		0.24		0.15	11/28/07	12/07/07
Potassium 40	17.8		2.6		0.6	11/28/07	12/07/07
Thallium 208	0.489		0.098		0.044	11/28/07	12/07/07
Thorium 234	2.77		0.87		1.8	11/28/07	12/07/07

YE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: NB-136-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-025
 Work Order: KCOV4
 Matrix: SOLID

Date Collected: 11/14/07 1748
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0036	U	0.0072	pCi/g 1.00	Batch # 7339318 0.082	12/05/07	Yld % 48 12/08/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.008	U	0.027	pCi/g 1.00	Batch # 7339323 0.058	12/05/07	Yld % 97 12/13/07
Plutonium 239/40	0.011	U	0.026	1.00	0.052	12/05/07	12/13/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	9.5		1.0	pCi/g 1.0	Batch # 7339326 0.06	12/05/07	Yld % 94 12/11/07
Uranium 235/236	0.42	J	0.15	1.00	0.06	12/05/07	12/11/07
Uranium 238	2.48		0.38	1.00	0.07	12/05/07	12/11/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Mercurium 241	0.02	U	0.14	pCi/g 1.00	Batch # 7332293 0.24	11/28/07	Yld % 12/07/07
Cesium 137	0.448	J	0.091	1.00	0.031	11/28/07	12/07/07
Thorium 232	1.04		0.27	1.00	0.40	11/28/07	12/07/07
Uranium 235	0.62	U	0.42	1.00	0.67	11/28/07	12/07/07
Uranium 238	3.7		1.2	1.0	2.2	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	1.04		0.27		0.40	11/28/07	12/07/07
Bismuth 214	1.40		0.25		0.18	11/28/07	12/07/07
Lead 212	1.06		0.18		0.17	11/28/07	12/07/07
Lead 214	1.04		0.22		0.23	11/28/07	12/07/07
Potassium 40	18.4		2.4		1.1	11/28/07	12/07/07
Thallium 208	0.40		0.13		0.11	11/28/07	12/07/07
Thorium 234	3.7		1.2		2.2	11/28/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.44	U	0.30	pCi/g 1.00	Batch # 7332482 0.47	11/28/07	Yld % 93 12/04/07

VE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: NB-136-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-026
 Work Order: KCOV5
 Matrix: SOLID

Date Collected: 11/14/07 1753
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 @ Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332293	Yld %
Americium 241	0.09	U	0.21	1.00	0.36	11/28/07	12/07/07
Cesium 137	0.03	U	0.10	1.00	0.18	11/28/07	12/07/07
Thorium 232	1.19		0.39	1.00	0.65	11/28/07	12/07/07
Uranium 235	-0.03	U	0.45	1.00	0.78	11/28/07	12/07/07
Uranium 238	3.5		1.2	1.0	2.6	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	1.19		0.39		0.65	11/28/07	12/07/07
Bismuth 214	1.55		0.33		0.23	11/28/07	12/07/07
Lead 212	1.41		0.28		0.23	11/28/07	12/07/07
Lead 214	1.37		0.25		0.27	11/28/07	12/07/07
Potassium 40	18.5		3.2		1.2	11/28/07	12/07/07
Thallium 208	0.36		0.13		0.16	11/28/07	12/07/07
Thorium 234	3.5		1.2		2.6	11/28/07	12/07/07

RE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-136-17.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-027
 Work Order: KCOV6
 Matrix: SOLID

Date Collected: 11/14/07 1810
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g	Batch # 7332293		Yld %
Americium 241	0.04	U	0.12	1.00	0.19	11/28/07	12/07/07
Cesium 137	0.0005	U	0.053	1.00	0.095	11/28/07	12/07/07
Thorium 232	0.95	J	0.22	1.00	0.37	11/28/07	12/07/07
Uranium 235	0.12	U	0.32	1.00	0.55	11/28/07	12/07/07
Uranium 238	1.76		0.58	1.00	1.5	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.95		0.22		0.37	11/28/07	12/07/07
Bismuth 214	0.96		0.20		0.24	11/28/07	12/07/07
Lead 212	1.20		0.15		0.14	11/28/07	12/07/07
Lead 214	1.25		0.20		0.16	11/28/07	12/07/07
Potassium 40	19.0		2.3		1.4	11/28/07	12/07/07
Thallium 208	0.322		0.084		0.10	11/28/07	12/07/07
Thorium 234	1.76		0.58		1.5	11/28/07	12/07/07

VE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K210247 are less than the sample detection limit. 34 of 508

Energy Solutions, LLC

Client Sample ID: NB-137-0.5-SL

Savern Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-028
 Work Order: KCOV8
 Matrix: SOLID

Date Collected: 11/13/07 1635
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.005	U	0.024	1.00	0.061	12/05/07	12/09/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.015	U	0.011	1.00	0.071	12/05/07	12/13/07
Plutonium 239/40	-0.0130	U	0.0099	1.00	0.068	12/05/07	12/13/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	2.52		0.38	1.00	0.06	12/05/07	12/11/07
Uranium 235/236	0.073	J	0.062	1.00	0.053	12/05/07	12/11/07
Uranium 238	0.87	J	0.20	1.00	0.04	12/05/07	12/11/07
Gamma Cs-137 & Kits by DOE GA-01-R MOD.							
Mercurium 241	0.01	U	0.21	1.00	0.36	11/28/07	12/07/07
Cesium 137	0.060	U	0.094	1.00	0.16	11/28/07	12/07/07
Thorium 232	0.90	J	0.32	1.00	0.55	11/28/07	12/07/07
Uranium 235	0.17	U	0.34	1.00	0.58	11/28/07	12/07/07
Uranium 238	0.9	U	1.4	1.0	2.3	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.90		0.32		0.55	11/28/07	12/07/07
Bismuth 214	1.14		0.30		0.24	11/28/07	12/07/07
Lead 212	1.07		0.26		0.24	11/28/07	12/07/07
Lead 214	0.98		0.20		0.31	11/28/07	12/07/07
Potassium 40	20.9		3.3		1.1	11/28/07	12/07/07
Thallium 208	0.45		0.13		0.11	11/28/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.53	J	0.31	1.00	0.48	11/28/07	12/04/07

RE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: NB-137-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-029
 Work Order: KCOWE
 Matrix: SOLID

Date Collected: 11/13/07 1638
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0118	U	0.0097	1.00	0.069	12/05/07	12/09/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.021	U	0.013	1.00	0.077	12/05/07	12/13/07
Plutonium 239/40	0.004	U	0.020	1.00	0.052	12/05/07	12/13/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.23		0.23	1.00	0.04	12/05/07	12/11/07
Uranium 235/236	0.090	J	0.064	1.00	0.030	12/05/07	12/11/07
Uranium 238	0.64	J	0.16	1.00	0.02	12/05/07	12/11/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Mercurium 241	0.02	U	0.16	1.00	0.28	11/28/07	12/07/07
Cesium 137	0.01	U	0.081	1.00	0.15	11/28/07	12/07/07
Thorium 232	0.98	J	0.28	1.00	0.42	11/28/07	12/07/07
Uranium 235	0.08	U	0.32	1.00	0.56	11/28/07	12/07/07
Uranium 238	1.17	U	0.72	1.00	2.3	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.98		0.28		0.42	11/28/07	12/07/07
Bismuth 214	1.48		0.28		0.17	11/28/07	12/07/07
Lead 212	0.93		0.18		0.15	11/28/07	12/07/07
Lead 214	1.20		0.24		0.24	11/28/07	12/07/07
Potassium 40	21.4		2.9		0.6	11/28/07	12/07/07
Thallium 208	0.56		0.14		0.10	11/28/07	12/07/07

RE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: NB-137-13.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-030
 Work Order: KCOWH
 Matrix: SOLID

Date Collected: 11/13/07 1650
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332293	Yld %
Americium 241	-0.01	U	0.15	1.00	0.26	11/28/07	12/07/07
Cesium 137	0.031	U	0.078	1.00	0.14	11/28/07	12/07/07
Thorium 232	0.72	J	0.27	1.00	0.49	11/28/07	12/07/07
Uranium 235	0.03	U	0.34	1.00	0.59	11/28/07	12/07/07
Uranium 238	1.97		0.97	1.00	1.9	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.72		0.27		0.49	11/28/07	12/07/07
Bismuth 214	1.25		0.25		0.16	11/28/07	12/07/07
Lead 212	1.73		0.29		0.21	11/28/07	12/07/07
Lead 214	1.49		0.24		0.20	11/28/07	12/07/07
Potassium 40	19.8		2.8		0.6	11/28/07	12/07/07
Thallium 208	0.55		0.11		0.05	11/28/07	12/07/07
Thorium 234	1.97		0.97		1.9	11/28/07	12/07/07

RE(S)

data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# B74621 0247 less than the sample detection limit. 37 of 508

Energy Solutions, LLC

Client Sample ID: NB-138-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-031
 Work Order: KCOWK
 Matrix: SOLID

Date Collected: 11/15/07 1445
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.005	U	0.023	1.00	0.073	12/05/07	12/09/07
Batch # 7339318 Yld % 96							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.021	U	0.048	1.00	0.12	12/05/07	12/13/07
Plutonium 239/40	-0.005	U	0.024	1.00	0.076	12/05/07	12/13/07
Batch # 7339323 Yld % 85							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.35	J	0.12	1.00	0.06	12/05/07	12/11/07
Uranium 235/236	0.012	U	0.024	1.00	0.032	12/05/07	12/11/07
Uranium 238	0.149	J	0.077	1.00	0.047	12/05/07	12/11/07
Batch # 7339326 Yld % 95							
Gamma Cs-137 & Hits by DOE QA-01-R MOD.							
Mercurium 241	-0.012	U	0.064	1.00	0.11	11/28/07	12/07/07
Cesium 137	0.00008	U	0.038	1.00	0.075	11/28/07	12/07/07
Thorium 232	0.03	U	0.12	1.00	0.23	11/28/07	12/07/07
Uranium 235	0.08	U	0.14	1.00	0.23	11/28/07	12/07/07
Uranium 238	-0.05	U	0.59	1.00	0.98	11/28/07	12/07/07
Batch # 7332293 Yld %							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.20	U	0.32	1.00	0.54	11/28/07	12/04/07
Batch # 7332482 Yld % 81							

FE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: NB-138-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-032
 Work Order: KCOWP
 Matrix: SOLID

Date Collected: 11/15/07 1450
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332293	Yld %
Americium 241	-0.02	U	0.91	1.00	0.25	11/28/07	12/07/07
Cesium 137	0.013	U	0.080	1.00	0.15	11/28/07	12/07/07
Thorium 232	0.62	J	0.25	1.00	0.39	11/28/07	12/07/07
Uranium 235	0.22	U	0.34	1.00	0.58	11/28/07	12/07/07
Uranium 238	2.65		0.90	1.00	1.8	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.62		0.25		0.39	11/28/07	12/07/07
Bismuth 214	0.80		0.23		0.20	11/28/07	12/07/07
Lead 212	0.73		0.17		0.17	11/28/07	12/07/07
Lead 214	0.99		0.18		0.19	11/28/07	12/07/07
Potassium 40	11.8		2.3		1.2	11/28/07	12/07/07
Thallium 208	0.31		0.10		0.12	11/28/07	12/07/07
Thorium 234	2.65		0.90		1.8	11/28/07	12/07/07

RE(S)

data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K210247-032 less than the sample detection limit. 39 of 508

Energy Solutions, LLC

Client Sample ID: NB-138-14.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-033
 Work Order: KCQWT
 Matrix: SOLID

Date Collected: 11/15/07 1505
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332293	Yld %
Americium 241	0.001	U	0.16	1.00	0.27	11/28/07	12/07/07
Cesium 137	0.049	U	0.079	1.00	0.13	11/28/07	12/07/07
Thorium 232	0.87	J	0.29	1.00	0.47	11/28/07	12/07/07
Uranium 235	-0.09	U	5.0	1.0	0.8	11/28/07	12/07/07
Uranium 238	0.2	U	1.5	1.0	2.7	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.87		0.29		0.47	11/28/07	12/07/07
Bismuth 214	1.20		0.27		0.27	11/28/07	12/07/07
Lead 212	1.31		0.23		0.18	11/28/07	12/07/07
Lead 214	1.33		0.26		0.23	11/28/07	12/07/07
Potassium 40	20.5		3.0		0.9	11/28/07	12/07/07
Thallium 208	0.25		0.10		0.13	11/28/07	12/07/07

RE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: NB-139-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-034
 Work Order: KCOWX
 Matrix: SOLID

Date Collected: 11/15/07 0835
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.005	U	0.029	1.00	0.067	12/05/07	12/09/07
Batch # 7339318 Yld % 98							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.005	U	0.022	1.00	0.070	12/05/07	12/12/07
Plutonium 239/40	-0.003	U	0.022	1.00	0.068	12/05/07	12/12/07
Batch # 7339323 Yld % 96							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.19		0.25	1.00	0.06	12/05/07	12/11/07
Uranium 235/236	0.038	U	0.048	1.00	0.058	12/05/07	12/11/07
Uranium 238	0.90	J	0.21	1.00	0.06	12/05/07	12/11/07
Batch # 7339326 Yld % 87							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Mercurium 241	0.1	U	0.17	1.00	0.28	11/28/07	12/07/07
Cesium 137	0.30	J	0.14	1.00	0.12	11/28/07	12/07/07
Thorium 232	0.66	J	0.29	1.00	0.40	11/28/07	12/07/07
Uranium 235	0.03	U	0.38	1.00	0.67	11/28/07	12/07/07
Uranium 238	2.4		1.0	1.0	2.2	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.66		0.29		0.40	11/28/07	12/07/07
Bismuth 212	0.79		0.53		0.78	11/28/07	12/07/07
Bismuth 214	1.02		0.22		0.24	11/28/07	12/07/07
Lead 212	1.14		0.18		0.16	11/28/07	12/07/07
Lead 214	1.40		0.24		0.19	11/28/07	12/07/07
Potassium 40	18.2		2.4		1.1	11/28/07	12/07/07
Thallium 208	0.359		0.099		0.092	11/28/07	12/07/07
Thorium 234	2.4		1.0		2.2	11/28/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.04	U	0.28	1.00	0.44	11/29/07	12/03/07
Batch # 7333215 Yld % 98							

FE(S)

data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: NB-139-15-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-035
 Work Order: KCOW2
 Matrix: SOLID

Date Collected: 11/15/07 0855
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332293	Yld %
Americium 241	0.1	U	0.16	1.00	0.27	11/28/07	12/07/07
Cesium 137	-0.016	U	0.078	1.00	0.14	11/28/07	12/07/07
Thorium 232	0.94	J	0.26	1.00	0.41	11/28/07	12/07/07
Uranium 235	0.22	U	0.41	1.00	0.69	11/28/07	12/07/07
Uranium 238	2.08		0.87	1.00	1.7	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.94		0.26		0.41	11/28/07	12/07/07
Bismuth 212	0.78		0.48		0.69	11/28/07	12/07/07
Bismuth 214	1.24		0.21		0.14	11/28/07	12/07/07
Lead 212	1.74		0.28		0.21	11/28/07	12/07/07
Lead 214	1.41		0.22		0.18	11/28/07	12/07/07
Potassium 40	20.9		2.6		1.1	11/28/07	12/07/07
Thallium 208	0.58		0.13		0.09	11/28/07	12/07/07
Thorium 234	2.08		0.87		1.7	11/28/07	12/07/07

TE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: NB-140-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-036
 Work Order: KCOW4
 Matrix: SOLID

Date Collected: 11/15/07 1010
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.0006	U	0.022	1.00	0.063	12/05/07	12/09/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.003	U	0.032	1.00	0.084	12/05/07	12/12/07
Plutonium 239/40	0.015	U	0.030	1.00	0.056	12/05/07	12/12/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.73		0.32	1.00	0.06	12/05/07	12/11/07
Uranium 235/236	0.141	J	0.092	1.00	0.061	12/05/07	12/11/07
Uranium 238	0.85	J	0.21	1.00	0.07	12/05/07	12/11/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.03	U	0.18	1.00	0.32	11/28/07	12/07/07
Cesium 137	0.24	J	0.11	1.00	0.14	11/28/07	12/07/07
Thorium 232	0.81	J	0.33	1.00	0.52	11/28/07	12/07/07
Uranium 235	0.26	U	0.33	1.00	0.55	11/28/07	12/07/07
Uranium 238	0.7	U	1.5	1.0	2.6	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.81		0.33		0.52	11/28/07	12/07/07
Bismuth 214	0.99		0.26		0.27	11/28/07	12/07/07
Lead 212	1.40		0.26		0.21	11/28/07	12/07/07
Lead 214	0.99		0.20		0.23	11/28/07	12/07/07
Potassium 40	18.3		3.0		1.1	11/28/07	12/07/07
Thallium 208	0.45		0.11		0.06	11/28/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.33	U	0.27	1.00	0.44	11/29/07	12/03/07

TE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# ~~R7421~~ 0214 less than the sample detection limit. 43 of 508

Energy Solutions, LLC

Client Sample ID: NB-140-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-037
 Work Order: KCOW5
 Matrix: SOLID

Date Collected: 11/15/07 1016
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332293	Yld %
Americium 241	-0.02	U	7.4	1.0	0.3	11/28/07	12/07/07
Cesium 137	-0.02	U	0.37	1.00	0.21	11/28/07	12/07/07
Thorium 232	1.02		0.42	1.00	0.61	11/28/07	12/07/07
Uranium 235	0.09	U	0.41	1.00	0.71	11/28/07	12/07/07
Uranium 238	2.2	U	1.4	1.0	2.3	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	1.02		0.42		0.61	11/28/07	12/07/07
Bismuth 214	1.17		0.27		0.21	11/28/07	12/07/07
Lead 212	1.27		0.23		0.19	11/28/07	12/07/07
Lead 214	1.18		0.26		0.29	11/28/07	12/07/07
Potassium 40	15.7		2.9		1.8	11/28/07	12/07/07
Thallium 208	0.50		0.15		0.13	11/28/07	12/07/07

TR(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-140-12.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-038
 Work Order: KCOW8
 Matrix: SOLID

Date Collected: 11/15/07 1027
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
				pCi/g		Batch # 7332293	Yld %
Americium 241	0.06	U	0.17	1.00	0.29	11/28/07	12/07/07
Cesium 137	0.003	U	0.080	1.00	0.15	11/28/07	12/07/07
Thorium 232	0.98	J	0.27	1.00	0.46	11/28/07	12/07/07
Uranium 235	0.03	U	0.40	1.00	0.70	11/28/07	12/07/07
Uranium 238	1.2	U	1.5	1.0	2.5	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.98		0.27		0.46	11/28/07	12/07/07
Bismuth 214	1.50		0.29		0.19	11/28/07	12/07/07
Lead 212	1.33		0.24		0.20	11/28/07	12/07/07
Lead 214	1.23		0.25		0.25	11/28/07	12/07/07
Potassium 40	18.1		2.7		0.8	11/28/07	12/07/07
Thallium 208	0.28		0.11		0.14	11/28/07	12/07/07

TE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K210247 is greater than the sample detection limit. 45 of 508

Energy Solutions, LLC

Client Sample ID: NB-141-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-039
 Work Order: KCOXA
 Matrix: SOLID

Date Collected: 11/13/07 1715
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	ML	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0096	U	0.0087	pCi/g 1.00	Batch # 7339318 0.064	12/05/07	Yld % 94 12/09/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.001	U	0.021	pCi/g 1.00	Batch # 7339323 0.063	12/05/07	Yld % 90 12/12/07
Plutonium 239/40	-0.0072	U	0.0073	1.00	0.056	12/05/07	12/12/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	3.86		0.50	pCi/g 1.00	Batch # 7339326 0.06	12/05/07	Yld % 100 12/11/07
Uranium 235/236	0.186	J	0.094	1.00	0.032	12/05/07	12/11/07
Uranium 238	1.04		0.22	1.00	0.05	12/05/07	12/11/07
Gamma Cs-137 & Hits by DOE QA-01-R MOD.							
Mercurium 241	0.008	U	0.16	pCi/g 1.00	Batch # 7332293 0.28	11/28/07	Yld % 12/07/07
Cesium 137	0.043	U	0.065	1.00	0.11	11/28/07	12/07/07
Thorium 232	0.82	J	0.32	1.00	0.49	11/28/07	12/07/07
Uranium 235	0.16	U	0.44	1.00	0.75	11/28/07	12/07/07
Uranium 238	2.5		1.1	1.0	2.3	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.82		0.32		0.49	11/28/07	12/07/07
Bismuth 214	0.75		0.22		0.27	11/28/07	12/07/07
Lead 212	1.03		0.19		0.17	11/28/07	12/07/07
Lead 214	1.28		0.25		0.22	11/28/07	12/07/07
Potassium 40	14.8		2.3		1.8	11/28/07	12/07/07
Thallium 208	0.396		0.096		0.082	11/28/07	12/07/07
Thorium 234	2.5		1.1		2.3	11/28/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.01		0.32	pCi/g 1.00	Batch # 7333215 0.44	11/29/07	Yld % 99 12/03/07

TE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: NB-141-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210247-040
 Work Order: KCOXC
 Matrix: SOLID

Date Collected: 11/13/07 1720
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE QA-01-R MOD.				pCi/g		Batch # 7332293	Yld %
Americium 241	0.01	U	0.17	1.00	0.30	11/28/07	12/07/07
Cesium 137	0.013	U	0.080	1.00	0.14	11/28/07	12/07/07
Thorium 232	0.97	J	0.27	1.00	0.38	11/28/07	12/07/07
Uranium 235	0.14	U	0.34	1.00	0.57	11/28/07	12/07/07
Uranium 238	0.6	U	1.3	1.0	2.3	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.97		0.27		0.38	11/28/07	12/07/07
Bismuth 214	1.18		0.23		0.24	11/28/07	12/07/07
Lead 212	1.80		0.32		0.24	11/28/07	12/07/07
Lead 214	1.60		0.26		0.20	11/28/07	12/07/07
Potassium 40	20.3		2.6		1.2	11/28/07	12/07/07
Thallium 208	0.50		0.12		0.10	11/28/07	12/07/07

FE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

METHOD BLANK REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210247
 Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
			pci/g	Batch #	7332236	Yld %	F7K280000-236B
Americium 241	-0.024	U	0.076	1.00	0.13	11/28/07	12/08/07
Cesium 137	0.005	U	0.033	1.00	0.065	11/28/07	12/08/07
Thorium 232	0.0	U	0.037	1.00	0.14	11/28/07	12/08/07
Uranium 235	0.06	U	0.14	1.00	0.24	11/28/07	12/08/07
Uranium 238	0.03	U	0.49	1.00	0.99	11/28/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
			pci/g	Batch #	7332293	Yld %	F7K280000-293B
Americium 241	0.013	U	0.059	1.00	0.11	11/28/07	12/07/07
Cesium 137	-0.004	U	0.050	1.00	0.094	11/28/07	12/07/07
Thorium 232	0.02	U	0.12	1.00	0.24	11/28/07	12/07/07
Uranium 235	0.03	U	0.14	1.00	0.25	11/28/07	12/07/07
Uranium 238	0.16	U	0.52	1.00	1.0	11/28/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.							
			pci/g	Batch #	7332482	Yld % 106	F7K280000-482B
Technetium 99	0.24	U	0.25	1.00	0.41	11/28/07	12/04/07
TC-99 by LSC by DOE TC-02-RC Mod.							
			pci/g	Batch #	7333215	Yld % 100	F7K290000-215B
Technetium 99	-0.08	U	0.26	1.00	0.43	11/29/07	12/03/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
			pci/g	Batch #	7339318	Yld % 93	F7L050000-318B
Neptunium 237	0.003	U	0.022	1.00	0.059	12/05/07	12/09/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
			pci/g	Batch #	7339323	Yld % 93	F7L050000-323B
Plutonium 238	0.006	U	0.020	1.00	0.048	12/05/07	12/12/07
Plutonium 239/40	-0.0037	U	0.0052	1.00	0.048	12/05/07	12/12/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
			pci/g	Batch #	7339326	Yld % 104	F7L050000-326B
Uranium 233/234	0.045	U	0.042	1.00	0.049	12/05/07	12/11/07
Uranium 235/236	0.011	U	0.021	1.00	0.029	12/05/07	12/11/07
Uranium 238	0.076	J	0.051	1.00	0.023	12/05/07	12/11/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
			pci/g	Batch #	7342064	Yld % 91	F7L080000-064B
Neptunium 237	0.003	U	0.028	1.00	0.060	12/08/07	12/10/07

RE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Laboratory Control Sample Report

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210247
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2σ+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	GA-01-R MOD	F7K280000-236C		
Americium 241	103	111	8.8	1.4		107	(85 - 118)
Cesium 137	40.0	43.3	2.7	0.5		108	(91 - 120)
Cobalt 60	62.7	65.6	3.9	0.09		104	(91 - 112)
Batch #:		7332236		Analysis Date:		12/08/07	
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	GA-01-R MOD	F7K280000-293C		
Americium 241	103	110	8.7	1.4		107	(85 - 118)
Cesium 137	40.0	44.1	2.8	0.5		110	(91 - 120)
Cobalt 60	62.7	67.2	4.1	0.2		107	(91 - 112)
Batch #:		7332293		Analysis Date:		12/07/07	
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	TC-02-RC MOD	F7K280000-482C		
Technetium 99	33.3	30.7	3.2	0.4	104	92	(64 - 114)
Batch #:		7332482		Analysis Date:		12/04/07	
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	TC-02-RC MOD	F7K290000-215C		
Technetium 99	33.3	29.9	3.1	0.4	104	90	(64 - 114)
Batch #:		7333215		Analysis Date:		12/03/07	
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD	F7L050000-318C		
Neptunium 237	13.3	11.6	1.2	0.02	116	87	(75 - 119)
Batch #:		7339318		Analysis Date:		12/09/07	
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R	F7L050000-323C		
Plutonium 238	6.13	6.35	0.74	0.05	93	104	(77 - 112)
Plutonium 239/40	5.77	6.58	0.76	0.04	93	114	(82 - 119)
Batch #:		7339323		Analysis Date:		12/12/07	
ISO URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD	F7L050000-326C		
Uranium 233/234	19.6	15.7	2.5	0.4	105	80	(76 - 128)
Uranium 238	19.6	16.7	2.6	0.4	105	85	(74 - 125)
Batch #:		7339326		Analysis Date:		12/11/07	
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD	F7L080000-064C		
Neptunium 237	13.3	13.0	1.5	0.05	110	98	(75 - 119)
Batch #:		7342064		Analysis Date:		12/10/07	

NOTE(S)

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210247
 Matrix: SOLID

Date Sampled: 11/20/07
 Date Received: 11/21/07

Parameter	SAMPLE Result		Total Uncert. (2σ+/-)	% Yld	DUPLICATE Result		Total Uncert. (2σ+/-)	% Yld	QC Sample ID Precision
Gamma Cs-137 & Hits by DOE GA-01-R MOD. pCi/g GA-01-R MOD F7K210247-001									
Americium 241	0.062	U	0.098		0.0003	U	0.11		198 %RPD
Cesium 137	0.028	U	0.050		0.037	U	0.049		29 %RPD
Thorium 232	0.27	U	0.21		0.29	U	0.17		8 %RPD
Uranium 235	0.10	U	0.22		0.16	U	0.26		43 %RPD
Uranium 238	1.33	U	0.69		1.14	U	0.75		15 %RPD
---Other Dedected Radionuclides---									
Bismuth 214	0.47		0.14		0.61		0.15		25 %RPD
Lead 212	0.44		0.11		0.70		0.18		45 %RPD
Lead 214	0.50		0.13		0.81		0.17		47 %RPD
Potassium 40	7.5		1.6		8.8		1.5		16 %RPD
Thallium 208	0.128		0.066		0.220		0.078		53 %RPD
Batch #: 7332236 (Sample) 7332236 (Duplicate)									
TC-99 by LSC by DOE TC-02-RC Mod. pCi/g TC-02-RC MOD F7K210247-001									
Technetium 99	0.67	J	0.31	93	0.29	U	0.28	96	78 %RPD
Batch #: 7332482 (Sample) 7332482 (Duplicate)									
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R MOD F7K210247-001									
Neptunium 237	-0.0054	U	0.0063	99	-0.0116	U	0.0096	94	73 %RPD
Batch #: 7339318 (Sample) 7339318 (Duplicate)									
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R F7K210247-001									
Plutonium 238	-0.014	U	0.010	91	-0.0006	U	0.031	97	182 %RPD
Plutonium 239/40	-0.0039	U	0.0055	91	0.008	U	0.020	97	574 %RPD
Batch #: 7339323 (Sample) 7339323 (Duplicate)									
ISO URANIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R MOD F7K210247-001									
Uranium 233/234	2.57		0.39	95	2.39		0.38	92	7 %RPD
Uranium 235/236	0.084	J	0.066	95	0.116	J	0.080	92	31 %RPD
Uranium 238	0.86	J	0.20	95	0.85	J	0.20	92	1 %RPD
Batch #: 7339326 (Sample) 7339326 (Duplicate)									
Gamma Cs-137 & Hits by DOE GA-01-R MOD. pCi/g GA-01-R MOD F7K210247-021									
Americium 241	-0.02	U	0.18		-0.02	U	2.3		8 %RPD
Cesium 137	0.040	U	0.071		0.0005	U	0.12		195 %RPD
Thorium 232	1.11		0.33		1.08		0.35		3 %RPD
Uranium 235	0.21	U	0.44		0.20	U	0.41		6 %RPD
Uranium 238	2.3		1.8		4.0		1.9		54 %RPD
---Other Dedected Radionuclides---									
Actinium 228	1.11		0.33		1.08		0.35		3 %RPD
Bismuth 214	1.17		0.26		1.61		0.33		32 %RPD
Lead 212	1.38		0.22		1.30		0.26		6 %RPD
Lead 214	1.20		0.22		1.99		0.36		50 %RPD
Potassium 40	19.2		2.6		20.9		3.5		9 %RPD
Thallium 208	0.57		0.14		0.65		0.14		13 %RPD
Thorium 234	2.3		1.8		4.0		1.9		54 %RPD
Batch #: 7332293 (Sample) 7332293 (Duplicate)									

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210247
 Matrix: SOLID

Date Sampled: 11/17/07
 Date Received: 11/21/07

Parameter	SAMPLE Result	Total	% YLD	DUPLICATE Result	Total	% YLD	QC Sample ID	
		Uncert. (2σ +/-)			Uncert. (2σ +/-)		Precision	
TC-99 by LSC by DOE	TC-02-RC Mod.		pCi/g	TC-02-RC MOD			F7K210350-001	
Technetium 99	4.26	0.60	105	2.44	0.45	96	54	SRPD
	Batch #:	7333215	(Sample)	7333215	(Duplicate)			

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

J Result is greater than sample detection limit but less than stated reporting limit.

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Diane Quaye Date: 11/21/07
 Address: Festus Plo Telephone Number: 865-368-7477 CoC Number: SC-01
 City: Festus Plo Site Contact: Ivan Venia Page: 1 of 28
 State: Zip Code: Lab Contact: Ivan Venia

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: 11 313010.202
 Contract/PO Number: _____

Analysis				
(Attach list if more space is needed)				
X-ray	Isotopic Tc-99	Isotopic U	Isotopic Pu	Isotopic Np
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓

Sample ID Number	Date	Time	Matrix			Containers & Preservatives											
			Aqueous	Sediment	Soil	Impres.	H2SO4	HNO3	HCl	H2O2	H2O2/HNO3	H2O2/HCl					
BD-38-2.5-SL	11-20-07	1410			✓												
BD-38-4.5-SL	11-20-07	1410			✓												
BD-38-5-SL	11-20-07	1415			✓												
BD-42-2.5-SL	11-20-07	1400			✓												
BD-42-4.5-SL	11-20-07	1400			✓												
BD-42-9-SL	11-20-07	1540			✓												
BD-43-2.5-SL	11-20-07	1310			✓												
BD-43-4.5-SL	11-20-07	1310			✓												

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 20 days

Other: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>	<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quayle
 Address: _____ Telephone Number: 865-368-7477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Vena

Date: 11/21/07
 CoC Number: 50001
 Page: 2 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis (Attach list if more space is needed)				
Isopic Te-99	Isopic U	Isopic Pu	Isopic Np	
✓	✓	✓	✓	
✓	✓	✓	✓	
✓	✓	✓	✓	
✓	✓	✓	✓	
✓	✓	✓	✓	
✓	✓	✓	✓	

Sample ID Number	Date	Time	Matrix				Containers & Preservatives											
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	HNu2	NaOH					
BD-43-5-SL	11-20-07	1330				✓												
BD-44-2.5-SL	11-19-07	1725				✓												
BD-44-4.5-SL	11-19-07	1725				✓												
BD-44-8.5-SL	11-19-07	1740				✓												
BD-45-2.5-SL	11-8-07	1820				✓												
BD-45-4.5-SL	11-8-07	1820				✓												
BD-45-13-SL	11-8-07	1830				✓												
BD-46-2.5-SL	11-20-07	1050				✓												

Possible Hazard Identification

Non-haz. Sample Disposal Return to client
 Radioactive Deposal by lab
 Flammable Archive for ___ months
 Skin Irritant
 Unknown

Turn Around Time: 24 hrs
 48 hrs
 7 days
 14 days
 21 days
 Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>	<u>Angela Brown</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quayle Date: 11/21/07
 Address: _____ Telephone Number: 865-368-7477 CoC Number: SC-01
 City: _____ Site Contact: _____ Page: 3 of 28
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Isotopic T-99	Isotopic U	Isotopic Pu	Isotopic Np
Isotopic T-99	Isotopic U	Isotopic Pu	Isotopic Np
Isotopic T-99	Isotopic U	Isotopic Pu	Isotopic Np
Isotopic T-99	Isotopic U	Isotopic Pu	Isotopic Np

Sample ID Number	Date	Time	Matrix			Containers & Preservatives						Isotopic T-99	Isotopic U	Isotopic Pu	Isotopic Np		
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH					H2O2/NaOH	HNO3/NaOH
BD-46-4.5-3L	11-20-07	1050															
BD-46-5-3L	11-20-07	1100															
BD-47-2.5-3L	11-19-07	0825															
BD-47-4.5-3L	11-19-07	0825															
BD-47-6.5-3L	11-19-07	0830															
BD-48-2.5-3L	11-19-07	0900															
BD-48-4.5-3L	11-19-07	0900															
BD-48-5.5-3L	11-19-07	0904															

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 28 days

Comments: _____

Other: _____

Relinquished by: _____	Date: <u>11/21/07</u>	Time: <u>11:30</u>	Received by: _____	Date: <u>11/21/07</u>	Time: <u>11:30</u>
Relinquished by: _____			Received by: _____		
Relinquished by: _____			Received by: _____		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Dwain Quayle
 Address: _____ Telephone Number: 865-368-9477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: 26-07
 Page: 4 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis (Attach list if more space is needed)			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Sample ID Number	Date	Time	Matrix				Containers & Preservatives											
			Air	Aqueous	Sediment	Soil	Imperv.	H2SO4	HNO3	HCl	H2O2	PH2O2	H2O2					
NB-136-0.5-SL	11-14-07	1748				<input checked="" type="checkbox"/>												
NB-136-4.5-SL	11-14-07	1753				<input checked="" type="checkbox"/>												
NB-136-17.5-SL	11-14-07	1810				<input checked="" type="checkbox"/>												
NB-137-0.5-SL	11-13-07	1635				<input checked="" type="checkbox"/>												
NB-137-4.5-SL	11-13-07	1638				<input checked="" type="checkbox"/>												
NB-137-13.5-SL	11-13-07	1650				<input checked="" type="checkbox"/>												
NB-138-0.5-SL	11-15-07	1445				<input checked="" type="checkbox"/>												
NB-138-4.5-SL	11-15-07	1450				<input checked="" type="checkbox"/>												

Yes on Tc-99

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Deposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 20 days

Other: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>	<u>Angela Brown</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quank
 Address: _____ Telephone Number: 865-368-2477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: 50-01
 Page: 5 of 28

Project Name: Nematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis (Attach list if more space is needed)											
Matrix	Unpres.	H2SO4	HNO3	HCl	HNOH	PH47	HNOH	Isotopic Te-99	Isotopic U	Isotopic Pu	Isotopic Np
Soil								✓	✓	✓	✓
Sediment								✓	✓	✓	✓
Aqueous								✓	✓	✓	✓
Air								✓	✓	✓	✓

Sample ID Number	Date	Time	Matrix				Containers & Preservatives													
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	HNOH	PH47	HNOH							
NB-138-145-SL	11-15-07	1505				✓														
NB-139-05-SL	11-15-07	0800				✓														
NB-139-15-SL	11-15-07	0855				✓														
NB-140-05-SL	11-15-07	1010				✓														
NB-140-45-SL	11-15-07	1016				✓														
NB-140-125-SL	11-15-07	1027				✓														
NB-141-05-SL	11-13-07	1715				✓														
NB-141-45-SL	11-13-07	1720				✓														

Possible Hazard Identification

Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal

Return to client Disposal by lab Archive for ___ months

Turn Around Time

24 hrs 48 hrs 7 days 14 days 28 days

Other

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>	<u>Angela Bowen</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		



Lot #(s): F7K210247 677 813

- 1167 -

Client: Energy Solutions COC/RFA No: SL-11 Date: 11/21/17
 Quote No: 97705 Initiated By: BL Time: 1130

Shipping Information

Shipper Name: dent Multiple Packages: Y N
 Shipping # (s):* Sample Temperature (s):**
 1. _____ 6. Ambient
 2. _____ 7. Ambient
 3. _____ 8. _____
 4. _____ 9. _____
 5. _____ 10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad test; Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Are there custody seals present on the cooler?	8.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Are there custody seals present on bottles?
2.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Do custody seals on cooler appear to be tampered with?	9.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Do custody seals on bottles appear to be tampered with?
3.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Were contents of cooler frisked after opening, but before unpacking?	10.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Was sample received with proper pH? (If not, make note below)
4.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Sample received with Chain of Custody?	11.	<input type="checkbox"/> Y <input type="checkbox"/> N	If N/A - Was pH taken by original TestAmerica lab?
5.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Sample received in proper containers?
6.	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Was sample received broken?	13.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Is sample volume sufficient for analysis?	14.	<input type="checkbox"/> Y <input type="checkbox"/> N	Was Internal COC/Workshare received?

¹ For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:

Client Contact Name: _____ Informed by: _____
 Sample(s) processed "as is"
 Sample(s) on hold until: _____ if released, notify: _____
 Project Management Review: _____ Date: 12-3-17

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR SIGNATURE AND THE DATE NEXT TO THAT ITEM.



ANALYTICAL REPORT

REVISED

PROJECT NO. 313010.202

Hematite Site

Lot #: F7K210252

Paul Ely

Energy Solutions, LLC
1009 Commerce Park Drive
Suite 100
Oak Ridge, TN 37830

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Ivan Vania", is written over the printed name.

Ivan Vania
Project Manager

January 2, 2008

Case Narrative
LOT NUMBER: F7K210252 – Revision 1

This report contains the analytical results for the 40 samples received under chain of custody by TestAmerica St. Louis on November 21, 2007. These samples are associated with your Hematite Site project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

This revision contains corrected sample identification for F7K210252-024 from "NB-19-0.5-SL" to "BD-19-0.5-SL."

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Isotopic Plutonium by Alpha Spectroscopy

The LCS recovery for Plutonium 238 is outside the upper QC limit, indicating a potential positive bias for that analyte. This analyte was not observed above the reporting limit in the associated samples; therefore the sample data was not adversely affected by this excursion. The Plutonium samples F7K210252-002, -002x, -011, -014, -017, -024, -027, -031, and -038 have tracer recoveries below the QC limit of 30 % indicating a potential high bias in the sample results. Plutonium 238 and 239 were not detected in the samples above the MDC.

Affected Samples:

F7K210252 (2): NB-142-0.5-SL	F7K210252 (24): NB-19-0.5-SL
F7K210252 (5): NB-143-0.5-SL	F7K210252 (27): BD-28-0.5-SL
F7K210252 (8): NB-144-0.5-SL	F7K210252 (31): BD-34-2.5-SL
F7K210252 (9): NB-144-4.5-SL	F7K210252 (34): BD-35-2.5-SL
F7K210252 (11): NB-104-0.5-SL	F7K210252 (37): BD-40-2.5-SL
F7K210252 (14): NB-106-4.5-SL	F7K210252 (38): BD-40-4.5-SL
F7K210252 (17): NB-107-0.5-SL	F7K210252 (40): BD-41-2.5-SL
F7K210252 (21): NB-108-0.5-SL	

There were no nonconformances or observations noted with any other analysis on this lot.

METHODS SUMMARY

F7K210252

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EML GA-01-R MOD	
Isotopic Plutonium by Alpha Spectroscopy	EML A-01-R	
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Neptunium by Alpha Spectroscopy	EML A-01-R MOD	
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

SAMPLE SUMMARY

F7K210252

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KCQXH	001	NB-141-17.5-SL	11/13/07	17:40
KCQXL	002	NB-142-0.5-SL	11/15/07	09:21
KCQXM	003	NB-142-4.5-SL	11/15/07	09:25
KCQXP	004	NB-142-9-SL	11/15/07	09:34
KCQXQ	005	NB-143-0.5-SL	11/13/07	17:55
KCQXR	006	NB-143-4.5-SL	11/13/07	18:00
KCQXT	007	NB-143-6.5-SL	11/13/07	18:05
KCQXW	008	NB-144-0.5-SL	11/14/07	12:55
KCQX0	009	NB-144-4.5-SL	11/14/07	13:00
KCQX2	010	NB-144-7-SL	11/14/07	13:05
KCQX4	011	NB-104-0.5-SL	11/19/07	10:25
KCQX7	012	NB-104-4.5-SL	11/19/07	10:35
KCQX9	013	NB-104-12.5-SL	11/19/07	10:50
KCQ0C	014	NB-106-4.5-SL	11/19/07	16:20
KCQ0H	015	NB-106-7.5-SL	11/19/07	16:25
KCQ0J	016	NB-106-2.5-SL	11/19/07	16:20
KCQ0L	017	NB-107-0.5-SL	11/19/07	13:45
KCQ0P	018	NB-107-4.5-SL	11/19/07	13:50
KCQ0V	019	NB-107-17-SL	11/19/07	14:10
KCQ0X	020	NB-108-4.5-SL	11/19/07	11:18
KCQ03	021	NB-108-0.5-SL	11/19/07	11:10
KCQ06	022	NB-139-4.5-SL	11/19/07	11:18
KCQ08	023	NB-108-9-SL	11/19/07	11:25
KCQ1D	024	BD-19-0.5-SL	11/19/07	15:50
KCQ1F	025	BD-19-4.5-SL	11/19/07	16:00
KCQ1R	026	BD-19-10.5-SL	11/19/07	16:10
KCQ2A	027	BD-28-0.5-SL	11/17/07	11:50
KCQ2E	028	BD-28-2.5-SL	11/17/07	11:56
KCQ2H	029	BD-28-4.5-SL	11/17/07	11:56
KCQ2V	030	BD-28-12.5-SL	11/17/07	12:07
KCQ2X	031	BD-34-2.5-SL	11/19/07	14:40
KCQ21	032	BD-34-4.5-SL	11/19/07	14:40
KCQ29	033	BD-34-13-SL	11/19/07	15:00
KCQ3E	034	BD-35-2.5-SL	11/16/07	18:15
KCQ3J	035	BD-35-4.5-SL	11/16/07	18:15
KCQ3L	036	BD-35-6.5-SL	11/16/07	18:20

(Continued on next page)

SAMPLE SUMMARY

F7K210252

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KCQ3M	037	BD-40-2.5-SL	11/15/07	17:10
KCQ3T	038	BD-40-4.5-SL	11/15/07	17:10
KCQ3X	039	BD-40-18-SL	11/15/07	17:35
KCQ32	040	BD-41-2.5-SL	11/09/07	08:25

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Energy Solutions, LLC

Client Sample ID: NB-141-17.5-SL

Radiochemistry

Lab Sample ID: F7K210252-001
 Work Order: KCOXH
 Matrix: SOLID

Date Collected: 11/13/07 1740
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.004	U	0.17	1.00	0.29	11/28/07	11/29/07
Cesium 137	0.032	U	0.073	1.00	0.13	11/28/07	11/29/07
Thorium 232	0.96	J	0.27	1.00	0.43	11/28/07	11/29/07
Uranium 235	0.19	U	0.37	1.00	0.62	11/28/07	11/29/07
Uranium 238	2.9		1.0	1.0	2.1	11/28/07	11/29/07
--- Other Detected Radionuclides ---							
Actinium 228	0.96		0.27		0.43	11/28/07	11/29/07
Bismuth 214	0.84		0.22		0.25	11/28/07	11/29/07
Lead 212	1.84		0.29		0.21	11/28/07	11/29/07
Lead 214	1.04		0.23		0.20	11/28/07	11/29/07
Potassium 40	19.8		2.6		1.2	11/28/07	11/29/07
Thallium 208	0.498		0.099		0.066	11/28/07	11/29/07
thorium 234	2.9		1.0		2.1	11/28/07	11/29/07

NOTE(S)

na are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-141-17.5-SL DUP

Radiochemistry

Lab Sample ID: F7K210252-001X
 Work Order: KCQXH
 Matrix: SOLID

Date Collected: 11/13/07 1740
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.05	U	0.17	1.00	0.29	11/28/07	11/29/07
Cesium 137	0.008	U	0.060	1.00	0.11	11/28/07	11/29/07
Thorium 232	1.27		0.29	1.00	0.43	11/28/07	11/29/07
Uranium 235	0.17	U	0.43	1.00	0.73	11/28/07	11/29/07
Uranium 238	2.1		1.1	1.0	2.1	11/28/07	11/29/07
--- Other Detected Radionuclides ---							
Actinium 228	1.27		0.29		0.43	11/28/07	11/29/07
Bismuth 212	1.11		0.49		0.41	11/28/07	11/29/07
Bismuth 214	0.91		0.22		0.26	11/28/07	11/29/07
Lead 212	1.46		0.32		0.28	11/28/07	11/29/07
Lead 214	1.27		0.32		0.26	11/28/07	11/29/07
Potassium 40	21.5		2.7		1.3	11/28/07	11/29/07
Barium 208	0.40		0.11		0.10	11/28/07	11/29/07
Thorium 234	2.1		1.1		2.1	11/28/07	11/29/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-142-0.5-SL

Radiochemistry

Lab Sample ID: F7K210252-002
 Work Order: KCOXL
 Matrix: SOLID

Date Collected: 11/15/07 0921
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339445	Yld % 10
Plutonium 238	-0.19	U	0.12	1.00	0.73	12/05/07	12/11/07
Plutonium 239/40	0.02	U	0.20	1.00	0.54	12/05/07	12/11/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 88
Uranium 233/234	4.06		0.65	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.172	J	0.095	1.00	0.058	12/05/07	12/10/07
Uranium 238	1.45		0.31	1.00	0.07	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.05	U	0.20	1.00	0.34	11/28/07	11/28/07
Cesium 137	0.35	J	0.11	1.00	0.07	11/28/07	11/28/07
Thorium 232	0.84	J	0.26	1.00	0.47	11/28/07	11/28/07
Uranium 235	0.39	U	0.41	1.00	0.66	11/28/07	11/28/07
Uranium 238	3.4		1.2	1.0	2.3	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Actinium 228	0.84		0.26		0.47	11/28/07	11/28/07
Bismuth 214	0.74		0.21		0.24	11/28/07	11/28/07
Lead 212	1.15		0.20		0.19	11/28/07	11/28/07
Lead 214	0.88		0.19		0.25	11/28/07	11/28/07
Potassium 40	18.9		2.6		1.3	11/28/07	11/28/07
Thallium 208	0.60		0.11		0.07	11/28/07	11/28/07
Thorium 234	3.4		1.2		2.3	11/28/07	11/28/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 96
Technetium 99	-0.003	U	0.39	1.00	0.65	12/12/07	12/16/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7349081	Yld % 83
Neptunium 237	-0.0088	U	0.0088	1.00	0.068	12/15/07	12/18/07

NOTE(S)

ata are incomplete without the case narrative.

OC is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-142-0.5-SL DUP

Radiochemistry

Lab Sample ID: F7K210252-002X
 Work Order: KCQXL
 Matrix: SOLID

Date Collected: 11/15/07 0921
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339445	Yld % 10
Plutonium 238	-0.100	U	0.082	1.00	0.58	12/05/07	12/11/07
Plutonium 239/40	-0.067	U	0.067	1.00	0.52	12/05/07	12/11/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 95
Uranium 233/234	3.10		0.51	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.106	J	0.070	1.00	0.046	12/05/07	12/10/07
Uranium 238	1.37		0.29	1.00	0.04	12/05/07	12/10/07

NOTE(S)

ata are incomplete without the case narrative.

DC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-142-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-003
 Work Order: KCOXM
 Matrix: SOLID

Date Collected: 11/15/07 0925
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	-0.04	U	0.17	1.00	0.30	11/28/07	11/28/07
Cesium 137	-0.003	U	0.078	1.00	0.14	11/28/07	11/28/07
Thorium 232	1.30		0.31	1.00	0.33	11/28/07	11/28/07
Uranium 235	0.15	U	0.39	1.00	0.66	11/28/07	11/28/07
Uranium 238	2.6		1.1	1.0	2.0	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Actinium 228	1.30		0.31		0.33	11/28/07	11/28/07
Bismuth 214	0.93		0.24		0.19	11/28/07	11/28/07
Lead 212	1.38		0.29		0.23	11/28/07	11/28/07
Lead 214	0.87		0.20		0.21	11/28/07	11/28/07
Potassium 40	15.9		2.7		1.4	11/28/07	11/28/07
Thallium 208	0.422		0.100		0.052	11/28/07	11/28/07
Thorium 234	2.6		1.1		2.0	11/28/07	11/28/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-142-9-SL

Radiochemistry

Lab Sample ID: F7K210252-004
 Work Order: KCOXP
 Matrix: SOLID

Date Collected: 11/15/07 0934
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.008	U	0.11	1.00	0.18	11/28/07	11/30/07
Cesium 137	0.104	J	0.042	1.00	0.061	11/28/07	11/30/07
Thorium 232	1.26		0.22	1.00	0.19	11/28/07	11/30/07
Uranium 235	0.12	U	0.24	1.00	0.40	11/28/07	11/30/07
Uranium 238	1.65		0.43	1.00	1.1	11/28/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.26		0.22		0.19	11/28/07	11/30/07
Bismuth 212	1.28		0.50		0.43	11/28/07	11/30/07
Bismuth 214	1.12		0.18		0.15	11/28/07	11/30/07
Lead 212	1.30		0.12		0.10	11/28/07	11/30/07
Lead 214	1.34		0.17		0.14	11/28/07	11/30/07
Potassium 40	21.4		1.9		0.8	11/28/07	11/30/07
Thallium 208	0.431		0.072		0.064	11/28/07	11/30/07
Thorium 234	1.65		0.43		1.1	11/28/07	11/30/07

NOTE(S)

ata are incomplete without the case narrative.

OC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-143-0.5-SL

Radiochemistry

Lab Sample ID: F7K210252-005
 Work Order: KCQXQ
 Matrix: SOLID

Date Collected: 11/13/07 1755
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339445	Yld % 48
Plutonium 238	-0.024	U	0.085	1.00	0.21	12/05/07	12/11/07
Plutonium 239/40	0.013	U	0.057	1.00	0.13	12/05/07	12/11/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 89
Uranium 233/234	1.23		0.27	1.00	0.04	12/05/07	12/10/07
Uranium 235/236	0.064	J	0.057	1.00	0.029	12/05/07	12/10/07
Uranium 238	0.65	J	0.18	1.00	0.03	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.080	U	0.090	1.00	0.15	11/28/07	11/28/07
Cesium 137	0.031	U	0.049	1.00	0.083	11/28/07	11/28/07
Thorium 232	0.49	J	0.22	1.00	0.31	11/28/07	11/28/07
Uranium 235	0.13	U	0.23	1.00	0.38	11/28/07	11/28/07
Uranium 238	0.62	U	0.88	1.00	1.5	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Actinium 228	0.49		0.22		0.31	11/28/07	11/28/07
Bismuth 214	0.42		0.17		0.22	11/28/07	11/28/07
Lead 212	0.64		0.15		0.13	11/28/07	11/28/07
Lead 214	0.40		0.13		0.18	11/28/07	11/28/07
Potassium 40	10.5		2.0		1.4	11/28/07	11/28/07
Thallium 208	0.302		0.075		0.043	11/28/07	11/28/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 95
Technetium 99	0.04	U	0.39	1.00	0.66	12/12/07	12/16/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7349081	Yld % 81
Neptunium 237	0.013	U	0.035	1.00	0.073	12/15/07	12/18/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-143-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-006
 Work Order: KCQXR
 Matrix: SOLID

Date Collected: 11/13/07 1800
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.01	U	0.16	1.00	0.27	11/28/07	11/28/07
Cesium 137	0.0003	U	0.043	1.00	0.081	11/28/07	11/28/07
Thorium 232	0.95	J	0.21	1.00	0.37	11/28/07	11/28/07
Uranium 235	-0.05	U	2.6	1.0	0.7	11/28/07	11/28/07
Uranium 238	1.9		1.0	1.0	1.8	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Actinium 228	0.95		0.21		0.37	11/28/07	11/28/07
Bismuth 214	0.74		0.19		0.23	11/28/07	11/28/07
Lead 212	1.34		0.25		0.21	11/28/07	11/28/07
Lead 214	0.83		0.16		0.19	11/28/07	11/28/07
Potassium 40	18.2		2.3		1.0	11/28/07	11/28/07
Thallium 208	0.432		0.095		0.076	11/28/07	11/28/07
Thorium 234	1.9		1.0		1.8	11/28/07	11/28/07

NOTE(S)

ta are incomplete without the case narrative.

MC is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-143-6.5-SL

Radiochemistry

Lab Sample ID: F7K210252-007
 Work Order: KCQXT
 Matrix: SOLID

Date Collected: 11/13/07 1805
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.079	U	0.068	1.00	0.11	11/28/07	11/28/07
Cesium 137	-0.007	U	0.051	1.00	0.089	11/28/07	11/28/07
Thorium 232	0.86	J	0.19	1.00	0.31	11/28/07	11/28/07
Uranium 235	0.03	U	0.24	1.00	0.42	11/28/07	11/28/07
Uranium 238	1.31		0.46	1.00	0.87	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Actinium 228	0.86		0.19		0.31	11/28/07	11/28/07
Bismuth 214	1.09		0.19		0.14	11/28/07	11/28/07
Lead 212	1.37		0.20		0.15	11/28/07	11/28/07
Lead 214	0.79		0.13		0.16	11/28/07	11/28/07
Potassium 40	15.8		1.9		1	11/28/07	11/28/07
Thallium 208	0.416		0.096		0.084	11/28/07	11/28/07
Thorium 234	1.31		0.46		0.87	11/28/07	11/28/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.
 Bold results are greater than the MDC

- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-144-0.5-SL

Radiochemistry

Lab Sample ID: F7K210252-008
 Work Order: KCQXW
 Matrix: SOLID

Date Collected: 11/14/07 1255
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
						Batch # 7339445	Yld % 61
Plutonium 238	-0.001	U	0.049	1.00	0.12	12/05/07	12/11/07
Plutonium 239/40	-0.026	U	0.018	1.00	0.12	12/05/07	12/11/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
						Batch # 7339447	Yld % 91
Uranium 233/234	2.86		0.49	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.154	J	0.087	1.00	0.030	12/05/07	12/10/07
Uranium 238	0.63	J	0.18	1.00	0.05	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
						Batch # 7332371	Yld %
Americium 241	-0.008	U	0.075	1.00	0.13	11/28/07	11/28/07
Cesium 137	0.0005	U	0.049	1.00	0.093	11/28/07	11/28/07
Thorium 232	0.05	U	0.13	1.00	0.23	11/28/07	11/28/07
Uranium 235	0.11	U	0.20	1.00	0.33	11/28/07	11/28/07
Uranium 238	0.06	U	0.55	1.00	1.1	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.30		0.11		0.11	11/28/07	11/28/07
Lead 212	0.164		0.065		0.079	11/28/07	11/28/07
Potassium 40	1.60		0.83		1.1	11/28/07	11/28/07
TC-99 by LSC by DOE TC-02-RC Mod.							
						Batch # 7346170	Yld % 89
Technetium 99	0.83	J	0.44	1.00	0.70	12/12/07	12/16/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
						Batch # 7349081	Yld % 79
Neptunium 237	0.068	U	0.061	1.00	0.070	12/15/07	12/18/07

NOTE(S)

- Results are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-144-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-009
 Work Order: KCQX0
 Matrix: SOLID

Date Collected: 11/14/07 1300
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Isotopes PLUTONIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7339445	Yld % 59
Plutonium 238	0.026	U	0.047	1.00	0.080	12/05/07	12/11/07
Plutonium 239/40	-0.0030	U	0.0061	1.00	0.069	12/05/07	12/11/07
Isotopes URANIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7339447	Yld % 85
Uranium 233/234	1.39		0.29	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.068	J	0.061	1.00	0.031	12/05/07	12/10/07
Uranium 238	0.98	J	0.24	1.00	0.03	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
				pCi/g		Batch # 7332371	Yld %
Americium 241	-0.03	U	0.81	1.00	0.25	11/28/07	11/28/07
Cesium 137	0.055	U	0.082	1.00	0.16	11/28/07	11/28/07
Thorium 232	0.49	J	0.23	1.00	0.40	11/28/07	11/28/07
Uranium 235	0.13	U	0.25	1.00	0.44	11/28/07	11/28/07
Iranium 238	1.4	U	1.0	1.0	1.8	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Actinium 228	0.49		0.23		0.40	11/28/07	11/28/07
Bismuth 214	0.73		0.21		0.20	11/28/07	11/28/07
Lead 212	0.73		0.15		0.14	11/28/07	11/28/07
Lead 214	0.62		0.18		0.21	11/28/07	11/28/07
Potassium 40	10		2.1		1.0	11/28/07	11/28/07
Thallium 208	0.262		0.079		0.063	11/28/07	11/28/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7349081	Yld % 80
Neptunium 237	-0.0091	U	0.0091	1.00	0.070	12/15/07	12/18/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC
Client Sample ID: NB-144-7-SL

Radiochemistry

Lab Sample ID: F7K210252-010
 Work Order: KCQX2
 Matrix: SOLID

Date Collected: 11/14/07 1305
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.045	U	0.092	1.00	0.15	11/28/07	11/30/07
Cesium 137	-0.016	U	0.038	1.00	0.064	11/28/07	11/30/07
Thorium 232	1.61		0.25	1.00	0.18	11/28/07	11/30/07
Uranium 235	0.06	U	0.20	1.00	0.34	11/28/07	11/30/07
Uranium 238	1.20		0.44	1.00	1.0	11/28/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.61		0.25		0.18	11/28/07	11/30/07
Bismuth 212	0.90		0.30		0.42	11/28/07	11/30/07
Bismuth 214	1.11		0.15		0.11	11/28/07	11/30/07
Lead 212	1.48		0.12		0.08	11/28/07	11/30/07
Lead 214	1.22		0.15		0.11	11/28/07	11/30/07
Potassium 40	19.5		1.7		0.7	11/28/07	11/30/07
Thallium 208	0.496		0.074		0.055	11/28/07	11/30/07
Thorium 234	1.20		0.44		1.0	11/28/07	11/30/07

NOTE(S)

ata are incomplete without the case narrative.

DC is determined by instrument performance only.
 Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-104-0.5-SL

Radiochemistry

Lab Sample ID: F7K210252-011
 Work Order: KCOX4
 Matrix: SOLID

Date Collected: 11/19/07 1025
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7339445	Yld % 26
Plutonium 238	-0.044	U	0.034	1.00	0.23	12/05/07	12/11/07
Plutonium 239/40	0.034	U	0.068	1.00	0.092	12/05/07	12/11/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7339447	Yld % 96
Uranium 233/234	1.87		0.35	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.072	J	0.059	1.00	0.053	12/05/07	12/10/07
Uranium 238	1.02		0.24	1.00	0.06	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
				pCi/g		Batch # 7332371	Yld %
Americium 241	0.15	U	0.15	1.00	0.25	11/28/07	11/28/07
Cesium 137	0.395	J	0.098	1.00	0.055	11/28/07	11/28/07
Thorium 232	0.81	J	0.28	1.00	0.43	11/28/07	11/28/07
Uranium 235	0.27	U	0.42	1.00	0.70	11/28/07	11/28/07
Uranium 238	3.6		2.2	1.0	2.4	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Actinium 228	0.81		0.28		0.43	11/28/07	11/28/07
Bismuth 214	0.98		0.22		0.20	11/28/07	11/28/07
Lead 212	1.40		0.24		0.20	11/28/07	11/28/07
Lead 214	0.84		0.20		0.24	11/28/07	11/28/07
Potassium 40	19.3		2.6		1.3	11/28/07	11/28/07
Thallium 208	0.47		0.14		0.12	11/28/07	11/28/07
Thorium 234	3.6		2.2		2.4	11/28/07	11/28/07
TC-99 by LSC by DOE TC-02-RC Mod.							
				pCi/g		Batch # 7346170	Yld % 95
Technetium 99	0.24	U	0.40	1.00	0.66	12/12/07	12/16/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7349081	Yld % 82
Neptunium 237	0.024	U	0.042	1.00	0.072	12/15/07	12/18/07

NOTE(S)

*Data are incomplete without the case narrative.

J C is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-104-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-012
 Work Order: KCQX7
 Matrix: SOLID

Date Collected: 11/19/07 1035
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.002	U	0.079	1.00	0.13	11/28/07	11/30/07
Cesium 137	0.020	U	0.033	1.00	0.055	11/28/07	11/30/07
Thorium 232	1.23		0.16	1.00	0.14	11/28/07	11/30/07
Uranium 235	0.002	U	0.18	1.00	0.31	11/28/07	11/30/07
Uranium 238	1.58		0.81	1.00	0.97	11/28/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.23		0.16		0.14	11/28/07	11/30/07
Bismuth 212	1.28		0.51		0.41	11/28/07	11/30/07
Bismuth 214	1.05		0.15		0.11	11/28/07	11/30/07
Lead 212	1.19		0.10		0.07	11/28/07	11/30/07
Lead 214	1.07		0.14		0.11	11/28/07	11/30/07
Potassium 40	19.9		1.7		0.4	11/28/07	11/30/07
Barium 208	0.413		0.068		0.051	11/28/07	11/30/07
Thorium 234	1.58		0.81		0.97	11/28/07	11/30/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-104-12.5-SL

Radiochemistry

Lab Sample ID: F7K210252-013
 Work Order: KCQX9
 Matrix: SOLID

Date Collected: 11/19/07 1050
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
				pCi/g		Batch # 7332371	Yld %
Americium 241	0.007	U	0.094	1.00	0.16	11/28/07	11/30/07
Cesium 137	-0.009	U	0.075	1.00	0.086	11/28/07	11/30/07
Thorium 232	1.60		0.25	1.00	0.21	11/28/07	11/30/07
Uranium 235	0.05	U	0.21	1.00	0.35	11/28/07	11/30/07
Uranium 238	1.22		0.50	1.00	1.2	11/28/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.60		0.25		0.21	11/28/07	11/30/07
Bismuth 212	1.33		0.40		0.33	11/28/07	11/30/07
Bismuth 214	1.02		0.17		0.14	11/28/07	11/30/07
Lead 212	1.37		0.19		0.14	11/28/07	11/30/07
Lead 214	1.07		0.15		0.13	11/28/07	11/30/07
Potassium 40	19.6		1.9		0.2	11/28/07	11/30/07
Thallium 208	0.434		0.095		0.076	11/28/07	11/30/07
Thorium 234	1.22		0.50		1.2	11/28/07	11/30/07

NOTE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-106-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-014
 Work Order: KCQ0C
 Matrix: SOLID

Date Collected: 11/19/07 1620
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339445	Yld % 20
Plutonium 238	0.07	U	0.22	1.00	0.44	12/05/07	12/11/07
Plutonium 239/40	-0.02	U	0.18	1.00	0.43	12/05/07	12/11/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 98
Technetium 99	0.11	U	0.38	1.00	0.63	12/12/07	12/16/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 89
Uranium 233/234	1.09		0.25	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.067	J	0.058	1.00	0.049	12/05/07	12/10/07
Uranium 238	0.77	J	0.20	1.00	0.04	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.07	U	0.15	1.00	0.26	11/28/07	11/28/07
Cesium 137	0.0	U	0.086	1.00	0.15	11/28/07	11/28/07
Thorium 232	0.84	J	0.26	1.00	0.38	11/28/07	11/28/07
Uranium 235	0.24	U	0.30	1.00	0.49	11/28/07	11/28/07
Uranium 238	0.8	U	1.2	1.0	2.0	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Actinium 228	0.84		0.26		0.38	11/28/07	11/28/07
Bismuth 214	1.20		0.22		0.12	11/28/07	11/28/07
Lead 212	1.16		0.18		0.13	11/28/07	11/28/07
Lead 214	0.96		0.20		0.16	11/28/07	11/28/07
Potassium 40	18.7		2.6		0.5	11/28/07	11/28/07
Thallium 208	0.66		0.13		0.07	11/28/07	11/28/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7349081	Yld % 82
Neptunium 237	0.020	U	0.031	1.00	0.046	12/15/07	12/18/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-106-4.5-SL DUP

Radiochemistry

Lab Sample ID: F7K210252-014X
 Work Order: KC00C
 Matrix: SOLID

Date Collected: 11/19/07 1620
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE	TC-02-RC Mod.			pCi/g		Batch # 7346170	Yld % 96
Technetium 99	0.18	U	0.39	1.00	0.65	12/12/07	12/16/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.
 Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-106-7.5-SL

Radiochemistry

Lab Sample ID: F7K210252-015
 Work Order: KCQ0H
 Matrix: SOLID

Date Collected: 11/19/07 1625
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.017	U	0.057	1.00	0.096	11/28/07	11/30/07
Cesium 137	-0.01	U	0.66	1.00	0.07	11/28/07	11/30/07
Thorium 232	1.04		0.20	1.00	0.27	11/28/07	11/30/07
Uranium 235	0.12	U	0.17	1.00	0.28	11/28/07	11/30/07
Uranium 238	1.37		0.44	1.00	0.80	11/28/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.04		0.20		0.27	11/28/07	11/30/07
Bismuth 214	0.79		0.17		0.16	11/28/07	11/30/07
Lead 212	0.96		0.13		0.12	11/28/07	11/30/07
Lead 214	0.80		0.12		0.15	11/28/07	11/30/07
Potassium 40	19.3		2.1		0.7	11/28/07	11/30/07
Thallium 208	0.360		0.089		0.084	11/28/07	11/30/07
Thorium 234	1.37		0.44		0.80	11/28/07	11/30/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-106-2.5-SL

Radiochemistry

Lab Sample ID: F7K210252-016
 Work Order: KCQ0J
 Matrix: SOLID

Date Collected: 11/19/07 1620
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 96
Technetium 99	-0.33	U	0.38	1.00	0.65	12/12/07	12/16/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	-0.014	U	0.076	1.00	0.13	11/28/07	11/28/07
Cesium 137	0.01	U	0.030	1.00	0.054	11/28/07	11/28/07
Thorium 232	0.06	U	0.15	1.00	0.26	11/28/07	11/28/07
Uranium 235	0.26	J	0.17	1.00	0.26	11/28/07	11/28/07
Uranium 238	0.22	U	0.56	1.00	1.0	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.132		0.077		0.12	11/28/07	11/28/07
Lead 212	0.208		0.088		0.095	11/28/07	11/28/07
Lead 214	0.195		0.073		0.12	11/28/07	11/28/07
Potassium 40	2.76		0.79		0.89	11/28/07	11/28/07
Phallium 208	0.070		0.036		0.046	11/28/07	11/28/07

NOTE(S)

- etc are incomplete without the case narrative.
- MC is determined by instrument performance only.
- Bold results are greater than the MDC**
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-107-0.5-SL

Radiochemistry

Lab Sample ID: F7K210252-017
 Work Order: KCQ0L
 Matrix: SOLID

Date Collected: 11/19/07 1345
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339445	Yld % 22
Plutonium 238	-0.12	U	0.11	1.00	0.42	12/05/07	12/11/07
Plutonium 239/40	-0.024	U	0.028	1.00	0.23	12/05/07	12/11/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 92
Uranium 233/234	1.98		0.36	1.00	0.04	12/05/07	12/10/07
Uranium 235/236	0.133	J	0.078	1.00	0.028	12/05/07	12/10/07
Uranium 238	0.86	J	0.21	1.00	0.03	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	-0.06	U	0.20	1.00	0.35	11/28/07	11/28/07
Cesium 137	0.37	J	0.11	1.00	0.05	11/28/07	11/28/07
Thorium 232	1.01		0.32	1.00	0.55	11/28/07	11/28/07
Uranium 235	0.04	U	0.41	1.00	0.72	11/28/07	11/28/07
Uranium 238	3.2		1.2	1.0	2.2	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Actinium 228	1.01		0.32		0.55	11/28/07	11/28/07
Bismuth 214	0.61		0.21		0.25	11/28/07	11/28/07
Lead 212	0.96		0.20		0.18	11/28/07	11/28/07
Lead 214	0.84		0.24		0.25	11/28/07	11/28/07
Potassium 40	20.6		3.3		1.2	11/28/07	11/28/07
Thallium 208	0.46		0.13		0.09	11/28/07	11/28/07
Thorium 234	3.2		1.2		2.2	11/28/07	11/28/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 99
Technetium 99	0.46	U	0.39	1.00	0.63	12/12/07	12/16/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7349081	Yld % 84
Neptunium 237	0.0007	U	0.026	1.00	0.073	12/15/07	12/18/07

NOTE(S)

ata are incomplete without the case narrative.

QC is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-107-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-018
 Work Order: KCQ0P
 Matrix: SOLID

Date Collected: 11/19/07 1350
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ /-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.026	U	0.082	1.00	0.14	11/28/07	11/30/07
Cesium 137	0.012	U	0.038	1.00	0.069	11/28/07	11/30/07
Thorium 232	1.34		0.23	1.00	0.18	11/28/07	11/30/07
Uranium 235	0.06	U	0.17	1.00	0.28	11/28/07	11/30/07
Uranium 238	1.48		0.81	1.00	0.98	11/28/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.34		0.23		0.18	11/28/07	11/30/07
Bismuth 212	0.71		0.31		0.46	11/28/07	11/30/07
Bismuth 214	0.97		0.13		0.10	11/28/07	11/30/07
Lead 212	1.22		0.11		0.08	11/28/07	11/30/07
Lead 214	1.16		0.14		0.10	11/28/07	11/30/07
Potassium 40	21.9		1.8		0.1	11/28/07	11/30/07
Thallium 208	0.513		0.070		0.047	11/28/07	11/30/07
Thorium 234	1.48		0.81		0.98	11/28/07	11/30/07

NOTE(S)

ata are incomplete without the case narrative.

OC is determined by instrument performance only.
 Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-107-17-SL

Radiochemistry

Lab Sample ID: F7K210252-019
 Work Order: KCQOV
 Matrix: SOLID

Date Collected: 11/19/07 1410
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.012	U	0.083	1.00	0.14	11/28/07	11/30/07
Cesium 137	-0.000003	U	0.037	1.00	0.064	11/28/07	11/30/07
Thorium 232	1.26		0.19	1.00	0.18	11/28/07	11/30/07
Uranium 235	0.1	U	0.19	1.00	0.33	11/28/07	11/30/07
Uranium 238	2.12		0.998	1.00	1.1	11/28/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.26		0.19		0.18	11/28/07	11/30/07
Bismuth 212	0.72		0.28		0.39	11/28/07	11/30/07
Bismuth 214	1.11		0.13		0.10	11/28/07	11/30/07
Lead 212	1.23		0.11		0.08	11/28/07	11/30/07
Lead 214	1.19		0.15		0.11	11/28/07	11/30/07
Potassium 40	20.8		1.8		0.4	11/28/07	11/30/07
Caesium 137	0.461		0.070		0.050	11/28/07	11/30/07
Thorium 234	2.12		0.998		1.1	11/28/07	11/30/07

NOTE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-108-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-020
 Work Order: KCQ0X
 Matrix: SOLID

Date Collected: 11/19/07 1118
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332371	Yld %
Americium 241	0.19	U	0.18	1.00	0.28	11/28/07	11/28/07
Cesium 137	0.021	U	0.081	1.00	0.15	11/28/07	11/28/07
Thorium 232	0.91	J	0.31	1.00	0.39	11/28/07	11/28/07
Uranium 235	0.39	U	0.38	1.00	0.63	11/28/07	11/28/07
Uranium 238	2.8		1.2	1.0	2.5	11/28/07	11/28/07
--- Other Detected Radionuclides ---							
Actinium 228	0.91		0.31		0.39	11/28/07	11/28/07
Bismuth 214	0.90		0.26		0.29	11/28/07	11/28/07
Lead 212	1.36		0.23		0.18	11/28/07	11/28/07
Lead 214	0.95		0.26		0.29	11/28/07	11/28/07
Potassium 40	23.3		3.3		1	11/28/07	11/28/07
Thallium 208	0.42		0.13		0.15	11/28/07	11/28/07
Thorium 234	2.8		1.2		2.5	11/28/07	11/28/07

NOTE(S)

- are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-108-0.5-SL

Radiochemistry

Lab Sample ID: F7K210252-021
 Work Order: KCQ03
 Matrix: SOLID

Date Collected: 11/19/07 1110
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339445	Yld % 51
Plutonium 238	-0.015	U	0.041	1.00	0.13	12/05/07	12/11/07
Plutonium 239/40	0.011	U	0.037	1.00	0.087	12/05/07	12/11/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 95
Uranium 233/234	1.92		0.36	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.084	J	0.064	1.00	0.029	12/05/07	12/10/07
Uranium 238	1.10		0.25	1.00	0.05	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.05	U	0.18	1.00	0.31	11/28/07	12/07/07
Cesium 137	0.07	U	0.12	1.00	0.21	11/28/07	12/07/07
Thorium 232	0.99	J	0.33	1.00	0.54	11/28/07	12/07/07
Uranium 235	0.17	U	0.45	1.00	0.77	11/28/07	12/07/07
Iranium 238	3.1		1.2	1.0	2.2	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.99		0.33		0.54	11/28/07	12/07/07
Bismuth 214	1.23		0.28		0.22	11/28/07	12/07/07
Lead 212	1.10		0.21		0.17	11/28/07	12/07/07
Lead 214	1.10		0.22		0.26	11/28/07	12/07/07
Potassium 40	23.2		3.5		0.8	11/28/07	12/07/07
Thallium 208	0.44		0.13		0.11	11/28/07	12/07/07
Thorium 234	3.1		1.2		2.2	11/28/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 96
Technetium 99	0.41	U	0.40	1.00	0.65	12/12/07	12/16/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7349081	Yld % 83
Neptunium 237	0.006	U	0.033	1.00	0.079	12/15/07	12/18/07

NOTE(S)

ata are incomplete without the case narrative.

OC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-108-0.5-SL DUP

Radiochemistry

Lab Sample ID: F7K210252-021X
 Work Order: KCQ03
 Matrix: SOLID

Date Collected: 11/19/07 1110
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.01	U	0.19	1.00	0.34	11/28/07	12/07/07
Cesium 137	0.18	J	0.12	1.00	0.17	11/28/07	12/07/07
Thorium 232	0.89	J	0.33	1.00	0.61	11/28/07	12/07/07
Uranium 235	0.40	U	0.39	1.00	0.62	11/28/07	12/07/07
Uranium 238	2.8		1.2	1.0	2.2	11/28/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.89		0.33		0.61	11/28/07	12/07/07
Bismuth 214	0.90		0.28		0.33	11/28/07	12/07/07
Lead 212	1.39		0.24		0.17	11/28/07	12/07/07
Lead 214	1.43		0.31		0.24	11/28/07	12/07/07
Potassium 40	20.6		3.4		1.3	11/28/07	12/07/07
Thallium 208	0.34		0.13		0.15	11/28/07	12/07/07
Thorium 234	2.8		1.2		2.2	11/28/07	12/07/07

NOTE(S)

ata are incomplete without the case narrative.

.DC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC
Client Sample ID: NB-139-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-022
 Work Order: KCQ06
 Matrix: SOLID

Date Collected: 11/19/07 1118
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.0	U	0.17	1.00	0.29	12/01/07	12/07/07
Cesium 137	0.025	U	0.070	1.00	0.12	12/01/07	12/07/07
Thorium 232	0.99	J	0.25	1.00	0.41	12/01/07	12/07/07
Uranium 235	0.1	U	0.38	1.00	0.66	12/01/07	12/07/07
Uranium 238	1.8	U	1.0	1.0	2.1	12/01/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.99		0.25		0.41	12/01/07	12/07/07
Bismuth 214	1.25		0.23		0.22	12/01/07	12/07/07
Lead 212	1.12		0.21		0.20	12/01/07	12/07/07
Lead 214	1.16		0.21		0.22	12/01/07	12/07/07
Potassium 40	18.5		2.3		1.1	12/01/07	12/07/07
Thallium 208	0.49		0.12		0.09	12/01/07	12/07/07

NOTE(S)

ta are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-139-4.5-SL DUP

Radiochemistry

Lab Sample ID: F7K210252-022X
 Work Order: KCQ06
 Matrix: SOLID

Date Collected: 11/19/07 1118
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.01	U	0.17	1.00	0.29	12/01/07	12/08/07
Cesium 137	-0.0008	U	0.080	1.00	0.15	12/01/07	12/08/07
Thorium 232	1.04		0.27	1.00	0.33	12/01/07	12/08/07
Uranium 235	-0.08	U	21	1	0.6	12/01/07	12/08/07
Uranium 238	1.15	U	0.82	1.00	2.5	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.04		0.27		0.33	12/01/07	12/08/07
Bismuth 214	0.89		0.22		0.24	12/01/07	12/08/07
Lead 212	1.49		0.26		0.20	12/01/07	12/08/07
Lead 214	1.25		0.24		0.15	12/01/07	12/08/07
Potassium 40	20.4		2.8		0.7	12/01/07	12/08/07
Thallium 208	0.50		0.13		0.08	12/01/07	12/08/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-108-9-SL

Radiochemistry

Lab Sample ID: F7K210252-023
 Work Order: KCQ08
 Matrix: SOLID

Date Collected: 11/19/07 1125
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	-0.02	U	0.16	1.00	0.27	11/28/07	12/01/07
Cesium 137	0.007	U	0.076	1.00	0.14	11/28/07	12/01/07
Thorium 232	0.89	J	0.29	1.00	0.39	11/28/07	12/01/07
Uranium 235	0.24	U	0.36	1.00	0.60	11/28/07	12/01/07
Uranium 238	1.0	U	1.4	1.0	2.3	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	0.89		0.29		0.39	11/28/07	12/01/07
Bismuth 214	1.01		0.28		0.23	11/28/07	12/01/07
Lead 212	1.50		0.30		0.23	11/28/07	12/01/07
Lead 214	1.01		0.22		0.23	11/28/07	12/01/07
Potassium 40	18.2		2.8		1	11/28/07	12/01/07
Thallium 208	0.33		0.10		0.11	11/28/07	12/01/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 95
Uranium 233/234	1.01		0.24	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.031	U	0.039	1.00	0.047	12/05/07	12/10/07
Uranium 238	0.88	J	0.22	1.00	0.05	12/05/07	12/10/07

NOTE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC
Client Sample ID: BD-19-0.5-SL
Radiochemistry

Lab Sample ID: F7K210252-024
 Work Order: KCQ1D
 Matrix: SOLID

Date Collected: 11/19/07 1550
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339445	Yld % 10
Plutonium 238	-0.05	U	0.21	1.00	0.67	12/05/07	12/13/07
Plutonium 239/40	-0.018	U	0.036	1.00	0.40	12/05/07	12/13/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 89
Technetium 99	0.03	U	0.42	1.00	0.71	12/12/07	12/16/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 92
Uranium 233/234	3.02		0.51	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.160	J	0.090	1.00	0.049	12/05/07	12/10/07
Uranium 238	0.62	J	0.18	1.00	0.06	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.001	U	0.15	1.00	0.27	11/28/07	12/01/07
Cesium 137	0.080	U	0.077	1.00	0.12	11/28/07	12/01/07
Thorium 232	0.05	U	0.28	1.00	0.54	11/28/07	12/01/07
Uranium 235	-0.04	U	2.1	1.0	0.8	11/28/07	12/01/07
Uranium 238	1.25	U	0.63	1.00	2.2	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Lead 212	0.36		0.15		0.19	11/28/07	12/01/07
Lead 214	0.26		0.16		0.26	11/28/07	12/01/07
Potassium 40	3.9		1.3		1.7	11/28/07	12/01/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7349081	Yld % 83
Neptunium 237	-0.0067	U	0.0077	1.00	0.064	12/15/07	12/18/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-19-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-025
 Work Order: KCQ1F
 Matrix: SOLID

Date Collected: 11/19/07 1600
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 95
Technetium 99	-0.04	U	0.39	1.00	0.66	12/12/07	12/16/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.004	U	0.085	1.00	0.14	11/28/07	12/06/07
Cesium 137	0.017	U	0.033	1.00	0.056	11/28/07	12/06/07
Thorium 232	1.24		0.17	1.00	0.14	11/28/07	12/06/07
Uranium 235	0.1	U	0.19	1.00	0.31	11/28/07	12/06/07
Uranium 238	1.53		0.76	1.00	0.93	11/28/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	1.24		0.17		0.14	11/28/07	12/06/07
Bismuth 212	0.80		0.28		0.40	11/28/07	12/06/07
Bismuth 214	0.93		0.13		0.1	11/28/07	12/06/07
Lead 212	1.15		0.10		0.07	11/28/07	12/06/07
Lead 214	1.07		0.14		0.10	11/28/07	12/06/07
Potassium 40	18.5		1.6		0.6	11/28/07	12/06/07
Thallium 208	0.393		0.054		0.044	11/28/07	12/06/07
Thorium 234	1.53		0.76		0.93	11/28/07	12/06/07

NOTE(S)

- Results are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-19-10.5-SL

Radiochemistry

Lab Sample ID: F7K210252-026
 Work Order: KCQ1R
 Matrix: SOLID

Date Collected: 11/19/07 1610
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.01	U	0.13	1.00	0.23	11/28/07	12/01/07
Cesium 137	-0.03	U	0.70	1.00	0.12	11/28/07	12/01/07
Thorium 232	0.80	J	0.25	1.00	0.44	11/28/07	12/01/07
Uranium 235	-0.01	U	0.83	1.00	0.56	11/28/07	12/01/07
Uranium 238	0.7	U	1.0	1.0	1.7	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	0.80		0.25		0.44	11/28/07	12/01/07
Bismuth 214	1.50		0.24		0.12	11/28/07	12/01/07
Lead 212	0.90		0.16		0.14	11/28/07	12/01/07
Lead 214	1.29		0.20		0.13	11/28/07	12/01/07
Potassium 40	13.3		2.1		0.5	11/28/07	12/01/07
Thallium 208	0.41		0.12		0.09	11/28/07	12/01/07

NOTE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-28-0.5-SL

Radiochemistry

Lab Sample ID: F7K210252-027
 Work Order: KCQ2A
 Matrix: SOLID

Date Collected: 11/17/07 1150
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.21	U	0.30	1.00	0.46	12/05/07	12/11/07
Plutonium 239/40	-0.080	U	0.072	1.00	0.53	12/05/07	12/11/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.69	J	0.42	1.00	0.67	12/12/07	12/16/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	12.7		1.7	1.0	0.06	12/05/07	12/10/07
Uranium 235/236	0.41	J	0.14	1.00	0.03	12/05/07	12/10/07
Uranium 238	2.04		0.38	1.00	0.05	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.005	U	0.11	1.00	0.19	11/28/07	12/01/07
Cesium 137	0.027	U	0.045	1.00	0.077	11/28/07	12/01/07
Thorium 232	0.32	J	0.19	1.00	0.28	11/28/07	12/01/07
Uranium 235	0.43	U	0.28	1.00	0.44	11/28/07	12/01/07
Uranium 238	1.83		0.82	1.00	1.3	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	0.32		0.19		0.28	11/28/07	12/01/07
Bismuth 214	0.60		0.14		0.15	11/28/07	12/01/07
Lead 212	0.47		0.12		0.12	11/28/07	12/01/07
Lead 214	0.63		0.14		0.16	11/28/07	12/01/07
Potassium 40	6.8		1.2		0.8	11/28/07	12/01/07
Thallium 208	0.120		0.053		0.076	11/28/07	12/01/07
Thorium 234	1.83		0.82		1.3	11/28/07	12/01/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.017	U	0.034	1.00	0.063	12/15/07	12/18/07

NOTE(S)

ata are incomplete without the case narrative.

JC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-28-2.5-SL

Radiochemistry

Lab Sample ID: F7K210252-028
 Work Order: KCO2E
 Matrix: SOLID

Date Collected: 11/17/07 1156
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 96
Technetium 99	0.26	U	0.39	1.00	0.65	12/12/07	12/16/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	-0.07	U	0.17	1.00	0.28	11/28/07	12/01/07
Cesium 137	0.015	U	0.068	1.00	0.12	11/28/07	12/01/07
Thorium 232	0.82	J	0.26	1.00	0.48	11/28/07	12/01/07
Uranium 235	0.29	U	0.32	1.00	0.52	11/28/07	12/01/07
Uranium 238	0.87	U	0.63	1.00	1.9	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	0.82		0.26		0.48	11/28/07	12/01/07
Bismuth 214	0.64		0.19		0.17	11/28/07	12/01/07
Lead 212	1.03		0.21		0.16	11/28/07	12/01/07
Lead 214	0.64		0.17		0.15	11/28/07	12/01/07
Potassium 40	13.7		2.4		0.9	11/28/07	12/01/07
Thallium 208	0.340		0.097		0.072	11/28/07	12/01/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-28-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-029
 Work Order: KCQ2H
 Matrix: SOLID

Date Collected: 11/17/07 1156
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.06	U	0.17	1.00	0.29	11/28/07	12/01/07
Cesium 137	-0.02	U	0.44	1.00	0.14	11/28/07	12/01/07
Thorium 232	1.13		0.31	1.00	0.15	11/28/07	12/01/07
Uranium 235	0.15	U	0.39	1.00	0.66	11/28/07	12/01/07
Uranium 238	1.51	U	0.81	1.00	2.0	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	1.13		0.31		0.15	11/28/07	12/01/07
Bismuth 214	1.37		0.27		0.20	11/28/07	12/01/07
Lead 212	1.26		0.23		0.19	11/28/07	12/01/07
Lead 214	1.26		0.24		0.24	11/28/07	12/01/07
Potassium 40	17.6		2.6		0.6	11/28/07	12/01/07
Thallium 208	0.43		0.13		0.11	11/28/07	12/01/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 100
Technetium 99	0.14	U	0.37	1.00	0.62	12/12/07	12/17/07

NOTE(S)

- Results are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-28-12.5-SL

Radiochemistry

Lab Sample ID: F7K210252-030
 Work Order: KCQ2V
 Matrix: SOLID

Date Collected: 11/17/07 1207
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.12	U	0.18	1.00	0.30	11/28/07	12/01/07
Cesium 137	-0.027	U	0.071	1.00	0.12	11/28/07	12/01/07
Thorium 232	1.04		0.27	1.00	0.38	11/28/07	12/01/07
Uranium 235	0.18	U	0.43	1.00	0.73	11/28/07	12/01/07
Uranium 238	2.9		1.3	1.0	2.5	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	1.04		0.27		0.38	11/28/07	12/01/07
Bismuth 214	1.14		0.24		0.26	11/28/07	12/01/07
Lead 212	1.29		0.18		0.15	11/28/07	12/01/07
Lead 214	1.44		0.25		0.19	11/28/07	12/01/07
Potassium 40	22.4		2.7		1.2	11/28/07	12/01/07
Thallium 208	0.48		0.12		0.1	11/28/07	12/01/07
Thorium 234	2.9		1.3		2.5	11/28/07	12/01/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.
 Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-34-2.5-SL

Radiochemistry

Lab Sample ID: F7K210252-031
 Work Order: KCQ2X
 Matrix: SOLID

Date Collected: 11/19/07 1440
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339445	Yld % 23
Plutonium 238	0.08	U	0.15	1.00	0.28	12/05/07	12/13/07
Plutonium 239/40	0.027	U	0.088	1.00	0.21	12/05/07	12/13/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 94
Technetium 99	50.1		4.4	1.0	0.7	12/12/07	12/17/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 83
Uranium 233/234	91		11	1	0.06	12/05/07	12/10/07
Uranium 235/236	3.52		0.59	1.00	0.03	12/05/07	12/10/07
Uranium 238	7.2		1.0	1.0	0.03	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.02	U	0.17	1.00	0.30	11/28/07	12/01/07
Cesium 137	0.026	U	0.060	1.00	0.10	11/28/07	12/01/07
Thorium 232	0.21	U	0.15	1.00	0.33	11/28/07	12/01/07
Uranium 235	5.03		0.85	1.00	0.67	11/28/07	12/01/07
Uranium 238	3.5		1.1	1.0	2.1	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.75		0.20		0.15	11/28/07	12/01/07
Lead 212	0.41		0.12		0.13	11/28/07	12/01/07
Lead 214	0.60		0.14		0.11	11/28/07	12/01/07
Potassium 40	7.4		1.6		0.8	11/28/07	12/01/07
Thorium 234	3.5		1.1		2.1	11/28/07	12/01/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7349081	Yld % 86
Neptunium 237	0.42	J	0.14	1.00	0.07	12/15/07	12/18/07

NOTE(S)

ata are incomplete without the case narrative.

JC is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-34-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-032
 Work Order: KCO21
 Matrix: SOLID

Date Collected: 11/19/07 1440
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.02	U	0.15	1.00	0.26	11/28/07	12/01/07
Cesium 137	-0.03	U	55	1	0.1	11/28/07	12/01/07
Thorium 232	0.89	J	0.29	1.00	0.38	11/28/07	12/01/07
Uranium 235	0.56	U	0.37	1.00	0.58	11/28/07	12/01/07
Uranium 238	3.4		1.1	1.0	2.1	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	0.89		0.29		0.38	11/28/07	12/01/07
Bismuth 212	0.89		0.60		0.87	11/28/07	12/01/07
Bismuth 214	1.06		0.24		0.18	11/28/07	12/01/07
Lead 212	1.02		0.20		0.16	11/28/07	12/01/07
Lead 214	0.86		0.20		0.16	11/28/07	12/01/07
Potassium 40	16.4		2.5		0.6	11/28/07	12/01/07
Thallium 208	0.461		0.099		0.056	11/28/07	12/01/07
Thorium 234	3.4		1.1		2.1	11/28/07	12/01/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 99
Technetium 99	3.90		0.57	1.00	0.63	12/12/07	12/17/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.
 Bold results are greater than the MDC

- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC
Client Sample ID: BD-34-13-SL

Radiochemistry

Lab Sample ID: F7K210252-033
 Work Order: KCQ29
 Matrix: SOLID

Date Collected: 11/19/07 1500
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	-0.05	U	0.18	1.00	0.30	11/28/07	12/01/07
Cesium 137	0.0	U	0.084	1.00	0.15	11/28/07	12/01/07
Thorium 232	0.88	J	0.24	1.00	0.38	11/28/07	12/01/07
Uranium 235	0.54	U	0.37	1.00	0.59	11/28/07	12/01/07
Uranium 238	3.4		1.2	1.0	2.2	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	0.88		0.24		0.38	11/28/07	12/01/07
Bismuth 212	0.99		0.52		0.71	11/28/07	12/01/07
Bismuth 214	1.01		0.20		0.15	11/28/07	12/01/07
Lead 212	1.30		0.18		0.15	11/28/07	12/01/07
Lead 214	1.18		0.24		0.21	11/28/07	12/01/07
Potassium 40	19.5		2.4		1.1	11/28/07	12/01/07
Thallium 208	0.48		0.13		0.12	11/28/07	12/01/07
Thorium 234	3.4		1.2		2.2	11/28/07	12/01/07

NOTE(S)

- ata are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J** Result is greater than sample detection limit but less than stated reporting limit.
- U** Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-35-2.5-SL

Radiochemistry

Lab Sample ID: F7K210252-034
 Work Order: KCQ3E
 Matrix: SOLID

Date Collected: 11/16/07 1815
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339445	Yld % 71
Plutonium 238	0.029	U	0.046	1.00	0.076	12/05/07	12/13/07
Plutonium 239/40	0.006	U	0.028	1.00	0.071	12/05/07	12/13/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 100
Technetium 99	0.14	U	0.38	1.00	0.62	12/12/07	12/17/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 88
Uranium 233/234	2.37		0.43	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.113	J	0.077	1.00	0.058	12/05/07	12/10/07
Uranium 238	0.28	J	0.12	1.00	0.07	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.028	U	0.077	1.00	0.13	11/28/07	12/01/07
Cesium 137	0.024	U	0.038	1.00	0.065	11/28/07	12/01/07
Thorium 232	0.16	U	0.16	1.00	0.23	11/28/07	12/01/07
Uranium 235	0.11	U	0.20	1.00	0.34	11/28/07	12/01/07
Uranium 238	0.16	U	0.62	1.00	1.2	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.21		0.12		0.17	11/28/07	12/01/07
Lead 212	0.42		0.11		0.1	11/28/07	12/01/07
Lead 214	0.42		0.11		0.13	11/28/07	12/01/07
Potassium 40	4.1		1.2		1.0	11/28/07	12/01/07
Thallium 208	0.139		0.051		0.041	11/28/07	12/01/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7349081	Yld % 76
Neptunium 237	0.006	U	0.039	1.00	0.091	12/15/07	12/18/07

NOTE(S)

1. Data are incomplete without the case narrative.

2. MDC is determined by instrument performance only.

3. Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-35-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-035
 Work Order: KCQ3J
 Matrix: SOLID

Date Collected: 11/16/07 1815
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.18	U	0.39	1.00	0.66	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.02	U	2.2	1.0	0.3	11/28/07	12/01/07
Cesium 137	0.014	U	0.083	1.00	0.16	11/28/07	12/01/07
Thorium 232	1.01		0.33	1.00	0.63	11/28/07	12/01/07
Uranium 235	-0.03	U	1.9	1.0	0.8	11/28/07	12/01/07
Uranium 238	1.6	U	1.0	1.0	2.0	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	1.01		0.33		0.63	11/28/07	12/01/07
Bismuth 212	0.99		0.67		0.94	11/28/07	12/01/07
Bismuth 214	1.18		0.29		0.22	11/28/07	12/01/07
Lead 212	1.25		0.26		0.23	11/28/07	12/01/07
Lead 214	0.57		0.21		0.28	11/28/07	12/01/07
Potassium 40	17.9		3.0		1.6	11/28/07	12/01/07
Thallium 208	0.59		0.13		0.07	11/28/07	12/01/07

NOTE(S)

- U are incomplete without the case narrative.
- C is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-35-6.5-SL

Radiochemistry

Lab Sample ID: F7K210252-036
 Work Order: KCQ3L
 Matrix: SOLID

Date Collected: 11/16/07 1820
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	-0.002	U	0.11	1.00	0.18	11/28/07	12/06/07
Cesium 137	0.004	U	0.060	1.00	0.10	11/28/07	12/06/07
Thorium 232	1.33		0.24	1.00	0.17	11/28/07	12/06/07
Uranium 235	0.08	U	0.24	1.00	0.40	11/28/07	12/06/07
Uranium 238	2.6		1.4	1.0	1.5	11/28/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	1.33		0.24		0.17	11/28/07	12/06/07
Bismuth 212	1.71		0.69		0.56	11/28/07	12/06/07
Bismuth 214	1.55		0.21		0.13	11/28/07	12/06/07
Lead 212	1.35		0.13		0.09	11/28/07	12/06/07
Lead 214	1.43		0.19		0.15	11/28/07	12/06/07
Potassium 40	21.5		2.1		0.7	11/28/07	12/06/07
Thallium 208	0.56		0.11		0.08	11/28/07	12/06/07
Thorium 234	2.6		1.4		1.5	11/28/07	12/06/07

NOTE(S)

ata are incomplete without the case narrative.

DC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-40-2.5-SL

Radiochemistry

Lab Sample ID: F7K210252-037
 Work Order: KCQ3M
 Matrix: SOLID

Date Collected: 11/15/07 1710
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339445	Yld % 47
Plutonium 238	-0.038	U	0.066	1.00	0.19	12/05/07	12/12/07
Plutonium 239/40	0.029	U	0.058	1.00	0.11	12/05/07	12/12/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 101
Technetium 99	0.18	U	0.37	1.00	0.62	12/12/07	12/17/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 91
Uranium 233/234	1.06		0.25	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.110	J	0.073	1.00	0.048	12/05/07	12/10/07
Uranium 238	0.54	J	0.16	1.00	0.04	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.042	U	0.097	1.00	0.17	11/28/07	12/01/07
Cesium 137	-0.017	U	0.063	1.00	0.11	11/28/07	12/01/07
Thorium 232	0.23	U	0.16	1.00	0.30	11/28/07	12/01/07
Uranium 235	0.06	U	0.18	1.00	0.31	11/28/07	12/01/07
Uranium 238	0.51	U	0.81	1.00	1.4	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.22		0.13		0.18	11/28/07	12/01/07
Lead 214	0.34		0.11		0.15	11/28/07	12/01/07
Potassium 40	3.9		1.2		1.1	11/28/07	12/01/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7349081	Yld % 81
Neptunium 237	0.006	U	0.033	1.00	0.079	12/15/07	12/18/07

NOTE(S)

ata are incomplete without the case narrative.

JC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-40-4.5-SL

Radiochemistry

Lab Sample ID: F7K210252-038
 Work Order: KCQ3T
 Matrix: SOLID

Date Collected: 11/15/07 1710
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339445	Yld % 9
Plutonium 238	0.11	U	0.37	1.00	0.77	12/05/07	12/12/07
Plutonium 239/40	-0.038	U	0.054	1.00	0.50	12/05/07	12/12/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346170	Yld % 100
Technetium 99	0.25	U	0.38	1.00	0.62	12/12/07	12/17/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7339447	Yld % 93
Uranium 233/234	1.20		0.26	1.00	0.04	12/05/07	12/10/07
Uranium 235/236	0.051	J	0.050	1.00	0.028	12/05/07	12/10/07
Uranium 238	0.86	J	0.21	1.00	0.03	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	0.03	U	0.15	1.00	0.26	11/28/07	12/01/07
Cesium 137	-0.008	U	0.14	1.00	0.18	11/28/07	12/01/07
Thorium 232	0.80	J	0.28	1.00	0.51	11/28/07	12/01/07
Uranium 235	0.20	U	0.33	1.00	0.56	11/28/07	12/01/07
Uranium 238	1.21	U	0.87	1.00	2.2	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	0.80		0.28		0.51	11/28/07	12/01/07
Bismuth 214	1.25		0.25		0.15	11/28/07	12/01/07
Lead 212	1.03		0.18		0.16	11/28/07	12/01/07
Lead 214	1.09		0.22		0.18	11/28/07	12/01/07
Potassium 40	18.8		2.9		0.7	11/28/07	12/01/07
Thallium 208	0.56		0.13		0.08	11/28/07	12/01/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7349081	Yld % 78
Neptunium 237	-0.011	U	0.010	1.00	0.074	12/15/07	12/18/07

NOTE(S)

ata are incomplete without the case narrative.

DC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC
Client Sample ID: BD-40-18-SL
Radiochemistry

Lab Sample ID: F7K210252-039
 Work Order: KCQ3X
 Matrix: SOLID

Date Collected: 11/15/07 1735
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7332437	Yld %
Americium 241	-0.05	U	0.12	1.00	0.21	11/28/07	12/06/07
Cesium 137	-0.006	U	0.044	1.00	0.078	11/28/07	12/06/07
Thorium 232	0.99	J	0.19	1.00	0.29	11/28/07	12/06/07
Uranium 235	0.04	U	0.28	1.00	0.47	11/28/07	12/06/07
Uranium 238	1.84		0.73	1.00	1.6	11/28/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	0.99		0.19		0.29	11/28/07	12/06/07
Bismuth 212	0.67		0.36		0.53	11/28/07	12/06/07
Lead 212	1.14		0.13		0.11	11/28/07	12/06/07
Lead 214	1.36		0.19		0.16	11/28/07	12/06/07
Potassium 40	18.7		1.8		0.7	11/28/07	12/06/07
Radium (226)	1.24		0.20		0.15	11/28/07	12/06/07
Thallium 208	0.416		0.076		0.067	11/28/07	12/06/07
Thorium 234	1.84		0.73		1.6	11/28/07	12/06/07

NOTE(S)

Its are incomplete without the case narrative.

MDC is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-41-2.5-SL

Radiochemistry

Lab Sample ID: F7K210252-040
 Work Order: KCQ32
 Matrix: SOLID

Date Collected: 11/09/07 0825
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.001	U	0.080	1.00	0.18	12/05/07	12/12/07
Plutonium 239/40	-0.008	U	0.011	1.00	0.10	12/05/07	12/12/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.32	U	0.38	1.00	0.63	12/12/07	12/17/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.30		0.28	1.00	0.06	12/05/07	12/10/07
Uranium 235/236	0.078	J	0.063	1.00	0.030	12/05/07	12/10/07
Uranium 238	0.68	J	0.19	1.00	0.05	12/05/07	12/10/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.017	U	0.092	1.00	0.16	11/28/07	12/01/07
Cesium 137	0.016	U	0.044	1.00	0.077	11/28/07	12/01/07
Thorium 232	0.36	J	0.14	1.00	0.26	11/28/07	12/01/07
Uranium 235	0.1	U	0.25	1.00	0.43	11/28/07	12/01/07
Uranium 238	0.29	U	0.72	1.00	1.3	11/28/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	0.36		0.14		0.26	11/28/07	12/01/07
Bismuth 214	0.23		0.11		0.17	11/28/07	12/01/07
Lead 212	0.62		0.16		0.14	11/28/07	12/01/07
Lead 214	0.350		0.0998		0.14	11/28/07	12/01/07
Potassium 40	7.5		1.3		1.0	11/28/07	12/01/07
Thallium 208	0.138		0.052		0.056	11/28/07	12/01/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.0008	U	0.027	1.00	0.077	12/15/07	12/18/07

NOTE(S)

ata are incomplete without the case narrative.

JC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F7K210252
 Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	Batch #	Yld %	F7K280000-437B	
Americium 241	-0.002	U	0.047	1.00	0.089	11/28/07	12/01/07
Cesium 137	-0.005	U	0.044	1.00	0.084	11/28/07	12/01/07
Thorium 232	0.0	U	0.037	1.00	0.14	11/28/07	12/01/07
Uranium 235	0.02	U	0.11	1.00	0.21	11/28/07	12/01/07
Uranium 238	0.07	U	0.49	1.00	0.97	11/28/07	12/01/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	Batch #	Yld %	F7K280000-371B	
Americium 241	-0.010	U	0.055	1.00	0.098	11/28/07	11/28/07
Cesium 137	0.01	U	0.026	1.00	0.047	11/28/07	11/28/07
Thorium 232	0.02	U	0.12	1.00	0.23	11/28/07	11/28/07
Uranium 235	0.01	U	0.10	1.00	0.19	11/28/07	11/28/07
Uranium 238	-0.5	U	16	1	0.9	11/28/07	11/28/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	Batch #	Yld %	F7L010000-109B	
Americium 241	-0.01	U	0.95	1.00	0.11	12/01/07	12/08/07
Cesium 137	-0.03	U	0.78	1.00	0.13	12/01/07	12/08/07
Thorium 232	0.0	U	0.23	1.00	0.43	12/01/07	12/08/07
Uranium 235	0.02	U	0.13	1.00	0.24	12/01/07	12/08/07
Uranium 238	0.21	U	0.45	1.00	0.86	12/01/07	12/08/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	Yld %	91	F7L150000-081B
Neptunium 237	0.003	U	0.022	1.00	0.060	12/15/07	12/18/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	Yld %	98	F7L050000-447B
Uranium 233/234	0.0	U	0.0	1.0	0.03	12/05/07	12/10/07
Uranium 235/236	0.0	U	0.0	1.0	0.03	12/05/07	12/10/07
Uranium 238	0.009	U	0.027	1.00	0.025	12/05/07	12/10/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	Yld %	85	F7L050000-445B
Plutonium 238	-0.001	U	0.024	1.00	0.070	12/05/07	12/11/07
Plutonium 239/40	-0.0040	U	0.0057	1.00	0.053	12/05/07	12/11/07
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	Batch #	Yld %	109	F7L120000-170B
Technetium 99	0.06	U	0.34	1.00	0.57	12/12/07	12/16/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined using instrument performance only
 Bold results are greater than the MDC

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F7K210252
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2σ+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	108	8.6	1.4		105	(85 - 118)
Cesium 137	40.0	42.3	2.7	0.6		106	(91 - 120)
Cobalt 60	62.7	62.4	3.8	0.3		100	(91 - 112)
Batch #:		7332371		Analysis Date:		11/28/07	
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	105	8.3	1.6		102	(85 - 118)
Cesium 137	40.0	42.8	2.7	0.5		107	(91 - 120)
Cobalt 60	62.7	65.5	4.0	0.3		104	(91 - 112)
Batch #:		7332437		Analysis Date:		12/01/07	
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	105	8.3	1.3		102	(85 - 118)
Cesium 137	40.0	43.9	2.7	0.4		110	(91 - 120)
Cobalt 60	62.7	64.8	3.9	0.2		103	(91 - 112)
Batch #:		7335109		Analysis Date:		12/08/07	
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD.							
Plutonium 238	6.13	7.1	a 1.1	0.2	33	116 a	(77 - 112)
Plutonium 239/40	5.77	6.27	0.98	0.14	33	109	(82 - 119)
Batch #:		7339445		Analysis Date:		12/13/07	
Iso URANIUM (SHORT CT) DOE A-01-R MOD.							
Uranium 233/234	19.6	16.7	3.0	0.3	96	85	(76 - 128)
Uranium 238	19.6	15.8	2.8	0.3	96	81	(74 - 125)
Batch #:		7339447		Analysis Date:		12/10/07	
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	33.3	30.4	2.7	0.6	103	91	(64 - 114)
Batch #:		7346170		Analysis Date:		12/16/07	
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD.							
Neptunium 237	13.3	14.2	1.4	0.06	100	107	(75 - 119)
Batch #:		7349081		Analysis Date:		12/18/07	

NOTE(S)

MDC is determined by instrument performance only
 Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F7K210252
 Matrix: SOLID

Date Sampled: 11/19/07
 Date Received: 11/21/07

Parameter	SAMPLE Result	Total Uncert. (2σ+/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ+/-)	% Yld	QC Sample ID	Precision
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	GA-01-R MOD		F7K210252-021		
Americium 241	0.05	U	0.18	0.01	U	0.19	131	%RPD
Cesium 137	0.07	U	0.12	0.18	J	0.12	88	%RPD
Thorium 232	0.99	J	0.33	0.89	J	0.33	11	%RPD
Uranium 235	0.17	U	0.45	0.40	U	0.39	82	%RPD
Uranium 238	3.1		1.2	2.8		1.2	11	%RPD
---Other Dedected Radionuclides---								
Actinium 228	0.99		0.33	0.89		0.33	11	%RPD
Bismuth 214	1.23		0.28	0.90		0.28	30	%RPD
Lead 212	1.10		0.21	1.39		0.24	24	%RPD
Lead 214	1.10		0.22	1.43		0.31	26	%RPD
Potassium 40	23.2		3.5	20.6		3.4	12	%RPD
Thallium 208	0.44		0.13	0.34		0.13	27	%RPD
Thorium 234	3.1		1.2	2.8		1.2	11	%RPD
Batch #:		7332437	(Sample)	7332437	(Duplicate)			
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	GA-01-R MOD		F7K210252-022		
Americium 241	0.0	U	0.17	0.01	U	0.17	200	%RPD
Cesium 137	0.025	U	0.070	-0.0008	U	0.080	213	%RPD
Thorium 232	0.99	J	0.25	1.04		0.27	5	%RPD
Uranium 235	0.1	U	0.38	-0.08	U	21	1820	%RPD
Uranium 238	1.8	U	1.0	1.15	U	0.82	46	%RPD
---Other Dedected Radionuclides---								
Actinium 228	0.99		0.25	1.04		0.27	5	%RPD
Bismuth 214	1.25		0.23	0.89		0.22	34	%RPD
Lead 212	1.12		0.21	1.49		0.26	29	%RPD
Lead 214	1.16		0.21	1.25		0.24	8	%RPD
Potassium 40	18.5		2.3	20.4		2.8	10	%RPD
Thallium 208	0.49		0.12	0.50		0.13	2	%RPD
Batch #:		7335109	(Sample)	7335109	(Duplicate)			
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	TC-02-RC MOD		F7K210252-014		
Technetium 99	0.11	U	0.38	98	0.18	U	0.39	96
Batch #:		7346170	(Sample)	7346170	(Duplicate)			

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F7K210252
 Matrix: SOLID

Date Sampled: 11/13/07
 Date Received: 11/21/07

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result		Total Uncert. (2σ +/-)	% Yld	QC Sample ID Precision
Gamma Cs-137 & Hits by DOE GA-01-R MOD.									
			pCi/g		GA-01-R MOD				F7K210252-001
Americium 241	0.004	U	0.17		0.05	U	0.17		171 %RPD
Cesium 137	0.032	U	0.073		0.008	U	0.060		118 %RPD
Thorium 232	0.96	J	0.27		1.27		0.29		27 %RPD
Uranium 235	0.19	U	0.37		0.17	U	0.43		8 %RPD
Uranium 238	2.9		1.0		2.1		1.1		29 %RPD
---Other Dedected Radionuclides---									
Actinium 228	0.96		0.27		1.27		0.29		27 %RPD
Bismuth 214	0.84		0.22		0.91		0.22		9 %RPD
Lead 212	1.84		0.29		1.46		0.32		23 %RPD
Lead 214	1.04		0.23		1.27		0.32		20 %RPD
Potassium 40	19.8		2.6		21.5		2.7		8 %RPD
Thallium 208	0.498		0.099		0.40		0.11		22 %RPD
Thorium 234	2.9		1.0		2.1		1.1		29 %RPD
Batch #: 7332371 (Sample) 7332371 (Duplicate)									
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD									
			pCi/g		A-01-R				F7K210252-002
Plutonium 238	-0.19	U	0.12	10	-0.100	U	0.082	10	63 %RPD
Plutonium 239/40	0.02	U	0.20	10	-0.067	U	0.067	10	413 %RPD
Batch #: 7339445 (Sample) 7339445 (Duplicate)									
Iso URANIUM (SHORT CT) DOE A-01-R MOD									
			pCi/g		A-01-R MOD				F7K210252-002
Uranium 233/234	4.06		0.65	88	3.10		0.51	95	27 %RPD
Uranium 235/236	0.172	J	0.095	88	0.106	J	0.070	95	48 %RPD
Uranium 238	1.45		0.31	88	1.37		0.29	95	6 %RPD
Batch #: 7339447 (Sample) 7339447 (Duplicate)									

NOTE(S)

- Data are incomplete without the case narrative.
- Calculations are performed before rounding to avoid round-off error in calculated results
- J Result is greater than sample detection limit but less than stated reporting limit.

F7K210252

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-21
 Report Due Date: 2007-12-21
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC
 #SMPS In LOT: 40

Gamma Library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
1	NB-141-17.5-SL			2007-11-13 / 1740	KCQXH	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06
X	XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
2	NB-142-0.5-SL			2007-11-15 / 921	KCQXL	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06
XX	2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06
X	XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06
X	XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06
X	XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06
X	XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
3	NB-142-4.5-SL			2007-11-15 / 925	KCQXM	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
4	NB-142-9-SL			2007-11-15 / 934	KCQXP	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
5	NB-143-0.5-SL			2007-11-13 / 1755	KCQXQ	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06
XX	2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06

F7K210252

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-21
 Report Due Date: 2007-12-21
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC
 #SMPS in LOT: 40

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX 2I	EML	A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-02 by LSC by DOE TC-02-RC Mod.	IM	TC-02 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
6	NB-143-4.5-SL			2007-11-13 / 1800	KCQXR	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
7	NB-143-6.5-SL			2007-11-13 / 1805	KCQXT	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
8	NB-144-0.5-SL			2007-11-14 / 1255	KCQXW	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-02 by LSC by DOE TC-02-RC Mod.	IM TC-02 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
9	NB-144-4.5-SL			2007-11-14 / 1300	KCQX0	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
10	NB-144-7-SL			2007-11-14 / 1305	KCQX2	SOLID
SAMPLE COMMENTS:						

F7K210252

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-21
 Report Due Date: 2007-12-21
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC
 #SMPS in LOT: 40

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
11	NB-104-0.5-SL			2007-11-19/ 1025	KCQX4	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	iso URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
12	NB-104-4.5-SL			2007-11-19/ 1035	KCQX7	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
13	NB-104-12.5-SL			2007-11-19/ 1050	KCQX9	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
14	NB-106-4.5-SL			2007-11-19/ 1620	KCQ0C	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	iso URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
X XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
15	NB-106-7.5-SL			2007-11-19/ 1625	KCQ0H	SOLID
SAMPLE COMMENTS:						

F7K210252

CLIENT ANALYSIS SUMMARY

Storage Loc: **RAD**
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-21
 Report Due Date: 2007-12-21
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC
 #SMPS in LOT: 40

Gamma library MUST contain U-235, U-236, Th-232, and Am-241 Standard QA/QC acceptable.

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
16	NB-106-2.5-SL			2007-11-19/ 1620	KCQOJ	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
17	NB-107-0.5-SL			2007-11-19/ 1345	KCQOL	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD.	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	Iso URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	Iso NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	Iso NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
18	NB-107-4.5-SL			2007-11-19/ 1350	KCQOP	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
19	NB-107-17-SL			2007-11-19/ 1410	KCQOV	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
20	NB-108-4.5-SL			2007-11-19/ 1118	KCQOX	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
11	NB-108-0.5-SL			2007-11-19/ 1110	KCQO3	SOLID
SAMPLE COMMENTS:						

F7K210252

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-21
 Report Due Date: 2007-12-21
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC #SMPS in LOT: 40

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX	2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
X	XX	0A	EML GA-01-R MOD	G6	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
22	NB-139-4.5-SL			2007-11-19 / 1118	KCQ06	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06
X	XX	0A	EML GA-01-R MOD	G6	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	2X SPECIAL PROJECTS PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
23	NB-108-9-SL			2007-11-19 / 1125	KCQ08	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06
XX	2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
24	BD-19-0.5-SL			2007-11-19 / 1550	KCQ1D	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06
XX	2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
25	BD-19-4.5-SL			2007-11-19 / 1600	KCQ1F	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06
XX	2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET PROT: A WRK LOC 06

F7K210252

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-21
 Report Due Date: 2007-12-21
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 roject: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC
 #SMPS In LOT: 40

Gamma Library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
26	BD-19-10.5-SL			2007-11-19/ 1610	KCQ1R	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grnd, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A	WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
27	BD-28-0.5-SL			2007-11-17/ 1150	KCQ2A	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grnd, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A	WRK LOC 06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
28	BD-28-2.5-SL			2007-11-17/ 1156	KCQ2E	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grnd, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A	WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A	WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
29	BD-28-4.5-SL			2007-11-17/ 1156	KCQ2H	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grnd, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A	WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A	WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
30	BD-28-12.5-SL			2007-11-17/ 1207	KCQ2V	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grnd, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A	WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
31	BD-34-2.5-SL			2007-11-19/ 1440	KCQ2X	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grnd, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A	WRK LOC 06

F7K210252

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hemafite Site
 Report to: Paul Ely

Date Received: 2007-11-21
 Analytical Due Date: 2007-12-21
 Report Due Date: 2007-12-21
 Report Type: W
 EDD Code: 00

#SMPS In LOT: 40

Gamma Library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX 2H	EML	A-01-R	iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT:A	WRK LOC	06
XX 2I	EML	A-01-R MOD	iso URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT:A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT:A	WRK LOC	06
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT:A	WRK LOC	06
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT:A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
32	BD-34-4.5-SL			2007-11-19 / 1440	KCQ21	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT:A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT:A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT:A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
33	BD-34-13-SL			2007-11-19 / 1500	KCQ29	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT:A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT:A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
34	BD-35-2.5-SL			2007-11-16 / 1815	KCQ3E	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT:A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT:A WRK LOC 06
XX 2H	EML A-01-R	iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT:A WRK LOC 06
XX 2I	EML A-01-R MOD	iso URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT:A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT:A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT:A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT:A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
35	BD-35-4.5-SL			2007-11-16 / 1815	KCQ3J	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT:A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT:A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT:A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
36	BD-35-6.5-SL			2007-11-16 / 1820	KCQ3L	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT:A WRK LOC 06

F7K210252

CLIENT ANALYSIS SUMMARY

Storage Loc: **RAD**
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-21
 Report Due Date: 2007-12-21
 Report Type: W
 EDD Code: 00

Project Manager: IV
 Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC
 #SMPS in LOT: 40

Gemma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX	0A	EML	GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
----	----	-----	-------------	---	----	-------------------------------	----	------------------	---------	---------	----

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
37	BD-40-2.5-SL			2007-11-15/ 1710	KCQ3M	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML	GA-01-R MOD	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06
XX	2H	EML	A-01-R	J2	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	2I	EML	A-01-R MOD	J2	ISO URANIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	2Q	EML	TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	3K	EML	A-01-R MOD	J2	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	3K	EML	A-01-R MOD	J2	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
38	BD-40-4.5-SL			2007-11-15/ 1710	KCQ3T	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML	GA-01-R MOD	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06
XX	2H	EML	A-01-R	J2	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	2I	EML	A-01-R MOD	J2	ISO URANIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	2Q	EML	TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	3K	EML	A-01-R MOD	J2	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	3K	EML	A-01-R MOD	J2	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
39	BD-40-18-SL			2007-11-15/ 1735	KCQ3X	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML	GA-01-R MOD	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
40	BD-41-2.5-SL			2007-11-09/ 825	KCQ32	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML	GA-01-R MOD	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 06
XX	2H	EML	A-01-R	J2	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	2I	EML	A-01-R MOD	J2	ISO URANIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	2Q	EML	TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	3K	EML	A-01-R MOD	J2	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	3K	EML	A-01-R MOD	J2	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	01 STANDARD TEST SET PROT: A WRK LOC 06

F7K210252

CLIENT COMMENTS SUMMARY

Project Manager: IV
Project: 313010.202
PO#: 1381304
Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
Hematite Site
Report to: Paul Ely

Storage Loc: RAD
Date Received: 2007-11-21
Analytical Due Date: 2007-12-21
Report Due Date: 2007-12-21
Report Type: W
EDD Code: 00

#SMPS In LOT: 40

Gamma library MUST contain U-235, U-238, Th-232, and Am-241
Standard QA/QC acceptable.

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quayle
 Address: _____ Telephone Number: 865-368-4477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: 5C-01
 Page: 6 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
 (Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives						Isotopic Te-99	Isotopic U	Isotopic Pu	Isotopic Np		
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc					NaOH	
NB-141-11.5-SL	11-13-07	1740				✓												
NB-142-0.5-SL	11-15-07	0921				✓												
NB-142-4.5-SL	11-15-07	0925				✓												
NB-142-9-SL	11-15-07	0934				✓												
NB-143-0.5-SL	11-13-07	1755				✓												
NB-143-4.5-SL	11-13-07	1800				✓												
NB-143-6.5-SL	11-13-07	1805				✓												
NB-144-0.5-SL	11-14-07	1255				✓												

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 21 days Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:22</u>	<u>Angela B. [Signature]</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quyle
 Address: _____ Telephone Number: 805-368-7477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: 5C-01
 Page: 7 of 29

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives						X spec	Isotopic TC-99	Isotopic U	Isotopic Pu	Isotopic Np	
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc						HNO3
NB-144-4.5-SL	11-14-07	1300				✓								✓	✓			
NB-144-7-SL	11-14-07	1305				✓								✓	✓			
NB-104-0.5-SL	11-19-07	1025				✓								✓	✓			
NB-104-4.5-SL	11-19-07	1035				✓								✓	✓			
NB-104-10.5-SL	11-19-07	1050				✓								✓	✓			
NB-106-4.5-SL	11-19-07	1620				✓								✓	✓			
NB-106-7.5-SL	11-19-07	1625				✓								✓	✓			
NB-106-25-SL	11-19-07	1620				✓								✓	✓			

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 20 days Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>	<u>Imagie B. Oon</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Dwaine Quayle
 Address: _____ Telephone Number: 865-368-7477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: 56-01
 Page: 8 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives							X-ray	Isotopic Tc-99	Isotopic U	Isotopic Pu	Isotopic Np	
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	PAZ	NaOH						
NB-107-0.5-SL	11-19-07	1345				✓													
NB-107-4.5-SL	11-19-07	1350				✓													
NB-107-17-SL	11-19-07	1410				✓													
NB-108-4.5-SL	11-19-07	1118				✓													
NB-108-0.5-SL	11-19-07	1110				✓													
NB-108-4.5-SL	11-19-07	1118				✓													
NB-108-9-SL	11-19-07	1125				✓													
BD-19-0.5-SL	11-19-07	1550				✓													

139
11-20-07

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 20 days Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>	<u>Orlando B. ...</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Duayle
 Address: _____ Telephone Number: 865-368-7477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: SC-01
 Page: 9 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis				
(Attach list if more space is needed)				
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓

Sample ID Number	Date	Time	Matrix				Containers & Preservatives													
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	HNOH							
BD-19-4.5-SL	11-19-07	1600				✓														
BD-19-10.5-SL	11-19-07	1610				✓														
BD-28-0.5-SL	11-17-07	1150				✓														
BD-28-2.5-SL	11-17-07	1156				✓														
BD-28-4.5-SL	11-17-07	1156				✓														
BD-28-12.5-SL	11-17-07	1201				✓														
BD-34-2.5-SL	11-19-07	1440				✓														
BD-34-4.5-SL	11-19-07	1440				✓														

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 20 days Other

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>1130</u>	<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Diane Quayle Date: 11/21/07
 Address: _____ Telephone Number: 865-368-7477 CoC Number: SC-01
 City: _____ Site Contact: _____ Page: 10 of 28
 State: _____ Zip Code: _____ Lab Contact: Wan Venia

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives							Isotopic Te99	Isotopic U	Isotopic Pu	Isotopic Np	
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH					
BD-34-13-SL	11-19-07	1500				✓												
BD-35-2.5-SL	11-16-07	1815				✓												
BD-35-4.5-SL	11-16-07	1815				✓												
BD-35-6.5-SL	11-16-07	1820				✓												
BD-40-2.5-SL	11-15-07	1710				✓												
BD-40-4.5-SL	11-15-07	1710				✓												
BD-40-18-SL	11-15-07	1735				✓												
BD-41-2.5-SL	11-9-07	0825				✓												

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 21 days Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:22</u>	<u>Angele Boon</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		



Lot #(s): F7K210252 F7K210247
277 273
350
337

-1167-

Client: Energy Solutions COC/RFA No: SL-01 Date: 11/24/11
 Quote No: 7705 Initiated By: BD Time: 1130

Shipping Information

Shipper Name: clant Multiple Packages: Y N
 Shipping # (s):* Sample Temperature (s):**
 1. _____ 6. _____ 1. Ambient 6. Ambient
 2. _____ 7. _____ 2. _____ 7. _____
 3. _____ 8. _____ 3. _____ 8. _____
 4. _____ 9. _____ 4. _____ 9. _____
 5. _____ 10. _____ 5. _____ 10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests-Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Are there custody seals present on the cooler?	8.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Are there custody seals present on bottles?
2.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Do custody seals on cooler appear to be tampered with?	9.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Do custody seals on bottles appear to be tampered with?
3.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Were contents of cooler friaked after opening, but before unpacking?	10.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Was sample received with proper pH? (If not, note pH below)
4.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Sample received with Chain of Custody?	11.	<input type="checkbox"/> Y <input type="checkbox"/> N	If N/A - Was pH taken by original TestAmerica lab?
5.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Sample received in proper containers?
6.	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Was sample received broken?	13.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Is sample volume sufficient for analysis?	14.	<input type="checkbox"/> Y <input type="checkbox"/> N	Was Internal COC/Worksheet received?

1 For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:

Client Contact Name: _____ Informed by: _____
 Sample(s) processed "as is"
 Sample(s) on hold until: _____ If released, notify: _____
 Project Management Review: _____ Date: 12-3-11

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 08/06/07 \SIS\vo\VOA\FORMS\ST-LOUIS\ADMIN\ADMIN004 rev11.doc



ANALYTICAL REPORT

PROJECT NO. 313010.202

Hematite Site

Lot #: F7K210277

Paul Ely

Energy Solutions, LLC
1009 Commerce Park Drive
Suite 100
Oak Ridge, TN 37830

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Ivan Vania", is written over a light background.

Ivan Vania
Project Manager

December 10, 2007

Case Narrative
LOT NUMBER: F7K210277

This report contains the analytical results for the 40 samples received under chain of custody by TestAmerica St. Louis on November 21, 2007. These samples are associated with your Hematite Site project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Gamma Spectroscopy - Cesium-137 & Hits (EML GA-01-R MOD)

The Uranium-238 reporting limit was not met due to the activity of the sample.

Affected Samples:	F7K210277 (8): NB-121-12.5-SL
F7K210277 (1): NB-120-0.5-SL	F7K210277 (11): NB-126-12.5-SL
F7K210277 (2): NB-120-2.5-SL	F7K210277 (14): NB-128-0.5-SL
F7K210277 (3): NB-120-4.5-SL	F7K210277 (15): NB-128-2.5-SL
F7K210277 (4): NB-120-16.5-SL	F7K210277 (16): NB-128-4.5-SL
F7K210277 (7): NB-121-4.5-SL	F7K210277 (17): NB-128-18.5-SL

Neptunium by Alpha Spectroscopy EML A-01-R MOD

The Neptunium sample has a tracer recovery below the 30% QC limit. The sample was re-prepared and reanalyzed.

Affected Samples:
 F7K210277 (25): NB-131-0.5-SL

Tc-99 by LSC (EML TC-02-RC MOD)

The Technesium-99 LCS tracer recovery is outside acceptance limits. LCS spike recoveries are within QC limits demonstrating acceptable sample preparation and instrument performance. There is an apparent anomaly in the sample preparation, isolated to the LCS and not indicative of the batch.

Affected Samples:	F7K210277 (9): NB-126-0.5-SL
F7K210277 (1): NB-120-0.5-SL	F7K210277 (14): NB-128-0.5-SL
F7K210277 (2): NB-120-2.5-SL	F7K210277 (15): NB-128-2.5-SL
F7K210277 (3): NB-120-4.5-SL	F7K210277 (16): NB-128-4.5-SL
F7K210277 (5): NB-121-0.5-SL	F7K210277 (18): NB-129-0.5-SL
F7K210277 (6): NB-121-2.5-SL	F7K210277 (19): NB-129-2.5-SL
F7K210277 (7): NB-121-4.5-SL	

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F7K210277

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EML GA-01-R MOD	
Isotopic Plutonium by Alpha Spectroscopy	EML A-01-R	
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Neptunium by Alpha Spectroscopy	EML A-01-R MOD	
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

SAMPLE SUMMARY

F7K210277

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KCQ4L	001	NB-120-0.5-SL	11/16/07	16:00
KCQ4T	002	NB-120-2.5-SL	11/16/07	16:05
KCQ4X	003	NB-120-4.5-SL	11/16/07	16:05
KCQ40	004	NB-120-16.5-SL	11/16/07	16:50
KCQ41	005	NB-121-0.5-SL	11/16/07	15:15
KCQ42	006	NB-121-2.5-SL	11/16/07	15:20
KCQ43	007	NB-121-4.5-SL	11/16/07	15:20
KCQ44	008	NB-121-12.5-SL	11/16/07	15:30
KCQ45	009	NB-126-0.5-SL	11/14/07	07:57
KCQ46	010	NB-126-4.5-SL	11/14/07	08:00
KCQ48	011	NB-126-12.5-SL	11/14/07	08:20
KCQ49	012	NB-127-4.5-SL	11/15/07	08:20
KCQ6D	013	NB-127-5-SL	11/15/07	08:24
KCQ6M	014	NB-128-0.5-SL	11/16/07	10:55
KCQ6Q	015	NB-128-2.5-SL	11/16/07	11:00
KCQ6R	016	NB-128-4.5-SL	11/16/07	11:00
KCQ6V	017	NB-128-18.5-SL	11/16/07	11:33
KCQ61	018	NB-129-0.5-SL	11/16/07	09:35
KCQ65	019	NB-129-2.5-SL	11/16/07	09:45
KCQ68	020	NB-129-4.5-SL	11/16/07	09:45
KCQ7C	021	NB-129-19-SL	11/16/07	10:10
KCQ7D	022	NB-130-0.5-SL	11/14/07	15:15
KCQ7H	023	NB-130-4.5-SL	11/14/07	15:30
KCQ7K	024	NB-130-11-SL	11/14/07	15:45
KCQ7M	025	NB-131-0.5-SL	11/15/07	13:20
KCQ7N	026	NB-131-4.5-SL	11/15/07	13:27
KCQ7Q	027	NB-131-6.5-SL	11/15/07	13:30
KCQ7V	028	NB-132-4.5-SL	11/15/07	17:55
KCQ7W	029	NB-132-13-SL	11/15/07	18:15
KCQ7X	030	NB-133-2.5-SL	11/15/07	16:05
KCQ71	031	NB-133-4.5-SL	11/15/07	16:05
KCQ72	032	NB-133-5.5-SL	11/15/07	16:10
KCQ73	033	NB-112-8.5-SL	11/15/07	09:45
KCQ75	034	NB-113-2.5-SL	11/17/07	10:55
KCQ76	035	NB-113-4.5-SL	11/17/07	10:55
KCQ78	036	NB-114-0.5-SL	11/16/07	14:20

(Continued on next page)

SAMPLE SUMMARY

F7K210277

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KCQ8A	037	NB-114-2.5-SL	11/16/07	14:29
KCQ8F	038	NB-114-4.5-SL	11/16/07	14:29
KCQ8G	039	NB-114-10-SL	11/16/07	14:45
KCQ8L	040	NB-115-2.5-SL	11/17/07	10:12

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Energy Solutions, LLC

Client Sample ID: NB-120-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-001
 Work Order: KCO4L
 Matrix: SOLID

Date Collected: 11/16/07 1600
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.0	U	0.0	1.0	0.03	12/03/07	12/06/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.007	U	0.046	1.00	0.081	12/03/07	12/05/07
Plutonium 239/40	0.044	U	0.048	1.00	0.054	12/03/07	12/05/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	12.4		1.4	1.0	0.4	12/04/07	12/08/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	19.1		2.7	1.0	0.06	12/03/07	12/06/07
Uranium 235/236	0.81	J	0.24	1.00	0.06	12/03/07	12/06/07
Uranium 238	3.18		0.57	1.00	0.07	12/03/07	12/06/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.02	U	0.66	1.00	0.21	11/29/07	11/30/07
Cesium 137	0.156	J	0.089	1.00	0.13	11/29/07	11/30/07
Thorium 232	0.28	U	0.23	1.00	0.34	11/29/07	11/30/07
Uranium 235	0.47	U	0.32	1.00	0.50	11/29/07	11/30/07
Uranium 238	1.56		0.67	1.00	1.2	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.60		0.18		0.17	11/29/07	11/30/07
Lead 212	0.47		0.11		0.1	11/29/07	11/30/07
Lead 214	0.32		0.11		0.21	11/29/07	11/30/07
Potassium 40	7.9		1.8		1.2	11/29/07	11/30/07
Thallium 208	0.245		0.073		0.057	11/29/07	11/30/07
Thorium 234	1.56		0.67		1.2	11/29/07	11/30/07

NOTE(S)

a are incomplete without the case narrative.

C is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-120-0.5-SL DUP

Seyvern Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-001X
 Work Order: KCO4L
 Matrix: SOLID

Date Collected: 11/16/07 1600
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333487	Yld %
Americium 241	0.06	U	0.12	1.00	0.20	11/29/07	11/30/07
Cesium 137	0.237	J	0.087	1.00	0.091	11/29/07	11/30/07
Thorium 232	0.50	J	0.27	1.00	0.29	11/29/07	11/30/07
Uranium 235	0.45	J	0.28	1.00	0.42	11/29/07	11/30/07
Uranium 238	2.04		0.80	1.00	1.4	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.50		0.27		0.29	11/29/07	11/30/07
Bismuth 214	0.50		0.15		0.13	11/29/07	11/30/07
Lead 212	0.44		0.13		0.14	11/29/07	11/30/07
Lead 214	0.46		0.15		0.19	11/29/07	11/30/07
Potassium 40	7.8		1.8		1.2	11/29/07	11/30/07
Thallium 208	0.174		0.071		0.082	11/29/07	11/30/07
Thorium 234	2.04		0.80		1.4	11/29/07	11/30/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7337163	Yld % 96
Neptunium 237	-0.001	U	0.029	1.00	0.064	12/03/07	12/06/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7337279	Yld % 99
Plutonium 238	-0.001	U	0.027	1.00	0.061	12/03/07	12/05/07
Plutonium 239/40	0.013	U	0.030	1.00	0.050	12/03/07	12/05/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7337288	Yld % 83
Uranium 233/234	16.6		2.3	1.0	0.07	12/03/07	12/06/07
Uranium 235/236	0.75	J	0.23	1.00	0.04	12/03/07	12/06/07
Uranium 238	2.30		0.44	1.00	0.06	12/03/07	12/06/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7338324	Yld % 90
Technetium 99	12.6		1.4	1.0	0.4	12/04/07	12/08/07

NOTE(S)

ta are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-120-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-002
 Work Order: KCO4T
 Matrix: SOLID

Date Collected: 11/16/07 1605
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.						Batch # 7338324	Yld % 97
Technetium 99	8.31		0.998	1.00	0.41	12/04/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.						Batch # 7333487	Yld %
Americium 241	-0.03	U	0.14	1.00	0.24	11/29/07	11/30/07
Cesium 137	0.063	U	0.080	1.00	0.13	11/29/07	11/30/07
Thorium 232	0.65	J	0.24	1.00	0.40	11/29/07	11/30/07
Uranium 235	0.40	U	0.29	1.00	0.46	11/29/07	11/30/07
Uranium 238	3.6		1.5	1.0	1.7	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.65		0.24		0.40	11/29/07	11/30/07
Bismuth 214	0.93		0.18		0.07	11/29/07	11/30/07
Lead 212	1.37		0.25		0.18	11/29/07	11/30/07
Lead 214	0.94		0.17		0.12	11/29/07	11/30/07
Potassium 40	19.5		2.6		0.5	11/29/07	11/30/07
Thallium 208	0.418		0.099		0.064	11/29/07	11/30/07
Thorium 234	3.6		1.5		1.7	11/29/07	11/30/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD						Batch # 7337288	Yld % 93
Uranium 233/234	6.16		0.91	1.00	0.05	12/03/07	12/06/07
Uranium 235/236	0.28	J	0.12	1.00	0.03	12/03/07	12/06/07
Uranium 238	1.43		0.29	1.00	0.03	12/03/07	12/06/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-120-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-003
 Work Order: KCO4X
 Matrix: SOLID

Date Collected: 11/16/07 1605
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.013	U	0.034	1.00	0.059	12/03/07	12/06/07
Batch # 7337163 Yld % 94							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.018	U	0.039	1.00	0.063	12/03/07	12/06/07
Plutonium 239/40	0.010	U	0.033	1.00	0.059	12/03/07	12/06/07
Batch # 7337279 Yld % 97							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	2.60		0.44	1.00	0.38	12/04/07	12/08/07
Batch # 7338324 Yld % 101							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	2.04		0.41	1.00	0.07	12/03/07	12/06/07
Uranium 235/236	0.095	J	0.079	1.00	0.070	12/03/07	12/06/07
Uranium 238	1.00		0.25	1.00	0.08	12/03/07	12/06/07
Batch # 7337288 Yld % 82							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.03	U	0.92	1.00	0.28	11/29/07	11/30/07
Cesium 137	0.005	U	0.084	1.00	0.16	11/29/07	11/30/07
Thorium 232	0.94	J	0.32	1.00	0.55	11/29/07	11/30/07
Uranium 235	0.04	U	0.37	1.00	0.65	11/29/07	11/30/07
Uranium 238	2.3		1.0	1.0	1.7	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.94		0.32		0.55	11/29/07	11/30/07
Bismuth 214	1.05		0.25		0.20	11/29/07	11/30/07
Lead 212	1.34		0.22		0.18	11/29/07	11/30/07
Lead 214	1.16		0.24		0.17	11/29/07	11/30/07
Potassium 40	19.4		2.9		0.7	11/29/07	11/30/07
Thallium 208	0.56		0.13		0.09	11/29/07	11/30/07
Thorium 234	2.3		1.0		1.7	11/29/07	11/30/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-120-16.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-004
 Work Order: KCO40
 Matrix: SOLID

Date Collected: 11/16/07 1650
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333487	Yld %
Americium 241	-0.04	U	0.12	1.00	0.21	11/29/07	11/30/07
Cesium 137	0.016	U	0.066	1.00	0.12	11/29/07	11/30/07
Thorium 232	0.83	J	0.25	1.00	0.41	11/29/07	11/30/07
Uranium 235	0.08	U	0.33	1.00	0.57	11/29/07	11/30/07
Uranium 238	3.2		1.6	1.0	1.8	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.83		0.25		0.41	11/29/07	11/30/07
Bismuth 214	1.25		0.22		0.11	11/29/07	11/30/07
Lead 212	1.56		0.24		0.16	11/29/07	11/30/07
Lead 214	1.16		0.23		0.16	11/29/07	11/30/07
Potassium 40	19.3		2.7		1.2	11/29/07	11/30/07
Radium (226)	1.25		0.22		0.11	11/29/07	11/30/07
Thallium 208	0.53		0.10		0.06	11/29/07	11/30/07
Thorium 234	3.2		1.6		1.8	11/29/07	11/30/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-121-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-005
 Work Order: KCO41
 Matrix: SOLID

Date Collected: 11/16/07 1515
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.0	U	0.0	1.0	0.03	12/03/07	12/06/07
Batch # 7337163 Yld % 82							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.007	U	0.025	1.00	0.052	12/03/07	12/05/07
Plutonium 239/40	0.009	U	0.023	1.00	0.045	12/03/07	12/05/07
Batch # 7337279 Yld % 90							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.08	U	0.39	1.00	0.67	12/04/07	12/08/07
Batch # 7338324 Yld % 56							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.25	J	0.12	1.00	0.08	12/03/07	12/06/07
Uranium 235/236	-0.003	U	0.034	1.00	0.067	12/03/07	12/06/07
Uranium 238	0.175	J	0.098	1.00	0.054	12/03/07	12/06/07
Batch # 7337288 Yld % 73							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.012	U	0.061	1.00	0.11	11/29/07	11/30/07
Cesium 137	0.0002	U	0.029	1.00	0.058	11/29/07	11/30/07
Thorium 232	0.05	U	0.14	1.00	0.24	11/29/07	11/30/07
Uranium 235	0.02	U	0.12	1.00	0.22	11/29/07	11/30/07
Uranium 238	-0.15	U	0.96	1.00	0.90	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Lead 212	0.10		0.049		0.064	11/29/07	11/30/07
Potassium 40	2.61		0.82		0.54	11/29/07	11/30/07

NOTE(S)

ta are incomplete without the case narrative.

C is determined by instrument performance only.

Sold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-121-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-006
 Work Order: KCQ42
 Matrix: SOLID

Date Collected: 11/16/07 1520
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.17	U	0.28	1.00	0.46	12/04/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.026	U	0.093	1.00	0.17	11/29/07	11/30/07
Cesium 137	0.080	U	0.073	1.00	0.12	11/29/07	11/30/07
Thorium 232	0.08	U	0.23	1.00	0.42	11/29/07	11/30/07
Uranium 235	0.12	U	0.24	1.00	0.42	11/29/07	11/30/07
Uranium 238	0.15	U	0.87	1.00	1.6	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.61		0.21		0.19	11/29/07	11/30/07
Lead 212	0.46		0.13		0.13	11/29/07	11/30/07
Lead 214	0.43		0.14		0.17	11/29/07	11/30/07
Potassium 40	11.4		2.2		1.5	11/29/07	11/30/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.45		0.31	1.00	0.04	12/03/07	12/06/07
Uranium 235/236	0.051	J	0.058	1.00	0.035	12/03/07	12/06/07
Uranium 238	0.76	J	0.20	1.00	0.03	12/03/07	12/06/07

NOTE(S)

- Results are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-121-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-007
 Work Order: KCO43
 Matrix: SOLID

Date Collected: 11/16/07 1520
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7338324	Yld % 100
Technetium 99	0.35	U	0.25	1.00	0.39	12/04/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333487	Yld %
Americium 241	0.04	U	0.15	1.00	0.25	11/29/07	11/30/07
Cesium 137	-0.004	U	0.12	1.00	0.15	11/29/07	11/30/07
Thorium 232	0.69	J	0.23	1.00	0.52	11/29/07	11/30/07
Uranium 235	0.11	U	0.28	1.00	0.47	11/29/07	11/30/07
Uranium 238	2.04		0.81	1.00	1.7	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.69		0.23		0.52	11/29/07	11/30/07
Bismuth 214	1.34		0.22		0.08	11/29/07	11/30/07
Lead 212	1.01		0.17		0.14	11/29/07	11/30/07
Lead 214	0.97		0.17		0.20	11/29/07	11/30/07
Potassium 40	16.6		2.5		1.5	11/29/07	11/30/07
Thallium 208	0.45		0.11		0.08	11/29/07	11/30/07
Thorium 234	2.04		0.81		1.7	11/29/07	11/30/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-121-12.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-008
 Work Order: KCO44
 Matrix: SOLID

Date Collected: 11/16/07 1530
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7337163	Yld % 98
Neptunium 237	-0.011	U	0.028	1.00	0.063	12/03/07	12/06/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7337279	Yld % 87
Plutonium 238	0.038	U	0.052	1.00	0.070	12/03/07	12/05/07
Plutonium 239/40	0.0	U	0.0	1.0	0.03	12/03/07	12/05/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7337288	Yld % 88
Uranium 233/234	0.80	J	0.21	1.00	0.06	12/03/07	12/06/07
Uranium 235/236	0.052	J	0.058	1.00	0.035	12/03/07	12/06/07
Uranium 238	1.03		0.25	1.00	0.05	12/03/07	12/06/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333487	Yld %
Americium 241	-0.05	U	0.17	1.00	0.29	11/29/07	11/30/07
Cesium 137	0.019	U	0.055	1.00	0.096	11/29/07	11/30/07
Thorium 232	0.95	J	0.27	1.00	0.40	11/29/07	11/30/07
Uranium 235	-0.09	U	0.83	1.00	0.53	11/29/07	11/30/07
Uranium 238	2.2		1.0	1.0	2.1	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.95		0.27		0.40	11/29/07	11/30/07
Bismuth 214	0.67		0.19		0.23	11/29/07	11/30/07
Lead 212	1.35		0.18		0.14	11/29/07	11/30/07
Lead 214	1.12		0.24		0.21	11/29/07	11/30/07
Potassium 40	21.9		2.6		1.1	11/29/07	11/30/07
Thallium 208	0.50		0.11		0.08	11/29/07	11/30/07
Thorium 234	2.2		1.0		2.1	11/29/07	11/30/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-126-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-009
 Work Order: KCO45
 Matrix: SOLID

Date Collected: 11/14/07 0757
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.008	U	0.021	1.00	0.042	12/03/07	12/06/07
Batch # 7337163 Yld % 94							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.027	U	0.046	1.00	0.10	12/03/07	12/05/07
Plutonium 239/40	-0.015	U	0.050	1.00	0.10	12/03/07	12/05/07
Batch # 7337279 Yld % 86							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	2.83		0.50	1.00	0.06	12/03/07	12/06/07
Uranium 235/236	0.091	J	0.073	1.00	0.057	12/03/07	12/06/07
Uranium 238	1.03		0.25	1.00	0.06	12/03/07	12/06/07
Batch # 7337288 Yld % 88							
Gamma Cs-137 & Hits by DOE QA-01-R MOD.							
Americium 241	-0.06	U	0.18	1.00	0.30	11/29/07	11/30/07
Cesium 137	0.148	J	0.090	1.00	0.13	11/29/07	11/30/07
Thorium 232	0.82	J	0.28	1.00	0.47	11/29/07	11/30/07
Uranium 235	0.18	U	0.33	1.00	0.56	11/29/07	11/30/07
Uranium 238	1.54	U	0.92	1.00	2.1	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.82		0.28		0.47	11/29/07	11/30/07
Bismuth 214	0.78		0.19		0.14	11/29/07	11/30/07
Lead 212	0.94		0.19		0.18	11/29/07	11/30/07
Lead 214	0.78		0.16		0.15	11/29/07	11/30/07
Potassium 40	16.6		2.7		1.0	11/29/07	11/30/07
Thallium 208	0.45		0.12		0.08	11/29/07	11/30/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.37	U	0.28	1.00	0.45	12/04/07	12/08/07
Batch # 7338324 Yld % 89							

NOTE(S)

- Results are incomplete without the case narrative.
- MC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-126-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-010
 Work Order: KCO46
 Matrix: SOLID

Date Collected: 11/14/07 0800
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333487	Yld %
Americium 241	-0.003	U	0.057	1.00	0.097	11/29/07	12/03/07
Cesium 137	-0.003	U	0.030	1.00	0.052	11/29/07	12/03/07
Thorium 232	1.22		0.16	1.00	0.18	11/29/07	12/03/07
Uranium 235	0.04	U	0.19	1.00	0.31	11/29/07	12/03/07
Uranium 238	1.9		1.0	1.0	1.1	11/29/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	1.22		0.16		0.18	11/29/07	12/03/07
Bismuth 212	0.99		0.34		0.31	11/29/07	12/03/07
Bismuth 214	1.06		0.12		0.09	11/29/07	12/03/07
Lead 212	1.24		0.11		0.07	11/29/07	12/03/07
Lead 214	1.20		0.14		0.10	11/29/07	12/03/07
Potassium 40	19.1		1.5		0.5	11/29/07	12/03/07
Thallium 208	0.436		0.074		0.057	11/29/07	12/03/07
Thorium 234	1.9		1.0		1.1	11/29/07	12/03/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-126-12.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-011
 Work Order: KCO48
 Matrix: SOLID

Date Collected: 11/14/07 0820
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333487	Yld %
Americium 241	0.007	U	0.13	1.00	0.22	11/29/07	11/30/07
Cesium 137	0.008	U	0.053	1.00	0.097	11/29/07	11/30/07
Thorium 232	0.92	J	0.25	1.00	0.41	11/29/07	11/30/07
Uranium 235	0.02	U	0.27	1.00	0.46	11/29/07	11/30/07
Uranium 238	2.23		0.80	1.00	1.4	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.92		0.25		0.41	11/29/07	11/30/07
Bismuth 214	0.69		0.15		0.09	11/29/07	11/30/07
Lead 212	1.25		0.23		0.17	11/29/07	11/30/07
Lead 214	0.76		0.16		0.19	11/29/07	11/30/07
Potassium 40	16.2		2.3		0.5	11/29/07	11/30/07
Thallium 208	0.40		0.11		0.09	11/29/07	11/30/07
Thorium 234	2.23		0.80		1.4	11/29/07	11/30/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-127-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-012
 Work Order: KCO49
 Matrix: SOLID

Date Collected: 11/15/07 0820
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.011	U	0.033	1.00	0.074	12/03/07	12/06/07
Batch # 7337163 Yld % 86							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.011	U	0.059	1.00	0.098	12/03/07	12/05/07
Plutonium 239/40	0.004	U	0.025	1.00	0.054	12/03/07	12/05/07
Batch # 7337279 Yld % 93							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.91	J	0.23	1.00	0.06	12/03/07	12/06/07
Uranium 235/236	-0.002	U	0.029	1.00	0.056	12/03/07	12/06/07
Uranium 238	0.59	J	0.18	1.00	0.06	12/03/07	12/06/07
Batch # 7337288 Yld % 91							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.01	U	0.14	1.00	0.24	11/29/07	11/30/07
Cesium 137	0.030	U	0.053	1.00	0.091	11/29/07	11/30/07
Thorium 232	0.56	J	0.20	1.00	0.35	11/29/07	11/30/07
Uranium 235	0.01	U	0.29	1.00	0.50	11/29/07	11/30/07
Uranium 238	0.4	U	1.1	1.0	1.9	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.56		0.20		0.35	11/29/07	11/30/07
Bismuth 214	0.73		0.18		0.15	11/29/07	11/30/07
Lead 212	0.73		0.17		0.17	11/29/07	11/30/07
Lead 214	0.67		0.16		0.17	11/29/07	11/30/07
Potassium 40	13.3		1.8		1	11/29/07	11/30/07
Thallium 208	0.409		0.094		0.070	11/29/07	11/30/07

NOTE(S)

- Results are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-127-5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-013
 Work Order: KCO6D
 Matrix: SOLID

Date Collected: 11/15/07 0824
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333487	Yld %
Americium 241	0.027	U	0.096	1.00	0.16	11/29/07	12/03/07
Cesium 137	0.009	U	0.038	1.00	0.065	11/29/07	12/03/07
Thorium 232	1.55		0.30	1.00	0.20	11/29/07	12/03/07
Uranium 235	0.18	U	0.20	1.00	0.32	11/29/07	12/03/07
Uranium 238	1.52		0.80	1.00	1.0	11/29/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	1.55		0.30		0.20	11/29/07	12/03/07
Bismuth 212	1.03		0.48		0.42	11/29/07	12/03/07
Bismuth 214	1.04		0.16		0.12	11/29/07	12/03/07
Lead 212	1.18		0.12		0.08	11/29/07	12/03/07
Lead 214	1.0		0.18		0.14	11/29/07	12/03/07
Potassium 40	16.9		1.7		0.6	11/29/07	12/03/07
Thallium 208	0.373		0.067		0.055	11/29/07	12/03/07
Thorium 234	1.52		0.80		1.0	11/29/07	12/03/07

NOTE(S)

- ata are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-128-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-014
 Work Order: KCO6M
 Matrix: SOLID

Date Collected: 11/16/07 1055
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.01	U	0.039	1.00	0.072	12/03/07	12/06/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.012	U	0.045	1.00	0.078	12/03/07	12/05/07
Plutonium 239/40	0.017	U	0.032	1.00	0.050	12/03/07	12/05/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.42	U	0.28	1.00	0.43	12/04/07	12/10/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	4.26		0.70	1.00	0.07	12/03/07	12/06/07
Uranium 235/236	0.23	J	0.12	1.00	0.04	12/03/07	12/06/07
Uranium 238	1.28		0.29	1.00	0.05	12/03/07	12/06/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.0163	U	0.0996	1.00	0.17	11/29/07	11/30/07
Cesium 137	0.138	J	0.069	1.00	0.10	11/29/07	11/30/07
Thorium 232	0.36	J	0.18	1.00	0.36	11/29/07	11/30/07
Uranium 235	0.17	U	0.24	1.00	0.39	11/29/07	11/30/07
Uranium 238	1.39		0.70	1.00	1.2	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.74		0.19		0.16	11/29/07	11/30/07
Lead 212	0.64		0.14		0.13	11/29/07	11/30/07
Lead 214	0.92		0.14		0.13	11/29/07	11/30/07
Potassium 40	16.2		2.2		0.4	11/29/07	11/30/07
Thallium 208	0.138		0.067		0.094	11/29/07	11/30/07
Thorium 234	1.39		0.70		1.2	11/29/07	11/30/07

NOTE(S)

U are incomplete without the case narrative.

J is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-128-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-015
 Work Order: KCO60
 Matrix: SOLID

Date Collected: 11/16/07 1100
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Techneium 99	3.32		0.62	1.00	0.60	12/04/07	12/08/07
Batch # 7338324 Yld % 65							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.03	U	0.12	1.00	0.21	11/29/07	11/30/07
Cesium 137	0.020	U	0.059	1.00	0.10	11/29/07	11/30/07
Thorium 232	0.67	J	0.24	1.00	0.40	11/29/07	11/30/07
Uranium 235	0.40	J	0.21	1.00	0.36	11/29/07	11/30/07
Uranium 238	1.97		0.79	1.00	1.5	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.67		0.24		0.40	11/29/07	11/30/07
Bismuth 214	0.74		0.17		0.18	11/29/07	11/30/07
Lead 212	1.0		0.20		0.15	11/29/07	11/30/07
Lead 214	1.02		0.21		0.14	11/29/07	11/30/07
Potassium 40	14.2		2.1		1.1	11/29/07	11/30/07
Thallium 208	0.287		0.095		0.078	11/29/07	11/30/07
Thorium 234	1.97		0.79		1.5	11/29/07	11/30/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	2.66		0.47	1.00	0.06	12/03/07	12/06/07
Uranium 235/236	0.174	J	0.099	1.00	0.034	12/03/07	12/06/07
Uranium 238	1.13		0.26	1.00	0.03	12/03/07	12/06/07

NOTE(S)

- Results are incomplete without the case narrative.
- Yld % is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-128-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-016
 Work Order: KCO6R
 Matrix: SOLID

Date Collected: 11/16/07 1100
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.005	U	0.028	1.00	0.061	12/03/07	12/06/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.007	U	0.045	1.00	0.090	12/03/07	12/05/07
Plutonium 239/40	-0.004	U	0.025	1.00	0.052	12/03/07	12/05/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.22	U	0.26	1.00	0.43	12/04/07	12/08/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.65	J	0.19	1.00	0.06	12/03/07	12/06/07
Uranium 235/236	0.131	J	0.090	1.00	0.067	12/03/07	12/06/07
Uranium 238	0.89	J	0.23	1.00	0.07	12/03/07	12/06/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.06	U	0.18	1.00	0.30	11/29/07	11/30/07
Cesium 137	0.021	U	0.067	1.00	0.12	11/29/07	11/30/07
Thorium 232	1.12		0.31	1.00	0.38	11/29/07	11/30/07
Uranium 235	0.23	U	0.41	1.00	0.69	11/29/07	11/30/07
Uranium 238	2.3		1.2	1.0	2.2	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.12		0.31		0.38	11/29/07	11/30/07
Bismuth 212	0.96		0.59		0.85	11/29/07	11/30/07
Bismuth 214	0.73		0.23		0.27	11/29/07	11/30/07
Lead 212	1.41		0.20		0.17	11/29/07	11/30/07
Lead 214	1.07		0.22		0.21	11/29/07	11/30/07
Potassium 40	20.4		2.6		1.2	11/29/07	11/30/07
Thallium 208	0.49		0.11		0.1	11/29/07	11/30/07
Thorium 234	2.3		1.2		2.2	11/29/07	11/30/07

NOTE(S)

ata are incomplete without the case narrative.

.DC is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-128-18.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-017
 Work Order: KCO6V
 Matrix: SOLID

Date Collected: 11/16/07 1133
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g	Batch # 7333487	Yld %	
Americium 241	0.011	U	0.079	1.00	0.13	11/29/07	12/03/07
Cesium 137	0.067	J	0.037	1.00	0.049	11/29/07	12/03/07
Thorium 232	1.18		0.18	1.00	0.16	11/29/07	12/03/07
Uranium 235	0.02	U	0.18	1.00	0.31	11/29/07	12/03/07
Uranium 238	2.21		0.90	1.00	1.0	11/29/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	1.18		0.18		0.16	11/29/07	12/03/07
Bismuth 212	0.75		0.33		0.35	11/29/07	12/03/07
Bismuth 214	1.09		0.16		0.12	11/29/07	12/03/07
Lead 212	1.08		0.11		0.08	11/29/07	12/03/07
Lead 214	1.10		0.14		0.11	11/29/07	12/03/07
Potassium 40	19.8		1.8		0.2	11/29/07	12/03/07
Thallium 208	0.449		0.079		0.061	11/29/07	12/03/07
Thorium 234	2.21		0.90		1.0	11/29/07	12/03/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-129-0.5-SL

Seyvern Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-018
 Work Order: KCO61
 Matrix: SOLID

Date Collected: 11/16/07 0935
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.027	U	0.042	1.00	0.059	12/03/07	12/06/07
Batch # 7337163 Yld % 89							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.015	U	0.033	1.00	0.055	12/03/07	12/05/07
Plutonium 239/40	-0.01	U	0.028	1.00	0.063	12/03/07	12/05/07
Batch # 7337279 Yld % 95							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.51		0.34	1.00	0.39	12/04/07	12/08/07
Batch # 7338324 Yld % 99							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	3.30		0.56	1.00	0.06	12/03/07	12/06/07
Uranium 235/236	0.151	J	0.091	1.00	0.054	12/03/07	12/06/07
Uranium 238	1.14		0.26	1.00	0.04	12/03/07	12/06/07
Batch # 7337288 Yld % 91							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.02	U	0.80	1.00	0.20	11/29/07	11/30/07
Cesium 137	0.129	J	0.070	1.00	0.10	11/29/07	11/30/07
Thorium 232	0.51	J	0.18	1.00	0.32	11/29/07	11/30/07
Uranium 235	0.16	U	0.28	1.00	0.46	11/29/07	11/30/07
Uranium 238	1.08	U	0.77	1.00	1.5	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.51		0.18		0.32	11/29/07	11/30/07
Bismuth 214	0.71		0.22		0.19	11/29/07	11/30/07
Lead 212	0.65		0.14		0.13	11/29/07	11/30/07
Lead 214	1.02		0.20		0.15	11/29/07	11/30/07
Potassium 40	20.0		2.5		0.4	11/29/07	11/30/07
Thallium 208	0.159		0.070		0.096	11/29/07	11/30/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.

bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-129-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-019
 Work Order: KCO65
 Matrix: SOLID

Date Collected: 11/16/07 0945
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.08		0.34	1.00	0.46	12/04/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.030	U	0.090	1.00	0.15	11/29/07	11/30/07
Cesium 137	-0.003	U	0.13	1.00	0.15	11/29/07	11/30/07
Thorium 232	0.46	J	0.17	1.00	0.31	11/29/07	11/30/07
Uranium 235	-0.06	U	0.21	1.00	0.37	11/29/07	11/30/07
Uranium 238	0.19	U	0.76	1.00	1.3	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.46		0.17		0.31	11/29/07	11/30/07
Bismuth 214	0.85		0.15		0.06	11/29/07	11/30/07
Lead 212	0.66		0.11		0.08	11/29/07	11/30/07
Lead 214	0.81		0.13		0.13	11/29/07	11/30/07
Potassium 40	12.5		1.9		1.1	11/29/07	11/30/07
Thallium 208	0.296		0.075		0.050	11/29/07	11/30/07

NOTE(S)

ta are incomplete without the case narrative.

C is determined by instrument performance only.

bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-129-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-020
 Work Order: KCO68
 Matrix: SOLID

Date Collected: 11/16/07 0945
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7338326	Yld % 67
Technetium 99	0.10	U	0.38	1.00	0.63	12/04/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333487	Yld %
Americium 241	-0.005	U	0.12	1.00	0.20	11/29/07	11/30/07
Cesium 137	0.0	U	0.094	1.00	0.16	11/29/07	11/30/07
Thorium 232	1.20		0.25	1.00	0.29	11/29/07	11/30/07
Uranium 235	0.07	U	0.31	1.00	0.53	11/29/07	11/30/07
Uranium 238	1.18	U	0.60	1.00	1.4	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.20		0.25		0.29	11/29/07	11/30/07
Bismuth 214	0.74		0.19		0.26	11/29/07	11/30/07
Lead 212	1.24		0.17		0.16	11/29/07	11/30/07
Lead 214	0.94		0.22		0.21	11/29/07	11/30/07
Potassium 40	18.5		2.3		1.3	11/29/07	11/30/07
Thallium 208	0.46		0.10		0.1	11/29/07	11/30/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-129-4.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-020X
 Work Order: KCO68
 Matrix: SOLID

Date Collected: 11/16/07 0945
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7338326	Yld % 61
Technetium 99	-0.08	U	0.41	1.00	0.70	12/04/07	12/08/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-129-19-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-021
 Work Order: KCO7C
 Matrix: SOLID

Date Collected: 11/16/07 1010
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333553	Yld %
Americium 241	-0.02	U	0.13	1.00	0.22	11/29/07	12/06/07
Cesium 137	0.037	U	0.053	1.00	0.089	11/29/07	12/06/07
Thorium 232	1.14		0.22	1.00	0.29	11/29/07	12/06/07
Uranium 235	0.05	U	0.32	1.00	0.54	11/29/07	12/06/07
Uranium 238	2.83		0.87	1.00	1.4	11/29/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	1.14		0.22		0.29	11/29/07	12/06/07
Bismuth 212	0.68		0.41		0.62	11/29/07	12/06/07
Bismuth 214	0.98		0.17		0.19	11/29/07	12/06/07
Lead 212	1.30		0.14		0.12	11/29/07	12/06/07
Lead 214	1.29		0.18		0.17	11/29/07	12/06/07
Potassium 40	19.5		2.0		0.8	11/29/07	12/06/07
Thallium 208	0.408		0.093		0.085	11/29/07	12/06/07
Thorium 234	2.83		0.87		1.4	11/29/07	12/06/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-129-19-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-021X
 Work Order: KC07C
 Matrix: SOLID

Date Collected: 11/16/07 1010
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333553	Yld %
Americium 241	-0.008	U	0.26	1.00	0.18	11/29/07	12/06/07
Cesium 137	-0.07	U	0.25	1.00	0.12	11/29/07	12/06/07
Thorium 232	1.03		0.24	1.00	0.33	11/29/07	12/06/07
Uranium 235	0.06	U	0.30	1.00	0.51	11/29/07	12/06/07
Uranium 238	2.25		0.85	1.00	1.7	11/29/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	1.03		0.24		0.33	11/29/07	12/06/07
Bismuth 212	0.70		0.45		0.67	11/29/07	12/06/07
Bismuth 214	1.36		0.25		0.19	11/29/07	12/06/07
Lead 212	1.16		0.17		0.14	11/29/07	12/06/07
Lead 214	1.44		0.20		0.18	11/29/07	12/06/07
Potassium 40	19.8		2.3		0.4	11/29/07	12/06/07
thallium 208	0.60		0.13		0.1	11/29/07	12/06/07
thorium 234	2.25		0.85		1.7	11/29/07	12/06/07

NOTE(S)

ts are incomplete without the case narrative.

C is determined by instrument performance only.
 Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-130-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-022
 Work Order: KCO7D
 Matrix: SOLID

Date Collected: 11/14/07 1515
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.010	U	0.030	1.00	0.066	12/03/07	12/06/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.028	U	0.065	1.00	0.14	12/03/07	12/05/07
Plutonium 239/40	0.0	U	0.0	1.0	0.06	12/03/07	12/05/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	2.14		0.39	1.00	0.04	12/03/07	12/06/07
Uranium 235/236	0.114	J	0.077	1.00	0.031	12/03/07	12/06/07
Uranium 238	1.12		0.25	1.00	0.02	12/03/07	12/06/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.04	U	0.45	1.00	0.28	11/29/07	11/30/07
Cesium 137	0.39	J	0.11	1.00	0.09	11/29/07	11/30/07
Thorium 232	0.79	J	0.27	1.00	0.49	11/29/07	11/30/07
Uranium 235	0.22	U	0.35	1.00	0.59	11/29/07	11/30/07
Uranium 238	2.8		1.3	1.0	1.6	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.79		0.27		0.49	11/29/07	11/30/07
Bismuth 214	1.36		0.26		0.16	11/29/07	11/30/07
Lead 212	1.12		0.23		0.20	11/29/07	11/30/07
Lead 214	1.11		0.22		0.18	11/29/07	11/30/07
Potassium 40	16.7		2.7		0.7	11/29/07	11/30/07
Thallium 208	0.41		0.12		0.09	11/29/07	11/30/07
Thorium 234	2.8		1.3		1.6	11/29/07	11/30/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.17	U	0.32	1.00	0.53	12/04/07	12/08/07

NOTE(S)

ata are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-130-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-023
 Work Order: KCO7H
 Matrix: SOLID

Date Collected: 11/14/07 1530
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333553	Yld %
Americium 241	-0.03	U	0.17	1.00	0.29	11/29/07	11/30/07
Cesium 137	0.014	U	0.066	1.00	0.12	11/29/07	11/30/07
Thorium 232	0.92	J	0.24	1.00	0.41	11/29/07	11/30/07
Uranium 235	0.06	U	0.35	1.00	0.61	11/29/07	11/30/07
Uranium 238	2.17		0.98	1.00	2.1	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.92		0.24		0.41	11/29/07	11/30/07
Bismuth 212	0.96		0.56		0.81	11/29/07	11/30/07
Bismuth 214	0.90		0.21		0.25	11/29/07	11/30/07
Lead 212	1.27		0.20		0.18	11/29/07	11/30/07
Lead 214	0.89		0.18		0.19	11/29/07	11/30/07
Potassium 40	18.9		2.4		1.1	11/29/07	11/30/07
Thallium 208	0.509		0.093		0.060	11/29/07	11/30/07
Thorium 234	2.17		0.98		2.1	11/29/07	11/30/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-130-11-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-024
 Work Order: KCO7K
 Matrix: SOLID

Date Collected: 11/14/07 1545
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pci/g		Batch # 7333553	Yld %
Americium 241	-0.0006	U	0.15	1.00	0.26	11/29/07	11/30/07
Cesium 137	-0.012	U	0.067	1.00	0.12	11/29/07	11/30/07
Thorium 232	1.04		0.27	1.00	0.36	11/29/07	11/30/07
Uranium 235	0.16	U	0.35	1.00	0.60	11/29/07	11/30/07
Uranium 238	0.8	U	1.2	1.0	2.1	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.04		0.27		0.36	11/29/07	11/30/07
Bismuth 212	0.82		0.49		0.71	11/29/07	11/30/07
Bismuth 214	0.80		0.20		0.25	11/29/07	11/30/07
Lead 212	1.45		0.29		0.22	11/29/07	11/30/07
Lead 214	0.90		0.16		0.22	11/29/07	11/30/07
Potassium 40	19.5		2.4		1.0	11/29/07	11/30/07
Thallium 208	0.47		0.11		0.09	11/29/07	11/30/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-131-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-025
 Work Order: KCO7M
 Matrix: SOLID

Date Collected: 11/15/07 1320
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Isotopes PLUTONIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7337279	Yld % 90
Plutonium 238	-0.010	U	0.035	1.00	0.078	12/03/07	12/05/07
Plutonium 239/40	-0.002	U	0.022	1.00	0.042	12/03/07	12/05/07
Isotopes URANIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7337288	Yld % 78
Uranium 233/234	1.69		0.36	1.00	0.07	12/03/07	12/06/07
Uranium 235/236	0.029	U	0.051	1.00	0.039	12/03/07	12/06/07
Uranium 238	0.56	J	0.18	1.00	0.06	12/03/07	12/06/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
				pCi/g		Batch # 7333553	Yld %
Americium 241	0.018	U	0.061	1.00	0.11	11/29/07	11/30/07
Cesium 137	-0.0008	U	0.051	1.00	0.098	11/29/07	11/30/07
Thorium 232	0.13	U	0.15	1.00	0.23	11/29/07	11/30/07
Uranium 235	0.05	U	0.15	1.00	0.27	11/29/07	11/30/07
Uranium 238	0.29	U	0.56	1.00	1.0	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.28		0.13		0.14	11/29/07	11/30/07
Lead 212	0.126		0.064		0.084	11/29/07	11/30/07
Potassium 40	2.12		0.94		1.1	11/29/07	11/30/07
TC-99 by LSC by DOE TC-02-RC Mod.							
				pCi/g		Batch # 7338326	Yld % 95
Technetium 99	-0.13	U	0.25	1.00	0.44	12/04/07	12/08/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7342064	Yld % 92
Neptunium 237	0.011	U	0.035	1.00	0.064	12/08/07	12/10/07

NOTE(S)

- ata are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-131-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-026
 Work Order: KCO7N
 Matrix: SOLID

Date Collected: 11/15/07 1327
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333553	Yld %
Americium 241	0.008	U	0.045	1.00	0.076	11/29/07	11/30/07
Cesium 137	0.010	U	0.023	1.00	0.041	11/29/07	11/30/07
Thorium 232	0.41	J	0.11	1.00	0.15	11/29/07	11/30/07
Uranium 235	0.05	U	0.13	1.00	0.21	11/29/07	11/30/07
Uranium 238	0.16	U	0.36	1.00	0.55	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.41		0.11		0.15	11/29/07	11/30/07
Bismuth 214	0.352		0.088		0.078	11/29/07	11/30/07
Lead 212	0.428		0.071		0.064	11/29/07	11/30/07
Lead 214	0.352		0.078		0.080	11/29/07	11/30/07
Potassium 40	7.2		1.0		0.4	11/29/07	11/30/07
Thallium 208	0.137		0.044		0.042	11/29/07	11/30/07

NOTE(S)

ts are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-131-6.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-027
 Work Order: KCO70
 Matrix: SOLID

Date Collected: 11/15/07 1330
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g	Batch # 7333553	Yld %	
Americium 241	0.002	U	0.057	1.00	0.096	11/29/07	12/07/07
Cesium 137	0.017	U	0.030	1.00	0.050	11/29/07	12/07/07
Thorium 232	1.02		0.16	1.00	0.15	11/29/07	12/07/07
Uranium 235	0.04	U	0.15	1.00	0.26	11/29/07	12/07/07
Uranium 238	0.58	U	0.27	1.00	0.68	11/29/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	1.02		0.16		0.15	11/29/07	12/07/07
Bismuth 212	0.60		0.26		0.38	11/29/07	12/07/07
Bismuth 214	0.92		0.13		0.10	11/29/07	12/07/07
Lead 212	0.903		0.091		0.089	11/29/07	12/07/07
Lead 214	0.86		0.12		0.12	11/29/07	12/07/07
Potassium 40	17.0		1.5		0.7	11/29/07	12/07/07
Thallium 208	0.328		0.054		0.050	11/29/07	12/07/07

NOTE(S)

- are incomplete without the case narrative.
- C is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-132-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-028
 Work Order: KCO7V
 Matrix: SOLID

Date Collected: 11/15/07 1755
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7338326	Yld % 96
Technetium 99	1.29		0.35	1.00	0.44	12/04/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333553	Yld %
Americium 241	-0.006	U	0.14	1.00	0.25	11/29/07	11/30/07
Cesium 137	0.0	U	0.090	1.00	0.16	11/29/07	11/30/07
Thorium 232	0.77	J	0.26	1.00	0.45	11/29/07	11/30/07
Uranium 235	0.27	U	0.33	1.00	0.55	11/29/07	11/30/07
Uranium 238	2.6		1.2	1.0	2.1	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.77		0.26		0.45	11/29/07	11/30/07
Bismuth 214	0.64		0.19		0.21	11/29/07	11/30/07
Lead 212	1.19		0.20		0.15	11/29/07	11/30/07
Lead 214	0.81		0.18		0.25	11/29/07	11/30/07
Potassium 40	16.2		2.5		0.8	11/29/07	11/30/07
Thallium 208	0.440		0.098		0.038	11/29/07	11/30/07
Thorium 234	2.6		1.2		2.1	11/29/07	11/30/07

NOTE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-132-13-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-029
 Work Order: KCO7W
 Matrix: SOLID

Date Collected: 11/15/07 1815
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333553	Yld %
Americium 241	-0.01	U	0.17	1.00	0.29	11/29/07	11/30/07
Cesium 137	-0.042	U	0.077	1.00	0.13	11/29/07	11/30/07
Thorium 232	0.91	J	0.23	1.00	0.34	11/29/07	11/30/07
Uranium 235	0.11	U	0.36	1.00	0.61	11/29/07	11/30/07
Uranium 238	1.4	U	1.2	1.0	2.1	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.91		0.23		0.34	11/29/07	11/30/07
Bismuth 212	1.04		0.51		0.67	11/29/07	11/30/07
Bismuth 214	0.71		0.19		0.24	11/29/07	11/30/07
Lead 212	1.21		0.19		0.16	11/29/07	11/30/07
Lead 214	1.19		0.23		0.18	11/29/07	11/30/07
Potassium 40	17.4		2.2		1.1	11/29/07	11/30/07
Thallium 208	0.276		0.083		0.10	11/29/07	11/30/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-133-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-030
 Work Order: KCO7X
 Matrix: SOLID

Date Collected: 11/15/07 1605
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.006	U	0.028	1.00	0.060	12/03/07	12/06/07
Batch # 7337163 Yld % 86							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.008	U	0.032	1.00	0.073	12/03/07	12/06/07
Plutonium 239/40	-0.005	U	0.024	1.00	0.052	12/03/07	12/06/07
Batch # 7337279 Yld % 89							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.46		0.46	1.00	0.61	12/04/07	12/08/07
Batch # 7338326 Yld % 70							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	3.15		0.55	1.00	0.06	12/03/07	12/06/07
Uranium 235/236	0.154	J	0.095	1.00	0.065	12/03/07	12/06/07
Uranium 238	1.16		0.27	1.00	0.06	12/03/07	12/06/07
Batch # 7337288 Yld % 86							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.01	U	0.11	1.00	0.19	11/29/07	11/30/07
Cesium 137	0.042	U	0.055	1.00	0.091	11/29/07	11/30/07
Thorium 232	0.58	J	0.22	1.00	0.31	11/29/07	11/30/07
Uranium 235	0.13	U	0.28	1.00	0.47	11/29/07	11/30/07
Uranium 238	0.02	U	0.99	1.00	1.8	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.58		0.22		0.31	11/29/07	11/30/07
Bismuth 212	0.70		0.44		0.63	11/29/07	11/30/07
Bismuth 214	0.39		0.14		0.18	11/29/07	11/30/07
Lead 212	0.87		0.17		0.14	11/29/07	11/30/07
Lead 214	0.47		0.12		0.17	11/29/07	11/30/07
Potassium 40	12.1		1.8		0.9	11/29/07	11/30/07
Thallium 208	0.255		0.066		0.059	11/29/07	11/30/07

NOTE(S)

ata are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-133-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-031
 Work Order: KCO71
 Matrix: SOLID

Date Collected: 11/15/07 1605
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Tc-99	8.0		1.3	1.0	1.1	12/04/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.05	U	0.14	1.00	0.23	11/29/07	11/30/07
Cesium 137	0.031	U	0.081	1.00	0.15	11/29/07	11/30/07
Thorium 232	0.76	J	0.26	1.00	0.49	11/29/07	11/30/07
Uranium 235	0.13	U	0.25	1.00	0.44	11/29/07	11/30/07
Uranium 238	1.44	U	0.79	1.00	1.7	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.76		0.26		0.49	11/29/07	11/30/07
Bismuth 214	1.11		0.25		0.18	11/29/07	11/30/07
Lead 212	1.02		0.17		0.13	11/29/07	11/30/07
Lead 214	0.81		0.20		0.22	11/29/07	11/30/07
Potassium 40	17.1		2.6		0.6	11/29/07	11/30/07
Radium (226)	1.11		0.25		0.18	11/29/07	11/30/07
Thallium 208	0.46		0.11		0.07	11/29/07	11/30/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-133-5.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-032
 Work Order: KCO72
 Matrix: SOLID

Date Collected: 11/15/07 1610
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333553	Yld %
Americium 241	0.02	U	0.12	1.00	0.20	11/29/07	11/30/07
Cesium 137	-0.002	U	0.40	1.00	0.09	11/29/07	11/30/07
Thorium 232	0.62	J	0.21	1.00	0.33	11/29/07	11/30/07
Uranium 235	-0.02	U	0.29	1.00	0.49	11/29/07	11/30/07
Uranium 238	1.69		0.80	1.00	1.6	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.62		0.21		0.33	11/29/07	11/30/07
Bismuth 214	0.86		0.18		0.10	11/29/07	11/30/07
Lead 212	1.19		0.20		0.14	11/29/07	11/30/07
Lead 214	0.83		0.17		0.16	11/29/07	11/30/07
Potassium 40	13.4		2.1		1.3	11/29/07	11/30/07
Thallium 208	0.422		0.098		0.067	11/29/07	11/30/07
Thorium 234	1.69		0.80		1.6	11/29/07	11/30/07

NOTE(S)

ata are incomplete without the case narrative.

LC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-112-8.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-033
 Work Order: KC073
 Matrix: SOLID

Date Collected: 11/15/07 0945
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333553	Yld %
Americium 241	0.03	U	0.11	1.00	0.18	11/29/07	11/30/07
Cesium 137	0.014	U	0.055	1.00	0.099	11/29/07	11/30/07
Thorium 232	1.03		0.25	1.00	0.34	11/29/07	11/30/07
Uranium 235	0.20	U	0.29	1.00	0.48	11/29/07	11/30/07
Uranium 238	0.55	U	0.57	1.00	1.4	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.03		0.25		0.34	11/29/07	11/30/07
Bismuth 214	0.82		0.19		0.17	11/29/07	11/30/07
Lead 212	0.94		0.16		0.15	11/29/07	11/30/07
Lead 214	0.80		0.15		0.16	11/29/07	11/30/07
Potassium 40	15.8		2.3		1	11/29/07	11/30/07
Thallium 208	0.42		0.10		0.08	11/29/07	11/30/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-113-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-034
 Work Order: KCO75
 Matrix: SOLID

Date Collected: 11/17/07 1055
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.011	U	0.034	1.00	0.075	12/03/07	12/06/07
Batch # 7337163 Yld % 79							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.0007	U	0.029	1.00	0.065	12/03/07	12/06/07
Plutonium 239/40	-0.006	U	0.026	1.00	0.057	12/03/07	12/06/07
Batch # 7337279 Yld % 88							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.37	U	0.30	1.00	0.48	12/04/07	12/08/07
Batch # 7338326 Yld % 86							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	3.00		0.53	1.00	0.03	12/03/07	12/06/07
Uranium 235/236	0.118	J	0.082	1.00	0.057	12/03/07	12/06/07
Uranium 238	0.93	J	0.23	1.00	0.05	12/03/07	12/06/07
Batch # 7337288 Yld % 89							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.002	U	0.074	1.00	0.13	11/29/07	11/30/07
Cesium 137	0.002	U	0.039	1.00	0.073	11/29/07	11/30/07
Thorium 232	0.31	J	0.18	1.00	0.24	11/29/07	11/30/07
Uranium 235	0.17	U	0.18	1.00	0.31	11/29/07	11/30/07
Uranium 238	0.72	U	0.54	1.00	1.3	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.31		0.18		0.24	11/29/07	11/30/07
Bismuth 214	0.25		0.11		0.14	11/29/07	11/30/07
Lead 212	0.64		0.14		0.11	11/29/07	11/30/07
Lead 214	0.304		0.093		0.13	11/29/07	11/30/07
Potassium 40	7.3		1.4		0.5	11/29/07	11/30/07
Thallium 208	0.210		0.055		0.025	11/29/07	11/30/07

NOTE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-113-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-035
 Work Order: KCO76
 Matrix: SOLID

Date Collected: 11/17/07 1055
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.21	U	0.26	1.00	0.43	12/04/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.02	U	1.1	1.0	0.3	11/29/07	11/30/07
Cesium 137	-0.01	U	0.18	1.00	0.15	11/29/07	11/30/07
Thorium 232	1.07		0.31	1.00	0.38	11/29/07	11/30/07
Uranium 235	0.04	U	0.30	1.00	0.53	11/29/07	11/30/07
Uranium 238	1.62	U	0.83	1.00	1.7	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	1.07		0.31		0.38	11/29/07	11/30/07
Bismuth 214	0.91		0.20		0.14	11/29/07	11/30/07
Lead 212	1.07		0.22		0.20	11/29/07	11/30/07
Lead 214	0.90		0.21		0.24	11/29/07	11/30/07
Potassium 40	19.6		2.8		0.6	11/29/07	11/30/07
Thallium 208	0.298		0.099		0.12	11/29/07	11/30/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-114-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-036
 Work Order: KCO78
 Matrix: SOLID

Date Collected: 11/16/07 1420
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.010	U	0.031	1.00	0.069	12/03/07	12/06/07
Batch # 7337163 Yld % 86							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.006	U	0.043	1.00	0.082	12/03/07	12/06/07
Plutonium 239/40	-0.007	U	0.029	1.00	0.063	12/03/07	12/06/07
Batch # 7337279 Yld % 81							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.08	U	0.33	1.00	0.56	12/04/07	12/08/07
Batch # 7338326 Yld % 75							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.39	J	0.15	1.00	0.07	12/03/07	12/06/07
Uranium 235/236	0.056	U	0.060	1.00	0.062	12/03/07	12/06/07
Uranium 238	0.30	J	0.13	1.00	0.06	12/03/07	12/06/07
Batch # 7337288 Yld % 78							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.003	U	0.070	1.00	0.12	11/29/07	12/01/07
Cesium 137	-0.009	U	0.038	1.00	0.069	11/29/07	12/01/07
Thorium 232	0.05	U	0.15	1.00	0.28	11/29/07	12/01/07
Uranium 235	0.10	U	0.20	1.00	0.35	11/29/07	12/01/07
Uranium 238	1.08		0.57	1.00	1.0	11/29/07	12/01/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.166		0.095		0.15	11/29/07	12/01/07
Lead 212	0.237		0.0997		0.11	11/29/07	12/01/07
Lead 214	0.223		0.078		0.13	11/29/07	12/01/07
Potassium 40	7.8		1.3		0.8	11/29/07	12/01/07
Thorium 234	1.08		0.57		1.0	11/29/07	12/01/07

NOTE(S)

- Results are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-114-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-037
 Work Order: KCO8A
 Matrix: SOLID

Date Collected: 11/16/07 1429
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.01	U	0.32	1.00	0.47	12/04/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.04	U	0.10	1.00	0.17	11/29/07	12/01/07
Cesium 137	0.0008	U	0.037	1.00	0.070	11/29/07	12/01/07
Thorium 232	0.14	U	0.16	1.00	0.27	11/29/07	12/01/07
Uranium 235	0.02	U	0.15	1.00	0.28	11/29/07	12/01/07
Uranium 238	0.42	U	0.74	1.00	1.3	11/29/07	12/01/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.33		0.13		0.17	11/29/07	12/01/07
Lead 212	0.25		0.10		0.11	11/29/07	12/01/07
Lead 214	0.337		0.096		0.12	11/29/07	12/01/07
Potassium 40	11.6		1.6		0.8	11/29/07	12/01/07
Thallium 208	0.070	U	0.047		0.074	11/29/07	12/01/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.48	J	0.16	1.00	0.05	12/03/07	12/06/07
Uranium 235/236	0.055	U	0.060	1.00	0.062	12/03/07	12/06/07
Uranium 238	0.49	J	0.16	1.00	0.05	12/03/07	12/06/07

NOTE(S)

ata are incomplete without the case narrative.

JC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-114-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-038
 Work Order: KCO8F
 Matrix: SOLID

Date Collected: 11/16/07 1429
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.09	U	61	1	0.5	12/04/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.02	U	0.18	1.00	0.32	11/29/07	12/01/07
Cesium 137	0.04	U	0.10	1.00	0.18	11/29/07	12/01/07
Thorium 232	0.96	J	0.29	1.00	0.39	11/29/07	12/01/07
Uranium 235	0.23	U	0.38	1.00	0.64	11/29/07	12/01/07
Uranium 238	2.2	U	1.0	1.0	2.2	11/29/07	12/01/07
--- Other Detected Radionuclides ---							
Actinium 228	0.96		0.29		0.39	11/29/07	12/01/07
Bismuth 214	1.07		0.24		0.17	11/29/07	12/01/07
Lead 212	0.97		0.19		0.17	11/29/07	12/01/07
Lead 214	1.01		0.20		0.26	11/29/07	12/01/07
Potassium 40	16.0		2.7		1.0	11/29/07	12/01/07
Thallium 208	0.44		0.12		0.09	11/29/07	12/01/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-114-10-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-039
 Work Order: KCO8G
 Matrix: SOLID

Date Collected: 11/16/07 1445
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7333553	Yld %
Americium 241	-0.03	U	0.10	1.00	0.18	11/29/07	11/30/07
Cesium 137	-0.028	U	0.070	1.00	0.12	11/29/07	11/30/07
Thorium 232	0.89	J	0.24	1.00	0.31	11/29/07	11/30/07
Uranium 235	0.02	U	0.25	1.00	0.43	11/29/07	11/30/07
Uranium 238	0.75	U	0.51	1.00	1.4	11/29/07	11/30/07
--- Other Detected Radionuclides ---							
Actinium 228	0.89		0.24		0.31	11/29/07	11/30/07
Bismuth 214	1.05		0.23		0.18	11/29/07	11/30/07
Lead 212	1.15		0.15		0.13	11/29/07	11/30/07
Lead 214	1.06		0.17		0.16	11/29/07	11/30/07
Potassium 40	15.7		2.2		0.8	11/29/07	11/30/07
Thallium 208	0.329		0.086		0.092	11/29/07	11/30/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-115-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210277-040
 Work Order: KCO8L
 Matrix: SOLID

Date Collected: 11/17/07 1012
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.008	U	0.029	1.00	0.064	12/03/07	12/06/07
Batch # 7337163 Yld % 85							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.008	U	0.034	1.00	0.063	12/03/07	12/06/07
Plutonium 239/40	-0.004	U	0.023	1.00	0.047	12/03/07	12/06/07
Batch # 7337279 Yld % 96							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.27	U	0.28	1.00	0.45	12/04/07	12/08/07
Batch # 7338326 Yld % 95							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	8.2		1.2	1.0	0.06	12/03/07	12/06/07
Uranium 235/236	0.49	J	0.18	1.00	0.06	12/03/07	12/06/07
Uranium 238	2.16		0.42	1.00	0.06	12/03/07	12/06/07
Batch # 7337288 Yld % 84							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.022	U	0.082	1.00	0.14	11/29/07	12/01/07
Cesium 137	-0.008	U	0.098	1.00	0.11	11/29/07	12/01/07
Thorium 232	0.15	U	0.11	1.00	0.34	11/29/07	12/01/07
Uranium 235	0.15	U	0.21	1.00	0.35	11/29/07	12/01/07
Uranium 238	0.84	U	0.43	1.00	1.3	11/29/07	12/01/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.38		0.12		0.12	11/29/07	12/01/07
Lead 212	0.260		0.073		0.071	11/29/07	12/01/07
Lead 214	0.228		0.092		0.15	11/29/07	12/01/07
Potassium 40	4.1		1.1		0.5	11/29/07	12/01/07
Thallium 208	0.138		0.051		0.049	11/29/07	12/01/07

NOTE(S)

- ata are incomplete without the case narrative.
- C is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

METHOD BLANK REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210277
 Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ /-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD,							
			pCi/g	Batch #	7333487	Yld %	F7K290000-487B
Americium 241	0.0	U	0.059	1.00	0.11	11/29/07	11/30/07
Cesium 137	0.0	U	0.0097	1.00	0.036	11/29/07	11/30/07
Thorium 232	0.003	U	0.12	1.00	0.25	11/29/07	11/30/07
Uranium 235	0.05	U	0.14	1.00	0.24	11/29/07	11/30/07
Uranium 238	0.16	U	0.29	1.00	0.67	11/29/07	11/30/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD,							
			pCi/g	Batch #	7333553	Yld %	F7K290000-553B
Americium 241	-0.005	U	0.040	1.00	0.073	11/29/07	12/01/07
Cesium 137	-0.003	U	0.042	1.00	0.058	11/29/07	12/01/07
Thorium 232	0.019	U	0.076	1.00	0.15	11/29/07	12/01/07
Uranium 235	0.062	U	0.096	1.00	0.16	11/29/07	12/01/07
Uranium 238	0.38	U	0.21	1.00	0.59	11/29/07	12/01/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
			pCi/g	Batch #	7337279	Yld % 94	F7L030000-279B
Plutonium 238	0.009	U	0.034	1.00	0.063	12/03/07	12/05/07
Plutonium 239/40	-0.004	U	0.023	1.00	0.048	12/03/07	12/05/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
			pCi/g	Batch #	7337288	Yld % 94	F7L030000-288B
Uranium 233/234	0.028	U	0.036	1.00	0.043	12/03/07	12/06/07
Uranium 235/236	-0.005	U	0.029	1.00	0.062	12/03/07	12/06/07
Uranium 238	0.008	U	0.022	1.00	0.043	12/03/07	12/06/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
			pCi/g	Batch #	7337163	Yld % 84	F7L030000-163B
Neptunium 237	0.009	U	0.025	1.00	0.049	12/03/07	12/06/07
TC-99 by LSC by DOE TC-02-RC Mod.							
			pCi/g	Batch #	7338324	Yld % 101	F7L040000-324B
Technetium 99	-0.06	U	0.25	1.00	0.41	12/04/07	12/08/07
TC-99 by LSC by DOE TC-02-RC Mod.							
			pCi/g	Batch #	7338326	Yld % 99	F7L040000-326B
Technetium 99	-0.02	U	0.29	1.00	0.43	12/04/07	12/08/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
			pCi/g	Batch #	7342064	Yld % 91	F7L080000-064B
Neptunium 237	0.003	U	0.028	1.00	0.060	12/08/07	12/10/07

NOTE(S)

ts are incomplete without the case narrative.

MDC is determined using instrument performance only

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210277
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	108	8.5	1.4		104	F7K290000-487C (85 - 118)
Cesium 137	40.0	42.6	2.7	0.5		106	(91 - 120)
Cobalt 60	62.7	65.0	3.9	0.3		104	(91 - 112)
Batch #:		7333487		Analysis Date:		11/30/07	
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	104	8.2	1.3		100	F7K290000-553C (85 - 118)
Cesium 137	40.0	43.1	2.6	0.3		108	(91 - 120)
Cobalt 60	62.7	63.7	3.8	0.2		102	(91 - 112)
Batch #:		7333553		Analysis Date:		12/01/07	
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	13.3	11.5	1.3	0.04	108	87	F7L030000-163C (75 - 119)
Batch #:		7337163		Analysis Date:		12/06/07	
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	6.13	6.11	0.92	0.05	98	100	F7L030000-279C (77 - 112)
Plutonium 239/40	5.77	5.92	0.89	0.03	98	103	(82 - 119)
Batch #:		7337279		Analysis Date:		12/05/07	
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	19.6	18.1	3.2	0.2	96	92	F7L030000-288C (76 - 128)
Uranium 238	19.6	15.5	2.9	0.2	96	79	(74 - 125)
Batch #:		7337288		Analysis Date:		12/06/07	
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	33.3	27.1	2.8	0.4	113	81	F7L040000-324C (64 - 114)
Batch #:		7338324		Analysis Date:		12/08/07	
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	33.3	29.6	3.2	0.7	62	89	F7L040000-326C (64 - 114)
Batch #:		7338326		Analysis Date:		12/08/07	
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	13.3	13.0	1.5	0.05	110	98	F7L080000-064C (75 - 119)
Batch #:		7342064		Analysis Date:		12/10/07	

NOTE(S)

MDC is determined by instrument performance only
 Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210277
 Matrix: SOLID

Date Sampled: 11/16/07
 Date Received: 11/21/07

Parameter	SAMPLE Result	Total Uncert. (2σ+/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ+/-)	% Yld	QC Sample ID Precision
Gamma Cs-137 & Hits by DOE GA-01-R MOD. pCi/g GA-01-R MOD F7K210277-001							
Americium 241	-0.02	U 0.66		0.06	U 0.12		476 %RPD
Cesium 137	0.156	J 0.089		0.237	J 0.087		42 %RPD
Thorium 232	0.28	U 0.23		0.60	J 0.27		72 %RPD
Uranium 235	0.47	U 0.32		0.45	J 0.28		4 %RPD
Uranium 238	1.56	0.67		2.04	0.80		27 %RPD
---Other Dedected Radionuclides---							
Bismuth 214	0.60	0.18		0.50	0.15		18 %RPD
Lead 212	0.47	0.11		0.44	0.13		7 %RPD
Lead 214	0.32	0.11		0.46	0.15		35 %RPD
Potassium 40	7.9	1.8		7.8	1.8		2 %RPD
Thallium 208	0.245	0.073		0.174	0.071		34 %RPD
Thorium 234	1.56	0.67		2.04	0.80		27 %RPD
Batch #:		7333487 (Sample)		7333487 (Duplicate)			
90 NEPTUNIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R MOD F7K210277-001							
Neptunium 237	0.0	U 0.0	90	-0.001	U 0.029	96	200 %RPD
Batch #:		7337163 (Sample)		7337163 (Duplicate)			
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R F7K210277-001							
Plutonium 238	0.007	U 0.046	93	-0.001	U 0.027	99	273 %RPD
Plutonium 239/40	0.044	U 0.048	93	0.013	U 0.030	99	107 %RPD
Batch #:		7337279 (Sample)		7337279 (Duplicate)			
Iso URANIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R MOD F7K210277-001							
Uranium 233/234	19.1	2.7	83	16.6	2.3	83	14 %RPD
Uranium 235/236	0.81	J 0.24	83	0.75	J 0.23	83	8 %RPD
Uranium 238	3.18	0.57	83	2.30	0.44	83	32 %RPD
Batch #:		7337288 (Sample)		7337288 (Duplicate)			
TC-99 by LSC by DOE TC-02-RC Mod. pCi/g TC-02-RC MOD F7K210277-001							
Technetium 99	12.4	1.4	96	12.6	1.4	90	2 %RPD
Batch #:		7338324 (Sample)		7338324 (Duplicate)			
TC-99 by LSC by DOE TC-02-RC Mod. pCi/g TC-02-RC MOD F7K210277-020							
Technetium 99	0.10	U 0.38	67	-0.08	U 0.41	61	1320 %RPD
Batch #:		7338326 (Sample)		7338326 (Duplicate)			

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210277
 Matrix: SOLID

Date Sampled: 11/16/07
 Date Received: 11/21/07

Parameter	SAMPLE Result	Total Uncert. (2σ+/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ+/-)	% Yld	QC Sample ID	
							Precision	
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	GA-01-R MOD			F7K210277-021	
Americium 241	-0.02	U	0.13	-0.008	U	0.26	76	%RPD
Cesium 137	0.037	U	0.053	-0.07	U	0.25	683	%RPD
Thorium 232	1.14		0.22	1.03		0.24	10	%RPD
Uranium 235	0.05	U	0.32	0.06	U	0.30	32	%RPD
Uranium 238	2.83		0.87	2.25		0.85	23	%RPD
---Other Dedected Radionuclides---								
Actinium 228	1.14		0.22	1.03		0.24	10	%RPD
Bismuth 212	0.68		0.41	0.70		0.45	3	%RPD
Bismuth 214	0.98		0.17	1.36		0.25	33	%RPD
Lead 212	1.30		0.14	1.16		0.17	11	%RPD
Lead 214	1.29		0.18	1.44		0.20	11	%RPD
Potassium 40	19.5		2.0	19.8		2.3	2	%RPD
Thallium 208	0.408		0.093	0.60		0.13	38	%RPD
Thorium 234	2.83		0.87	2.25		0.85	23	%RPD
Batch #:		7333553 (Sample)		7333553 (Duplicate)				

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

F7K210277

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11

Report Type: W
 EDD Code: 00

#SMPS in LOT: 40

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
1	NB-120-0.5-SL			2007-11-16 / 1600	KCQ4L	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Ce-137 & HIs by DOE GA-01-R MOD	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	J2	Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	J2	Iso URANIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	IM	TC-99 by L8C by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	J2	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
2	NB-120-2.5-SL			2007-11-16 / 1605	KCQ4T	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Ce-137 & HIs by DOE GA-01-R MOD	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	J2	Iso URANIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	IM	TC-99 by L8C by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
3	NB-120-4.5-SL			2007-11-16 / 1605	KCQ4X	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Ce-137 & HIs by DOE GA-01-R MOD	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	J2	Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	J2	Iso URANIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	IM	TC-99 by L8C by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	J2	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
4	NB-120-16.5-SL			2007-11-16 / 1650	KCQ40	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Ce-137 & HIs by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
5	NB-121-0.5-SL			2007-11-16 / 1515	KCQ41	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Ce-137 & HIs by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	J2	Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06

F7K210277

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

#SMPS in LOT: 40

Gamma library MUST contain U-236, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX 2I	EML	A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOG	06

SAMPLE # **CLIENT SAMPLE ID** **Site ID** **Client Matrix** **DATE/TIME SAMPLED** **WORKORDER** **A**
 6 NB-121-2.5-SL 2007-11-16 / 1520 KCQ42 SOLID

SAMPLE COMMENTS:

XX ZV		RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 0A	EML	GA-01-R MOD	Gamma Ce-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOG	06
XX 2I	EML	A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOG	06

SAMPLE # **CLIENT SAMPLE ID** **Site ID** **Client Matrix** **DATE/TIME SAMPLED** **WORKORDER** **A**
 7 NB-121-4.5-SL 2007-11-16 / 1520 KCQ43 SOLID

SAMPLE COMMENTS:

XX ZV		RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 0A	EML	GA-01-R MOD	Gamma Ce-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOG	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOG	06

SAMPLE # **CLIENT SAMPLE ID** **Site ID** **Client Matrix** **DATE/TIME SAMPLED** **WORKORDER** **A**
 8 NB-121-12.6-SL 2007-11-16 / 1530 KCQ44 SOLID

SAMPLE COMMENTS:

XX ZV		RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 0A	EML	GA-01-R MOD	Gamma Ce-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOG	06
XX 2H	EML	A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 2I	EML	A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOG	06

SAMPLE # **CLIENT SAMPLE ID** **Site ID** **Client Matrix** **DATE/TIME SAMPLED** **WORKORDER** **A**
 9 NB-126-0.5-SL 2007-11-14 / 757 KCQ45 SOLID

SAMPLE COMMENTS:

XX ZV		RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 0A	EML	GA-01-R MOD	Gamma Ce-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOG	06
XX 2H	EML	A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 2I	EML	A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOG	06
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOG	06

SAMPLE # **CLIENT SAMPLE ID** **Site ID** **Client Matrix** **DATE/TIME SAMPLED** **WORKORDER** **A**
 10 NB-126-4.5-SL 2007-11-14 / 800 KCQ46 SOLID

SAMPLE COMMENTS:

F7K210277

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11

Report Type: W
 EDD Code: 00

#SMPS in LOT: 40

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
11	NB-128-12.5-SL			2007-11-14 / 820	KCQ48	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
12	NB-127-4.5-SL			2007-11-15 / 820	KCQ49	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
13	NB-127-5-SL			2007-11-15 / 824	KCQ6D	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
14	NB-128-0.5-SL			2007-11-16 / 1055	KCQ6M	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
15	NB-128-2.5-SL			2007-11-16 / 1100	KCQ6Q	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

F7K210277

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

#SMPS In LOT: 40

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
16	NB-128-4.5-SL			2007-11-16 / 1100	KCQ6R	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
17	NB-128-18.5-SL			2007-11-16 / 1133	KCQ6V	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
18	NB-129-0.5-SL			2007-11-16 / 935	KCQ61	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
19	NB-128-2.5-SL			2007-11-16 / 945	KCQ65	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
20	NB-128-4.5-SL			2007-11-16 / 945	KCQ68	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
----------	------------------	---------	---------------	-------------------	-----------	---

F7K210277

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

#SMPS In LOT: 40

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

21 NB-129-19-SL 2007-11-16/ 1010 KCQ7C SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE # CLIENT SAMPLE ID Site ID Client Matrix DATE/TIME SAMPLED WORKORDER A
 22 NB-130-0.5-SL 2007-11-14/ 1515 KCQ7D SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE # CLIENT SAMPLE ID Site ID Client Matrix DATE/TIME SAMPLED WORKORDER A
 23 NB-130-4.5-SL 2007-11-14/ 1530 KCQ7H SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE # CLIENT SAMPLE ID Site ID Client Matrix DATE/TIME SAMPLED WORKORDER A
 24 NB-130-11-SL 2007-11-14/ 1545 KCQ7K SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE # CLIENT SAMPLE ID Site ID Client Matrix DATE/TIME SAMPLED WORKORDER A
 25 NB-131-0.5-SL 2007-11-15/ 1320 KCQ7M SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE # CLIENT SAMPLE ID Site ID Client Matrix DATE/TIME SAMPLED WORKORDER A
 26 NB-131-4.5-SL 2007-11-15/ 1327 KCQ7N SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

F7K210277

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC
 #SMPS in LOT: 40

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
27	NB-131-8.5-SL			2007-11-15 / 1330	KCQ7Q	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
28	NB-132-4.5-SL			2007-11-15 / 1755	KCQ7V	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
29	NB-132-13-SL			2007-11-15 / 1815	KCQ7W	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
30	NB-133-2.5-SL			2007-11-15 / 1605	KCQ7X	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
31	NB-133-4.5-SL			2007-11-15 / 1605	KCQ71	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
32	NB-133-5.5-SL			2007-11-15 / 1610	KCQ72	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06

F7K210277

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11

Report Type: W
 EDD Code: 00

#SMPS in LOT: 40

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
33	NB-112-8.5-SL			2007-11-15 / 945	KCQ73	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
34	NB-113-2.5-SL			2007-11-17 / 1055	KCQ75	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	130 PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	130 URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	130 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
35	NB-113-4.5-SL			2007-11-17 / 1055	KCQ76	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
36	NB-114-0.5-SL			2007-11-16 / 1420	KCQ78	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	130 PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	130 URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	130 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
37	NB-114-2.5-SL			2007-11-16 / 1429	KCQ8A	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	130 URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

F7K210277

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

#SMPS In LOT: 40

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
38	NB-114-4.5-SL			2007-11-16 / 1429	KCQ8F	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
39	NB-114-10-SL			2007-11-16 / 1445	KCQ8G	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
40	NB-115-2.5-SL			2007-11-17 / 1012	KCQ8L	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	Iso URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	Iso NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Deane Quayle
 Address: _____ Telephone Number: 865-368-7479
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: SC-01
 Page: 11 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis (Attach list if more space is needed)							
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Sample ID Number	Date	Time	Matrix				Containers & Preservatives													
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH							
NB-120-0.5-SL	11-16-07	1600				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-120-2.5-SL	11-16-07	1605				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-120-4.5-SL	11-16-07	1605				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-120-16.5-SL	11-16-07	1650				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-121-0.5-SL	11-16-07	1515				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-121-2.5-SL	11-16-07	1520				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-121-4.5-SL	11-16-07	1520				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-121-12.5-SL	11-16-07	1530				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 20 days Other

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>	<u>Amelia Brown</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Dagmar Quayle
 Address: _____ Telephone Number: 865-368-7677
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: 50-01
 Page: 12 of 28

Project Name: Nematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
 (Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives						Isotopic Te-99	Isotopic U	Isotopic Pu	Isotopic Np	
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc2					NaOH
NB-126-0.5-SL	11-14-07	0757				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-126-4.5-SL	11-14-07	0800				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-126-12.5-SL	11-14-07	0820				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-127-4.5-SL	11-15-07	0820				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-127-5-SL	11-15-07	0824				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-128-0.5-SL	11-15-07	1055				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-128-2.5-SL	11-16-07	1100				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
NB-128-4.5-SL	11-16-07	1100				<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Possible Hazard Identification

Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal

Return to client Disposal by lab Archive for ___ months

Turn Around Time

24 hrs
 48 hrs
 7 days
 14 days
 20 days

Other

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>1130</u>	<u>Dagmar Quayle</u>	<u>11/21/07</u>	<u>1130</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quayle
 Address: _____ Telephone Number: 865-368-7477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: _____

Date: 11/21/07
 CoC Number: 96-01
 Page: 13 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis (Attach list if more space is needed)				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Sample ID Number	Date	Time	Matrix				Containers & Preservatives											
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc2	NaOH					
NB-128-18.5-SL	11-16-07	1133				<input checked="" type="checkbox"/>												
NB-129-0.5-SL	11-16-07	0935				<input checked="" type="checkbox"/>												
NB-129-2.5-SL	11-16-07	0945				<input checked="" type="checkbox"/>												
NB-129-4.5-SL	11-16-07	0945				<input checked="" type="checkbox"/>												
NB-129-19-SL	11-16-07	1010				<input checked="" type="checkbox"/>												
NB-130-0.5-SL	11-14-07	1515				<input checked="" type="checkbox"/>												
NB-130-4.5-SL	11-14-07	1530				<input checked="" type="checkbox"/>												
NB-130-11-SL	11-14-07	1545				<input checked="" type="checkbox"/>												

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 20 days Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
	11/21/07	1130	<u>Duane Quayle</u>	11/21/07	11:30
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quayle
 Address: _____ Telephone Number: 865-368-7477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: SC-01
 Page: 14 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives							Isotopic TC-99	Isotopic U	Isotopic Pu	Isotopic Np	
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH					
NB-131-0.5-SL	11-15-07	1320				✓									✓			
NB-131-4.5-SL	11-15-07	1327				✓									✓			
NB-131-6.5-SL	11-15-07	1330				✓									✓			
NB-132-4.5-SL	11-15-07	1755				✓									✓			
NB-132-13-SL	11-15-07	1815				✓									✓			
NB-133-2.5-SL	11-15-07	1605				✓									✓			✓
NB-133-4.5-SL	11-15-07	1605				✓									✓			
NB-133-5.5-SL	11-15-07	1610				✓									✓			

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 28 days Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>1130</u>	<u>Angela Burdick</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

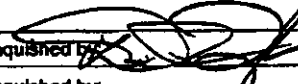
Client: WEC Project Manager: Diane Quante Date: 11/21/07
 Address: _____ Telephone Number: 865-368-7477 CoC Number: SC-01
 City: _____ Site Contact: _____ Page: 15 of 28
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
 (Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives						Analysis										
			Air	Aqueous	Sediment	Soil	Unpres.	H ₂ SO ₄	HNO ₃	HCl	NaOH	ZnAc	NaOH										
NB-112-8.5-SL	11-15-07	0945				✓											X soil	Isotopic Tc-99					
NB-113-2.5-SL	11-17-07	1055				✓											✓	Isotopic U	✓				
NB-113-4.5-SL	11-17-07	1055				✓											✓	Isotopic Pu	✓				
NB-114-0.5-SL	11-16-07	1420				✓											✓	Isotopic Np	✓				
NB-114-2.5-SL	11-16-07	1429				✓											✓						
NB-114-4.5-SL	11-16-07	1429				✓											✓						
NB-114-10-SL	11-16-07	1445				✓											✓						
NB-115-2.5-SL	11-17-07	1002				✓											✓						

Comments: _____
 Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown
 Sample Disposal: Return to client Disposal by lab Archive for ___ months
 Turn Around Time: 24 hrs 48 hrs 7 days 14 days 2 Days Other

Relinquished by: 	Date: <u>11/21/07</u>	Time: <u>11:30</u>	Received by: <u>Amelia Brown</u>	Date: <u>11/21/07</u>	Time: <u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		



Lot #(s): F7K210252 F7K210247
277 813
330
337

- 1167 -

Client: Energy Solutions COC/RFA No: SL-01 Date: 11/21/11
Quote No: 7705 Initiated By: BD Time: 1130

Shipping Information

Shipper Name: client Multiple Packages Y N
Shipping # (s):* Sample Temperature (s):**
1. _____ 6. _____ 1. Ambient 6. Ambient
2. _____ 7. _____ 2. _____ 7. _____
3. _____ 8. _____ 3. _____ 8. _____
4. _____ 9. _____ 4. _____ 9. _____
5. _____ 10. _____ 5. _____ 10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines
**Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid of Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	<input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on the cooler?	8.	<input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on bottles?
2.	<input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9.	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3.	<input checked="" type="radio"/> Y <input type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10.	<input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was sample received with proper pH? (If not, make note below)
4.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?	11.	<input type="radio"/> Y <input type="radio"/> N	If N/A- Was pH taken by original TestAmerica lab?
5.	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?
6.	<input type="radio"/> Y <input checked="" type="radio"/> N	Was sample received broken?	13.	<input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	<input checked="" type="radio"/> Y <input type="radio"/> N	Is sample volume sufficient for analysis?	14.	<input type="radio"/> Y <input type="radio"/> N	Was Internal COC/Workshare received?

¹ For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Notes section with multiple horizontal lines for handwritten text.

Corrective Action:

Client Contact Name: _____ Informed by: _____
 Sample(s) processed "as is"
 Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: _____ Date: 11-27-11 1167

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.



ANALYTICAL REPORT

PROJECT NO. 313010.202

Hematite Site

Lot #: F7K210313

Paul Ely

Energy Solutions, LLC
1009 Commerce Park Drive
Suite 100
Oak Ridge, TN 37830

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Ivan Vania", is written in a cursive style.

Ivan Vania
Project Manager

December 10, 2007

Case Narrative
LOT NUMBER: F7K210313

This report contains the analytical results for the 37 samples received under chain of custody by TestAmerica St. Louis on November 21, 2007. These samples are associated with your Hematite Site project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Tc-99 by LSC (EML TC-02-RC MOD)

The Technetium-99 tracer recovered high in the samples and LCS, indicating a potential low bias for sample results. The yields were truncated at 100% to eliminate a biased result. Technetium-99 was not detected in the samples. The LCS recovered within the required limits.

Affected Samples:

F7K210313 (25): BD-24-0.5-SL

F7K210313 (26): BD-24-2.5-SL

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F7K210313

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EML GA-01-R MOD	
Isotopic Plutonium by Alpha Spectroscopy	EML A-01-R	
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Neptunium by Alpha Spectroscopy	EML A-01-R MOD	
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

SAMPLE SUMMARY

F7K210313

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KCQ90	001	NB-115-4.5-SL	11/17/07	10:12
KCRAH	002	NB-115-12.5-SL	11/17/07	10:23
KCRAN	003	NB-116-0.5-SL	11/14/07	08:55
KCRAQ	004	NB-116-4.5-SL	11/14/07	09:00
KCRAR	005	NB-117-4.5-SL	11/15/07	09:05
KCRAW	006	NB-116-12.5-SL	11/14/07	09:20
KCRAX	007	NB-117-13.5-SL	11/15/07	09:23
KCRA5	008	NB-118-0.5-SL	11/15/07	16:05
KCRCE	009	NB-118-4.5-SL	11/15/07	16:09
KCRCK	010	NB-118-10.5-SL	11/15/07	16:25
KCRCN	011	NB-119-0.5-SL	11/15/07	17:00
KCRCV	012	NB-119-2.5-SL	11/15/07	17:05
KCRCW	013	NB-119-4.5-SL	11/15/07	17:05
KCRC0	014	NB-119-13.5-SL	11/15/07	17:30
KCRC7	015	NB-109-5-SL	11/15/07	11:08
KCRDG	016	NB-110-0.5-SL	11/15/07	13:07
KCRDH	017	NB-110-4.5-SL	11/15/07	13:08
KCRDK	018	NB-110-5-SL	11/15/07	13:31
KCRDN	019	NB-111-0.5-SL	11/15/07	14:29
KCRDR	020	NB-111-4.5-SL	11/15/07	14:34
KCRDT	021	NB-111-8.5-SL	11/15/07	14:40
KCRD0	022	NB-112-4.5-SL	11/15/07	09:42
KCRD5	023	BD-41-4.5-SL	11/09/07	08:25
KCREE	024	BD-41-6-SL	11/09/07	08:30
KCREN	025	BD-24-0.5-SL	11/20/07	09:55
KCREQ	026	BD-24-2.5-SL	11/20/07	10:00
KCRET	027	BD-24-4.5-SL	11/20/07	10:00
KCRE0	028	BD-24-13-SL	11/20/07	10:15
KCRE3	029	NB-113-19.5-SL	11/20/07	11:10
KCRE9	030	NB-87-4.5-SL	11/09/07	10:00
KCRFC	031	NB-87-18-SL	11/09/07	10:20
KCRFG	032	NB-88-0.5-SL	11/16/07	08:55
KCRFL	033	NB-88-4.5-SL	11/16/07	09:00
KCRFN	034	NB-88-20-SL	11/16/07	09:12
KCRFR	035	NB-89-0.5-SL	11/13/07	10:00
KCRFX	036	NB-89-4.5-SL	11/13/07	10:05

(Continued on next page)

SAMPLE SUMMARY

F7K210313

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KCRF2	037	NB-89-19.5-SL	11/13/07	10:25

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Energy Solutions, LLC

Client Sample ID: NB-115-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-001
 Work Order: KCO90
 Matrix: SOLID

Date Collected: 11/17/07 1012
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.15	U	0.41	1.00	0.63	11/30/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.07	U	0.16	1.00	0.27	11/30/07	12/04/07
Cesium 137	-0.024	U	0.094	1.00	0.17	11/30/07	12/04/07
Thorium 232	1.10		0.30	1.00	0.44	11/30/07	12/04/07
Uranium 235	0.11	U	0.40	1.00	0.69	11/30/07	12/04/07
Uranium 238	1.1	U	1.3	1.0	2.1	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Actinium 228	1.10		0.30		0.44	11/30/07	12/04/07
Bismuth 214	1.24		0.24		0.14	11/30/07	12/04/07
Lead 212	1.43		0.24		0.18	11/30/07	12/04/07
Lead 214	1.38		0.23		0.20	11/30/07	12/04/07
Potassium 40	19.4		3.0		1.0	11/30/07	12/04/07
Thallium 208	0.46		0.12		0.08	11/30/07	12/04/07

NOTE(S)

- Results are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-115-4.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-001X
 Work Order: KCO90
 Matrix: SOLID

Date Collected: 11/17/07 1012
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.15	U	0.33	1.00	0.60	11/30/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.18	U	0.16	1.00	0.26	11/30/07	12/04/07
Cesium 137	-0.02	U	0.27	1.00	0.17	11/30/07	12/04/07
Thorium 232	0.92	J	0.27	1.00	0.39	11/30/07	12/04/07
Uranium 235	0.27	U	0.31	1.00	0.52	11/30/07	12/04/07
Uranium 238	2.20		0.97	1.00	2.0	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Actinium 228	0.92		0.27		0.39	11/30/07	12/04/07
Bismuth 214	0.86		0.23		0.26	11/30/07	12/04/07
Lead 212	1.29		0.23		0.18	11/30/07	12/04/07
Lead 214	1.25		0.24		0.17	11/30/07	12/04/07
Potassium 40	20.0		2.9		0.7	11/30/07	12/04/07
Thallium 208	0.30		0.10		0.12	11/30/07	12/04/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-115-12.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-002
 Work Order: KCRAH
 Matrix: SOLID

Date Collected: 11/17/07 1023
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	-0.06	U	0.32	1.00	0.30	11/30/07	12/04/07
Cesium 137	0.007	U	0.078	1.00	0.15	11/30/07	12/04/07
Thorium 232	1.02		0.31	1.00	0.48	11/30/07	12/04/07
Uranium 235	-0.02	U	1.5	1.0	0.7	11/30/07	12/04/07
Uranium 238	1.1	U	1.4	1.0	2.4	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Bismuth 214	1.34		0.32		0.24	11/30/07	12/04/07
Lead 212	1.16		0.24		0.22	11/30/07	12/04/07
Lead 214	1.39		0.27		0.22	11/30/07	12/04/07
Potassium 40	18.3		3.0		1.9	11/30/07	12/04/07
Thallium 208	0.60		0.12		0.07	11/30/07	12/04/07

NOTE(S)

- ata are incomplete without the case narrative.
- MC is determined by instrument performance only.
- bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-116-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-003
 Work Order: KCRAN
 Matrix: SOLID

Date Collected: 11/14/07 0855
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.011	U	0.032	1.00	0.071	12/04/07	12/06/07
Batch # 7338146 Yld % 88							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.005	U	0.039	1.00	0.074	12/04/07	12/07/07
Plutonium 239/40	-0.002	U	0.023	1.00	0.045	12/04/07	12/07/07
Batch # 7338148 Yld % 90							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.63		0.45	1.00	0.63	11/30/07	12/04/07
Batch # 7333629 Yld % 99							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	21.9		3.0	1.0	0.07	12/04/07	12/07/07
Uranium 235/236	1.13		0.30	1.00	0.07	12/04/07	12/07/07
Uranium 238	6.00		0.95	1.00	0.08	12/04/07	12/07/07
Batch # 7338150 Yld % 80							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.09	U	0.19	1.00	0.31	11/30/07	12/04/07
Cesium 137	0.090	U	0.069	1.00	0.11	11/30/07	12/04/07
Thorium 232	0.78	J	0.24	1.00	0.43	11/30/07	12/04/07
Uranium 235	1.06		0.48	1.00	0.54	11/30/07	12/04/07
Uranium 238	4.4		1.2	1.0	2.4	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Actinium 228	0.78		0.24		0.43	11/30/07	12/04/07
Bismuth 214	1.21		0.23		0.18	11/30/07	12/04/07
Lead 212	0.98		0.21		0.19	11/30/07	12/04/07
Lead 214	1.03		0.19		0.19	11/30/07	12/04/07
Potassium 40	15.1		2.1		1.1	11/30/07	12/04/07
Thallium 208	0.41		0.11		0.09	11/30/07	12/04/07
Thorium 234	4.4		1.2		2.4	11/30/07	12/04/07

NOTE(B)

ta are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-116-0.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-003X
 Work Order: KCRAN
 Matrix: SOLID

Date Collected: 11/14/07 0855
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.01	U	0.040	1.00	0.074	12/04/07	12/06/07
Batch # 7338146 Yld % 88							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.001	U	0.032	1.00	0.071	12/04/07	12/07/07
Plutonium 239/40	0.007	U	0.026	1.00	0.054	12/04/07	12/07/07
Batch # 7338148 Yld % 89							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	18.9		2.7	1.0	0.07	12/04/07	12/07/07
Uranium 235/236	1.10		0.29	1.00	0.06	12/04/07	12/07/07
Uranium 238	4.43		0.74	1.00	0.05	12/04/07	12/07/07
Batch # 7338150 Yld % 78							

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.
 Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-116-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-004
 Work Order: KCRAO
 Matrix: SOLID

Date Collected: 11/14/07 0900
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333629	Yld % 105
Technetium 99	0.04	U	0.67	1.00	0.60	11/30/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	0.05	U	0.15	1.00	0.25	11/30/07	12/04/07
Cesium 137	0.117	U	0.078	1.00	0.12	11/30/07	12/04/07
Thorium 232	0.91	J	0.24	1.00	0.38	11/30/07	12/04/07
Uranium 235	0.15	U	0.31	1.00	0.53	11/30/07	12/04/07
Uranium 238	3.6		1.1	1.0	1.8	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Actinium 228	0.91		0.24		0.38	11/30/07	12/04/07
Bismuth 214	1.21		0.28		0.19	11/30/07	12/04/07
Lead 212	1.39		0.23		0.17	11/30/07	12/04/07
Lead 214	1.39		0.21		0.15	11/30/07	12/04/07
Potassium 40	20.3		2.6		0.5	11/30/07	12/04/07
Thallium 208	0.222		0.080		0.10	11/30/07	12/04/07
Thorium 234	3.6		1.1		1.8	11/30/07	12/04/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-117-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-005
 Work Order: KCRAR
 Matrix: SOLID

Date Collected: 11/15/07 0905
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.028	U	0.043	1.00	0.061	12/04/07	12/06/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.013	U	0.033	1.00	0.058	12/04/07	12/07/07
Plutonium 239/40	0.014	U	0.032	1.00	0.054	12/04/07	12/07/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.61	J	0.17	1.00	0.04	12/04/07	12/07/07
Uranium 235/236	0.025	U	0.043	1.00	0.033	12/04/07	12/07/07
Uranium 238	0.81	J	0.21	1.00	0.03	12/04/07	12/07/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.09	U	0.13	1.00	0.22	11/30/07	12/04/07
Cesium 137	-0.002	U	0.070	1.00	0.13	11/30/07	12/04/07
Thorium 232	0.82	J	0.26	1.00	0.33	11/30/07	12/04/07
Uranium 235	0.23	U	0.29	1.00	0.47	11/30/07	12/04/07
Uranium 238	0.9	U	1.1	1.0	1.8	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Actinium 228	0.82		0.26		0.33	11/30/07	12/04/07
Bismuth 214	1.21		0.26		0.16	11/30/07	12/04/07
Lead 212	0.95		0.15		0.11	11/30/07	12/04/07
Lead 214	1.0		0.21		0.16	11/30/07	12/04/07
Potassium 40	13.6		2.2		0.8	11/30/07	12/04/07
Thallium 208	0.282		0.094		0.11	11/30/07	12/04/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-116-12.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-006
 Work Order: KCRAW
 Matrix: SOLID

Date Collected: 11/14/07 0920
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	0.009	U	0.15	1.00	0.26	11/30/07	12/04/07
Cesium 137	-0.005	U	0.061	1.00	0.11	11/30/07	12/04/07
Thorium 232	1.27		0.31	1.00	0.25	11/30/07	12/04/07
Uranium 235	0.15	U	0.41	1.00	0.70	11/30/07	12/04/07
Uranium 238	1.8	U	1.6	1.0	2.1	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Actinium 228	1.27		0.31		0.25	11/30/07	12/04/07
Bismuth 214	1.05		0.21		0.24	11/30/07	12/04/07
Lead 212	1.23		0.17		0.15	11/30/07	12/04/07
Lead 214	1.32		0.27		0.21	11/30/07	12/04/07
Potassium 40	21.0		2.5		1.1	11/30/07	12/04/07
Thallium 208	0.53		0.13		0.1	11/30/07	12/04/07

NOTE(S)

- ata are incomplete without the case narrative.
- DC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-117-13.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-007
 Work Order: KCRAX
 Matrix: SOLID

Date Collected: 11/15/07 0923
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	0.02	U	0.16	1.00	0.28	11/30/07	12/04/07
Cesium 137	0.033	U	0.074	1.00	0.13	11/30/07	12/04/07
Thorium 232	0.92	J	0.28	1.00	0.48	11/30/07	12/04/07
Uranium 235	0.28	U	0.39	1.00	0.65	11/30/07	12/04/07
Uranium 238	0.3	U	1.4	1.0	2.5	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Actinium 228	0.92		0.28		0.48	11/30/07	12/04/07
Bismuth 214	0.90		0.23		0.22	11/30/07	12/04/07
Lead 212	1.32		0.21		0.16	11/30/07	12/04/07
Lead 214	1.09		0.21		0.19	11/30/07	12/04/07
Potassium 40	14.9		2.5		0.7	11/30/07	12/04/07
Thallium 208	0.37		0.12		0.14	11/30/07	12/04/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-118-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-008
 Work Order: KCRA5
 Matrix: SOLID

Date Collected: 11/15/07 1605
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338146	Yld % 94
Neptunium 237	-0.006	U	0.026	1.00	0.057	12/04/07	12/06/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338148	Yld % 83
Plutonium 238	0.003	U	0.028	1.00	0.062	12/04/07	12/07/07
Plutonium 239/40	0.005	U	0.027	1.00	0.057	12/04/07	12/07/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338150	Yld % 94
Uranium 233/234	1.12		0.26	1.00	0.07	12/04/07	12/07/07
Uranium 235/236	0.077	J	0.066	1.00	0.056	12/04/07	12/07/07
Uranium 238	0.35	J	0.13	1.00	0.05	12/04/07	12/07/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	0.03	U	0.12	1.00	0.21	11/30/07	12/04/07
Cesium 137	0.061	U	0.086	1.00	0.16	11/30/07	12/04/07
Thorium 232	0.1	U	0.32	1.00	0.57	11/30/07	12/04/07
Uranium 235	0.10	U	0.24	1.00	0.43	11/30/07	12/04/07
Uranium 238	0.29	U	0.84	1.00	1.6	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.31		0.17		0.26	11/30/07	12/04/07
Lead 212	0.219		0.098		0.12	11/30/07	12/04/07
Lead 214	0.25		0.13		0.18	11/30/07	12/04/07
Potassium 40	3.4		1.3		1	11/30/07	12/04/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333629	Yld % 82
Technetium 99	-1.57	U	0.40	1.00	0.82	11/30/07	12/04/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-118-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-009
 Work Order: KCRCE
 Matrix: SOLID

Date Collected: 11/15/07 1609
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g	Batch # 7334378		Yld %
Americium 241	0.057	U	0.063	1.00	0.10	11/30/07	12/04/07
Cesium 137	0.014	U	0.048	1.00	0.086	11/30/07	12/04/07
Thorium 232	0.19	U	0.15	1.00	0.23	11/30/07	12/04/07
Uranium 235	0.07	U	0.17	1.00	0.29	11/30/07	12/04/07
Uranium 238	0.005	U	0.66	1.00	1.2	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.48		0.14		0.11	11/30/07	12/04/07
Lead 212	0.57		0.11		0.09	11/30/07	12/04/07
Lead 214	0.389		0.093		0.098	11/30/07	12/04/07
Potassium 40	8.1		1.4		0.4	11/30/07	12/04/07
Thallium 208	0.215		0.052		0.029	11/30/07	12/04/07

NOTE(S)

- ata are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC**
- U Result is less than the sample detection limit.**

Energy Solutions, LLC

Client Sample ID: NB-118-10.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-010
 Work Order: KCRCK
 Matrix: SOLID

Date Collected: 11/15/07 1625
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	0.02	U	0.17	1.00	0.29	11/30/07	12/04/07
Cesium 137	0.026	U	0.088	1.00	0.15	11/30/07	12/04/07
Thorium 232	1.0	J	0.28	1.00	0.51	11/30/07	12/04/07
Uranium 235	0.28	U	0.41	1.00	0.69	11/30/07	12/04/07
Uranium 238	1.8	U	1.1	1.0	2.1	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Actinium 228	1.0		0.28		0.51	11/30/07	12/04/07
Bismuth 214	0.88		0.23		0.29	11/30/07	12/04/07
Lead 212	1.35		0.22		0.21	11/30/07	12/04/07
Lead 214	1.49		0.27		0.23	11/30/07	12/04/07
Potassium 40	23.3		3.0		1.4	11/30/07	12/04/07
Thallium 208	0.40		0.11		0.11	11/30/07	12/04/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-119-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-011
 Work Order: KCRCN
 Matrix: SOLID

Date Collected: 11/15/07 1700
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.015	U	0.033	1.00	0.056	12/04/07	12/06/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.013	U	0.030	1.00	0.067	12/04/07	12/07/07
Plutonium 239/40	-0.009	U	0.027	1.00	0.061	12/04/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	8.2		1.0	1.0	0.7	11/30/07	12/04/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	9.7		1.5	1.0	0.07	12/04/07	12/07/07
Uranium 235/236	0.35	J	0.16	1.00	0.08	12/04/07	12/07/07
Uranium 238	1.97		0.40	1.00	0.08	12/04/07	12/07/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.03	U	0.15	1.00	0.26	11/30/07	12/04/07
Cesium 137	0.007	U	0.076	1.00	0.15	11/30/07	12/04/07
Thorium 232	0.45	U	0.24	1.00	0.48	11/30/07	12/04/07
Uranium 235	0.19	U	0.35	1.00	0.60	11/30/07	12/04/07
Uranium 238	2.18		0.94	1.00	1.7	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.90		0.24		0.20	11/30/07	12/04/07
Lead 212	0.68		0.15		0.14	11/30/07	12/04/07
Lead 214	0.51		0.18		0.23	11/30/07	12/04/07
Potassium 40	9.4		2.0		1.2	11/30/07	12/04/07
Thallium 208	0.170		0.091		0.13	11/30/07	12/04/07
Thorium 234	2.18		0.94		1.7	11/30/07	12/04/07

NOTE(S)

a are incomplete without the case narrative.

C is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-119-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-012
 Work Order: KCRCV
 Matrix: SOLID

Date Collected: 11/15/07 1705
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333629	Yld % 92
Technetium 99	7.30		0.92	1.00	0.68	11/30/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	0.05	U	0.11	1.00	0.18	11/30/07	12/04/07
Cesium 137	0.014	U	0.054	1.00	0.096	11/30/07	12/04/07
Thorium 232	0.67	J	0.18	1.00	0.27	11/30/07	12/04/07
Uranium 235	0.41	J	0.24	1.00	0.36	11/30/07	12/04/07
Uranium 238	2.15		0.66	1.00	1.1	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Actinium 228	0.67		0.18		0.27	11/30/07	12/04/07
Bismuth 214	0.76		0.17		0.12	11/30/07	12/04/07
Lead 212	0.60		0.11		0.10	11/30/07	12/04/07
Lead 214	0.56		0.12		0.13	11/30/07	12/04/07
Potassium 40	12.0		1.8		0.4	11/30/07	12/04/07
Thallium 208	0.228		0.080		0.066	11/30/07	12/04/07
Thorium 234	2.15		0.66		1.1	11/30/07	12/04/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338150	Yld % 71
Uranium 233/234	9.1		1.4	1.0	0.08	12/04/07	12/07/07
Uranium 235/236	0.38	J	0.17	1.00	0.04	12/04/07	12/07/07
Uranium 238	2.02		0.42	1.00	0.06	12/04/07	12/07/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-119-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-013
 Work Order: KCRCW
 Matrix: SOLID

Date Collected: 11/15/07 1705
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	-0.05	U	0.30	1.00	0.29	11/30/07	12/04/07
Cesium 137	-0.009	U	0.12	1.00	0.14	11/30/07	12/04/07
Thorium 232	1.00		0.26	1.00	0.15	11/30/07	12/04/07
Uranium 235	0.27	U	0.33	1.00	0.54	11/30/07	12/04/07
Uranium 238	0.3	U	1.1	1.0	2.0	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Actinium 228	1.00		0.26		0.15	11/30/07	12/04/07
Bismuth 214	0.96		0.23		0.18	11/30/07	12/04/07
Lead 212	0.97		0.21		0.18	11/30/07	12/04/07
Lead 214	1.13		0.23		0.17	11/30/07	12/04/07
Potassium 40	16.7		2.6		0.6	11/30/07	12/04/07
Thallium 208	0.237		0.089		0.11	11/30/07	12/04/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333629	Yld % 109
Technetium 99	7.01		0.86	1.00	0.58	11/30/07	12/04/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-119-13.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-014
 Work Order: KCRC0
 Matrix: SOLID

Date Collected: 11/15/07 1730
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	0.05	U	0.16	1.00	0.26	11/30/07	12/04/07
Cesium 137	0.012	U	0.068	1.00	0.12	11/30/07	12/04/07
Thorium 232	1.08		0.28	1.00	0.42	11/30/07	12/04/07
Uranium 235	0.63	J	0.34	1.00	0.52	11/30/07	12/04/07
Uranium 238	2.46		0.86	1.00	1.6	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Bismuth 214	1.08		0.19		0.07	11/30/07	12/04/07
Lead 212	1.39		0.25		0.19	11/30/07	12/04/07
Lead 214	1.11		0.17		0.18	11/30/07	12/04/07
Potassium 40	19.9		2.6		0.5	11/30/07	12/04/07
Thallium 208	0.247		0.080		0.094	11/30/07	12/04/07

NOTE(S)

ts are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-109-5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-015
 Work Order: KCRC7
 Matrix: SOLID

Date Collected: 11/15/07 1108
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	0.003	U	0.088	1.00	0.15	11/30/07	12/04/07
Cesium 137	0.033	U	0.050	1.00	0.083	11/30/07	12/04/07
Thorium 232	0.74	J	0.24	1.00	0.32	11/30/07	12/04/07
Uranium 235	0.22	U	0.26	1.00	0.44	11/30/07	12/04/07
Uranium 238	1.78		0.59	1.00	1.2	11/30/07	12/04/07
--- Other Detected Radionuclides ---							
Actinium 228	0.74		0.24		0.32	11/30/07	12/04/07
Bismuth 214	0.80		0.15		0.18	11/30/07	12/04/07
Lead 212	0.75		0.12		0.13	11/30/07	12/04/07
Lead 214	0.95		0.15		0.15	11/30/07	12/04/07
Potassium 40	14.8		1.8		1.1	11/30/07	12/04/07
Thallium 208	0.386		0.095		0.084	11/30/07	12/04/07
Thorium 234	1.78		0.59		1.2	11/30/07	12/04/07

NOTE(S)

Its are incomplete without the case narrative.

JC is determined by instrument performance only.

Hold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-110-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-016
 Work Order: KCRDG
 Matrix: SOLID

Date Collected: 11/15/07 1307
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.014	U	0.035	1.00	0.079	12/04/07	12/06/07
Batch # 7338146 Yld % 81							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.011	U	0.038	1.00	0.084	12/04/07	12/07/07
Plutonium 239/40	0.003	U	0.028	1.00	0.063	12/04/07	12/07/07
Batch # 7338148 Yld % 85							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	8.5		1.3	1.0	0.06	12/04/07	12/07/07
Uranium 235/236	0.42	J	0.17	1.00	0.06	12/04/07	12/07/07
Uranium 238	1.79		0.37	1.00	0.06	12/04/07	12/07/07
Batch # 7338150 Yld % 81							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.07	U	0.11	1.00	0.19	11/30/07	12/05/07
Cesium 137	0.47	J	0.11	1.00	0.09	11/30/07	12/05/07
Phorium 232	0.31	U	0.22	1.00	0.32	11/30/07	12/05/07
Uranium 235	0.38	U	0.31	1.00	0.49	11/30/07	12/05/07
Uranium 238	2.22		0.72	1.00	1.4	11/30/07	12/05/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.95		0.19		0.12	11/30/07	12/05/07
Lead 212	0.61		0.13		0.11	11/30/07	12/05/07
Lead 214	0.58		0.17		0.21	11/30/07	12/05/07
Potassium 40	11.4		1.9		0.5	11/30/07	12/05/07
Thallium 208	0.165		0.072		0.094	11/30/07	12/05/07
Thorium 234	2.22		0.72		1.4	11/30/07	12/05/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.24	U	0.35	1.00	0.62	11/30/07	12/04/07
Batch # 7333629 Yld % 102							

NOTE(S)

- * Data are incomplete without the case narrative.
- C is determined by instrument performance only.
- Solid results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-110-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-017
 Work Order: KCRDH
 Matrix: SOLID

Date Collected: 11/15/07 1308
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	-0.03	U	0.14	1.00	0.24	11/30/07	12/05/07
Cesium 137	-0.002	U	0.61	1.00	0.10	11/30/07	12/05/07
Thorium 232	0.84	J	0.25	1.00	0.38	11/30/07	12/05/07
Uranium 235	0.03	U	0.29	1.00	0.50	11/30/07	12/05/07
Uranium 238	0.4	U	1.1	1.0	1.9	11/30/07	12/05/07
--- Other Detected Radionuclides ---							
Actinium 228	0.84		0.25		0.38	11/30/07	12/05/07
Bismuth 214	1.11		0.21		0.12	11/30/07	12/05/07
Lead 212	1.26		0.25		0.20	11/30/07	12/05/07
Lead 214	1.11		0.20		0.14	11/30/07	12/05/07
Potassium 40	19.5		2.5		0.5	11/30/07	12/05/07
Thallium 208	0.46		0.12		0.08	11/30/07	12/05/07

NOTE(S)

- Results are incomplete without the case narrative.
- Result is determined by instrument performance only.
- Unqualified results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-110-5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-018
 Work Order: KCRDK
 Matrix: SOLID

Date Collected: 11/15/07 1331
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	-0.06	U	0.17	1.00	0.28	11/30/07	12/05/07
Cesium 137	0.033	U	0.066	1.00	0.11	11/30/07	12/05/07
Thorium 232	0.87	J	0.26	1.00	0.32	11/30/07	12/05/07
Uranium 235	-0.08	U	1.2	1.0	0.6	11/30/07	12/05/07
Uranium 238	3.7		2.0	1.0	2.2	11/30/07	12/05/07
--- Other Detected Radionuclides ---							
Actinium 228	0.87		0.26		0.32	11/30/07	12/05/07
Bismuth 214	1.42		0.24		0.17	11/30/07	12/05/07
Lead 212	1.17		0.17		0.16	11/30/07	12/05/07
Lead 214	1.35		0.26		0.20	11/30/07	12/05/07
Potassium 40	22.1		2.6		1.1	11/30/07	12/05/07
Thallium 208	0.390		0.092		0.081	11/30/07	12/05/07
Thorium 234	3.7		2.0		2.2	11/30/07	12/05/07

NOTE(S)

ts are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-111-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-019
 Work Order: KCRDN
 Matrix: SOLID

Date Collected: 11/15/07 1429
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.010	U	0.066	1.00	0.15	12/04/07	12/06/07
Batch # 7338146 Yld % 47							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.01	U	0.040	1.00	0.074	12/04/07	12/07/07
Plutonium 239/40	-0.009	U	0.030	1.00	0.066	12/04/07	12/07/07
Batch # 7338148 Yld % 76							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	4.06		0.77	1.00	0.08	12/04/07	12/07/07
Uranium 235/236	0.090	U	0.096	1.00	0.11	12/04/07	12/07/07
Uranium 238	1.37		0.36	1.00	0.08	12/04/07	12/07/07
Batch # 7338150 Yld % 58							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.01	U	0.18	1.00	0.31	11/30/07	12/05/07
Cesium 137	0.060	U	0.091	1.00	0.15	11/30/07	12/05/07
Thorium 232	0.0	J	0.0	1.0	0.0	11/30/07	12/05/07
Uranium 235	0.31	U	0.35	1.00	0.57	11/30/07	12/05/07
Uranium 238	0.8	U	1.3	1.0	2.3	11/30/07	12/05/07
--- Other Detected Radionuclides ---							
Bismuth 214	1.14		0.27		0.19	11/30/07	12/05/07
Lead 212	0.86		0.18		0.16	11/30/07	12/05/07
Lead 214	0.82		0.19		0.22	11/30/07	12/05/07
Potassium 40	14.6		2.6		1.1	11/30/07	12/05/07
Thallium 208	0.28		0.11		0.15	11/30/07	12/05/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.17	U	0.36	1.00	0.66	11/30/07	12/04/07
Batch # 7333629 Yld % 95							

NOTE(S)

- Results are incomplete without the case narrative.
- C is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-111-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-020
 Work Order: KCRDR
 Matrix: SOLID

Date Collected: 11/15/07 1434
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334378	Yld %
Americium 241	0.04	U	0.13	1.00	0.22	11/30/07	12/05/07
Cesium 137	0.073	U	0.070	1.00	0.12	11/30/07	12/05/07
Thorium 232	0.75	J	0.29	1.00	0.43	11/30/07	12/05/07
Uranium 235	0.24	U	0.29	1.00	0.48	11/30/07	12/05/07
Uranium 238	1.25	U	0.70	1.00	1.8	11/30/07	12/05/07
--- Other Detected Radionuclides ---							
Actinium 228	0.75		0.29		0.43	11/30/07	12/05/07
Bismuth 214	0.54		0.18		0.23	11/30/07	12/05/07
Lead 212	0.80		0.17		0.15	11/30/07	12/05/07
Lead 214	0.76		0.18		0.20	11/30/07	12/05/07
Potassium 40	15.1		2.3		0.6	11/30/07	12/05/07
Thallium 208	0.299		0.090		0.078	11/30/07	12/05/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.

Sold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-111-8.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-021
 Work Order: KCRDT
 Matrix: SOLID

Date Collected: 11/15/07 1440
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	0.10	U	0.18	1.00	0.31	11/30/07	12/02/07
Cesium 137	0.030	U	0.060	1.00	0.10	11/30/07	12/02/07
Thorium 232	0.97	J	0.26	1.00	0.44	11/30/07	12/02/07
Uranium 235	0.07	U	0.32	1.00	0.56	11/30/07	12/02/07
Uranium 238	1.58	U	0.81	1.00	1.7	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.97		0.26		0.44	11/30/07	12/02/07
Bismuth 214	1.07		0.22		0.23	11/30/07	12/02/07
Lead 212	1.05		0.23		0.22	11/30/07	12/02/07
Lead 214	1.55		0.30		0.22	11/30/07	12/02/07
Potassium 40	21.9		2.6		1.1	11/30/07	12/02/07
Thallium 208	0.43		0.13		0.11	11/30/07	12/02/07

NOTE(S)

ata are incomplete without the case narrative.

C is determined by instrument performance only.

bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-111-8.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-021X
 Work Order: KCRDT
 Matrix: SOLID

Date Collected: 11/15/07 1440
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	0.007	U	0.18	1.00	0.31	11/30/07	12/02/07
Cesium 137	0.004	U	0.063	1.00	0.12	11/30/07	12/02/07
Thorium 232	0.94	J	0.31	1.00	0.54	11/30/07	12/02/07
Uranium 235	0.30	U	0.37	1.00	0.61	11/30/07	12/02/07
Uranium 238	0.6	U	1.4	1.0	2.4	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.94		0.31		0.54	11/30/07	12/02/07
Bismuth 214	1.16		0.26		0.19	11/30/07	12/02/07
Lead 212	1.64		0.29		0.23	11/30/07	12/02/07
Lead 214	1.39		0.26		0.27	11/30/07	12/02/07
Potassium 40	20.6		3.1		1.0	11/30/07	12/02/07
Thallium 208	0.38		0.12		0.14	11/30/07	12/02/07

NOTE(S)

ata are incomplete without the case narrative.

XC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-112-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-022
 Work Order: KCRDO
 Matrix: SOLID

Date Collected: 11/15/07 0942
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	0.02	U	0.13	1.00	0.22	11/30/07	12/02/07
Cesium 137	-0.015	U	0.068	1.00	0.12	11/30/07	12/02/07
Thorium 232	0.53	J	0.21	1.00	0.37	11/30/07	12/02/07
Uranium 235	-0.05	U	0.25	1.00	0.44	11/30/07	12/02/07
Uranium 238	0.5	U	1.1	1.0	1.9	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.53		0.21		0.37	11/30/07	12/02/07
Bismuth 214	0.92		0.20		0.12	11/30/07	12/02/07
Lead 212	0.79		0.15		0.12	11/30/07	12/02/07
Lead 214	0.59		0.15		0.21	11/30/07	12/02/07
Potassium 40	14.3		2.3		0.9	11/30/07	12/02/07
Thallium 208	0.355		0.086		0.046	11/30/07	12/02/07

NOTE(S)

ata are incomplete without the case narrative.

JC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-41-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-023
 Work Order: KCRD5
 Matrix: SOLID

Date Collected: 11/09/07 0825
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333629	Yld % 101
Technetium 99	0.46	U	0.37	1.00	0.62	11/30/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	0.02	U	0.12	1.00	0.21	11/30/07	12/02/07
Cesium 137	0.047	U	0.074	1.00	0.13	11/30/07	12/02/07
Thorium 232	0.79	J	0.29	1.00	0.42	11/30/07	12/02/07
Uranium 235	0.17	U	0.30	1.00	0.51	11/30/07	12/02/07
Uranium 238	0.8	U	1.2	1.0	2.0	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.79		0.29		0.42	11/30/07	12/02/07
Bismuth 214	0.63		0.21		0.26	11/30/07	12/02/07
Lead 212	0.77		0.17		0.16	11/30/07	12/02/07
Lead 214	0.53		0.15		0.21	11/30/07	12/02/07
Potassium 40	15.9		2.5		0.6	11/30/07	12/02/07
Thallium 208	0.33		0.12		0.10	11/30/07	12/02/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-41-6-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-024
 Work Order: KCREE
 Matrix: SOLID

Date Collected: 11/09/07 0830
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.02	U	0.15	1.00	0.26	11/30/07	12/02/07
Cesium 137	-0.0009	U	0.10	1.00	0.12	11/30/07	12/02/07
Thorium 232	1.05		0.32	1.00	0.45	11/30/07	12/02/07
Uranium 235	0.13	U	0.29	1.00	0.50	11/30/07	12/02/07
Uranium 238	3.2		1.8	1.0	2.0	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	1.05		0.32		0.45	11/30/07	12/02/07
Bismuth 214	1.33		0.22		0.08	11/30/07	12/02/07
Lead 212	1.16		0.18		0.17	11/30/07	12/02/07
Lead 214	1.36		0.25		0.17	11/30/07	12/02/07
Potassium 40	20.2		2.7		0.6	11/30/07	12/02/07
Thallium 208	0.52		0.11		0.07	11/30/07	12/02/07
Thorium 234	3.2		1.8		2.0	11/30/07	12/02/07

NOTE(S)

its are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-24-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-025
 Work Order: KCREN
 Matrix: SOLID

Date Collected: 11/20/07 0955
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.006	U	0.038	1.00	0.086	12/04/07	12/06/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.012	U	0.060	1.00	0.11	12/04/07	12/07/07
Plutonium 239/40	-0.003	U	0.030	1.00	0.068	12/04/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.77	J	0.39	1.00	0.63	11/30/07	12/04/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	8.6		1.3	1.0	0.07	12/04/07	12/07/07
Uranium 235/236	0.37	J	0.15	1.00	0.07	12/04/07	12/07/07
Uranium 238	1.96		0.39	1.00	0.06	12/04/07	12/07/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.05	U	0.17	1.00	0.28	11/30/07	12/02/07
Cesium 137	0.145	J	0.079	1.00	0.11	11/30/07	12/02/07
Thorium 232	1.06		0.26	1.00	0.38	11/30/07	12/02/07
Uranium 235	0.38	U	0.39	1.00	0.63	11/30/07	12/02/07
Uranium 238	2.83		0.98	1.00	2.2	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	1.06		0.26		0.38	11/30/07	12/02/07
Bismuth 214	0.93		0.20		0.23	11/30/07	12/02/07
Lead 212	0.98		0.18		0.17	11/30/07	12/02/07
Lead 214	1.26		0.23		0.18	11/30/07	12/02/07
Potassium 40	14.9		2.1		1.1	11/30/07	12/02/07
Thallium 208	0.45		0.10		0.08	11/30/07	12/02/07
Thorium 234	2.83		0.98		2.2	11/30/07	12/02/07

NOTE(S)

its are incomplete without the case narrative.

C is determined by instrument performance only.

bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-24-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-026
 Work Order: KCREO
 Matrix: SOLID

Date Collected: 11/20/07 1000
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333629	Yld % 100
Technetium 99	0.59	U	0.38	1.00	0.63	11/30/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	-0.01	U	0.65	1.00	0.18	11/30/07	12/02/07
Cesium 137	-0.01	U	0.11	1.00	0.10	11/30/07	12/02/07
Thorium 232	0.28	U	0.20	1.00	0.28	11/30/07	12/02/07
Uranium 235	0.10	U	0.20	1.00	0.35	11/30/07	12/02/07
Uranium 238	1.10	U	0.63	1.00	1.1	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.28	U	0.20		0.28	11/30/07	12/02/07
Bismuth 214	0.34		0.11		0.12	11/30/07	12/02/07
Lead 212	0.306		0.091		0.093	11/30/07	12/02/07
Lead 214	0.268		0.098		0.14	11/30/07	12/02/07
Potassium 40	4.8		1.2		0.5	11/30/07	12/02/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338150	Yld % 90
Uranium 233/234	4.11		0.67	1.00	0.03	12/04/07	12/07/07
Uranium 235/236	0.18	J	0.10	1.00	0.06	12/04/07	12/07/07
Uranium 238	1.00		0.24	1.00	0.05	12/04/07	12/07/07

NOTE(S)

Results are incomplete without the case narrative.

Qual is determined by instrument performance only.

Results greater than the MDC are bolded.

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-24-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-027
 Work Order: KCRET
 Matrix: SOLID

Date Collected: 11/20/07 1000
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	0.06	U	0.13	1.00	0.21	11/30/07	12/02/07
Cesium 137	-0.012	U	0.093	1.00	0.10	11/30/07	12/02/07
Thorium 232	0.60	J	0.21	1.00	0.36	11/30/07	12/02/07
Uranium 235	0.84	J	0.33	1.00	0.53	11/30/07	12/02/07
Uranium 238	2.4		1.6	1.0	1.7	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.60		0.21		0.36	11/30/07	12/02/07
Bismuth 214	0.88		0.17		0.09	11/30/07	12/02/07
Lead 212	1.12		0.20		0.16	11/30/07	12/02/07
Lead 214	0.70		0.13		0.17	11/30/07	12/02/07
Potassium 40	13.0		2.0		1.1	11/30/07	12/02/07
Thallium 208	0.480		0.095		0.054	11/30/07	12/02/07
Thorium 234	2.4		1.6		1.7	11/30/07	12/02/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333629	Yld % 99
Technetium 99	0.61	U	0.39	1.00	0.64	11/30/07	12/04/07

NOTE(S)

Results are incomplete without the case narrative.

J is determined by instrument performance only.

U Solid results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-24-13-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-028
 Work Order: KCRE0
 Matrix: SOLID

Date Collected: 11/20/07 1015
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	0.1	U	0.17	1.00	0.29	11/30/07	12/02/07
Cesium 137	-0.017	U	0.061	1.00	0.11	11/30/07	12/02/07
Thorium 232	0.86	J	0.28	1.00	0.42	11/30/07	12/02/07
Uranium 235	0.52	U	0.38	1.00	0.61	11/30/07	12/02/07
Uranium 238	2.55		0.99	1.00	1.9	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.86		0.28		0.42	11/30/07	12/02/07
Bismuth 214	0.74		0.20		0.25	11/30/07	12/02/07
Lead 212	1.11		0.24		0.23	11/30/07	12/02/07
Lead 214	0.94		0.19		0.23	11/30/07	12/02/07
Potassium 40	19.7		2.5		1.2	11/30/07	12/02/07
Thallium 208	0.51		0.11		0.09	11/30/07	12/02/07
Thorium 234	2.55		0.99		1.9	11/30/07	12/02/07

NOTE(S)

ata are incomplete without the case narrative.

C is determined by instrument performance only.

Sold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-113-19.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-029
 Work Order: KCRE3
 Matrix: SOLID

Date Collected: 11/20/07 1110
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	0.01	U	0.18	1.00	0.31	11/30/07	12/02/07
Cesium 137	0.0009	U	0.095	1.00	0.18	11/30/07	12/02/07
Thorium 232	0.69	J	0.26	1.00	0.39	11/30/07	12/02/07
Uranium 235	0.25	U	0.39	1.00	0.65	11/30/07	12/02/07
Uranium 238	3.1		1.2	1.0	2.3	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.69		0.26		0.39	11/30/07	12/02/07
Bismuth 214	1.49		0.28		0.16	11/30/07	12/02/07
Lead 210	4.5		2.3		3.1	11/30/07	12/02/07
Lead 212	1.31		0.24		0.21	11/30/07	12/02/07
Lead 214	1.03		0.23		0.18	11/30/07	12/02/07
Potassium 40	18.4		3.0		1.1	11/30/07	12/02/07
Radium (226)	1.49		0.28		0.16	11/30/07	12/02/07
Thallium 208	0.49		0.13		0.09	11/30/07	12/02/07
Thorium 234	3.1		1.2		2.3	11/30/07	12/02/07

NOTE(S)

- ta are incomplete without the case narrative.
- J is determined by instrument performance only.
- Uold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-87-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-030
 Work Order: KCRE9
 Matrix: SOLID

Date Collected: 11/09/07 1000
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	-0.01	U	1.3	1.0	0.3	11/30/07	12/02/07
Cesium 137	0.052	U	0.070	1.00	0.12	11/30/07	12/02/07
Thorium 232	0.60	J	0.23	1.00	0.32	11/30/07	12/02/07
Uranium 235	0.26	U	0.30	1.00	0.49	11/30/07	12/02/07
Uranium 238	0.7	U	1.1	1.0	1.9	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.60		0.23		0.32	11/30/07	12/02/07
Bismuth 214	0.69		0.19		0.17	11/30/07	12/02/07
Lead 212	0.90		0.19		0.16	11/30/07	12/02/07
Lead 214	0.65		0.17		0.20	11/30/07	12/02/07
Potassium 40	12.4		2.1		0.6	11/30/07	12/02/07
Thallium 208	0.281		0.095		0.086	11/30/07	12/02/07

NOTE(S)

- ta are incomplete without the case narrative.
- C is determined by instrument performance only.
- bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-87-18-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-031
 Work Order: KCRFC
 Matrix: SOLID

Date Collected: 11/09/07 1020
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
				pCi/g		Batch # 7334409	Yld %
Americium 241	0.05	U	0.13	1.00	0.23	11/30/07	12/02/07
Cesium 137	-0.025	U	0.096	1.00	0.13	11/30/07	12/02/07
Thorium 232	0.83	J	0.27	1.00	0.48	11/30/07	12/02/07
Uranium 235	0.003	U	0.32	1.00	0.56	11/30/07	12/02/07
Uranium 238	1.4	U	1.1	1.0	1.9	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.83		0.27		0.48	11/30/07	12/02/07
Bismuth 214	1.10		0.23		0.13	11/30/07	12/02/07
Lead 212	1.34		0.19		0.14	11/30/07	12/02/07
Lead 214	1.29		0.24		0.15	11/30/07	12/02/07
Potassium 40	21.0		2.8		0.6	11/30/07	12/02/07
Thallium 208	0.51		0.12		0.07	11/30/07	12/02/07

NOTE(S)

- ta are incomplete without the case narrative.
- C is determined by instrument performance only.
- bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-88-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-032
 Work Order: KCRFG
 Matrix: SOLID

Date Collected: 11/16/07 0855
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338146	Yld % 64
Neptunium 237	0.0009	U	0.041	1.00	0.092	12/04/07	12/06/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338148	Yld % 73
Plutonium 238	0.006	U	0.049	1.00	0.092	12/04/07	12/07/07
Plutonium 239/40	0.011	U	0.028	1.00	0.055	12/04/07	12/07/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338150	Yld % 62
Uranium 233/234	4.66		0.83	1.00	0.09	12/04/07	12/07/07
Uranium 235/236	0.29	J	0.15	1.00	0.08	12/04/07	12/07/07
Uranium 238	1.26		0.32	1.00	0.07	12/04/07	12/07/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	-0.004	U	0.16	1.00	0.27	11/30/07	12/02/07
Cesium 137	0.285	J	0.085	1.00	0.062	11/30/07	12/02/07
Thorium 232	0.71	J	0.23	1.00	0.40	11/30/07	12/02/07
Uranium 235	0.34	U	0.37	1.00	0.61	11/30/07	12/02/07
Uranium 238	2.44		0.92	1.00	2.2	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.71		0.23		0.40	11/30/07	12/02/07
Bismuth 214	0.91		0.20		0.22	11/30/07	12/02/07
Lead 212	0.93		0.15		0.16	11/30/07	12/02/07
Lead 214	1.07		0.20		0.16	11/30/07	12/02/07
Potassium 40	16.9		2.2		1.0	11/30/07	12/02/07
Thallium 208	0.379		0.096		0.081	11/30/07	12/02/07
Thorium 234	2.44		0.92		2.2	11/30/07	12/02/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333629	Yld % 101
Technetium 99	0.89	J	0.39	1.00	0.62	11/30/07	12/04/07

NOTE(S)

'ts are incomplete without the case narrative.

C is determined by instrument performance only.
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-88-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-033
 Work Order: KCRFL
 Matrix: SOLID

Date Collected: 11/16/07 0900
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	0.04	U	0.17	1.00	0.28	11/30/07	12/02/07
Cesium 137	0.025	U	0.076	1.00	0.13	11/30/07	12/02/07
Thorium 232	1.03		0.29	1.00	0.40	11/30/07	12/02/07
Uranium 235	0.19	U	0.33	1.00	0.55	11/30/07	12/02/07
Uranium 238	2.7		1.8	1.0	2.1	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	1.03		0.29		0.40	11/30/07	12/02/07
Bismuth 214	1.19		0.23		0.13	11/30/07	12/02/07
Lead 212	1.70		0.28		0.20	11/30/07	12/02/07
Lead 214	1.21		0.22		0.23	11/30/07	12/02/07
Potassium 40	19.4		2.9		0.9	11/30/07	12/02/07
Thallium 208	0.50		0.12		0.08	11/30/07	12/02/07
Thorium 234	2.7		1.8		2.1	11/30/07	12/02/07

NOTE(S)

Results are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-88-20-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-034
 Work Order: KCRFN
 Matrix: SOLID

Date Collected: 11/16/07 0912
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7334409	Yld %
Americium 241	-0.02	U	1.8	1.0	0.3	11/30/07	12/02/07
Cesium 137	-0.04	U	8.2	1.0	0.2	11/30/07	12/02/07
Thorium 232	0.95	J	0.30	1.00	0.34	11/30/07	12/02/07
Uranium 235	0.30	U	0.32	1.00	0.52	11/30/07	12/02/07
Uranium 238	0.03	U	1.4	1.0	2.4	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.95		0.30		0.34	11/30/07	12/02/07
Bismuth 214	0.73		0.22		0.21	11/30/07	12/02/07
Lead 212	1.12		0.18		0.13	11/30/07	12/02/07
Lead 214	0.64		0.19		0.24	11/30/07	12/02/07
Potassium 40	17.6		2.8		0.7	11/30/07	12/02/07
Thallium 208	0.41		0.11		0.09	11/30/07	12/02/07

NOTE(S)

ta are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-89-0.5-SL

Sewern Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-035
 Work Order: KCRFR
 Matrix: SOLID

Date Collected: 11/13/07 1000
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.036	U	0.053	1.00	0.073	12/04/07	12/06/07
Batch # 7338146 Yld % 81							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.019	U	0.041	1.00	0.066	12/04/07	12/07/07
Plutonium 239/40	0.006	U	0.024	1.00	0.050	12/04/07	12/07/07
Batch # 7338148 Yld % 96							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.69	J	0.37	1.00	0.59	11/30/07	12/04/07
Batch # 7333629 Yld % 106							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.95		0.37	1.00	0.04	12/04/07	12/07/07
Uranium 235/236	0.022	U	0.037	1.00	0.053	12/04/07	12/07/07
Uranium 238	0.82	J	0.21	1.00	0.04	12/04/07	12/07/07
Batch # 7338150 Yld % 90							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.069	U	0.091	1.00	0.15	11/30/07	12/02/07
Cesium 137	-0.003	U	0.077	1.00	0.096	11/30/07	12/02/07
Thorium 232	0.45	J	0.17	1.00	0.28	11/30/07	12/02/07
Uranium 235	0.16	U	0.20	1.00	0.32	11/30/07	12/02/07
Uranium 238	0.51	U	0.75	1.00	1.3	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.45		0.17		0.28	11/30/07	12/02/07
Bismuth 214	0.62		0.15		0.09	11/30/07	12/02/07
Lead 212	0.54		0.12		0.11	11/30/07	12/02/07
Lead 214	0.54		0.11		0.13	11/30/07	12/02/07
Potassium 40	9.3		1.6		0.9	11/30/07	12/02/07
Thallium 208	0.168		0.064		0.080	11/30/07	12/02/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-89-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-036
 Work Order: KCRFX
 Matrix: SOLID

Date Collected: 11/13/07 1005
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.32	U	0.46	1.00	0.68	11/30/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.04	U	0.12	1.00	0.20	11/30/07	12/02/07
Cesium 137	-0.00005	U	0.050	1.00	0.091	11/30/07	12/02/07
Thorium 232	0.61	J	0.19	1.00	0.27	11/30/07	12/02/07
Uranium 235	0.07	U	0.29	1.00	0.49	11/30/07	12/02/07
Uranium 238	2.0		1.3	1.0	1.5	11/30/07	12/02/07
--- Other Detected Radionuclides ---							
Actinium 228	0.61		0.19		0.27	11/30/07	12/02/07
Bismuth 214	0.30		0.13		0.20	11/30/07	12/02/07
Lead 212	0.61		0.14		0.14	11/30/07	12/02/07
Lead 214	0.59		0.14		0.17	11/30/07	12/02/07
Potassium 40	12.1		1.7		0.9	11/30/07	12/02/07
Thallium 208	0.248		0.068		0.063	11/30/07	12/02/07
Thorium 234	2.0		1.3		1.5	11/30/07	12/02/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-89-19.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210313-037
 Work Order: KCRF2
 Matrix: SOLID

Date Collected: 11/13/07 1025
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	-0.11	U	0.32	1.00	0.54	12/01/07	12/07/07
Cesium 137	0.017	U	0.055	1.00	0.096	12/01/07	12/07/07
Thorium 232	0.40	J	0.17	1.00	0.27	12/01/07	12/07/07
Uranium 235	28.5		2.6	1.0	1.8	12/01/07	12/07/07
Uranium 238	9.8		2.3	1.0	4.1	12/01/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.40		0.17		0.27	12/01/07	12/07/07
Bismuth 214	0.58		0.16		0.18	12/01/07	12/07/07
Lead 212	0.64		0.22		0.19	12/01/07	12/07/07
Lead 214	0.57		0.14		0.18	12/01/07	12/07/07
Potassium 40	5.4		1.3		1.4	12/01/07	12/07/07
Thallium 208	0.224		0.058		0.050	12/01/07	12/07/07
Thorium 234	9.8		2.3		4.1	12/01/07	12/07/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210313
 Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	Batch #	7334378	Yld %	F7K300000-378B
Americium 241	-0.002	U	0.042	1.00	0.077	11/30/07	12/05/07
Cesium 137	-0.016	U	0.055	1.00	0.073	11/30/07	12/05/07
Thorium 232	0.0	U	0.25	1.00	0.45	11/30/07	12/05/07
Uranium 235	0.0009	U	0.0999	1.00	0.19	11/30/07	12/05/07
Uranium 238	0.1	U	0.34	1.00	0.69	11/30/07	12/05/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	Batch #	7334409	Yld %	F7K300000-409B
Americium 241	-0.003	U	0.055	1.00	0.10	11/30/07	12/02/07
Cesium 137	0.010	U	0.033	1.00	0.062	11/30/07	12/02/07
Thorium 232	0.09	U	0.14	1.00	0.25	11/30/07	12/02/07
Uranium 235	0.003	U	0.13	1.00	0.25	11/30/07	12/02/07
Uranium 238	-0.3	U	1.3	1.0	1	11/30/07	12/02/07
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	Batch #	7333629	Yld % 98	F7K290000-629B
Technetium 99	0.03	U	0.23	1.00	0.64	11/30/07	12/04/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	Batch #	7335109	Yld %	F7L010000-109B
Americium 241	-0.01	U	0.95	1.00	0.11	12/01/07	12/08/07
Cesium 137	-0.03	U	0.78	1.00	0.13	12/01/07	12/08/07
Thorium 232	0.0	U	0.23	1.00	0.43	12/01/07	12/08/07
Uranium 235	0.02	U	0.13	1.00	0.24	12/01/07	12/08/07
Uranium 238	0.21	U	0.45	1.00	0.86	12/01/07	12/08/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	7338146	Yld % 83	F7L040000-146B
Neptunium 237	-0.009	U	0.030	1.00	0.066	12/04/07	12/06/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	7338150	Yld % 89	F7L040000-150B
Uranium 233/234	0.009	U	0.023	1.00	0.045	12/04/07	12/07/07
Uranium 235/236	-0.005	U	0.031	1.00	0.065	12/04/07	12/07/07
Uranium 238	-0.002	U	0.023	1.00	0.045	12/04/07	12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	7338148	Yld % 85	F7L040000-148B
Plutonium 238	0.014	U	0.037	1.00	0.064	12/04/07	12/07/07
Plutonium 239/40	0.016	U	0.035	1.00	0.060	12/04/07	12/07/07

NOTE(S)

- a are incomplete without the case narrative.
- MDC is determined using instrument performance only
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Laboratory Control Sample Report

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210313
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	33.3	31.6	3.3	0.6	100	95	F7K290000-629C (64 - 114)
	Batch #:	7333629		Analysis Date:	12/04/07		
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	107	8.5	1.3		104	F7K300000-378C (85 - 118)
Cesium 137	40.0	43.4	2.7	0.4		108	(91 - 120)
Cobalt 60	62.7	64.5	3.8	0.2		103	(91 - 112)
	Batch #:	7334378		Analysis Date:	12/05/07		
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	108	8.6	1.4		105	F7K300000-409C (85 - 118)
Cesium 137	40.0	42.9	2.7	0.4		107	(91 - 120)
Cobalt 60	62.7	65.1	3.9	0.3		104	(91 - 112)
	Batch #:	7334409		Analysis Date:	12/02/07		
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	105	8.3	1.3		102	F7L010000-109C (85 - 118)
Cesium 137	40.0	43.9	2.7	0.4		110	(91 - 120)
Cobalt 60	62.7	64.8	3.9	0.2		103	(91 - 112)
	Batch #:	7335109		Analysis Date:	12/08/07		
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	13.3	12.5	1.4	0.05	104	95	F7L040000-146C (75 - 119)
	Batch #:	7338146		Analysis Date:	12/06/07		
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	6.13	5.76	0.90	0.06	84	94	F7L040000-148C (77 - 112)
Plutonium 239/40	5.77	6.44	0.99	0.06	84	112	(82 - 119)
	Batch #:	7338148		Analysis Date:	12/07/07		
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	19.6	20.4	4.2	0.3	59	104	F7L040000-150C (76 - 128)
Uranium 238	19.6	21.2	4.4	0.7	59	108	(74 - 125)
	Batch #:	7338150		Analysis Date:	12/07/07		

NOTE(S)

MDC is determined by instrument performance only
 Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210313
 Matrix: SOLID

Date Sampled: 11/19/07
 Date Received: 11/21/07

Parameter	SAMPLE Result	Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ +/-)	% Yld	QC Sample ID Precision
Gamma Cs-137 & Hits by DOE GA-01-R MOD. pCi/g GA-01-R MOD F7K210252-022							
Americium 241	0.0	U	0.17	0.01	U	0.17	200 %RPD
Cesium 137	0.025	U	0.070	-0.0008	U	0.080	213 %RPD
Thorium 232	0.99	J	0.25	1.04		0.27	5 %RPD
Uranium 235	0.1	U	0.38	-0.08	U	21	1820 %RPD
Uranium 238	1.8	U	1.0	1.15	U	0.82	46 %RPD
---Other Dedected Radionuclides---							
Actinium 228	0.99		0.25	1.04		0.27	5 %RPD
Bismuth 214	1.25		0.23	0.89		0.22	34 %RPD
Lead 212	1.12		0.21	1.49		0.26	29 %RPD
Lead 214	1.16		0.21	1.25		0.24	8 %RPD
Potassium 40	18.5		2.3	20.4		2.8	10 %RPD
Thallium 208	0.49		0.12	0.50		0.13	2 %RPD
Batch #:		7335109 (Sample)		7335109 (Duplicate)			
TC-99 by LSC by DOE TC-02-RC Mod. pCi/g TC-02-RC MOD F7K210313-001							
Technetium 99	-0.15	U	0.41	100	0.15	U	0.33 105 4660 %RPD
Batch #:		7333629 (Sample)		7333629 (Duplicate)			
Gamma Cs-137 & Hits by DOE GA-01-R MOD. pCi/g GA-01-R MOD F7K210313-001							
Americium 241	0.07	U	0.16	0.18	U	0.16	91 %RPD
Cesium 137	-0.024	U	0.094	-0.02	U	0.27	21 %RPD
Thorium 232	1.10		0.30	0.92	J	0.27	18 %RPD
Uranium 235	0.11	U	0.40	0.27	U	0.31	85 %RPD
Uranium 238	1.1	U	1.3	2.20		0.97	63 %RPD
---Other Dedected Radionuclides---							
Actinium 228	1.10		0.30	0.92		0.27	18 %RPD
Bismuth 214	1.24		0.24	0.86		0.23	37 %RPD
Lead 212	1.43		0.24	1.29		0.23	10 %RPD
Lead 214	1.38		0.23	1.25		0.24	10 %RPD
Potassium 40	19.4		3.0	20.0		2.9	3 %RPD
Thallium 208	0.46		0.12	0.30		0.10	41 %RPD
Batch #:		7334378 (Sample)		7334378 (Duplicate)			
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R MOD F7K210313-003							
Neptunium 237	-0.011	U	0.032	88	0.01	U	0.040 88 4670 %RPD
Batch #:		7338146 (Sample)		7338146 (Duplicate)			
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R F7K210313-003							
Plutonium 238	0.005	U	0.039	90	-0.001	U	0.032 89 340 %RPD
Plutonium 239/40	-0.002	U	0.023	90	0.007	U	0.026 89 361 %RPD
Batch #:		7338148 (Sample)		7338148 (Duplicate)			
ISO URANIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R MOD F7K210313-003							
Uranium 233/234	21.9		3.0	80	18.9		2.7 78 14 %RPD
Uranium 235/236	1.13		0.30	80	1.10		0.29 78 3 %RPD
Uranium 238	6.00		0.95	80	4.43		0.74 78 30 %RPD
Batch #:		7338150 (Sample)		7338150 (Duplicate)			

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210313
 Matrix: SOLID

Date Sampled: 11/15/07
 Date Received: 11/21/07

Parameter	SAMPLE Result	Total Uncert. (2σ+/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ+/-)	% Yld	QC Sample ID Precision
Gamma Cs-137 & Hits by DOE		GA-01-R MOD.	pCi/g	GA-01-R MOD	F7K210313-021		
Americium 241	0.10	U	0.18	0.007	U	0.18	174 %RPD
Cesium 137	0.030	U	0.060	0.004	U	0.063	157 %RPD
Thorium 232	0.97	J	0.26	0.94	J	0.31	3 %RPD
Uranium 235	0.07	U	0.32	0.30	U	0.37	125 %RPD
Uranium 238	1.58	U	0.81	0.6	U	1.4	90 %RPD
---Other Dedected Radionuclides---							
Actinium 228	0.97		0.26	0.94		0.31	3 %RPD
Bismuth 214	1.07		0.22	1.16		0.26	8 %RPD
Lead 212	1.05		0.23	1.64		0.29	44 %RPD
Lead 214	1.55		0.30	1.39		0.26	11 %RPD
Potassium 40	21.9		2.6	20.6		3.1	6 %RPD
Thallium 208	0.43		0.13	0.38		0.12	13 %RPD
Batch #:		7334409 (Sample)		7334409 (Duplicate)			

NOTE(S)

- ata are incomplete without the case narrative.
- Calculations are performed before rounding to avoid round-off error in calculated results
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

F7K210313

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS in LOT: 37

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
1	NB-115-4.5-SL			2007-11-17 / 1012	KCQ90	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q EML	TC-02-RC MOD	TC-99 by L8C by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
2	NB-115-12.5-SL			2007-11-17 / 1023	KCRAH	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
3	NB-116-0.5-SL			2007-11-14 / 855	KCRAN	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H EML	A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I EML	A-01-R	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q EML	TC-02-RC MOD	TC-99 by L8C by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
4	NB-116-4.5-SL			2007-11-14 / 900	KCRAQ	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q EML	TC-02-RC MOD	TC-99 by L8C by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
5	NB-117-4.5-SL			2007-11-15 / 905	KCRAR	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H EML	A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I EML	A-01-R	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
----------	------------------	---------	---------------	-------------------	-----------	---

F7K210313

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC #SMPS in LOT: 37

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

6 NB-116-12.5-SL 2007-11-14 / 920 KCRAW SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
7	NB-117-13.5-SL			2007-11-15 / 923	KCRAX	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
8	NB-118-0.5-SL			2007-11-15 / 1805	KCRA5	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	100 PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	100 URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	100 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
9	NB-118-4.5-SL			2007-11-15 / 1609	KCRCE	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
10	NB-118-10.5-SL			2007-11-15 / 1625	KCRCK	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
11	NB-119-0.5-SL			2007-11-15 / 1700	KCRCN	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	100 PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	100 URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	100 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

F7K210313

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

#SMPS in LOT: 37

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
12	NB-119-2.5-SL			2007-11-15 / 1706	KCRCV	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02- RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
13	NB-119-4.5-SL			2007-11-15 / 1705	KCRCW	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02- RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
14	NB-119-13.5-SL			2007-11-15 / 1730	KCRC0	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
15	NB-109-6-SL			2007-11-15 / 1108	KCRC7	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
16	NB-110-0.6-SL			2007-11-15 / 1307	KCRDG	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	
XX 2H	EML A-01- R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02- RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
17	NB-110-4.5-SL			2007-11-15 / 1308	KCRDH	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	

F7K210313

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS In LOT: 37

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX	0A	EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
----	----	-----	-------------	--	----	-------------------------------	----	------------------	---------	---------	----

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
18	NB-110-5-SL			2007-11-15 / 1331	KCRDK	SOLID

SAMPLE COMMENTS:

XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	0A	EML	GA-01-R MOD	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
19	NB-111-0.5-SL			2007-11-15 / 1429	KCRDN	SOLID

SAMPLE COMMENTS:

XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	0A	EML	GA-01-R MOD	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX	2H	EML	A-01-R	J2	ISO PLUTONIUM (SHORT CT) DDE A-01-R MOD	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	2I	EML	A-01-R MOD	J2	ISO URANIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	2Q	EML	TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	3K	EML	A-01-R MOD	J2	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
20	NB-111-4.5-SL			2007-11-15 / 1434	KCRDR	SOLID

SAMPLE COMMENTS:

XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	0A	EML	GA-01-R MOD	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
21	NB-111-8.5-SL			2007-11-15 / 1440	KCRDT	SOLID

SAMPLE COMMENTS:

XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	0A	EML	GA-01-R MOD	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
22	NB-112-4.5-SL			2007-11-15 / 842	KCRD0	SOLID

SAMPLE COMMENTS:

XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	0A	EML	GA-01-R MOD	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
23	BD-41-4.5-SL			2007-11-09 / 825	KCRD5	SOLID

SAMPLE COMMENTS:

XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX	0A	EML	GA-01-R MOD	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX	2Q	EML	TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A	WRK LOC	06

F7K210313

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS in LOT: 37

Gemma Library MUST contain U-238, U-235, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
24	BD-41-6-SL			2007-11-09 / 830	KCREE	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HITS by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	08

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
25	BD-24-0.5-SL			2007-11-20 / 955	KCREN	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HITS by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
26	BD-24-2.5-SL			2007-11-20 / 1000	KCREQ	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HITS by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
27	BD-24-4.5-SL			2007-11-20 / 1000	KCRET	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HITS by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
28	BD-24-13-SL			2007-11-20 / 1015	KCRE0	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HITS by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
29	NB-113-19.5-SL			2007-11-20 / 1110	KCRE3	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06

F7K210313

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS in LOT: 37

Gamma Library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX 0A EML GA-01-R MOD Gamma Cs-137 & HIs by DOE GA-01-R MOD. G6 Dry, Grind, and Fill Geometry 2X SPECIAL PROJECTS PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
30	NB-87-4.5-SL			2007-11-09 / 1000	KCRE9	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
31	NB-87-18-SL			2007-11-09 / 1020	KCRFC	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
32	NB-88-0.5-SL			2007-11-16 / 855	KCRFG	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 2Q	EML TC-02-RC MOD	TC-98 by LSC by DOE TC-02-RC Mod.	IM TC-98 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
33	NB-88-4.5-SL			2007-11-16 / 900	KCRFL	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
34	NB-88-20-SL			2007-11-16 / 912	KCRFN	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
35	NB-89-0.5-SL			2007-11-13 / 1000	KCRFR	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	

F7K210313

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS in LOT: 37

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX 2I	EML	A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	08
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
36	NB-89-4.5-SL			2007-11-13 / 1005	KCRFX	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
37	NB-89-19.5-SL			2007-11-13 / 1025	KCRF2	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Doane Quaque
 Address: _____ Telephone Number: 865-368-9477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: 96-07
 Page: 16 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis (Attach list if more space is needed)				
Isotopic Te-99	Isotopic U	Isotopic Pu	Isotopic Np	
✓	✓	✓	✓	
✓	✓	✓	✓	
✓	✓	✓	✓	
✓	✓	✓	✓	
✓	✓	✓	✓	
✓	✓	✓	✓	

Sample ID Number	Date	Time	Matrix				Containers & Preservatives										
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc2	NaOH				
NB-115-4.5-SL	11-17-07	1012				✓											
NB-115-18.5-SL	11-17-07	1023				✓											
NB-116-0.5-SL	11-14-07	0855				✓											
NB-116-4.5-SL	11-14-07	0900				✓											
NB-117-4.5-SL	11-15-07	0905				✓											
NB-116-12.5-SL	11-14-07	0920				✓											
NB-117-13.5-SL	11-15-07	0923				✓											
NB-118-0.5-SL	11-15-07	1405				✓											

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 28 days Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:20</u>	<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quayle
 Address: _____ Telephone Number: 865-368-7477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: SC-01
 Page: 17 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis				
(Attach list if more space is needed)				
SPIC	Isotopic Tc-99	Isotopic U	Isotopic Pu	Isotopic Np
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓

Sample ID Number	Date	Time	Matrix				Containers & Preservatives									
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH			
NB-118-4.5-SL	11-15-07	11609				✓										
NB-118-10.5-SL	11-15-07	11825				✓										
NB-119-0.5-SL	11-15-07	1700				✓										
NB-119-2.5-SL	11-15-07	1705				✓										
NB-119-4.5-SL	11-15-07	1705				✓										
NB-119-13.5-SL	11-15-07	1730				✓										

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 20 days Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:20</u>	<u>Amyla B. [Signature]</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quayle
 Address: _____ Telephone Number: 865-368-7477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: 9C-01
 Page: 18 of 28

Project Name: Nematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Sample ID Number	Date	Time	Matrix				Containers & Preservatives							Analysis (Attach list if more space is needed)					
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH	X spec	Isotopic Te-99	Isotopic U	Isotopic Pu	Isotopic Np	
NB-109-5-SL	11-15-07	1108				✓													
NB-110-0.5-SL	11-15-07	1307				✓													
NB-110-4.5-SL	11-15-07	1308				✓													
NB-110-5-SL	11-15-07	1331				✓													
NB-111-0.5-SL	11-15-07	1429				✓													
NB-111-4.5-SL	11-15-07	1434				✓													
NB-111-8.5-SL	11-15-07	1440				✓													
NB-112-4.5-SL	11-15-07	0942				✓													

Possible Hazard Identification

- Non-haz.
- Radioactive
- Flammable
- Skin Irritant
- Unknown

Sample Disposal

- Return to client
- Disposal by lab
- Archive for ___ months

- Turn Around Time
- 24 hrs
 - 48 hrs
 - 7 days
 - 14 days
 - 20days

Comments: _____

	Date	Time	Received by:	Date	Time
Relinquished by:	11/21/07	11:30	Duane Quayle	11/21/07	11:30
Relinquished by:					
Relinquished by:					

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Dwaine Quayle
 Address: _____ Telephone Number: 865-368-7477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: SC-01
 Page: 19 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis				
(Attach list if more space is needed)				
Isotopic Te-99				
Isotopic U				
Isotopic Pu				
Isotopic Np				

Sample ID Number	Date	Time	Matrix				Containers & Preservatives											
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	LiOH					
BD-41-4.5-SL	11-9-07	0825				✓												
BD-41-6-SL	11-9-07	0830				✓												
BD-24-0.5-SL	11-20-07	0955				✓												
BD-24-2.5-SL	11-20-07	1000				✓												
BD-24-4.5-SL	11-20-07	1000				✓												
BD-24-13-SL	11-20-07	1015				✓												
NB-113-19.5-SL	11-17-07	1110				✓												

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 28 days Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>	<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quayle Date: 11/21/07
 Address: _____ Telephone Number: 865-368-9747 CoC Number: 5C-01
 City: _____ Site Contact: _____ Page: 20 of 28
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Project Name: Hematite Characterization
 Project Location: Festus, MO
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives							X SPEC	Isotope: U	Isotope: Pu	Isotope: Np	
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH					
NB-07-4.5-SL	11/9/07	1000				✓												
NB-07-18-SL	11/9/07	1020				✓												
NB-88-05-SL	11/10/07	0855				✓												
NB-88-4.5-SL	11/10/07	0900				✓												
NB-88-20-SL	11/10/07	0912				✓												
NB-89-0.5-SL	11/13/07	1000				✓												
NB-89-4.5-SL	11/13/07	1005				✓												
NB-89-19.5-SL	11/13/07	1025				✓												

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 20 days

Other: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>	<u>Charles B. Don</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		



ANALYTICAL REPORT

PROJECT NO. 313010.202

Hematite Site

Lot #: F7K210337

Paul Ely

Energy Solutions, LLC
1009 Commerce Park Drive
Suite 100
Oak Ridge, TN 37830

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Ivan Vania", is written above the printed name and title.

Ivan Vania
Project Manager

December 26, 2007

Case Narrative
LOT NUMBER: F7K210337

This report contains the analytical results for the 39 samples received under chain of custody by TestAmerica St. Louis on November 21, 2007. These samples are associated with your Hematite Site project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Isotopic Uranium by Alpha Spectroscopy (EML A-01-R MOD)

The Uranium sample required an additional dilution due to high activity. The sample was re-prepared and reanalyzed. The reanalyzed Uranium-234 RPD is not within method acceptance criteria. The sample is heterogeneous. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F7K210337 (35): NB-101-2.5-SL

Gamma Spectroscopy - Cesium-137 & Hits (EML GA-01-R MOD)

The Uranium-238 reporting limit was not met due to the high activity of the sample.

Affected Samples:

F7K210337 (36): NB-101-4.5-SL

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F7K210337

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EML GA-01-R MOD	
Isotopic Plutonium by Alpha Spectroscopy	EML A-01-R	
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Neptunium by Alpha Spectroscopy	EML A-01-R MOD	
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

SAMPLE SUMMARY

F7K210337

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KCRG9	001	NB-90-4.5-SL	11/09/07	10:30
KCRHE	002	NB-90-11.5-SL	11/09/07	10:40
KCRHG	003	NB-91-0.5-SL	11/16/07	10:48
KCRHL	004	NB-91-4.5-SL	11/16/07	10:55
KCRHP	005	NB-91-6.5-SL	11/16/07	11:07
KCRHR	006	NB-92-4.5-SL	11/09/07	13:00
KCRHO	007	NB-92-11-SL	11/09/07	13:15
KCRH3	008	NB-93-0.5-SL	11/16/07	13:20
KCRH4	009	NB-93-4.5-SL	11/16/07	13:28
KCRH6	010	NB-93-15-SL	11/16/07	13:39
KCRH8	011	NB-94-4.5-SL	11/09/07	13:40
KCRJD	012	NB-94-15-SL	11/09/07	13:55
KCRJJ	013	NB-95-4.5-SL	11/09/07	14:55
KCRJP	014	NB-95-16.5-SL	11/09/07	15:10
KCRJR	015	NB-96-0.5-SL	11/16/07	14:00
KCRJV	016	NB-96-4.5-SL	11/16/07	14:08
KCRJ2	017	NB-134-0.5-SL	11/16/07	08:35
KCRJ5	018	NB-134-2.5-SL	11/16/07	08:50
KCRKA	019	NB-134-4.5-SL	11/16/07	08:50
KCRKE	020	NB-134-9-SL	11/16/07	09:00
KCRKH	021	NB-135-0.5-SL	11/14/07	17:05
KCRKN	022	NB-135-4.5-SL	11/14/07	17:15
KCRKQ	023	NB-135-15-SL	11/14/07	17:30
KCRKR	024	NB-96-5-SL	11/16/07	14:10
KCRKW	025	NB-97-0.5-SL	11/16/07	14:41
KCRKO	026	NB-97-4.5-SL	11/16/07	14:44
KCRK1	027	NB-97-9.5-SL	11/16/07	14:52
KCRK2	028	NB-98-0.5-SL	11/16/07	15:19
KCRK4	029	NB-98-4.5-SL	11/16/07	15:26
KCRK5	030	NB-98-9-SL	11/16/07	15:36
KCRK6	031	NB-99-4.5-SL	11/09/07	14:20
KCRK8	032	NB-99-13-SL	11/09/07	14:35
KCRLA	033	NB-100-4.5-SL	11/09/07	15:35
KCRLD	034	NB-100-7-SL	11/09/07	15:40
KCRLG	035	NB-101-2.5-SL	11/17/07	09:19
KCRLM	036	NB-101-4.5-SL	11/17/07	09:19

(Continued on next page)

SAMPLE SUMMARY

F7K210337

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KCRLT	037	NB-101-7-SL	11/17/07	09:25
KCRL0	038	NB-102-0.5-SL	11/17/07	07:53
KCRL3	039	NB-102-4.5-SL	11/17/07	08:02

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Energy Solutions, LLC

Client Sample ID: NB-90-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-001
 Work Order: KCRG9
 Matrix: SOLID

Date Collected: 11/09/07 1030
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.09	U	0.17	1.00	0.29	12/01/07	12/07/07
Cesium 137	0.077	U	0.083	1.00	0.13	12/01/07	12/07/07
Thorium 232	0.75	J	0.28	1.00	0.50	12/01/07	12/07/07
Uranium 235	-0.09	U	0.34	1.00	0.59	12/01/07	12/07/07
Uranium 238	0.3	U	1.3	1.0	2.3	12/01/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.75		0.28		0.50	12/01/07	12/07/07
Bismuth 214	0.94		0.23		0.19	12/01/07	12/07/07
Lead 212	1.19		0.29		0.23	12/01/07	12/07/07
Lead 214	1.11		0.23		0.22	12/01/07	12/07/07
Potassium 40	16.3		2.7		1	12/01/07	12/07/07
Thallium 208	0.49		0.12		0.09	12/01/07	12/07/07

NOTE(S)

ts are incomplete without the case narrative.

MDC is determined by instrument performance only.
 Bold results are greater than the MDC

- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-90-11.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-002
 Work Order: KCRHE
 Matrix: SOLID

Date Collected: 11/09/07 1040
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.03	U	0.17	1.00	0.30	12/01/07	12/07/07
Cesium 137	-0.04	U	1.0	1.0	0.2	12/01/07	12/07/07
Thorium 232	0.97	J	0.35	1.00	0.55	12/01/07	12/07/07
Uranium 235	0.13	U	0.40	1.00	0.68	12/01/07	12/07/07
Uranium 238	1.9	U	1.1	1.0	2.3	12/01/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.97		0.35		0.55	12/01/07	12/07/07
Bismuth 214	1.39		0.35		0.27	12/01/07	12/07/07
Lead 212	1.34		0.25		0.20	12/01/07	12/07/07
Lead 214	1.17		0.27		0.30	12/01/07	12/07/07
Potassium 40	10.5		2.5		2.0	12/01/07	12/07/07
Thallium 208	0.32		0.13		0.18	12/01/07	12/07/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-91-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-003
 Work Order: KCRHG
 Matrix: SOLID

Date Collected: 11/16/07 1048
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ /-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.021	U	0.036	1.00	0.063	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.0128	U	0.0098	1.00	0.067	12/07/07	12/17/07
Plutonium 239/40	-0.0037	U	0.0052	1.00	0.048	12/07/07	12/17/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.57		0.44	1.00	0.64	12/12/07	12/17/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	3.45		0.48	1.00	0.06	12/07/07	12/13/07
Uranium 235/236	0.158	J	0.094	1.00	0.057	12/07/07	12/13/07
Uranium 238	0.92	J	0.21	1.00	0.06	12/07/07	12/13/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.004	U	0.11	1.00	0.20	12/01/07	12/07/07
Cesium 137	0.026	U	0.052	1.00	0.090	12/01/07	12/07/07
Thorium 232	0.30	U	0.26	1.00	0.40	12/01/07	12/07/07
Uranium 235	0.11	U	0.28	1.00	0.49	12/01/07	12/07/07
Uranium 238	1	U	1.1	1.0	1.6	12/01/07	12/07/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.58		0.20		0.20	12/01/07	12/07/07
Lead 212	0.44		0.12		0.12	12/01/07	12/07/07
Lead 214	0.62		0.17		0.18	12/01/07	12/07/07
Potassium 40	7.9		1.6		0.7	12/01/07	12/07/07
Thallium 208	0.153		0.072		0.092	12/01/07	12/07/07

NOTE(S)

ata are incomplete without the case narrative.

C is determined by instrument performance only.

Sold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-91-0.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-003X
 Work Order: KCRHG
 Matrix: SOLID

Date Collected: 11/16/07 1048
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.005	U	0.023	1.00	0.059	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.011	U	0.025	1.00	0.083	12/07/07	12/17/07
Plutonium 239/40	0.009	U	0.021	1.00	0.045	12/07/07	12/17/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	3.53		0.48	1.00	0.05	12/07/07	12/13/07
Uranium 235/236	0.137	J	0.085	1.00	0.054	12/07/07	12/13/07
Uranium 238	0.93	J	0.21	1.00	0.06	12/07/07	12/13/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.69		0.43	1.00	0.62	12/12/07	12/17/07

NOTE(S)

ata are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-91-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-004
 Work Order: KCRHL
 Matrix: SOLID

Date Collected: 11/16/07 1055
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346172	Yld % 96
Technetium 99	4.55		0.63	1.00	0.65	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.04	U	0.14	1.00	0.25	12/01/07	12/08/07
Cesium 137	0.031	U	0.057	1.00	0.098	12/01/07	12/08/07
Thorium 232	0.49	J	0.21	1.00	0.38	12/01/07	12/08/07
Uranium 235	1.10		0.40	1.00	0.59	12/01/07	12/08/07
Uranium 238	2.9		1.1	1.0	2.2	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.49		0.21		0.38	12/01/07	12/08/07
Bismuth 214	0.62		0.17		0.22	12/01/07	12/08/07
Lead 212	0.70		0.14		0.14	12/01/07	12/08/07
Lead 214	0.76		0.15		0.18	12/01/07	12/08/07
Potassium 40	11.7		1.8		1.1	12/01/07	12/08/07
Thallium 208	0.208		0.080		0.11	12/01/07	12/08/07
Thorium 234	2.9		1.1		2.2	12/01/07	12/08/07

NOTE(S)

ts are incomplete without the case narrative.

C is determined by instrument performance only.

bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-91-6.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-005
 Work Order: KCRHP
 Matrix: SOLID

Date Collected: 11/16/07 1107
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346172	Yld % 98
Technetium 99	38.0		3.3	1.0	0.6	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.003	U	0.086	1.00	0.15	12/01/07	12/07/07
Cesium 137	0.027	U	0.044	1.00	0.076	12/01/07	12/07/07
Thorium 232	0.45	J	0.18	1.00	0.26	12/01/07	12/07/07
Uranium 235	2.87		0.41	1.00	0.35	12/01/07	12/07/07
Uranium 238	5.88		0.73	1.00	1.1	12/01/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.45		0.18		0.26	12/01/07	12/07/07
Bismuth 214	0.54		0.12		0.09	12/01/07	12/07/07
Lead 212	0.62		0.10		0.09	12/01/07	12/07/07
Lead 214	0.54		0.11		0.09	12/01/07	12/07/07
Potassium 40	10.4		1.5		0.4	12/01/07	12/07/07
Thallium 208	0.120		0.052		0.072	12/01/07	12/07/07
Thorium 234	5.88		0.73		1.1	12/01/07	12/07/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-92-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-006
 Work Order: KCRHR
 Matrix: SOLID

Date Collected: 11/09/07 1300
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.26	U	0.40	1.00	0.65	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.04	U	0.16	1.00	0.27	12/01/07	12/08/07
Cesium 137	0.058	U	0.059	1.00	0.094	12/01/07	12/08/07
Thorium 232	0.58	J	0.20	1.00	0.30	12/01/07	12/08/07
Uranium 235	0.05	U	0.30	1.00	0.52	12/01/07	12/08/07
Uranium 238	0.4	U	1.2	1.0	2.1	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.58		0.20		0.30	12/01/07	12/08/07
Bismuth 212	0.77		0.49		0.71	12/01/07	12/08/07
Bismuth 214	0.85		0.19		0.22	12/01/07	12/08/07
Lead 212	0.64		0.16		0.22	12/01/07	12/08/07
Lead 214	1.04		0.18		0.16	12/01/07	12/08/07
Potassium 40	13.4		1.9		1.0	12/01/07	12/08/07
Thallium 208	0.375		0.092		0.076	12/01/07	12/08/07

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC
Client Sample ID: NB-92-11-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-007
 Work Order: KCRHO
 Matrix: SOLID

Date Collected: 11/09/07 1315
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346172	Yld % 95
Technetium 99	0.22	U	0.40	1.00	0.66	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.08	U	0.15	1.00	0.26	12/01/07	12/08/07
Cesium 137	-0.018	U	0.095	1.00	0.17	12/01/07	12/08/07
Thorium 232	1.28		0.45	1.00	0.55	12/01/07	12/08/07
Uranium 235	0.18	U	0.46	1.00	0.78	12/01/07	12/08/07
Uranium 238	1.97	U	0.99	1.00	2.4	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.28		0.45		0.55	12/01/07	12/08/07
Bismuth 214	1.36		0.29		0.20	12/01/07	12/08/07
Lead 212	1.25		0.26		0.22	12/01/07	12/08/07
Lead 214	1.18		0.25		0.25	12/01/07	12/08/07
Potassium 40	18.3		3.1		1.2	12/01/07	12/08/07
Thallium 208	0.65		0.15		0.1	12/01/07	12/08/07

NOTE(S)

- ata are incomplete without the case narrative.
- MC is determined by instrument performance only.
- bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-93-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-008
 Work Order: KCRH3
 Matrix: SOLID

Date Collected: 11/16/07 1320
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.005	U	0.025	1.00	0.064	12/07/07	12/13/07
Batch # 7341092 Yld % 80							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.005	U	0.045	1.00	0.098	12/07/07	12/14/07
Plutonium 239/40	0.0006	U	0.022	1.00	0.064	12/07/07	12/14/07
Batch # 7341133 Yld % 90							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	3.55		0.55	1.00	0.64	12/12/07	12/17/07
Batch # 7346172 Yld % 98							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	6.66		0.78	1.00	0.07	12/07/07	12/13/07
Uranium 235/236	0.27	J	0.12	1.00	0.04	12/07/07	12/13/07
Uranium 238	1.50		0.29	1.00	0.05	12/07/07	12/13/07
Batch # 7341138 Yld % 84							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.035	U	0.096	1.00	0.17	12/01/07	12/08/07
Cesium 137	-0.02	U	0.36	1.00	0.13	12/01/07	12/08/07
Thorium 232	0.37	U	0.21	1.00	0.43	12/01/07	12/08/07
Uranium 235	0.26	U	0.24	1.00	0.38	12/01/07	12/08/07
Uranium 238	1.30		0.60	1.00	1.3	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.59		0.16		0.14	12/01/07	12/08/07
Lead 212	0.57		0.13		0.10	12/01/07	12/08/07
Lead 214	0.42		0.14		0.21	12/01/07	12/08/07
Potassium 40	6.9		1.8		1.6	12/01/07	12/08/07
Thallium 208	0.134		0.078		0.11	12/01/07	12/08/07
Thorium 234	1.30		0.60		1.3	12/01/07	12/08/07

NOTE(S)

- Results are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-93-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-009
 Work Order: KCRH4
 Matrix: SOLID

Date Collected: 11/16/07 1328
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346172	Yld % 90
Technetium 99	3.35		0.57	1.00	0.69	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.04	U	0.15	1.00	0.25	12/01/07	12/08/07
Cesium 137	0.018	U	0.056	1.00	0.098	12/01/07	12/08/07
Thorium 232	0.62	J	0.21	1.00	0.37	12/01/07	12/08/07
Uranium 235	0.95	J	0.36	1.00	0.45	12/01/07	12/08/07
Uranium 238	1.22	U	0.69	1.00	2.3	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.62		0.21		0.37	12/01/07	12/08/07
Bismuth 212	0.74		0.49		0.72	12/01/07	12/08/07
Bismuth 214	1.20		0.29		0.22	12/01/07	12/08/07
Lead 212	0.92		0.17		0.16	12/01/07	12/08/07
Lead 214	1.20		0.22		0.21	12/01/07	12/08/07
Potassium 40	15.3		2.1		1.0	12/01/07	12/08/07
Thallium 208	0.316		0.082		0.075	12/01/07	12/08/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-93-15-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-010
 Work Order: KCRH6
 Matrix: SOLID

Date Collected: 11/16/07 1339
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346172	Yld % 104
Technetium 99	0.39	U	0.37	1.00	0.60	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.08	U	0.20	1.00	0.34	12/01/07	12/08/07
Cesium 137	0.066	U	0.086	1.00	0.14	12/01/07	12/08/07
Thorium 232	1.16		0.32	1.00	0.47	12/01/07	12/08/07
Uranium 235	-0.19	U	0.60	1.00	0.73	12/01/07	12/08/07
Uranium 238	3.1		1.1	1.0	2.3	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.16		0.32		0.47	12/01/07	12/08/07
Bismuth 214	1.03		0.24		0.24	12/01/07	12/08/07
Lead 212	1.57		0.37		0.30	12/01/07	12/08/07
Lead 214	1.13		0.21		0.29	12/01/07	12/08/07
Potassium 40	19.2		2.7		1.4	12/01/07	12/08/07
Thallium 208	0.49		0.12		0.09	12/01/07	12/08/07
Thorium 234	3.1		1.1		2.3	12/01/07	12/08/07

NOTE(S)

ta are incomplete without the case narrative.

MDC is determined by instrument performance only.
 Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-94-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-011
 Work Order: KCRH8
 Matrix: SOLID

Date Collected: 11/09/07 1340
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.001	U	0.021	1.00	0.062	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.039	U	0.051	1.00	0.079	12/07/07	12/14/07
Plutonium 239/40	-0.0112	U	0.0092	1.00	0.065	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.53		0.28	1.00	0.06	12/07/07	12/13/07
Uranium 235/236	0.132	J	0.080	1.00	0.032	12/07/07	12/13/07
Uranium 238	0.81	J	0.19	1.00	0.03	12/07/07	12/13/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.04	U	0.12	1.00	0.20	12/01/07	12/08/07
Cesium 137	0.048	U	0.084	1.00	0.14	12/01/07	12/08/07
Thorium 232	0.64	J	0.26	1.00	0.45	12/01/07	12/08/07
Uranium 235	0.12	U	0.32	1.00	0.55	12/01/07	12/08/07
Uranium 238	0.7	U	1.1	1.0	1.8	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.64		0.26		0.45	12/01/07	12/08/07
Bismuth 214	0.87		0.20		0.13	12/01/07	12/08/07
Lead 212	0.74		0.18		0.17	12/01/07	12/08/07
Lead 214	0.81		0.20		0.16	12/01/07	12/08/07
Potassium 40	10.9		2.1		1	12/01/07	12/08/07
Thallium 208	0.319		0.094		0.071	12/01/07	12/08/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-94-15-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-012
 Work Order: KCRJD
 Matrix: SOLID

Date Collected: 11/09/07 1355
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.003	U	0.080	1.00	0.14	12/01/07	12/07/07
Cesium 137	-0.039	U	0.098	1.00	0.13	12/01/07	12/07/07
Thorium 232	0.86	J	0.20	1.00	0.37	12/01/07	12/07/07
Uranium 235	0.14	U	0.21	1.00	0.34	12/01/07	12/07/07
Uranium 238	0.91	U	0.47	1.00	1.2	12/01/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	0.86		0.20		0.37	12/01/07	12/07/07
Bismuth 214	0.91		0.19		0.14	12/01/07	12/07/07
Lead 212	1.13		0.15		0.12	12/01/07	12/07/07
Lead 214	1.13		0.18		0.12	12/01/07	12/07/07
Potassium 40	17.7		2.3		0.4	12/01/07	12/07/07
Thallium 208	0.41		0.10		0.08	12/01/07	12/07/07

NOTE(S)

Data are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-95-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-013
 Work Order: KCRJJ
 Matrix: SOLID

Date Collected: 11/09/07 1455
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341092	Yld % 95
Neptunium 237	-0.016	U	0.011	1.00	0.074	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341133	Yld % 86
Plutonium 238	-0.026	U	0.015	1.00	0.090	12/07/07	12/14/07
Plutonium 239/40	-0.0040	U	0.0057	1.00	0.053	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341138	Yld % 82
Uranium 233/234	2.22		0.37	1.00	0.07	12/07/07	12/13/07
Uranium 235/236	0.067	U	0.065	1.00	0.071	12/07/07	12/13/07
Uranium 238	0.91	J	0.22	1.00	0.08	12/07/07	12/13/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	-0.05	U	0.36	1.00	0.32	12/01/07	12/08/07
Cesium 137	-0.02	U	0.27	1.00	0.15	12/01/07	12/08/07
Thorium 232	0.91	J	0.29	1.00	0.45	12/01/07	12/08/07
Uranium 235	0.33	U	0.38	1.00	0.62	12/01/07	12/08/07
Uranium 238	1.16	U	0.72	1.00	2.0	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.91		0.29		0.45	12/01/07	12/08/07
Bismuth 214	1.04		0.25		0.20	12/01/07	12/08/07
Lead 212	0.99		0.20		0.18	12/01/07	12/08/07
Lead 214	1.09		0.23		0.17	12/01/07	12/08/07
Potassium 40	15.0		2.6		1.6	12/01/07	12/08/07
Thallium 208	0.49		0.13		0.1	12/01/07	12/08/07

NOTE(S)

ta are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-95-16.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-014
 Work Order: KCRJP
 Matrix: SOLID

Date Collected: 11/09/07 1510
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.09	U	0.17	1.00	0.28	12/01/07	12/08/07
Cesium 137	-0.02	U	0.12	1.00	0.14	12/01/07	12/08/07
Thorium 232	1.16		0.32	1.00	0.50	12/01/07	12/08/07
Uranium 235	0.13	U	0.42	1.00	0.71	12/01/07	12/08/07
Uranium 238	0.06	U	1.4	1.0	2.4	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.16		0.32		0.50	12/01/07	12/08/07
Bismuth 212	1.17		0.70		0.98	12/01/07	12/08/07
Bismuth 214	1.23		0.25		0.15	12/01/07	12/08/07
Lead 212	1.93		0.31		0.22	12/01/07	12/08/07
Lead 214	0.97		0.22		0.22	12/01/07	12/08/07
Potassium 40	20.0		3.0		0.7	12/01/07	12/08/07
Thallium 208	0.44		0.13		0.15	12/01/07	12/08/07

NOTE(S)

- Results are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC
 U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-96-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-015
 Work Order: KCRJR
 Matrix: SOLID

Date Collected: 11/16/07 1400
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341092	Yld % 90
Neptunium 237	-0.005	U	0.023	1.00	0.073	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341133	Yld % 94
Plutonium 238	0.013	U	0.030	1.00	0.059	12/07/07	12/14/07
Plutonium 239/40	0.0006	U	0.022	1.00	0.063	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346172	Yld % 101
Technetium 99	0.89	J	0.40	1.00	0.62	12/12/07	12/17/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341138	Yld % 88
Uranium 233/234	2.31		0.37	1.00	0.06	12/07/07	12/13/07
Uranium 235/236	0.181	J	0.099	1.00	0.056	12/07/07	12/13/07
Uranium 238	0.63	J	0.17	1.00	0.04	12/07/07	12/13/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	0.003	U	0.066	1.00	0.12	12/01/07	12/08/07
Cesium 137	-0.027	U	0.060	1.00	0.10	12/01/07	12/08/07
Thorium 232	0.17	U	0.18	1.00	0.27	12/01/07	12/08/07
Uranium 235	0.13	U	0.22	1.00	0.38	12/01/07	12/08/07
Uranium 238	0.21	U	0.60	1.00	1.2	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.33		0.13		0.16	12/01/07	12/08/07
Lead 212	0.349		0.087		0.076	12/01/07	12/08/07
Lead 214	0.202		0.095		0.13	12/01/07	12/08/07
Potassium 40	3.9		1.0		0.5	12/01/07	12/08/07

NOTE(S)

ta are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-96-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-016
 Work Order: KCRJV
 Matrix: SOLID

Date Collected: 11/16/07 1408
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346172	Yld % 100
Technetium 99	1.62		0.44	1.00	0.63	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335109	Yld %
Americium 241	-0.06	U	0.18	1.00	0.30	12/01/07	12/08/07
Cesium 137	-0.014	U	0.060	1.00	0.11	12/01/07	12/08/07
Thorium 232	0.52	J	0.21	1.00	0.45	12/01/07	12/08/07
Uranium 235	0.61	U	0.40	1.00	0.63	12/01/07	12/08/07
Uranium 238	3.2		1.3	1.0	2.4	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.52		0.21		0.45	12/01/07	12/08/07
Bismuth 214	0.90		0.22		0.27	12/01/07	12/08/07
Lead 212	0.96		0.26		0.22	12/01/07	12/08/07
Lead 214	1.03		0.21		0.17	12/01/07	12/08/07
Potassium 40	14.3		2.1		1.2	12/01/07	12/08/07
Thallium 208	0.39		0.10		0.09	12/01/07	12/08/07
Thorium 234	3.2		1.3		2.4	12/01/07	12/08/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-134-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-017
 Work Order: KCRJ2
 Matrix: SOLID

Date Collected: 11/16/07 0835
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.011	U	0.032	1.00	0.067	12/07/07	12/13/07
Batch # 7341092 Yld % 87							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.011	U	0.064	1.00	0.13	12/07/07	12/14/07
Plutonium 239/40	0.028	U	0.047	1.00	0.080	12/07/07	12/14/07
Batch # 7341133 Yld % 80							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.28	U	0.38	1.00	0.62	12/12/07	12/17/07
Batch # 7346172 Yld % 102							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.96		0.92	1.00	0.04	12/07/07	12/13/07
Uranium 235/236	0.049	J	0.049	1.00	0.033	12/07/07	12/13/07
Uranium 238	0.71	J	0.18	1.00	0.03	12/07/07	12/13/07
Batch # 7341138 Yld % 87							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.01	U	0.10	1.00	0.18	12/01/07	12/08/07
Cesium 137	0.176	J	0.063	1.00	0.052	12/01/07	12/08/07
Thorium 232	0.56	J	0.17	1.00	0.24	12/01/07	12/08/07
Uranium 235	0.10	U	0.26	1.00	0.45	12/01/07	12/08/07
Uranium 238	0.35	U	0.80	1.00	1.4	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.56		0.17		0.24	12/01/07	12/08/07
Bismuth 214	0.63		0.14		0.15	12/01/07	12/08/07
Lead 212	0.85		0.21		0.17	12/01/07	12/08/07
Lead 214	0.78		0.14		0.13	12/01/07	12/08/07
Potassium 40	22.3		2.3		0.7	12/01/07	12/08/07
Thallium 208	0.313		0.077		0.059	12/01/07	12/08/07

NOTE(S)

Its are incomplete without the case narrative.

JC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-134-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-018
 Work Order: KCRJ5
 Matrix: SOLID

Date Collected: 11/16/07 0850
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (± σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.44		0.45	1.00	0.67	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.06	U	0.13	1.00	0.23	12/01/07	12/08/07
Cesium 137	0.042	U	0.064	1.00	0.11	12/01/07	12/08/07
Thorium 232	0.59	J	0.27	1.00	0.26	12/01/07	12/08/07
Uranium 235	0.17	U	0.33	1.00	0.56	12/01/07	12/08/07
Uranium 238	0.7	U	1.1	1.0	1.8	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.59		0.27		0.26	12/01/07	12/08/07
Bismuth 214	0.67		0.22		0.24	12/01/07	12/08/07
Lead 212	0.67		0.15		0.14	12/01/07	12/08/07
Lead 214	0.74		0.19		0.23	12/01/07	12/08/07
Potassium 40	13.3		2.5		1.1	12/01/07	12/08/07
Thallium 208	0.137		0.082		0.12	12/01/07	12/08/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.18		0.24	1.00	0.06	12/07/07	12/13/07
Uranium 235/236	0.052	J	0.052	1.00	0.035	12/07/07	12/13/07
Uranium 238	0.87	J	0.20	1.00	0.05	12/07/07	12/13/07

NOTE(S)

Results are incomplete without the case narrative.

RL is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-134-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-019
 Work Order: KCRKA
 Matrix: SOLID

Date Collected: 11/16/07 0850
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.19	U	0.39	1.00	0.64	12/12/07	12/17/07
Batch # 7346172 Yld % 97							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.12	U	0.23	1.00	0.39	12/01/07	12/08/07
Cesium 137	0.02	U	0.11	1.00	0.19	12/01/07	12/08/07
Thorium 232	0.86	J	0.33	1.00	0.59	12/01/07	12/08/07
Uranium 235	-0.003	U	0.41	1.00	0.73	12/01/07	12/08/07
Uranium 238	3.6		1.4	1.0	2.5	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.86		0.33		0.59	12/01/07	12/08/07
Bismuth 214	1.72		0.34		0.21	12/01/07	12/08/07
Lead 212	1.38		0.27		0.22	12/01/07	12/08/07
Lead 214	1.48		0.26		0.23	12/01/07	12/08/07
Potassium 40	21.8		3.5		1.3	12/01/07	12/08/07
Thallium 208	0.58		0.17		0.13	12/01/07	12/08/07
Thorium 234	3.6		1.4		2.5	12/01/07	12/08/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-134-4.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-019X
 Work Order: KCRKA
 Matrix: SOLID

Date Collected: 11/16/07 0850
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	-0.05	U	0.63	1.00	0.39	12/01/07	12/08/07
Cesium 137	-0.01	U	0.12	1.00	0.16	12/01/07	12/08/07
Thorium 232	1.07		0.40	1.00	0.66	12/01/07	12/08/07
Uranium 235	-0.05	U	4.7	1.0	0.8	12/01/07	12/08/07
Uranium 238	3.8		2.5	1.0	2.8	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.07		0.40		0.66	12/01/07	12/08/07
Bismuth 214	1.88		0.41		0.31	12/01/07	12/08/07
Lead 212	1.76		0.30		0.24	12/01/07	12/08/07
Lead 214	1.87		0.30		0.25	12/01/07	12/08/07
Potassium 40	21.2		3.3		0.8	12/01/07	12/08/07
Thallium 208	0.70		0.17		0.12	12/01/07	12/08/07
Thorium 234	3.8		2.5		2.8	12/01/07	12/08/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.

bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-134-9-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-020
 Work Order: KCRKE
 Matrix: SOLID

Date Collected: 11/16/07 0900
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.27	U	0.41	1.00	0.67	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.07	U	0.18	1.00	0.30	12/01/07	12/08/07
Cesium 137	-0.03	U	0.60	1.00	0.19	12/01/07	12/08/07
Thorium 232	0.96	J	0.33	1.00	0.57	12/01/07	12/08/07
Uranium 235	0.18	U	0.42	1.00	0.72	12/01/07	12/08/07
Uranium 238	2.8		1.2	1.0	2.4	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.96		0.33		0.57	12/01/07	12/08/07
Bismuth 214	2.60		0.37		0.16	12/01/07	12/08/07
Lead 212	1.19		0.20		0.17	12/01/07	12/08/07
Lead 214	2.06		0.30		0.22	12/01/07	12/08/07
Potassium 40	24.0		3.4		1.3	12/01/07	12/08/07
Thallium 208	0.43		0.12		0.10	12/01/07	12/08/07
Thorium 234	2.8		1.2		2.4	12/01/07	12/08/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-135-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-021
 Work Order: KCRKH
 Matrix: SOLID

Date Collected: 11/14/07 1705
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	-0.03	U	0.96	1.00	0.31	12/01/07	12/08/07
Cesium 137	0.10	U	0.11	1.00	0.18	12/01/07	12/08/07
Thorium 232	0.81	J	0.29	1.00	0.47	12/01/07	12/08/07
Uranium 235	-0.12	U	0.78	1.00	0.73	12/01/07	12/08/07
Uranium 238	0.5	U	1.4	1.0	2.4	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.81		0.29		0.47	12/01/07	12/08/07
Bismuth 214	1.51		0.28		0.17	12/01/07	12/08/07
Lead 212	1.14		0.20		0.16	12/01/07	12/08/07
Lead 214	1.13		0.22		0.27	12/01/07	12/08/07
Potassium 40	19.8		3.0		0.7	12/01/07	12/08/07
Thallium 208	0.44		0.12		0.09	12/01/07	12/08/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341092	Yld % 98
Neptunium 237	0.0006	U	0.021	1.00	0.060	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341133	Yld % 88
Plutonium 238	-0.014	U	0.011	1.00	0.073	12/07/07	12/14/07
Plutonium 239/40	0.018	U	0.031	1.00	0.053	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341138	Yld % 93
Uranium 233/234	1.03		0.21	1.00	0.04	12/07/07	12/13/07
Uranium 235/236	0.058	J	0.052	1.00	0.031	12/07/07	12/13/07
Uranium 238	0.69	J	0.17	1.00	0.03	12/07/07	12/13/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346172	Yld % 95
Technetium 99	0.22	U	0.40	1.00	0.66	12/12/07	12/17/07

NOTE(S)

ta are incomplete without the case narrative.

LC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-135-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-022
 Work Order: KCRKN
 Matrix: SOLID

Date Collected: 11/14/07 1715
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	0.11	U	0.17	1.00	0.29	12/01/07	12/08/07
Cesium 137	0.0	U	0.084	1.00	0.16	12/01/07	12/08/07
Thorium 232	0.96	J	0.37	1.00	0.53	12/01/07	12/08/07
Uranium 235	0.16	U	0.47	1.00	0.80	12/01/07	12/08/07
Uranium 238	1.98		0.93	1.00	2.0	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.96		0.37		0.53	12/01/07	12/08/07
Bismuth 214	1.26		0.27		0.17	12/01/07	12/08/07
Lead 212	1.28		0.24		0.21	12/01/07	12/08/07
Lead 214	1.25		0.24		0.27	12/01/07	12/08/07
Potassium 40	22.0		3.5		1.2	12/01/07	12/08/07
Thallium 208	0.61		0.13		0.06	12/01/07	12/08/07
Thorium 234	1.98	U	0.93		2.0	12/01/07	12/08/07

NOTE(S)

are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-135-15-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-023
 Work Order: KCRKO
 Matrix: SOLID

Date Collected: 11/14/07 1730
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.01	U	0.11	1.00	0.19	12/01/07	12/08/07
Cesium 137	0.01	U	0.11	1.00	0.21	12/01/07	12/08/07
Thorium 232	0.79	U	0.38	1.00	0.81	12/01/07	12/08/07
Uranium 235	0.48	U	0.35	1.00	0.55	12/01/07	12/08/07
Uranium 238	1.44	U	0.84	1.00	1.8	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Bismuth 214	1.07		0.33		0.31	12/01/07	12/08/07
Lead 212	0.93		0.24		0.29	12/01/07	12/08/07
Lead 214	1.09		0.24		0.36	12/01/07	12/08/07
Potassium 40	12.6		3.1		2.7	12/01/07	12/08/07
Thallium 208	0.29		0.15		0.22	12/01/07	12/08/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-96-5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-024
 Work Order: KCRKR
 Matrix: SOLID

Date Collected: 11/16/07 1410
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.99		0.49	1.00	0.68	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.05	U	0.10	1.00	0.17	12/01/07	12/08/07
Cesium 137	-0.006	U	0.26	1.00	0.15	12/01/07	12/08/07
Thorium 232	0.87	J	0.24	1.00	0.34	12/01/07	12/08/07
Uranium 235	0.52	J	0.27	1.00	0.41	12/01/07	12/08/07
Uranium 238	1.97		0.69	1.00	1.3	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.87		0.24		0.34	12/01/07	12/08/07
Bismuth 214	0.67		0.19		0.24	12/01/07	12/08/07
Lead 212	0.94		0.16		0.14	12/01/07	12/08/07
Lead 214	0.78		0.17		0.18	12/01/07	12/08/07
Potassium 40	16.0		2.2		0.5	12/01/07	12/08/07
Thallium 208	0.284		0.085		0.080	12/01/07	12/08/07
Thorium 234	1.97		0.69		1.3	12/01/07	12/08/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-97-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-025
 Work Order: KCRKW
 Matrix: SOLID

Date Collected: 11/16/07 1441
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0075	U	0.0076	1.00	0.058	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.01	U	0.039	1.00	0.083	12/07/07	12/14/07
Plutonium 239/40	0.009	U	0.021	1.00	0.045	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.36		0.42	1.00	0.61	12/12/07	12/17/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	8.9		1.0	1.0	0.08	12/07/07	12/13/07
Uranium 235/236	0.46	J	0.17	1.00	0.04	12/07/07	12/13/07
Uranium 238	1.57		0.31	1.00	0.06	12/07/07	12/13/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.09	U	0.18	1.00	0.31	12/01/07	12/08/07
Cesium 137	0.037	U	0.073	1.00	0.13	12/01/07	12/08/07
Thorium 232	0.78	J	0.28	1.00	0.59	12/01/07	12/08/07
Uranium 235	0.45	U	0.41	1.00	0.66	12/01/07	12/08/07
Uranium 238	2.7		1.1	1.0	2.5	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.78		0.28		0.59	12/01/07	12/08/07
Bismuth 214	1.04		0.25		0.24	12/01/07	12/08/07
Lead 212	1.36		0.27		0.22	12/01/07	12/08/07
Lead 214	0.88		0.19		0.25	12/01/07	12/08/07
Potassium 40	14.2		2.5		0.9	12/01/07	12/08/07
Thallium 208	0.40		0.12		0.09	12/01/07	12/08/07
Thorium 234	2.7		1.1		2.5	12/01/07	12/08/07

NOTE(S)

Data are incomplete without the case narrative.

J is determined by instrument performance only.

U Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-97-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-026
 Work Order: KCRK0
 Matrix: SOLID

Date Collected: 11/16/07 1444
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pci/g		Batch # 7346172	Yld % 93
Technetium 99	2.60		0.51	1.00	0.67	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pci/g		Batch # 7335111	Yld %
Americium 241	0.13	U	0.16	1.00	0.26	12/01/07	12/08/07
Cesium 137	-0.012	U	0.094	1.00	0.17	12/01/07	12/08/07
Thorium 232	1.04		0.36	1.00	0.62	12/01/07	12/08/07
Uranium 235	0.22	U	0.46	1.00	0.77	12/01/07	12/08/07
Uranium 238	2.2	U	1.7	1.0	2.7	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.04		0.36		0.62	12/01/07	12/08/07
Bismuth 214	1.24		0.29		0.22	12/01/07	12/08/07
Lead 212	1.58		0.30		0.24	12/01/07	12/08/07
Lead 214	1.27		0.27		0.26	12/01/07	12/08/07
Potassium 40	19.1		3.2		1.2	12/01/07	12/08/07
Thallium 208	0.61		0.13		0.06	12/01/07	12/08/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.
 Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-97-9.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-027
 Work Order: KCRK1
 Matrix: SOLID

Date Collected: 11/16/07 1452
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7346172	Yld % 96
Technetium 99	11.0		1.1	1.0	0.6	12/12/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	-0.08	U	0.31	1.00	0.31	12/01/07	12/08/07
Cesium 137	-0.05	U	1.5	1.0	0.2	12/01/07	12/08/07
Thorium 232	1.08		0.36	1.00	0.60	12/01/07	12/08/07
Uranium 235	-0.05	U	17	1	0.7	12/01/07	12/08/07
Uranium 238	0.8	U	1.4	1.0	2.4	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.08		0.36		0.60	12/01/07	12/08/07
Bismuth 214	1.28		0.30		0.25	12/01/07	12/08/07
Lead 212	1.40		0.24		0.18	12/01/07	12/08/07
Lead 214	1.60		0.33		0.24	12/01/07	12/08/07
Potassium 40	23.0		3.6		0.9	12/01/07	12/08/07
Thallium 208	0.65		0.14		0.08	12/01/07	12/08/07
Thorium 234	0.8	U	1.4		2.4	12/01/07	12/08/07

NOTE(S)

- Results are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-98-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-028
 Work Order: KCRK2
 Matrix: SOLID

Date Collected: 11/16/07 1519
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0075	U	0.0075	1.00	0.058	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.005	U	0.033	1.00	0.078	12/07/07	12/14/07
Plutonium 239/40	0.029	U	0.039	1.00	0.054	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	8.28		0.91	1.00	0.06	12/07/07	12/14/07
Uranium 235/236	0.35	J	0.14	1.00	0.06	12/07/07	12/14/07
Uranium 238	1.76		0.31	1.00	0.06	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.06	U	0.21	1.00	0.35	12/01/07	12/08/07
Cesium 137	0.143	J	0.085	1.00	0.12	12/01/07	12/08/07
Thorium 232	1.04		0.31	1.00	0.39	12/01/07	12/08/07
Uranium 235	0.56	U	0.39	1.00	0.61	12/01/07	12/08/07
Uranium 238	3.0		1.2	1.0	2.6	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.04		0.31		0.39	12/01/07	12/08/07
Bismuth 214	0.87		0.24		0.28	12/01/07	12/08/07
Lead 212	0.88		0.24		0.23	12/01/07	12/08/07
Lead 214	1.14		0.20		0.24	12/01/07	12/08/07
Potassium 40	20.7		3.0		0.9	12/01/07	12/08/07
Thallium 208	0.47		0.11		0.06	12/01/07	12/08/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.02		0.40	1.00	0.62	12/12/07	12/17/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-98-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-029
 Work Order: KCRK4
 Matrix: SOLID

Date Collected: 11/16/07 1526
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	0.08	U	0.14	1.00	0.23	12/01/07	12/08/07
Cesium 137	0.038	U	0.098	1.00	0.17	12/01/07	12/08/07
Thorium 232	1.08		0.37	1.00	0.56	12/01/07	12/08/07
Uranium 235	-0.03	U	0.41	1.00	0.72	12/01/07	12/08/07
Uranium 238	0.8	U	1.6	1.0	2.8	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.08		0.37		0.56	12/01/07	12/08/07
Bismuth 214	1.53		0.34		0.23	12/01/07	12/08/07
Lead 212	0.99		0.22		0.22	12/01/07	12/08/07
Lead 214	1.17		0.27		0.31	12/01/07	12/08/07
Potassium 40	17.7		3.1		1.3	12/01/07	12/08/07
Thallium 208	0.24		0.11		0.14	12/01/07	12/08/07

NOTE(S)

- Results are incomplete without the case narrative.
- C is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-98-9-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-030
 Work Order: KCRK5
 Matrix: SOLID

Date Collected: 11/16/07 1536
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	-0.0002	U	0.073	1.00	0.12	12/01/07	12/08/07
Cesium 137	0.0004	U	0.058	1.00	0.10	12/01/07	12/08/07
Thorium 232	0.83	J	0.21	1.00	0.37	12/01/07	12/08/07
Uranium 235	0.16	U	0.24	1.00	0.40	12/01/07	12/08/07
Uranium 238	1.01		0.47	1.00	0.99	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.83		0.21		0.37	12/01/07	12/08/07
Bismuth 212	1.67		0.63		0.57	12/01/07	12/08/07
Bismuth 214	0.90		0.21		0.21	12/01/07	12/08/07
Lead 212	0.91		0.16		0.17	12/01/07	12/08/07
Lead 214	0.96		0.17		0.19	12/01/07	12/08/07
Potassium 40	17.0		2.1		1.5	12/01/07	12/08/07
Thallium 208	0.38		0.10		0.11	12/01/07	12/08/07
Thorium 234	1.01		0.47		0.99	12/01/07	12/08/07

NOTE(S)

Data are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-99-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-031
 Work Order: KCRK6
 Matrix: SOLID

Date Collected: 11/09/07 1420
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	-0.02	U	1.2	1.0	0.3	12/01/07	12/08/07
Cesium 137	0.011	U	0.078	1.00	0.15	12/01/07	12/08/07
Thorium 232	0.48	J	0.24	1.00	0.45	12/01/07	12/08/07
Uranium 235	-0.02	U	0.90	1.00	0.54	12/01/07	12/08/07
Uranium 238	0.9	U	1.3	1.0	2.1	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.48		0.24		0.45	12/01/07	12/08/07
Bismuth 214	1.06		0.27		0.23	12/01/07	12/08/07
Lead 212	1.26		0.22		0.16	12/01/07	12/08/07
Lead 214	1.20		0.23		0.20	12/01/07	12/08/07
Potassium 40	16.5		2.7		0.7	12/01/07	12/08/07
Thallium 208	0.48		0.13		0.1	12/01/07	12/08/07

NOTE(S)

- ata are incomplete without the case narrative.
- MC is determined by instrument performance only.
- bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-99-13-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-032
 Work Order: KCRK8
 Matrix: SOLID

Date Collected: 11/09/07 1435
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	0.000007	U	0.18	1.00	0.31	12/01/07	12/08/07
Cesium 137	-0.008	U	0.089	1.00	0.16	12/01/07	12/08/07
Thorium 232	1.13		0.39	1.00	0.43	12/01/07	12/08/07
Uranium 235	-0.006	U	0.40	1.00	0.64	12/01/07	12/08/07
Uranium 238	0.7	U	1.6	1.0	2.8	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.13		0.39		0.43	12/01/07	12/08/07
Bismuth 214	0.89		0.28		0.31	12/01/07	12/08/07
Lead 212	1.35		0.25		0.22	12/01/07	12/08/07
Lead 214	1.12		0.23		0.29	12/01/07	12/08/07
Potassium 40	21.0		3.3		1.0	12/01/07	12/08/07
Thallium 208	0.51		0.15		0.12	12/01/07	12/08/07

NOTE(S)

ata are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-100-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-033
 Work Order: KCRLA
 Matrix: SOLID

Date Collected: 11/09/07 1535
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	0.0	U	0.12	1.00	0.22	12/01/07	12/08/07
Cesium 137	0.021	U	0.060	1.00	0.10	12/01/07	12/08/07
Thorium 232	0.42	J	0.19	1.00	0.36	12/01/07	12/08/07
Uranium 235	0.12	U	0.31	1.00	0.54	12/01/07	12/08/07
Uranium 238	1.2	U	1.2	1.0	1.7	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.42		0.19		0.36	12/01/07	12/08/07
Bismuth 214	1.03		0.21		0.22	12/01/07	12/08/07
Lead 212	0.77		0.18		0.18	12/01/07	12/08/07
Lead 214	1.29		0.24		0.18	12/01/07	12/08/07
Potassium 40	11.5		1.7		1.0	12/01/07	12/08/07
Thallium 208	0.400		0.092		0.076	12/01/07	12/08/07

NOTE(S)

ata are incomplete without the case narrative.

C is determined by instrument performance only.

bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-100-7-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-034
 Work Order: KCRLD
 Matrix: SOLID

Date Collected: 11/09/07 1540
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	-0.014	U	0.096	1.00	0.16	12/01/07	12/08/07
Cesium 137	-0.004	U	0.31	1.00	0.10	12/01/07	12/08/07
Thorium 232	0.99	J	0.25	1.00	0.33	12/01/07	12/08/07
Uranium 235	0.23	U	0.23	1.00	0.38	12/01/07	12/08/07
Uranium 238	0.58	U	0.78	1.00	1.3	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.99		0.25		0.33	12/01/07	12/08/07
Bismuth 214	1.36		0.22		0.14	12/01/07	12/08/07
Lead 212	1.09		0.15		0.12	12/01/07	12/08/07
Lead 214	1.63		0.24		0.16	12/01/07	12/08/07
Potassium 40	15.7		2.1		0.4	12/01/07	12/08/07
Thallium 208	0.378		0.097		0.081	12/01/07	12/08/07

NOTE(S)

Results are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-101-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-035
 Work Order: KCRLG
 Matrix: SOLID

Date Collected: 11/17/07 0919
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	44.7		3.9	1.0	0.7	12/13/07	12/18/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.02	U	0.17	1.00	0.29	12/01/07	12/08/07
Cesium 137	0.008	U	0.049	1.00	0.093	12/01/07	12/08/07
Thorium 232	0.20	J	0.16	1.00	0.20	12/01/07	12/08/07
Uranium 235	5.21		0.81	1.00	0.64	12/01/07	12/08/07
Uranium 238	5.1		2.0	1.0	2.2	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.20		0.16		0.20	12/01/07	12/08/07
Bismuth 214	0.33		0.15		0.20	12/01/07	12/08/07
Lead 212	0.254		0.082		0.091	12/01/07	12/08/07
Lead 214	0.38		0.13		0.17	12/01/07	12/08/07
Potassium 40	4.9		1.4		1.1	12/01/07	12/08/07
Thorium 234	5.1		2.0		2.2	12/01/07	12/08/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	151		24	75	4	12/17/07	12/21/07
Uranium 235/236	4.1	J	3.8	75.0	3.6	12/17/07	12/21/07
Uranium 238	12.5	J	6.0	75.0	3.6	12/17/07	12/21/07

NOTE(S)

- ata are incomplete without the case narrative.
- C is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-101-2.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-035X
 Work Order: KCRLG
 Matrix: SOLID

Date Collected: 11/17/07 0919
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7351229	Yld % 106
Uranium 233/234	241		33	75	4	12/17/07	12/22/07
Uranium 235/236	8.6	J	5.6	75.0	3.7	12/17/07	12/22/07
Uranium 238	4.6	J	3.7	75.0	3.4	12/17/07	12/22/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: NB-101-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-036
 Work Order: KCRLM
 Matrix: SOLID

Date Collected: 11/17/07 0919
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7347172	Yld % 91
Technetium 99	77.3		6.7	1.0	0.8	12/13/07	12/18/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	-0.11	U	0.72	1.00	0.78	12/01/07	12/08/07
Cesium 137	-0.05	U	2.0	1.0	0.3	12/01/07	12/08/07
Thorium 232	1.01		0.40	1.00	0.75	12/01/07	12/08/07
Uranium 235	15.1		1.6	1.0	1.3	12/01/07	12/08/07
Uranium 238	49.1		4.9	1.0	5.3	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Bismuth 212	1.54		0.63		0.47	12/01/07	12/08/07
Bismuth 214	1.71		0.37		0.29	12/01/07	12/08/07
Lead 212	1.42		0.27		0.23	12/01/07	12/08/07
Lead 214	1.48		0.31		0.32	12/01/07	12/08/07
Potassium 40	18.1		3.3		1.5	12/01/07	12/08/07
Thorium 234	49.1		4.9		5.3	12/01/07	12/08/07

NOTE(S)

1. Data are incomplete without the case narrative.

2. MDC is determined by instrument performance only.

3. Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-101-7-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-037
 Work Order: KCRLT
 Matrix: SOLID

Date Collected: 11/17/07 0925
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335111	Yld %
Americium 241	-0.003	U	0.039	1.00	0.068	12/01/07	12/08/07
Cesium 137	0.00008	U	0.023	1.00	0.044	12/01/07	12/08/07
Thorium 232	0.20	J	0.13	1.00	0.18	12/01/07	12/08/07
Uranium 235	0.095	U	0.082	1.00	0.19	12/01/07	12/08/07
Uranium 238	0.35	U	0.34	1.00	0.58	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.20		0.13		0.18	12/01/07	12/08/07
Bismuth 214	0.160		0.074		0.097	12/01/07	12/08/07
Lead 212	0.191		0.058		0.073	12/01/07	12/08/07
Lead 214	0.179		0.061		0.061	12/01/07	12/08/07
Potassium 40	4.07		0.83		0.60	12/01/07	12/08/07
Thallium 208	0.064		0.034		0.047	12/01/07	12/08/07

NOTE(S)

ata are incomplete without the case narrative.

C is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-102-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-038
 Work Order: KCRL0
 Matrix: SOLID

Date Collected: 11/17/07 0753
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.035	J	0.041	1.00	0.032	12/07/07	12/13/07
Batch # 7341092 Yld % 84							
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.007	U	0.031	1.00	0.070	12/07/07	12/14/07
Plutonium 239/40	-0.0058	U	0.0067	1.00	0.056	12/07/07	12/14/07
Batch # 7341133 Yld % 86							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	5.64		0.71	1.00	0.68	12/13/07	12/18/07
Batch # 7347172 Yld % 97							
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	27.9		2.6	1.0	0.07	12/07/07	12/14/07
Uranium 235/236	1.01		0.25	1.00	0.04	12/07/07	12/14/07
Uranium 238	2.23		0.36	1.00	0.05	12/07/07	12/14/07
Batch # 7341138 Yld % 87							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.015	U	0.090	1.00	0.15	12/01/07	12/08/07
Cesium 137	-0.002	U	0.053	1.00	0.097	12/01/07	12/08/07
Thorium 232	0.20	U	0.22	1.00	0.39	12/01/07	12/08/07
Uranium 235	0.43	U	0.28	1.00	0.52	12/01/07	12/08/07
Uranium 238	2.17		0.73	1.00	1.4	12/01/07	12/08/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.37		0.16		0.25	12/01/07	12/08/07
Lead 212	0.151	U	0.096		0.15	12/01/07	12/08/07
Lead 214	0.56		0.21		0.23	12/01/07	12/08/07
Potassium 40	3.3		1.2		1.7	12/01/07	12/08/07
Thorium 234	2.17		0.73		1.4	12/01/07	12/08/07

NOTE(S)

ata are incomplete without the case narrative.

C is determined by instrument performance only.

bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-102-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-039
 Work Order: KCRL3
 Matrix: SOLID

Date Collected: 11/17/07 0802
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.67		0.44	1.00	0.64	12/13/07	12/18/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.02	U	0.15	1.00	0.25	12/02/07	12/03/07
Cesium 137	-0.009	U	0.075	1.00	0.14	12/02/07	12/03/07
Thorium 232	0.45	U	0.24	1.00	0.49	12/02/07	12/03/07
Uranium 235	0.18	U	0.37	1.00	0.63	12/02/07	12/03/07
Uranium 238	1.58	U	0.85	1.00	2.0	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.46		0.19		0.28	12/02/07	12/03/07
Lead 212	0.69		0.17		0.19	12/02/07	12/03/07
Lead 214	0.59		0.16		0.23	12/02/07	12/03/07
Potassium 40	11.7		2.0		1.4	12/02/07	12/03/07
Thallium 208	0.122	U	0.083		0.13	12/02/07	12/03/07

NOTE(S)

- ata are incomplete without the case narrative.
- MC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-102-4.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210337-039X
 Work Order: KCRL3
 Matrix: SOLID

Date Collected: 11/17/07 0802
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g	Batch # 7335150		Yld %
Americium 241	-0.04	U	0.13	1.00	0.22	12/02/07	12/03/07
Cesium 137	-0.004	U	0.069	1.00	0.094	12/02/07	12/03/07
Thorium 232	0.41	U	0.23	1.00	0.47	12/02/07	12/03/07
Uranium 235	0.10	U	0.25	1.00	0.42	12/02/07	12/03/07
Uranium 238	0.82	U	0.96	1.00	1.7	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.50		0.20		0.26	12/02/07	12/03/07
Lead 212	0.72		0.18		0.15	12/02/07	12/03/07
Lead 214	0.47		0.14		0.20	12/02/07	12/03/07
Potassium 40	8.4		2.0		1.9	12/02/07	12/03/07
Thallium 208	0.127		0.075		0.11	12/02/07	12/03/07

NOTE(S)

- ata are incomplete without the case narrative.
- IC is determined by instrument performance only.
- bold results are greater than the MDC
- U Result is less than the sample detection limit.

METHOD BLANK REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210337
 Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	Batch #	7335109	Yld %	F7L010000-109B
Americium 241	-0.01	U	0.95	1.00	0.11	12/01/07	12/08/07
Cesium 137	-0.03	U	0.78	1.00	0.13	12/01/07	12/08/07
Thorium 232	0.0	U	0.23	1.00	0.43	12/01/07	12/08/07
Uranium 235	0.02	U	0.13	1.00	0.24	12/01/07	12/08/07
Uranium 238	0.21	U	0.45	1.00	0.86	12/01/07	12/08/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	Batch #	7335111	Yld %	F7L010000-111B
Americium 241	0.009	U	0.046	1.00	0.086	12/01/07	12/08/07
Cesium 137	0.011	U	0.039	1.00	0.073	12/01/07	12/08/07
Thorium 232	0.0	U	0.24	1.00	0.44	12/01/07	12/08/07
Uranium 235	-0.001	U	0.14	1.00	0.25	12/01/07	12/08/07
Uranium 238	0.10	U	0.44	1.00	0.90	12/01/07	12/08/07
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	Batch #	7347172	Yld % 100	F7L130000-172B
Technetium 99	-0.58	U	0.38	1.00	0.66	12/13/07	12/18/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	Batch #	7335150	Yld %	F7L010000-150B
Americium 241	0.007	U	0.050	1.00	0.092	12/02/07	12/03/07
Cesium 137	-0.006	U	0.043	1.00	0.082	12/02/07	12/03/07
Thorium 232	0.0	U	0.037	1.00	0.14	12/02/07	12/03/07
Uranium 235	0.07	U	0.17	1.00	0.29	12/02/07	12/03/07
Uranium 238	-0.13	U	0.69	1.00	0.90	12/02/07	12/03/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	7341092	Yld % 91	F7L070000-092B
Neptunium 237	0.22	J	0.10	1.00	0.07	12/07/07	12/13/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	7341138	Yld % 95	F7L070000-138B
Uranium 233/234	0.067	J	0.053	1.00	0.054	12/07/07	12/14/07
Uranium 235/236	0.046	J	0.046	1.00	0.031	12/07/07	12/14/07
Uranium 238	0.139	J	0.073	1.00	0.025	12/07/07	12/14/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	7341133	Yld % 87	F7L070000-133B
Plutonium 238	-0.016	U	0.012	1.00	0.078	12/07/07	12/14/07
Plutonium 239/40	-0.003	U	0.024	1.00	0.074	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	Batch #	7346172	Yld % 97	F7L120000-172B
Technetium 99	-0.15	U	0.38	1.00	0.64	12/12/07	12/17/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	7351229	Yld % 93	F7L170000-229B
Uranium 233/234	0.019	U	0.029	1.00	0.044	12/17/07	12/20/07
Uranium 235/236	-0.0048	U	0.0068	1.00	0.063	12/17/07	12/20/07
Uranium 238	0.008	U	0.021	1.00	0.044	12/17/07	12/20/07

NOTE(S)

ta are incomplete without the case narrative.

MDC is determined using instrument performance only

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

W Result is less than the sample detection limit.

Laboratory Control Sample Report

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210337
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2σ+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	105	8.3	1.3		102	F7L010000-109C (85 - 118)
Cesium 137	40.0	43.9	2.7	0.4		110	(91 - 120)
Cobalt 60	62.7	64.8	3.9	0.2		103	(91 - 112)
Batch #:		7335109		Analysis Date:		12/08/07	
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	106	8.5	1.5		103	F7L010000-111C (85 - 118)
Cesium 137	40.0	42.3	2.7	0.5		106	(91 - 120)
Cobalt 60	62.7	64.6	3.9	0.2		103	(91 - 112)
Batch #:		7335111		Analysis Date:		12/08/07	
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	106	8.5	1.6		103	F7L010000-150C (85 - 118)
Cesium 137	40.0	43.0	2.7	0.5		107	(91 - 120)
Cobalt 60	62.7	65.2	3.9	0.2		104	(91 - 112)
Batch #:		7335150		Analysis Date:		12/03/07	
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD.							
Neptunium 237	13.3	11.8	1.2	0.04	108	89	F7L070000-092C (75 - 119)
Batch #:		7341092		Analysis Date:		12/13/07	
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD.							
Plutonium 238	6.13	5.88	0.68	0.06	97	96	F7L070000-133C (77 - 112)
Plutonium 239/40	5.77	5.92	0.69	0.04	97	102	(82 - 119)
Batch #:		7341133		Analysis Date:		12/14/07	
ISO URANIUM (SHORT CT) DOE A-01-R MOD.							
Uranium 233/234	19.6	18.4	2.9	0.5	89	94	F7L070000-138C (76 - 128)
Uranium 238	19.6	18.7	2.9	0.5	89	95	(74 - 125)
Batch #:		7341138		Analysis Date:		12/14/07	
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	33.3	29.9	2.6	0.6	104	90	F7L120000-172C (64 - 114)
Batch #:		7346172		Analysis Date:		12/17/07	
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	33.3	27.7	2.5	0.6	109	83	F7L130000-172C (64 - 114)
Batch #:		7347172		Analysis Date:		12/18/07	
ISO URANIUM (SHORT CT) DOE A-01-R MOD.							
Uranium 233/234	19.6	17.7	2.7	0.3	95	90	F7L170000-229C (76 - 128)
Uranium 238	19.6	18.3	2.8	0.2	95	93	(74 - 125)
Batch #:		7351229		Analysis Date:		12/20/07	

**THIS PAGE
IDENTIFIED AND ACCEPTED
AS BLANK
DURING REVIEW BY
HEMATITE DECOMMISSIONING
PROJECT**

*WAB
6/11/2008*

NOTE(S)

MDC is determined by instrument performance only
Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210337
 Matrix: SOLID

Date Sampled: 11/26/07
 Date Received: 11/28/07

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result		Total Uncert. (2σ +/-)	% Yld	QC Sample ID Precision
TC-99 by LSC by DOE TC-02-RC Mod. pCi/g TC-02-RC MOD F7K280316-036									
Technetium 99	-0.72	U	0.45	86	-0.06	U	0.49	81	171 %RPD
	Batch #:		7347172 (Sample)		7347172 (Duplicate)				
Gamma Cs-137 & Hits by DOE GA-01-R MOD. pCi/g GA-01-R MOD F7K210252-022									
Americium 241	0.0	U	0.17		0.01	U	0.17		200 %RPD
Cesium 137	0.025	U	0.070		-0.0008	U	0.080		213 %RPD
Thorium 232	0.99	J	0.25		1.04		0.27		5 %RPD
Uranium 235	0.1	U	0.38		-0.08	U	21		1820 %RPD
Uranium 238	1.8	U	1.0		1.15	U	0.82		46 %RPD
---Other Detected Radionuclides---									
Actinium 228	0.99		0.25		1.04		0.27		5 %RPD
Bismuth 214	1.25		0.23		0.89		0.22		34 %RPD
Lead 212	1.12		0.21		1.49		0.26		29 %RPD
Lead 214	1.16		0.21		1.25		0.24		8 %RPD
Potassium 40	18.5		2.3		20.4		2.8		10 %RPD
Phallium 208	0.49		0.12		0.50		0.13		2 %RPD
	Batch #:		7335109 (Sample)		7335109 (Duplicate)				
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R MOD F7K210337-003									
Neptunium 237	0.021	U	0.036	100	0.005	U	0.023	91	126 %RPD
	Batch #:		7341092 (Sample)		7341092 (Duplicate)				
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R F7K210337-003									
Plutonium 238	-0.0128	U	0.0098	95	-0.011	U	0.025	92	13 %RPD
Plutonium 239/40	-0.0037	U	0.0052	95	0.009	U	0.021	92	501 %RPD
	Batch #:		7341133 (Sample)		7341133 (Duplicate)				
ISO URANIUM (SHORT CT) DOE A-01-R MOD pCi/g A-01-R MOD F7K210337-003									
Uranium 233/234	3.45		0.48	87	3.53		0.48	96	2 %RPD
Uranium 235/236	0.158	J	0.094	87	0.137	J	0.085	96	15 %RPD
Uranium 238	0.92	J	0.21	87	0.93	J	0.21	96	0.8 %RPD
	Batch #:		7341138 (Sample)		7341138 (Duplicate)				
TC-99 by LSC by DOE TC-02-RC Mod. pCi/g TC-02-RC MOD F7K210337-003									
Technetium 99	1.57		0.44	98	1.69		0.43	102	7 %RPD
	Batch #:		7346172 (Sample)		7346172 (Duplicate)				

DUPLICATE EVALUATION REPORT

Seyvern Trent Laboratories - Radiochemistry

Client Lot ID: F7K210337
 Matrix: SOLID

Date Sampled: 11/16/07
 Date Received: 11/21/07

Parameter	SAMPLE		Total	% Yld	DUPLICATE		Total	QC Sample ID	
	Result		Uncert. (2σ +/-)		Result		Uncert. (2σ +/-)	% Yld	Precision
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g	GA-01-R MOD			F7K210337-019	
Americium 241	-0.12	U	0.23	-0.05	U	0.63		90	RPD
Cesium 137	0.02	U	0.11	-0.01	U	0.12		786	RPD
Thorium 232	0.86	J	0.33	1.07		0.40		21	RPD
Uranium 235	-0.003	U	0.41	-0.05	U	4.7		181	RPD
Uranium 238	3.6		1.4	3.8		2.5		6	RPD
---Other Dedected Radionuclides---									
Actinium 228	0.86		0.33	1.07		0.40		21	RPD
Bismuth 214	1.72		0.34	1.88		0.41		9	RPD
Lead 212	1.38		0.27	1.76		0.30		24	RPD
Lead 214	1.48		0.26	1.87		0.30		23	RPD
Potassium 40	21.8		3.5	21.2		3.3		3	RPD
Thallium 208	0.58		0.17	0.70		0.17		20	RPD
Thorium 234	3.6		1.4	3.8		2.5		6	RPD
Batch #:			7335111 (Sample)	7335111 (Duplicate)					
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g	GA-01-R MOD			F7K210337-039	
Americium 241	0.02	U	0.15	-0.04	U	0.13		503	RPD
Cesium 137	-0.009	U	0.075	-0.004	U	0.069		73	RPD
Thorium 232	0.45	U	0.24	0.41	U	0.23		9	RPD
Uranium 235	0.18	U	0.37	0.10	U	0.25		56	RPD
Uranium 238	1.58	U	0.85	0.82	U	0.96		63	RPD
---Other Dedected Radionuclides---									
Bismuth 214	0.46		0.19	0.50		0.20		9	RPD
Lead 212	0.69		0.17	0.72		0.18		3	RPD
Lead 214	0.59		0.16	0.47		0.14		23	RPD
Potassium 40	11.7		2.0	8.4		2.0		33	RPD
Thallium 208	0.122	U	0.083	0.127		0.076		5	RPD
Batch #:			7335150 (Sample)	7335150 (Duplicate)					
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g	A-01-R MOD			F7K210337-035	
Uranium 233/234	151		24	106	241	33	106	46	RPD
Uranium 235/236	4.1	J	3.8	106	8.6	J	5.6	106	RPD
Uranium 238	12.5	J	6.0	106	4.6	J	3.7	106	RPD
Batch #:			7351229 (Sample)	7351229 (Duplicate)					

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

F7K210337

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC
 Quote #: 77705
 Hematite Site
 Report to: Paul Ely
 #SMPS In LOT: 39

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
1	NB-90-4.5-SL			2007-11-09 / 1030	KCRG8	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK 06	LOC
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK 06	LOC

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
2	NB-90-11.5-SL			2007-11-09 / 1040	KCRHE	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK 06	LOC
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK 06	LOC

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
3	NB-91-0.5-SL			2007-11-16 / 1048	KCRHG	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK 06	LOC
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK 06	LOC
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK 06	LOC
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK 06	LOC
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK 06	LOC
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK 06	LOC

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
4	NB-91-4.5-SL			2007-11-16 / 1055	KCRHL	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK 06	LOC
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK 06	LOC
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK 06	LOC

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
5	NB-91-5.5-SL			2007-11-16 / 1107	KCRHP	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK 06	LOC
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK 06	LOC
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK 06	LOC

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
6	NB-92-4.5-SL			2007-11-09 / 1300	KCRHR	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK 06	LOC
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK 06	LOC

F7K210337

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS in LOT: 39

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX 2Q EML TC-02-RC MOD TC-99 by LSC by DOE TC-02-RC Mod. IM TC-99 by Extraction Chromatography Resin 01 STANDARD TEST SET PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
7	NB-92-11-SL			2007-11-09 / 1316	KCRH0	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
8	NB-93-0.5-SL			2007-11-16 / 1320	KCRH3	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
9	NB-93-4.5-SL			2007-11-16 / 1328	KCRH4	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
10	NB-93-15-SL			2007-11-16 / 1339	KCRH6	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC 06	

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
11	NB-94-4.5-SL			2007-11-09 / 1340	KCRH8	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC 06	
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC 06	

F7K210337

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

#SMPS in LOT: 39

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
12	NB-94-15-SL			2007-11-09 / 1355	KCRJD	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HITS by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
13	NB-95-4.5-SL			2007-11-09 / 1455	KCRJJ	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HITS by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	150 PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	150 URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	150 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
14	NB-96-16.5-SL			2007-11-09 / 1510	KCRJP	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HITS by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
15	NB-98-0.5-SL			2007-11-16 / 1400	KCRJR	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HITS by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	150 PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	150 URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	150 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
16	NB-96-4.5-SL			2007-11-16 / 1408	KCRJV	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HITS by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
17	NB-134-0.5-SL			2007-11-16 / 836	KCRJ2	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06

F7K210337

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS In LOT: 39

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX 0A	EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML	A-01-R	iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML	A-01-R MOD	iso URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE # CLIENT SAMPLE ID Site ID Client Matrix DATE/TIME SAMPLED WORKORDER A
 18 NB-134-2.5-SL 2007-11-16 / 850 KCRJ6 SOLID

SAMPLE COMMENTS:

XX ZV	RAD	SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2I	EML	A-01-R MOD	iso URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE # CLIENT SAMPLE ID Site ID Client Matrix DATE/TIME SAMPLED WORKORDER A
 19 NB-134-4.5-SL 2007-11-16 / 850 KCRKA SOLID

SAMPLE COMMENTS:

XX ZV	RAD	SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE # CLIENT SAMPLE ID Site ID Client Matrix DATE/TIME SAMPLED WORKORDER A
 20 NB-134-8-SL 2007-11-16 / 900 KCRKE SOLID

SAMPLE COMMENTS:

XX ZV	RAD	SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE # CLIENT SAMPLE ID Site ID Client Matrix DATE/TIME SAMPLED WORKORDER A
 21 NB-135-0.6-SL 2007-11-14 / 1705 KCRKH SOLID

SAMPLE COMMENTS:

XX ZV	RAD	SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML	A-01-R	iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML	A-01-R MOD	iso URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE # CLIENT SAMPLE ID Site ID Client Matrix DATE/TIME SAMPLED WORKORDER A
 22 NB-135-4.5-SL 2007-11-14 / 1716 KCRKN SOLID

SAMPLE COMMENTS:

F7K210337

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS in LOT: 39 EDD Code: 00

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
23	NB-135-15-SL			2007-11-14 / 1730	KCRKQ	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
24	NB-96-5-SL			2007-11-16 / 1410	KCRKR	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08
XX 2Q EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
25	NB-97-0.5-SL			2007-11-16 / 1441	KCRKW	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08
XX 2H EML	A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I EML	A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
26	NB-97-4.5-SL			2007-11-16 / 1444	KCRK0	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08
XX 2Q EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
27	NB-97-9.5-SL			2007-11-16 / 1452	KCRK1	SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08
XX 2Q EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
----------	------------------	---------	---------------	-------------------	-----------	---

F7K210337

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS In LOT: 39

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

28 NB-98-0.5-SL 2007-11-16 / 1519 KCRK2 SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	100 PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	100 URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	100 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

29 NB-98-4.5-SL 2007-11-16 / 1526 KCRK4 SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

30 NB-98-9-SL 2007-11-16 / 1536 KCRK5 SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

31 NB-99-4.5-SL 2007-11-09 / 1420 KCRK6 SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

32 NB-99-13-SL 2007-11-09 / 1435 KCRK8 SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

33 NB-100-4.5-SL 2007-11-09 / 1535 KCRLA SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

34 NB-100-7-SL 2007-11-09 / 1540 KCRLD SOLID

SAMPLE COMMENTS:

F7K210337

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

#SMPS In LOT: 39

Gemmas library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gemmas Cs-137 & Hita by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
35	NB-101-2.5-SL			2007-11-17 / 919	KCRLG	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gemmas Cs-137 & Hita by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
36	NB-101-4.5-SL			2007-11-17 / 919	KCRLM	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gemmas Cs-137 & Hita by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
37	NB-101-7-SL			2007-11-17 / 925	KCRLT	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gemmas Cs-137 & Hita by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
38	NB-102-0.5-SL			2007-11-17 / 753	KCRL0	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gemmas Cs-137 & Hita by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
39	NB-102-4.5-SL			2007-11-17 / 802	KCRL3	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gemmas Cs-137 & Hita by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quayle Date: 4/21/07
 Address: _____ Telephone Number: 865-368-7477 CoC Number: SC-01
 City: _____ Site Contact: _____ Page: 22 of 28
 State: _____ Zip Code: _____ Lab Contact: Ivan Vania

Project Name: Nematite Characterization
 Project Location: Festus, MD
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis			
(Attach list if more space is needed)			
Isotopic Te-99	Isotopic U	Isotopic Pu	Isotopic Np
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	✓

Sample ID Number	Date	Time	Matrix				Containers & Preservatives						Isotopic Te-99	Isotopic U	Isotopic Pu	Isotopic Np		
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc					NaOH	
NB-93-4.5-SL	11/16/07	1328				✓												
NB-93-15-SL	11/16/07	1339				✓												
NB-94-4.5-SL	11/9/07	1340				✓												
NB-94-15-SL	11/9/07	1355				✓												
NB-95-4.5-SL	11/9/07	1453				✓												
NB-95-16.5-SL	11/9/07	1510				✓												
NB-96-0.5-SL	11/16/07	1400				✓												
NB-96-4.5-SL	11/16/07	1408				✓												

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 29 days

Other: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>4/21/07</u>	<u>11:30</u>	<u>Duane Quayle</u>	<u>4/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC
 Address: _____
 City: _____
 State: _____ Zip Code: _____

Project Manager: Duane Quayle
 Telephone Number: 865-368-7477
 Site Contact: _____
 Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: 96-01
 Page: 24 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives							X spec	Isotopic Tc99	Isotopic U	Isotopic Pu	Isotopic Np	
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAg	NaOH						
NB-96-5-SL	11/16/07	1440				✓													
NB-97-0.5-SL	11/16/07	1441				✓													
NB-97-4.5-SL	11/16/07	1444				✓													
NB-97-9.5-SL	11/16/07	1452				✓													
NB-98-0.5-SL	11-16-07	1519				✓													
NB-98-4.5-SL	11-16-07	1526				✓													
NB-98-9-SL	11-16-07	1536				✓													
NB-99-4.5-SL	11-9-07	1420				✓													

Possible Hazard Identification

Non-haz.
 Radioactive
 Flammable
 Skin Irritant
 Unknown

Sample Disposal

Return to client
 Disposal by lab
 Archive for ___ months

Turn Around Time

24 hrs
 48 hrs
 7 days
 14 days
 29 days

Comments: _____

Other _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>11:30</u>	<u>Angela Brown</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Duane Quayle
 Address: _____ Telephone Number: 865-368-7477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/21/07
 CoC Number: SC-01
 Page: 25 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives							δ spec	Isotopic Te-99	Isotopic U	Isotopic Pu	Isotopic Np	
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	LiOH						
NB-99-13-SL	11-9-07	1435				✓													
NB-100-4.5-SL	11-9-07	1535				✓													
NB-100-7-SL	11-9-07	1540				✓													
NB-101-2.5-SL	11-17-07	0919				✓													
NB-101-4.5-SL	11-17-07	0919				✓													
NB-101-7-SL	11-17-07	0925				✓													
NB-102-0.5-SL	11-17-07	0753				✓													
NB-102-4.5-SL	11-17-05	0802				✓													

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 20 days Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/21/07</u>	<u>1130</u>	<u>Amyla Brown</u>	<u>11/21/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		



Lot # (s): F7K2025-2 F7K210247
1167 813
337
337

Client: Energy Solutions COC/RFA No: SL-01 Date: 11/2/07
 Quote No: 11705 Initiated By: BD Time: 11:30

Shipping Information

Shipper Name: Planet Multiple Packages Y N
 Shipping # (s): * Sample Temperature (s): **
 1. 6. 1. Ambient 6. Ambient
 2. 7. 2. 7.
 3. 8. 3. 8.
 4. 9. 4. 9.
 5. 10. 5. 10.

*Numbered shipping lines correspond to Numbered Sample Temp lines
 **Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Are there custody seals present on the cooler?	8.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Are there custody seals present on bottles?
2.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Do custody seals on cooler appear to be tampered with?	9.	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> N/A	Do custody seals on bottles appear to be tampered with?
3.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Were contents of cooler friaked after opening, but before unpacking?	10.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Was sample received with proper pH? (If not, make note below)
4.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Sample received with Chain of Custody?	11.	<input type="checkbox"/> Y <input type="checkbox"/> N	If N/A - Was pH taken by original TestAmerica lab?
5.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A	Does the Chain of Custody match sample ID's on this container(s)?	12.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Sample received in proper containers?
6.	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Was sample received broken?	13.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Is sample volume sufficient for analysis?	14.	<input type="checkbox"/> Y <input type="checkbox"/> N	Was Internal COC/Workshare received?

¹ For SOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified; EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:
 Client Contact Name: _____ Informed by: _____
 Sample(s) processed "as is"
 Sample(s) on hold until: _____ If released, notify: _____
 Project Management Review: Date: 11-2-07 1167

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.
 ADMIN-0004, REVISED 08/06/07 \S\sv\01\QA\FORMS\ST-LOUIS\ADMIN\ADMIN004-rev11.doc



ANALYTICAL REPORT

PROJECT NO. 313010.202

Hematite Site

Lot #: F7K210350

Paul Kly

Energy Solutions, LLC
1009 Commerce Park Drive
Suite 100
Oak Ridge, TN 37830

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Ivan Vania", is written over a light background.

Ivan Vania
Project Manager

December 10, 2007

Case Narrative
LOT NUMBER: F7K210350

This report contains the analytical results for the 21 samples received under chain of custody by TestAmerica St. Louis on November 21, 2007. These samples are associated with your Hematite Site project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Tc-99 by LSC (EML TC-02-RC MOD)

The Technetium-99 RPD/RER is not within method acceptance criteria. The sample is non-homogeneous. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F7K210350 (1): NB-102-5-SL	F7K210350 (13): NB-123-2.5-SL
F7K210350 (2): NB-103-2.5-SL	F7K210350 (14): NB-123-4.5-SL
F7K210350 (3): NB-103-4.5-SL	F7K210350 (15): NB-123-8.5-SL
F7K210350 (4): NB-103-13.5-SL	F7K210350 (16): NB-124-0.5-SL
F7K210350 (7): NB-109-0.5-SL	F7K210350 (17): NB-124-4.5-SL
F7K210350 (9): NB-122-0.5-SL	F7K210350 (19): NB-125-0.5-SL
F7K210350 (12): NB-123-0.5-SL	F7K210350 (20): NB-125-4.5-SL

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F7K210350

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EML GA-01-R MOD	
Isotopic Plutonium by Alpha Spectroscopy	EML A-01-R	
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Neptunium by Alpha Spectroscopy	EML A-01-R MOD	
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

SAMPLE SUMMARY

F7K210350

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KCRMP	001	NB-102-5-SL	11/17/07	08:07
KCT8E	002	NB-103-2.5-SL	11/17/07	08:42
KCT8H	003	NB-103-4.5-SL	11/17/07	08:42
KCT8K	004	NB-103-13.5-SL	11/17/07	08:57
KCT8L	005	NB-105-4.5-SL	11/15/07	10:32
KCT8M	006	NB-105-15.5-SL	11/15/07	10:45
KCT8N	007	NB-109-0.5-SL	11/15/07	10:55
KCT8Q	008	NB-109-4.5-SL	11/15/07	11:01
KCT8R	009	NB-122-0.5-SL	11/15/07	11:05
KCT8T	010	NB-122-4.5-SL	11/15/07	11:10
KCT8V	011	NB-122-14.5-SL	11/15/07	11:23
KCT8W	012	NB-123-0.5-SL	11/16/07	13:15
KCT8X	013	NB-123-2.5-SL	11/16/07	13:20
KCT80	014	NB-123-4.5-SL	11/16/07	13:20
KCT81	015	NB-123-8.5-SL	11/16/07	13:25
KCT82	016	NB-124-0.5-SL	11/14/07	14:15
KCT83	017	NB-124-4.5-SL	11/14/07	14:22
KCT84	018	NB-124-8.5-SL	11/14/07	14:25
KCT85	019	NB-125-0.5-SL	11/14/07	11:00
KCT87	020	NB-125-4.5-SL	11/14/07	11:05
KCT88	021	NB-125-7-SL	11/14/07	11:10

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Energy Solutions, LLC

Client Sample ID: NB-102-5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-001
 Work Order: KCRMP
 Matrix: SOLID

Date Collected: 11/17/07 0807
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.041	U	0.095	1.00	0.16	12/02/07	12/03/07
Cesium 137	-0.001	U	0.083	1.00	0.15	12/02/07	12/03/07
Thorium 232	0.76	J	0.34	1.00	0.54	12/02/07	12/03/07
Uranium 235	0.11	U	0.37	1.00	0.64	12/02/07	12/03/07
Uranium 238	1.28	U	0.82	1.00	1.6	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	0.76		0.34		0.54	12/02/07	12/03/07
Bismuth 214	0.69		0.25		0.31	12/02/07	12/03/07
Lead 212	0.97		0.21		0.24	12/02/07	12/03/07
Lead 214	0.58		0.20		0.27	12/02/07	12/03/07
Potassium 40	18.2		2.6		2.2	12/02/07	12/03/07
Thallium 208	0.31		0.14		0.16	12/02/07	12/03/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333215	Yld % 105
Technetium 99	4.26		0.60	1.00	0.41	11/29/07	12/03/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-102-5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-001X
 Work Order: KCRMP
 Matrix: SOLID

Date Collected: 11/17/07 0807
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE	TC-02-RC Mod.			pCi/g		Batch # 7333215	Yld % 96
Technetium 99	2.44		0.45	1.00	0.45	11/29/07	12/03/07

NOTE(S)

Results are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: NB-103-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-002
 Work Order: KCT8E
 Matrix: SOLID

Date Collected: 11/17/07 0842
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.00008	U	0.072	1.00	0.13	12/02/07	12/03/07
Cesium 137	0.006	U	0.051	1.00	0.096	12/02/07	12/03/07
Thorium 232	0.1	U	0.18	1.00	0.32	12/02/07	12/03/07
Uranium 235	0.16	U	0.19	1.00	0.30	12/02/07	12/03/07
Uranium 238	0.95	U	0.73	1.00	1.2	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.41		0.13		0.12	12/02/07	12/03/07
Lead 212	0.22		0.12		0.12	12/02/07	12/03/07
Lead 214	0.28		0.11		0.15	12/02/07	12/03/07
Potassium 40	5.8		1.4		0.9	12/02/07	12/03/07
Radium 224	-0.5	U	1.0		1.7	12/02/07	12/03/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333215	Yld % 94
Technetium 99	0.27	U	0.28	1.00	0.46	11/29/07	12/03/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338407	Yld % 77
Uranium 233/234	6.02		0.96	1.00	0.06	12/04/07	12/07/07
Uranium 235/236	0.25	J	0.13	1.00	0.08	12/04/07	12/07/07
Uranium 238	0.86	J	0.23	1.00	0.06	12/04/07	12/07/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-103-2.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-002X
 Work Order: KCT8E
 Matrix: SOLID

Date Collected: 11/17/07 0842
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.002	U	0.091	1.00	0.16	12/02/07	12/03/07
Cesium 137	-0.01	U	0.12	1.00	0.11	12/02/07	12/03/07
Thorium 232	-0.0008	U	0.16	1.00	0.31	12/02/07	12/03/07
Uranium 235	0.18	U	0.19	1.00	0.31	12/02/07	12/03/07
Uranium 238	0.10	U	0.80	1.00	1.4	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.24		0.14		0.22	12/02/07	12/03/07
Lead 212	0.068	U	0.076		0.13	12/02/07	12/03/07
Lead 214	0.29		0.10		0.18	12/02/07	12/03/07
Potassium 40	5.7		1.4		0.7	12/02/07	12/03/07
Thallium 208	0.036	U	0.043		0.077	12/02/07	12/03/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-103-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-003
 Work Order: KCT8H
 Matrix: SOLID

Date Collected: 11/17/07 0842
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.003	U	0.035	1.00	0.077	12/04/07	12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.012	U	0.041	1.00	0.070	12/04/07	12/07/07
Plutonium 239/40	-0.002	U	0.021	1.00	0.040	12/04/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.26		0.34	1.00	0.43	11/29/07	12/03/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	43.0		5.7	1.0	0.06	12/04/07	12/07/07
Uranium 235/236	1.94		0.41	1.00	0.07	12/04/07	12/07/07
Uranium 238	5.20		0.82	1.00	0.06	12/04/07	12/07/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.01	U	0.16	1.00	0.27	12/02/07	12/03/07
Cesium 137	-0.009	U	0.081	1.00	0.12	12/02/07	12/03/07
Thorium 232	0.39	J	0.21	1.00	0.39	12/02/07	12/03/07
Uranium 235	1.23		0.39	1.00	0.50	12/02/07	12/03/07
Uranium 238	3.7		1.1	1.0	1.6	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	0.39		0.21		0.39	12/02/07	12/03/07
Bismuth 214	0.47		0.20		0.28	12/02/07	12/03/07
Lead 212	0.80		0.15		0.11	12/02/07	12/03/07
Lead 214	0.55		0.15		0.21	12/02/07	12/03/07
Potassium 40	12.3		2.2		0.7	12/02/07	12/03/07
Thallium 208	0.306		0.086		0.064	12/02/07	12/03/07
Thorium 234	3.7		1.1		1.6	12/02/07	12/03/07

NOTE(S)

ta are incomplete without the case narrative.

MC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-103-4.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-003X
 Work Order: KCT8H
 Matrix: SOLID

Date Collected: 11/17/07 0842
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.012	U	0.037	1.00	0.080	12/04/07	12/07/07
Batch # 7338405 Yld % 91							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.014	U	0.052	1.00	0.098	12/04/07	12/07/07
Plutonium 239/40	-0.025	U	0.036	1.00	0.081	12/04/07	12/07/07
Batch # 7338406 Yld % 96							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	38.4		5.1	1.0	0.03	12/04/07	12/07/07
Uranium 235/236	1.76		0.38	1.00	0.06	12/04/07	12/07/07
Uranium 238	5.11		0.80	1.00	0.05	12/04/07	12/07/07
Batch # 7338407 Yld % 91							

NOTE(S)

- ta are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-103-13.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-004
 Work Order: KCT8K
 Matrix: SOLID

Date Collected: 11/17/07 0857
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.05	U	0.21	1.00	0.36	12/02/07	12/03/07
Cesium 137	-0.03	U	0.11	1.00	0.20	12/02/07	12/03/07
Thorium 232	0.88	J	0.40	1.00	0.64	12/02/07	12/03/07
Uranium 235	0.13	U	0.38	1.00	0.66	12/02/07	12/03/07
Uranium 238	3.3		1.4	1.0	2.8	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	0.88		0.40		0.64	12/02/07	12/03/07
Bismuth 214	1.17		0.28		0.20	12/02/07	12/03/07
Lead 212	2.17		0.34		0.25	12/02/07	12/03/07
Lead 214	0.93		0.23		0.30	12/02/07	12/03/07
Potassium 40	17.0		3.2		1.5	12/02/07	12/03/07
Thallium 208	0.33		0.15		0.20	12/02/07	12/03/07
Thorium 234	3.3		1.4		2.8	12/02/07	12/03/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333215	Yld % 95
Technetium 99	5.90		0.78	1.00	0.45	11/29/07	12/03/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-105-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-005
 Work Order: KCT8L
 Matrix: SOLID

Date Collected: 11/15/07 1032
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.08	U	0.12	1.00	0.21	12/02/07	12/03/07
Cesium 137	-0.028	U	0.086	1.00	0.15	12/02/07	12/03/07
Thorium 232	0.63	J	0.28	1.00	0.39	12/02/07	12/03/07
Uranium 235	0.33	U	0.32	1.00	0.51	12/02/07	12/03/07
Uranium 238	2.18		0.90	1.00	1.6	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	0.63		0.28		0.39	12/02/07	12/03/07
Bismuth 214	0.80		0.20		0.15	12/02/07	12/03/07
Lead 212	0.84		0.17		0.15	12/02/07	12/03/07
Lead 214	0.57		0.16		0.24	12/02/07	12/03/07
Potassium 40	12.8		2.5		1.3	12/02/07	12/03/07
Thallium 208	0.21		0.10		0.14	12/02/07	12/03/07
Thorium 234	2.18		0.90		1.6	12/02/07	12/03/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-105-15.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-006
 Work Order: KCT8M
 Matrix: SOLID

Date Collected: 11/15/07 1045
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.08	U	0.11	1.00	0.19	12/02/07	12/03/07
Cesium 137	-0.05	U	0.35	1.00	0.24	12/02/07	12/03/07
Thorium 232	1.13		0.42	1.00	0.77	12/02/07	12/03/07
Uranium 235	0.43	U	0.35	1.00	0.65	12/02/07	12/03/07
Uranium 238	1.72	U	0.89	1.00	2.0	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	1.13		0.42		0.77	12/02/07	12/03/07
Bismuth 214	0.72		0.31		0.45	12/02/07	12/03/07
Lead 212	1.18		0.31		0.33	12/02/07	12/03/07
Lead 214	0.72		0.22		0.38	12/02/07	12/03/07
Potassium 40	18.1		3.7		3.1	12/02/07	12/03/07
Thallium 208	0.44		0.19		0.19	12/02/07	12/03/07

NOTE(S)

ata are incomplete without the case narrative.

MC is determined by instrument performance only.
 Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-109-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-007
 Work Order: KCT8N
 Matrix: SOLID

Date Collected: 11/15/07 1055
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.039	U	0.057	1.00	0.078	12/04/07	12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.006	U	0.051	1.00	0.095	12/04/07	12/07/07
Plutonium 239/40	0.0006	U	0.028	1.00	0.062	12/04/07	12/07/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	26.5		3.6	1.0	0.07	12/04/07	12/07/07
Uranium 235/236	1.23		0.30	1.00	0.06	12/04/07	12/07/07
Uranium 238	4.13		0.68	1.00	0.05	12/04/07	12/07/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.07	U	0.20	1.00	0.33	12/02/07	12/03/07
Cesium 137	0.23	J	0.11	1.00	0.16	12/02/07	12/03/07
Thorium 232	0.92	J	0.36	1.00	0.39	12/02/07	12/03/07
Uranium 235	1.78		0.47	1.00	0.62	12/02/07	12/03/07
Uranium 238	4.4		1.3	1.0	2.6	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	0.92		0.36		0.39	12/02/07	12/03/07
Bismuth 214	0.74		0.20		0.18	12/02/07	12/03/07
Lead 210	4.1		2.9		3.6	12/02/07	12/03/07
Lead 212	1.01		0.18		0.15	12/02/07	12/03/07
Lead 214	1.32		0.27		0.23	12/02/07	12/03/07
Potassium 40	19.3		3.0		0.7	12/02/07	12/03/07
Protactinium 234	0.47		0.32		0.36	12/02/07	12/03/07
Thallium 208	0.47		0.13		0.11	12/02/07	12/03/07
Thorium 234	4.4		1.3		2.6	12/02/07	12/03/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.04	U	0.25	1.00	0.43	11/29/07	12/03/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-109-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-008
 Work Order: KCT80
 Matrix: SOLID

Date Collected: 11/15/07 1101
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.0003	U	0.11	1.00	0.19	12/02/07	12/03/07
Cesium 137	0.0	U	0.11	1.00	0.20	12/02/07	12/03/07
Thorium 232	0.51	J	0.22	1.00	0.41	12/02/07	12/03/07
Uranium 235	0.27	U	0.32	1.00	0.53	12/02/07	12/03/07
Uranium 238	0.86	U	0.64	1.00	1.9	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	0.51		0.22		0.41	12/02/07	12/03/07
Bismuth 214	0.85		0.19		0.12	12/02/07	12/03/07
Lead 212	0.99		0.21		0.17	12/02/07	12/03/07
Lead 214	0.73		0.16		0.19	12/02/07	12/03/07
Potassium 40	15.9		2.5		0.9	12/02/07	12/03/07
Protactinium 234	-0.03	U	0.16		0.29	12/02/07	12/03/07
Thallium 208	0.235		0.084		0.094	12/02/07	12/03/07

NOTE(S)

ata are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-122-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-009
 Work Order: KCT8R
 Matrix: SOLID

Date Collected: 11/15/07 1105
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.007	U	0.032	1.00	0.067	12/04/07	12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.01	U	0.047	1.00	0.082	12/04/07	12/07/07
Plutonium 239/40	-0.012	U	0.030	1.00	0.068	12/04/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.09	U	0.26	1.00	0.46	11/29/07	12/03/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.43	J	0.15	1.00	0.05	12/04/07	12/07/07
Uranium 235/236	-0.003	U	0.032	1.00	0.063	12/04/07	12/07/07
Uranium 238	0.26	J	0.12	1.00	0.05	12/04/07	12/07/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.011	U	0.066	1.00	0.12	12/02/07	12/03/07
Cesium 137	-0.02	U	0.19	1.00	0.09	12/02/07	12/03/07
Thorium 232	0.0	U	0.035	1.00	0.13	12/02/07	12/03/07
Uranium 235	0.04	U	0.15	1.00	0.28	12/02/07	12/03/07
Uranium 238	-0.2	U	1.3	1.0	0.8	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Potassium 40	1.34		0.71		0.76	12/02/07	12/03/07

NOTE(S)

Its are incomplete without the case narrative.

MC is determined by instrument performance only.

bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-122-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-010
 Work Order: KCT8T
 Matrix: SOLID

Date Collected: 11/15/07 1110
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.007	U	0.17	1.00	0.29	12/02/07	12/03/07
Cesium 137	0.0	U	0.099	1.00	0.18	12/02/07	12/03/07
Thorium 232	0.92	J	0.33	1.00	0.46	12/02/07	12/03/07
Uranium 235	0.27	U	0.32	1.00	0.53	12/02/07	12/03/07
Uranium 238	0.5	U	1.3	1.0	2.3	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	0.92		0.33		0.46	12/02/07	12/03/07
Bismuth 214	0.85		0.20		0.14	12/02/07	12/03/07
Lead 212	0.80		0.19		0.17	12/02/07	12/03/07
Lead 214	0.65		0.17		0.25	12/02/07	12/03/07
Potassium 40	13.8		2.6		1.8	12/02/07	12/03/07
Thallium 208	0.313		0.087		0.054	12/02/07	12/03/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-122-14.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-011
 Work Order: KCT8V
 Matrix: SOLID

Date Collected: 11/15/07 1123
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	-0.03	U	0.14	1.00	0.24	12/02/07	12/06/07
Cesium 137	0.012	U	0.045	1.00	0.079	12/02/07	12/06/07
Thorium 232	1.39		0.24	1.00	0.25	12/02/07	12/06/07
Uranium 235	-0.05	U	38	1	0.5	12/02/07	12/06/07
Uranium 238	0.81	U	0.52	1.00	2.0	12/02/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	1.39		0.24		0.25	12/02/07	12/06/07
Bismuth 212	0.73		0.41		0.60	12/02/07	12/06/07
Bismuth 214	0.89		0.16		0.18	12/02/07	12/06/07
Lead 212	1.19		0.14		0.12	12/02/07	12/06/07
Lead 214	1.19		0.21		0.18	12/02/07	12/06/07
Potassium 40	17.6		1.9		0.9	12/02/07	12/06/07
Thallium 208	0.46		0.10		0.08	12/02/07	12/06/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-123-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-012
 Work Order: KCT8W
 Matrix: SOLID

Date Collected: 11/16/07 1315
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.007	U	0.034	1.00	0.072	12/04/07	12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.018	U	0.043	1.00	0.071	12/04/07	12/07/07
Plutonium 239/40	-0.004	U	0.024	1.00	0.051	12/04/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	62.7		6.4	1.0	0.5	11/29/07	12/03/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	66.8		8.8	1.0	0.06	12/04/07	12/07/07
Uranium 235/236	2.95		0.55	1.00	0.06	12/04/07	12/07/07
Uranium 238	8.2		1.2	1.0	0.06	12/04/07	12/07/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.10	U	0.23	1.00	0.38	12/02/07	12/03/07
Cesium 137	0.46	J	0.11	1.00	0.08	12/02/07	12/03/07
Thorium 232	0.34	U	0.30	1.00	0.49	12/02/07	12/03/07
Uranium 235	3.47		0.77	1.00	0.71	12/02/07	12/03/07
Uranium 238	7.7		1.5	1.0	2.7	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.44		0.19		0.28	12/02/07	12/03/07
Lead 212	0.77		0.18		0.19	12/02/07	12/03/07
Lead 214	0.55		0.15		0.22	12/02/07	12/03/07
Potassium 40	10.5		2.0		1.8	12/02/07	12/03/07
Thallium 208	0.29		0.11		0.11	12/02/07	12/03/07
Thorium 234	7.7		1.5		2.7	12/02/07	12/03/07

NOTE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-123-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-013
 Work Order: KCT8X
 Matrix: SOLID

Date Collected: 11/16/07 1320
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	-0.02	U	0.18	1.00	0.31	12/02/07	12/03/07
Cesium 137	0.06	U	0.10	1.00	0.17	12/02/07	12/03/07
Thorium 232	1.11		0.38	1.00	0.56	12/02/07	12/03/07
Uranium 235	2.15		0.97	1.00	0.88	12/02/07	12/03/07
Uranium 238	5.6		2.0	1.0	2.4	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	1.11		0.38		0.56	12/02/07	12/03/07
Bismuth 212	1.23		0.83		1.2	12/02/07	12/03/07
Bismuth 214	1.09		0.28		0.22	12/02/07	12/03/07
Lead 212	1.38		0.26		0.20	12/02/07	12/03/07
Lead 214	1.27		0.28		0.21	12/02/07	12/03/07
Potassium 40	20.2		3.4		1.3	12/02/07	12/03/07
Thallium 208	0.31		0.14		0.19	12/02/07	12/03/07
Thorium 234	5.6		2.0		2.4	12/02/07	12/03/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333215	Yld % 100
Technetium 99	1.76		0.38	1.00	0.43	11/29/07	12/03/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338407	Yld % 89
Uranium 233/234	31.0		4.2	1.0	0.06	12/04/07	12/07/07
Uranium 235/236	1.57		0.35	1.00	0.06	12/04/07	12/07/07
Uranium 238	3.99		0.66	1.00	0.06	12/04/07	12/07/07

NOTE(S)

Its are incomplete without the case narrative.

MC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-123-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-014
 Work Order: KCT80
 Matrix: SOLID

Date Collected: 11/16/07 1320
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	-0.002	U	0.097	1.00	0.16	12/02/07	12/07/07
Cesium 137	0.0	U	0.053	1.00	0.091	12/02/07	12/07/07
Thorium 232	1.61		0.26	1.00	0.23	12/02/07	12/07/07
Uranium 235	0.39	U	0.25	1.00	0.40	12/02/07	12/07/07
Uranium 238	1.67		0.55	1.00	1.3	12/02/07	12/07/07
--- Other Detected Radionuclides ---							
Actinium 228	1.61		0.26		0.23	12/02/07	12/07/07
Bismuth 212	1.32		0.42		0.37	12/02/07	12/07/07
Bismuth 214	1.45		0.18		0.13	12/02/07	12/07/07
Lead 212	1.55		0.14		0.10	12/02/07	12/07/07
Lead 214	1.59		0.19		0.14	12/02/07	12/07/07
Potassium 40	22.1		1.9		0.7	12/02/07	12/07/07
Thallium 208	0.512		0.084		0.069	12/02/07	12/07/07
Thorium 234	1.67		0.55		1.3	12/02/07	12/07/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333215	Yld % 92
Technetium 99	2.23		0.44	1.00	0.46	11/29/07	12/03/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-123-8.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-015
 Work Order: KCT81
 Matrix: SOLID

Date Collected: 11/16/07 1325
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.01	U	0.067	1.00	0.12	12/02/07	12/03/07
Cesium 137	-0.006	U	25	1	0.1	12/02/07	12/03/07
Thorium 232	1.03		0.37	1.00	0.47	12/02/07	12/03/07
Uranium 235	0.23	U	0.27	1.00	0.45	12/02/07	12/03/07
Uranium 238	1.37		0.57	1.00	1.2	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	1.03		0.37		0.47	12/02/07	12/03/07
Bismuth 214	0.96		0.22		0.16	12/02/07	12/03/07
Lead 210	1.40		0.93		1.2	12/02/07	12/03/07
Lead 212	1.11		0.19		0.18	12/02/07	12/03/07
Lead 214	0.78		0.15		0.20	12/02/07	12/03/07
Potassium 40	21.5		2.8		0.5	12/02/07	12/03/07
Thallium 208	0.335		0.092		0.11	12/02/07	12/03/07
Thorium 234	1.37		0.57		1.2	12/02/07	12/03/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333215	Yld % 82
Technetium 99	0.92	J	0.36	1.00	0.52	11/29/07	12/03/07

NOTE(S)

ta are incomplete without the case narrative.

LC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-124-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-016
 Work Order: KCT82
 Matrix: SOLID

Date Collected: 11/14/07 1415
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.001	U	0.043	1.00	0.096	12/04/07	12/07/07
Batch # 7338405 Yld % 75							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.0007	U	0.047	1.00	0.092	12/04/07	12/07/07
Plutonium 239/40	0.021	U	0.035	1.00	0.050	12/04/07	12/07/07
Batch # 7338406 Yld % 83							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	101		10	1	0.5	11/29/07	12/03/07
Batch # 7333215 Yld % 89							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	17.0		2.4	1.0	0.07	12/04/07	12/07/07
Uranium 235/236	0.81	J	0.24	1.00	0.04	12/04/07	12/07/07
Uranium 238	3.85		0.65	1.00	0.05	12/04/07	12/07/07
Batch # 7338407 Yld % 84							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.01	U	0.13	1.00	0.22	12/02/07	12/03/07
Cesium 137	0.0001	U	0.050	1.00	0.097	12/02/07	12/03/07
Thorium 232	0.20	U	0.24	1.00	0.38	12/02/07	12/03/07
Uranium 235	0.68	J	0.36	1.00	0.54	12/02/07	12/03/07
Uranium 238	4.6		1.6	1.0	1.6	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Bismuth 214	1.00		0.20		0.12	12/02/07	12/03/07
Lead 212	0.182		0.086		0.11	12/02/07	12/03/07
Lead 214	0.80		0.19		0.19	12/02/07	12/03/07
Potassium 40	1.64		0.75		0.70	12/02/07	12/03/07
Thorium 234	4.6		1.6		1.6	12/02/07	12/03/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-124-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-017
 Work Order: KCT83
 Matrix: SOLID

Date Collected: 11/14/07 1422
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.02	U	0.12	1.00	0.20	12/02/07	12/03/07
Cesium 137	0.100	J	0.052	1.00	0.073	12/02/07	12/03/07
Thorium 232	0.13	U	0.18	1.00	0.30	12/02/07	12/03/07
Uranium 235	0.29	U	0.28	1.00	0.46	12/02/07	12/03/07
Uranium 238	2.79		0.83	1.00	1.4	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.78		0.18		0.13	12/02/07	12/03/07
Lead 210	3.3		2.3		2.5	12/02/07	12/03/07
Lead 212	0.17		0.10		0.13	12/02/07	12/03/07
Lead 214	0.87		0.19		0.21	12/02/07	12/03/07
Potassium 40	1.54		0.88		1.1	12/02/07	12/03/07
Thorium 234	2.79		0.83		1.4	12/02/07	12/03/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333215	Yld % 100
Technetium 99	53.0		5.4	1.0	0.4	11/29/07	12/04/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-124-8.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-018
 Work Order: KCT84
 Matrix: SOLID

Date Collected: 11/14/07 1425
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ /-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.03	U	0.12	1.00	0.20	12/02/07	12/03/07
Cesium 137	0.0	U	0.071	1.00	0.13	12/02/07	12/03/07
Thorium 232	0.49	J	0.25	1.00	0.45	12/02/07	12/03/07
Uranium 235	0.24	U	0.21	1.00	0.55	12/02/07	12/03/07
Uranium 238	1.45	U	0.79	1.00	1.7	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	0.49		0.25		0.45	12/02/07	12/03/07
Bismuth 214	0.89		0.23		0.24	12/02/07	12/03/07
Lead 212	1.10		0.18		0.19	12/02/07	12/03/07
Lead 214	0.91		0.24		0.25	12/02/07	12/03/07
Potassium 40	35.4		3.7		1.7	12/02/07	12/03/07
Thallium 208	0.29		0.12		0.13	12/02/07	12/03/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-125-0.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-019
 Work Order: KCT85
 Matrix: SOLID

Date Collected: 11/14/07 1100
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.010	U	0.050	1.00	0.091	12/04/07	12/07/07
Batch # 7338405 Yld % 86							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.005	U	0.040	1.00	0.076	12/04/07	12/07/07
Plutonium 239/40	-0.004	U	0.025	1.00	0.053	12/04/07	12/07/07
Batch # 7338406 Yld % 87							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	32.1		3.4	1.0	0.4	11/29/07	12/04/07
Batch # 7333215 Yld % 96							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	22.1		3.0	1.0	0.06	12/04/07	12/07/07
Uranium 235/236	1.18		0.30	1.00	0.04	12/04/07	12/07/07
Uranium 238	3.59		0.61	1.00	0.03	12/04/07	12/07/07
Batch # 7338407 Yld % 80							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.05	U	0.11	1.00	0.19	12/02/07	12/03/07
Cesium 137	0.006	U	0.052	1.00	0.094	12/02/07	12/03/07
Thorium 232	0.07	U	0.17	1.00	0.30	12/02/07	12/03/07
Uranium 235	0.58	J	0.27	1.00	0.40	12/02/07	12/03/07
Uranium 238	3.1		1.0	1.0	1.4	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.66		0.14		0.13	12/02/07	12/03/07
Lead 214	1.09		0.20		0.15	12/02/07	12/03/07
Potassium 40	1.96		0.70		0.88	12/02/07	12/03/07
Thorium 234	3.1		1.0		1.4	12/02/07	12/03/07

NOTE(S)

ta are incomplete without the case narrative.

OC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-125-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-020
 Work Order: KCT87
 Matrix: SOLID

Date Collected: 11/14/07 1105
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335149	Yld %
Americium 241	0.13	U	0.16	1.00	0.27	12/02/07	12/03/07
Cesium 137	0.019	U	0.089	1.00	0.16	12/02/07	12/03/07
Thorium 232	1.04		0.38	1.00	0.40	12/02/07	12/03/07
Uranium 235	0.77	J	0.44	1.00	0.66	12/02/07	12/03/07
Uranium 238	4.1		1.0	1.0	1.8	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	1.04		0.38		0.40	12/02/07	12/03/07
Bismuth 214	1.05		0.23		0.15	12/02/07	12/03/07
Lead 212	1.05		0.25		0.22	12/02/07	12/03/07
Lead 214	0.80		0.17		0.23	12/02/07	12/03/07
Potassium 40	13.1		2.5		1.7	12/02/07	12/03/07
Thallium 208	0.339		0.092		0.055	12/02/07	12/03/07
Thorium 234	4.1		1.0		1.8	12/02/07	12/03/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7333215	Yld % 87
Technetium 99	0.1	U	0.28	1.00	0.49	11/29/07	12/04/07

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: NB-125-7-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K210350-021
 Work Order: KCT88
 Matrix: SOLID

Date Collected: 11/14/07 1110
 Date Received: 11/21/07 1130

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7335150	Yld %
Americium 241	-0.02	U	0.19	1.00	0.32	12/02/07	12/03/07
Cesium 137	0.026	U	0.078	1.00	0.14	12/02/07	12/03/07
Thorium 232	1.00		0.27	1.00	0.41	12/02/07	12/03/07
Uranium 235	0.14	U	0.35	1.00	0.60	12/02/07	12/03/07
Uranium 238	0.9	U	1.4	1.0	2.5	12/02/07	12/03/07
--- Other Detected Radionuclides ---							
Actinium 228	1.00		0.27		0.41	12/02/07	12/03/07
Bismuth 214	0.91		0.22		0.24	12/02/07	12/03/07
Lead 212	1.38		0.28		0.23	12/02/07	12/03/07
Lead 214	1.16		0.23		0.22	12/02/07	12/03/07
Potassium 40	20.0		2.6		1.2	12/02/07	12/03/07
Thallium 208	0.46		0.13		0.10	12/02/07	12/03/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210350
 Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.08	U	0.26	1.00	0.43	11/29/07	F7K290000-215B 12/03/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.007	U	0.050	1.00	0.092	12/02/07	F7L010000-150B 12/03/07
Cesium 137	-0.006	U	0.043	1.00	0.082	12/02/07	12/03/07
Thorium 232	0.0	U	0.037	1.00	0.14	12/02/07	12/03/07
Uranium 235	0.07	U	0.17	1.00	0.29	12/02/07	12/03/07
Uranium 238	-0.13	U	0.69	1.00	0.90	12/02/07	12/03/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.008	U	0.23	1.00	0.10	12/02/07	F7L010000-149B 12/03/07
Cesium 137	-0.04	U	0.24	1.00	0.09	12/02/07	12/03/07
Thorium 232	0.0	U	0.23	1.00	0.43	12/02/07	12/03/07
Uranium 235	-0.05	U	0.47	1.00	0.29	12/02/07	12/03/07
Uranium 238	0.14	U	0.51	1.00	0.98	12/02/07	12/03/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.081	J	0.074	1.00	0.080	12/04/07	F7L040000-405B 12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.003	U	0.033	1.00	0.073	12/04/07	F7L040000-406B 12/10/07
Plutonium 239/40	0.009	U	0.024	1.00	0.046	12/04/07	12/10/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.009	U	0.024	1.00	0.046	12/04/07	F7L040000-407B 12/07/07
Uranium 235/236	-0.005	U	0.032	1.00	0.066	12/04/07	12/07/07
Uranium 238	0.022	U	0.038	1.00	0.029	12/04/07	12/07/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined using instrument performance only
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.
 U Result is less than the sample detection limit.

Laboratory Control Sample Report

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210350
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2σ+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	33.3	29.9	3.1	0.4	104	90	F7K290000-215C (64 - 114)
	Batch #:	7333215		Analysis Date:	12/03/07		
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	107	8.5	1.3		104	F7L010000-149C (85 - 118)
Cesium 137	40.0	44.3	2.8	0.5		111	(91 - 120)
Cobalt 60	62.7	64.3	3.8	0.3		102	(91 - 112)
	Batch #:	7335149		Analysis Date:	12/03/07		
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	106	8.5	1.6		103	F7L010000-150C (85 - 118)
Cesium 137	40.0	43.0	2.7	0.5		107	(91 - 120)
Cobalt 60	62.7	65.2	3.9	0.2		104	(91 - 112)
	Batch #:	7335150		Analysis Date:	12/03/07		
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	13.3	13.2	1.5	0.07	99	100	F7L040000-405C (75 - 119)
	Batch #:	7338405		Analysis Date:	12/07/07		
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	6.13	5.93	0.90	0.06	95	97	F7L040000-406C (77 - 112)
Plutonium 239/40	5.77	6.09	0.92	0.05	95	106	(82 - 119)
	Batch #:	7338406		Analysis Date:	12/10/07		
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	19.6	17.9	3.2	0.2	95	91	F7L040000-407C (76 - 128)
Uranium 238	19.6	20.5	3.5	0.3	95	104	(74 - 125)
	Batch #:	7338407		Analysis Date:	12/07/07		

NOTE(S)

MDC is determined by instrument performance only
 Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K210350

Date Sampled: 11/17/07

Matrix: SOLID

Date Received: 11/21/07

Parameter	SAMPLE Result	Total Uncert. (2σ+/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ+/-)	% Yld	QC Sample ID	Precision		
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	GA-01-R MOD			F7K210337-039			
Americium 241	0.02	U	0.15	-0.04	U	0.13	503	%RPD		
Cesium 137	-0.009	U	0.075	-0.004	U	0.069	73	%RPD		
Thorium 232	0.45	U	0.24	0.41	U	0.23	9	%RPD		
Uranium 235	0.18	U	0.37	0.10	U	0.25	56	%RPD		
Uranium 238	1.58	U	0.85	0.82	U	0.96	63	%RPD		
---Other Dedected Radionuclides---										
Bismuth 214	0.46		0.19	0.50		0.20	9	%RPD		
Lead 212	0.69		0.17	0.72		0.18	3	%RPD		
Lead 214	0.59		0.16	0.47		0.14	23	%RPD		
Potassium 40	11.7		2.0	8.4		2.0	33	%RPD		
Thallium 208	0.122	U	0.083	0.127		0.076	5	%RPD		
Batch #:			7335150 (Sample)	7335150 (Duplicate)						
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	TC-02-RC MOD			F7K210350-001			
Technetium 99	4.26		0.60	105	2.44	0.45	96	54	%RPD	
Batch #:			7333215 (Sample)	7333215 (Duplicate)						
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	GA-01-R MOD			F7K210350-002			
Americium 241	0.00008	U	0.072	0.002	U	0.091	182	%RPD		
Cesium 137	0.006	U	0.051	-0.01	U	0.12	490	%RPD		
Thorium 232	0.1	U	0.18	-0.0008	U	0.16	203	%RPD		
Uranium 235	0.16	U	0.19	0.18	U	0.19	14	%RPD		
Uranium 238	0.95	U	0.73	0.10	U	0.80	161	%RPD		
---Other Dedected Radionuclides---										
Bismuth 214	0.41		0.13	0.24		0.14	53	%RPD		
Lead 212	0.22		0.12	0.068	U	0.076	106	%RPD		
Lead 214	0.28		0.11	0.29		0.10	2	%RPD		
Potassium 40	5.8		1.4	5.7		1.4	0.8	%RPD		
Batch #:			7335149 (Sample)	7335149 (Duplicate)						
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD			F7K210350-003			
Neptunium 237	0.003	U	0.035	92	-0.012	U	0.037	91	324	%RPD
Batch #:			7338405 (Sample)	7338405 (Duplicate)						
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R			F7K210350-003			
Plutonium 238	0.012	U	0.041	94	-0.014	U	0.052	96	2910	%RPD
Plutonium 239/40	-0.002	U	0.021	94	-0.025	U	0.036	96	173	%RPD
Batch #:			7338406 (Sample)	7338406 (Duplicate)						
ISO URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD			F7K210350-003			
Uranium 233/234	43.0		5.7	86	38.4	5.1	91	11	%RPD	
Uranium 235/236	1.94		0.41	86	1.76	0.38	91	10	%RPD	
Uranium 238	5.20		0.82	86	5.11	0.80	91	2	%RPD	
Batch #:			7338407 (Sample)	7338407 (Duplicate)						

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

U Result is less than the sample detection limit.

F7K210350

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: .00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS in LOT: 21

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
1	NB-102-5-SL			2007-11-17 / 807	KCRMP	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
X XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
2	NB-103-2.5-SL			2007-11-17 / 842	KCT8E	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	150 URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
3	NB-103-4.5-SL			2007-11-17 / 842	KCT8H	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R MOD	150 PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	150 URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	150 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
4	NB-103-13.5-SL			2007-11-17 / 857	KCT8K	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
5	NB-105-4.5-SL			2007-11-15 / 1032	KCT8L	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
----------	------------------	---------	---------------	-------------------	-----------	---

F7K210350

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS In LOT: 21 EDD Code: 00

Gamma library MUST contain U-236, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

6 NB-106-15.5-SL 2007-11-15 / 1045 KCT8M SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

7 NB-109-0.5-SL 2007-11-15 / 1055 KCT8N SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01- R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02- RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

8 NB-109-4.5-SL 2007-11-15 / 1101 KCT8Q SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

9 NB-122-0.5-SL 2007-11-15 / 1105 KCT8R SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01- R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02- RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

10 NB-122-4.5-SL 2007-11-15 / 1110 KCT8T SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

11 NB-122-14.5-SL 2007-11-15 / 1123 KCT8V SOLID

SAMPLE COMMENTS:

XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06

F7K210350

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS in LOT: 21

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
12	NB-123-0.5-SL			2007-11-16 / 1315	KCT8W	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	J2	iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	J2	iso URANIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	J2	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
13	NB-123-2.5-SL			2007-11-16 / 1320	KCT8X	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	J2	iso URANIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
14	NB-123-4.5-SL			2007-11-16 / 1320	KCT80	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
15	NB-123-8.5-SL			2007-11-16 / 1325	KCT81	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
16	NB-124-0.5-SL			2007-11-14 / 1415	KCT82	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	J2	iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	J2	iso URANIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A WRK LOC 06

F7K210350

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-21
 Analytical Due Date: 2007-12-10
 Report Due Date: 2007-12-11
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS in LOT: 21

Gamma library MUST contain U-236, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX	3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
----	----	-----	------------	---	----	--	----	-------------------	---------	---------	----

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
17	NB-124-4.5-SL			2007-11-14 / 1422	KCT83	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Ce-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 08
XX	2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET PROT: A WRK LOC 08

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
18	NB-124-8.5-SL			2007-11-14 / 1425	KCT84	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Ce-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 08

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
19	NB-125-0.5-SL			2007-11-14 / 1100	KCT85	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Ce-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 08
XX	2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 08
XX	2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 08
XX	2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
20	NB-125-4.5-SL			2007-11-14 / 1105	KCT87	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Ce-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 08
XX	2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET PROT: A WRK LOC 08

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
21	NB-125-7-SL			2007-11-14 / 1110	KCT88	SOLID
SAMPLE COMMENTS:						
XX	ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET PROT: A WRK LOC 06
XX	0A	EML GA-01-R MOD	Gamma Ce-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS PROT: A WRK LOC 08

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Project Manager: Dianne Quayle
 Address: _____ Telephone Number: 865-368-9477
 City: _____ Site Contact: _____
 State: _____ Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/2/07
 CoC Number: 60-01
 Page: 26 of 28

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Sample ID Number	Date	Time	Matrix				Containers & Preservatives						Analysis				
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	H2O2	Isotopic TC-99	Isotopic U	Isotopic Pu	Isotopic Np
NB-102-5-SL	11-17-07	0807				✓							✓	✓	✓		
NB-103-25-SL	11-17-07	0842				✓							✓	✓	✓		
NB-103-45-SL	11-17-07	0842				✓							✓	✓	✓		
NB-103-13.5-SL	11-17-07	0857				✓							✓	✓	✓		
NB-105-45-SL	11-15-07	1032				✓							✓	✓	✓		
NB-105-15.5-SL	11-15-07	1045				✓							✓	✓	✓		
NB-109-05-SL	11-15-07	1055				✓							✓	✓	✓		
NB-109-45-SL	11-15-07	1101				✓							✓	✓	✓		

Possible Hazard Identification: Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 20 days Other

Comments: _____

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/2/07</u>	<u>11:30</u>	<u>Angela Brown</u>	<u>11/2/07</u>	<u>11:30</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 313010.202

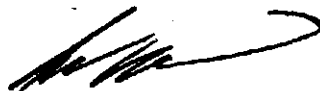
Hematite Site

Lot #: F7K280308

Paul Kly

Energy Solutions, LLC
1009 Commerce Park Drive
Suite 100
Oak Ridge, TN 37830

TESTAMERICA LABORATORIES, INC.



Ivan Vania
Project Manager

December 21, 2007

Case Narrative
LOT NUMBER: F7K280308

This report contains the analytical results for the 13 samples received under chain of custody by TestAmerica St. Louis on November 28, 2007. These samples are associated with your Hematite Site project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

The lot was received as various limited volume matrices. The entire sample was weighed and digested. These samples went through six digestions, including two straight HF digestions. Most of the samples did not digest completely to ash.

The samples were analyzed by gamma spectroscopy before a portion was aliquotted for Tc-99. The remainder of the samples were cooked to dryness and processed through the rest of the preparation as listed in the SOP. Most of the samples in the lot were consumed in order to run the analyses required.

The sample results are reported in pCi/g. The sample aliquots were calculated using the original sample weight that was digested. The samples were then brought up to 100 mLs and divided equally for all the analysis. The reporting limits for all analyses may be elevated due to the limited initial sample volumes or high activities of the samples.

Gamma Spectroscopy - Cesium-137 & Hits (EML GA-01-R MOD)

The gamma target nuclides reporting limits were not met due to insufficient sample volume available for analysis. Analytical results are reported with the MDCs achieved.

Affected Samples:

F7K280308 (4): D13-230-1-SS
F7K280308 (5): D15-230-1-SS
F7K280308 (7): D02-230-2-SS
F7K280308 (10): D01-230-3-SS
F7K280308 (12): D03-230-3-SS
F7K280308 (13): D01-110-3-SS

Tc-99 by LSC (EML TC-02-RC MOD)

Samples F7K280308-002, 3, 5, 6, 7, 9, 10, and 11 were bleached with three additional 5 ml aliquots of Hydrogen Peroxide in the attempt to reduce the dark color. The samples remained dark in color.

Affected Samples:

F7K280308 (2): D05-230-1-SS
F7K280308 (3): D08-230-1-SS
F7K280308 (5): D15-230-1-SS
F7K280308 (6): D01-230-2-SS
F7K280308 (7): D02-230-2-SS
F7K280308 (9): D04-230-2-SS
F7K280308 (10): D01-230-3-SS
F7K280308 (11): D02-230-3-SS

Isotopic Uranium by Alpha Spectroscopy (EML A-01-R MOD)

In the initial preparation the Uranium samples required an additional dilution due to high activity. The re-extract results are acceptable and will be reported.

Affected Samples:

F7K280308 (5): D15-230-1-SS
F7K280308 (10): D01-230-3-SS
F7K280308 (13): D01-110-3-SS

Neptunium by Alpha Spectroscopy EML A-01-R MOD

The Neptunium LCS tracer recovery is outside acceptance limits. LCS spike recoveries are within QC limits demonstrating acceptable sample preparation and instrument performance. There is an apparent anomaly in the sample preparation, isolated to the LCS and not indicative of the batch.

Affected Samples:

F7K280308 (7): D02-230-2-SS
F7K280308 (8): D03-230-2-SS
F7K280308 (10): D01-230-3-SS
F7K280308 (11): D02-230-3-SS
F7K280308 (10): D01-230-3-SS
F7K280308 (12): D03-230-3-SS
F7K280308 (13): D01-110-3-SS

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F7K280308

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EML GA-01-R MOD	
Isotopic Plutonium by Alpha Spectroscopy	EML A-01-R	
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Neptunium by Alpha Spectroscopy	EML A-01-R MOD	
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

SAMPLE SUMMARY

F7K280308

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KC12W	001	D04-230-1-SS	11/28/07	08:28
KC121	002	D05-230-1-SS	11/28/07	08:30
KC124	003	D08-230-1-SS	11/28/07	08:42
KC127	004	D13-230-1-SS	11/28/07	08:35
KC13H	005	D15-230-1-SS	11/28/07	08:59
KC13J	006	D01-230-2-SS	11/28/07	09:50
KC13K	007	D02-230-2-SS	11/28/07	09:35
KC13M	008	D03-230-2-SS	11/28/07	09:55
KC13P	009	D04-230-2-SS	11/28/07	10:00
KC13Q	010	D01-230-3-SS	11/28/07	14:00
KC13R	011	D02-230-3-SS	11/28/07	10:05
KC13V	012	D03-230-3-SS	11/28/07	10:10
KC13W	013	D01-110-3-SS	11/28/07	07:55

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
 - All calculations are performed before rounding to avoid round-off errors in calculated results.
 - Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Energy Solutions, LLC

Client Sample ID: D04-230-1-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-001
 Work Order: KC12W
 Matrix: SOLID

Date Collected: 11/28/07 0828
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7351143	Yld % 105
Technetium 99	0.25	U	0.35	1.00	0.57	12/17/07	12/20/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338439	Yld % 98
Uranium 233/234	6.02		0.70	1.00	0.06	12/04/07	12/20/07
Uranium 235/236	0.20	J	0.10	1.00	0.05	12/04/07	12/20/07
Uranium 238	0.76	J	0.18	1.00	0.05	12/04/07	12/20/07
Gamma Cs-137 & K135 by DOE GA-01-R MOD.				pCi/g		Batch # 7344315	Yld %
Americium 241	0.030	U	0.062	1.00	0.11	12/10/07	12/10/07
Cesium 137	-0.015	U	0.052	1.00	0.091	12/10/07	12/10/07
Thorium 232	-0.04	U	0.31	1.00	0.34	12/10/07	12/10/07
Uranium 235	0.72	J	0.34	1.00	0.41	12/10/07	12/10/07
Uranium 238	1.31		0.65	1.00	1.0	12/10/07	12/10/07
--- Other Detected Radionuclides ---							
Thorium 234	1.31		0.65		1.0	12/10/07	12/10/07

I(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D05-230-1-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-002
 Work Order: KC121
 Matrix: SOLID

Date Collected: 11/28/07 0830
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.24	U	0.34	1.00	0.59	12/17/07	12/20/07
Batch # 7351143 Yld % 103							
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.33		0.25	1.00	0.06	12/04/07	12/20/07
Uranium 235/236	0.046	J	0.046	1.00	0.031	12/04/07	12/20/07
Uranium 238	0.203	J	0.090	1.00	0.046	12/04/07	12/20/07
Batch # 7338439 Yld % 97							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.013	U	0.066	1.00	0.12	12/10/07	12/10/07
Cesium 137	-0.009	U	0.053	1.00	0.096	12/10/07	12/10/07
Thorium 232	-0.09	U	0.80	1.00	0.32	12/10/07	12/10/07
Uranium 235	-0.04	U	59	1	0.4	12/10/07	12/10/07
Uranium 238	-0.27	U	0.94	1.00	1.1	12/10/07	12/10/07
Batch # 7344315 Yld %							

(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D08-230-1-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-003
 Work Order: KC124
 Matrix: SOLID

Date Collected: 11/28/07 0842
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7351143	Yld % 101
Technetium 99	-0.45	U	0.36	1.00	0.63	12/17/07	12/20/07
Isotopes URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338439	Yld % 108
Uranium 233/234	2.98		0.40	1.00	0.05	12/04/07	12/20/07
Uranium 235/236	0.224	J	0.097	1.00	0.028	12/04/07	12/20/07
Uranium 238	0.60	J	0.15	1.00	0.02	12/04/07	12/20/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7344315	Yld %
Americium 241	0.034	U	0.065	1.00	0.11	12/10/07	12/10/07
Cesium 137	0.001	U	0.055	1.00	0.10	12/10/07	12/10/07
Thorium 232	0.0	U	0.12	1.00	0.26	12/10/07	12/10/07
Uranium 235	0.1	U	0.18	1.00	0.30	12/10/07	12/10/07
Uranium 238	0.67	U	0.42	1.00	0.96	12/10/07	12/10/07

1(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D13-230-1-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-004
 Work Order: KC127
 Matrix: SOLID

Date Collected: 11/28/07 0835
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.3	U	1.2	1.0	2.0	12/17/07	12/20/07
Batch # 7351143 Yld % 97							
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	32.1		2.8	1.0	0.02	12/13/07	12/19/07
Uranium 235/236	1.41		0.18	1.00	0.01	12/13/07	12/19/07
Uranium 238	4.79		0.46	1.00	0.02	12/13/07	12/19/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.1	U	1.2	1.0	2.1	12/10/07	12/10/07
Cesium 137	-0.4	U	2.0	1.0	3.6	12/10/07	12/10/07
Thorium 232	0.0	U	1.3	1.0	4.8	12/10/07	12/10/07
Uranium 235	4.8	U	6.1	1.0	10	12/10/07	12/10/07
Uranium 238	16	U	10	1	22	12/10/07	12/10/07
Batch # 7344315 Yld %							

1(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D15-230-1-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-005
 Work Order: KC13H
 Matrix: SOLID

Date Collected: 11/28/07 0859
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.79		0.33	1.00	0.42	12/17/07	12/20/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	1.75		0.93	1.00	1.5	12/10/07	12/11/07
Cesium 137	-0.03	U	2.5	1.0	0.8	12/10/07	12/11/07
Thorium 232	1.4	U	1.3	1.0	2.1	12/10/07	12/11/07
Uranium 235	209		18	1	4	12/10/07	12/11/07
Uranium 238	487		38	1	11	12/10/07	12/11/07
--- Other Detected Radionuclides ---							
Protactinium 234M	880		120		70	12/10/07	12/11/07
Thorium 234	487		38		11	12/10/07	12/11/07
URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	3900		360	1	7	12/20/07	12/20/07
Uranium 235/236	161		34	1	7	12/20/07	12/20/07
Uranium 238	600		74	1	7	12/20/07	12/20/07

A(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D01-230-2-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-006
 Work Order: KC13J
 Matrix: SOLID

Date Collected: 11/28/07 0950
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.30		0.60	1.00	0.93	12/17/07	12/20/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	79.2		6.9	1.0	0.06	12/04/07	12/20/07
Uranium 235/236	3.63		0.54	1.00	0.07	12/04/07	12/20/07
Uranium 238	33.7		3.1	1.0	0.08	12/04/07	12/20/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.15	U	0.17	1.00	0.28	12/10/07	12/11/07
Cesium 137	0.002	U	0.097	1.00	0.18	12/10/07	12/11/07
Thorium 232	0.58	U	0.49	1.00	0.81	12/10/07	12/11/07
Uranium 235	3.97		0.91	1.00	0.84	12/10/07	12/11/07
Uranium 238	6.0		1.3	1.0	2.3	12/10/07	12/11/07
--- Other Detected Radionuclides ---							
Lead 212	0.80		0.27		0.36	12/10/07	12/11/07
Lead 214	0.59		0.27		0.45	12/10/07	12/11/07
Thorium 234	6.0		1.3		2.3	12/10/07	12/11/07

:(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D02-230-2-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-007
 Work Order: KCl3K
 Matrix: SOLID

Date Collected: 11/28/07 0935
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.6	U	1.1	1.0	1.9	12/17/07	12/20/07
Batch # 7351143 Yld % 57							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	11.7		1.1	1.0	0.04	12/13/07	12/19/07
Uranium 235/236	0.57	J	0.14	1.00	0.02	12/13/07	12/19/07
Uranium 238	2.24		0.31	1.00	0.03	12/13/07	12/19/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.1	U	1.7	1.0	1.9	12/10/07	12/10/07
Cesium 137	-0.8	U	4.5	1.0	3.5	12/10/07	12/10/07
Thorium 232	1.4	U	4.6	1.0	8.4	12/10/07	12/10/07
Uranium 235	-2	U	45	1	9	12/10/07	12/10/07
Uranium 238	-6	U	25	1	20	12/10/07	12/10/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.0062	U	0.0073	1.00	0.010	12/13/07	12/20/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.004	U	0.013	1.00	0.040	12/13/07	12/19/07
Plutonium 239/40	-0.0019	U	0.0028	1.00	0.026	12/13/07	12/19/07

(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D03-230-2-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-008
 Work Order: KC13M
 Matrix: SOLID

Date Collected: 11/28/07 0955
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.58	U	0.37	1.00	0.60	12/17/07	12/20/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.77	J	0.18	1.00	0.05	12/04/07	12/20/07
Uranium 235/236	0.063	J	0.053	1.00	0.046	12/04/07	12/20/07
Uranium 238	0.111	J	0.063	1.00	0.037	12/04/07	12/20/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.006	U	0.032	1.00	0.058	12/10/07	12/11/07
Cesium 137	-0.01	U	0.13	1.00	0.07	12/10/07	12/11/07
Thorium 232	0.0	U	0.13	1.00	0.26	12/10/07	12/11/07
Uranium 235	0.16	U	0.14	1.00	0.22	12/10/07	12/11/07
Uranium 238	0.30	U	0.29	1.00	0.68	12/10/07	12/11/07
Iso NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0051	U	0.0046	1.00	0.034	12/04/07	12/20/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.003	U	0.022	1.00	0.067	12/04/07	12/20/07
Plutonium 239/40	-0.0073	U	0.0074	1.00	0.057	12/04/07	12/20/07

S(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D04-230-2-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-009
 Work Order: KC13P
 Matrix: SOLID

Date Collected: 11/28/07 1000
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.24	U	0.35	1.00	0.61	12/17/07	12/20/07
Batch # 7351143 Yld % 102							
Isotopes URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.164	J	0.080	1.00	0.039	12/04/07	12/20/07
Uranium 235/236	0.011	U	0.023	1.00	0.031	12/04/07	12/20/07
Uranium 238	0.028	J	0.032	1.00	0.025	12/04/07	12/20/07
Batch # 7338439 Yld % 93							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.028	U	0.073	1.00	0.12	12/10/07	12/11/07
Cesium 137	0.0	U	0.066	1.00	0.12	12/10/07	12/11/07
Thorium 232	-0.04	U	0.33	1.00	0.37	12/10/07	12/11/07
Uranium 235	-0.05	U	1.2	1.0	0.4	12/10/07	12/11/07
Uranium 238	0.04	U	0.61	1.00	1.2	12/10/07	12/11/07
Batch # 7344315 Yld %							

(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D01-230-3-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-010
 Work Order: KC13Q
 Matrix: SOLID

Date Collected: 11/28/07 1400
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	4.22		0.44	1.00	0.27	12/17/07	12/21/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.55	U	0.50	1.00	0.81	12/10/07	12/11/07
Cesium 137	-0.08	U	0.19	1.00	0.33	12/10/07	12/11/07
Thorium 232	0.27	U	0.58	1.00	1.0	12/10/07	12/11/07
Uranium 235	71.5		6.6	1.0	2.7	12/10/07	12/11/07
Uranium 238	152		14	1	7	12/10/07	12/11/07
--- Other Detected Radionuclides ---							
Bismuth 212	2.5		2.1		2.3	12/10/07	12/11/07
Bismuth 214	1.38		0.52		0.69	12/10/07	12/11/07
Protactinium 234M	384		55		30	12/10/07	12/11/07
Thorium 234	152		14		7	12/10/07	12/11/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.0048	U	0.0057	1.00	0.0076	12/13/07	12/20/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.0014	U	0.0053	1.00	0.011	12/13/07	12/19/07
Plutonium 239/40	0.0007	U	0.0044	1.00	0.010	12/13/07	12/19/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	566		60	1	4	12/20/07	12/20/07
Uranium 235/236	28.9		9.6	1.0	2.0	12/20/07	12/20/07
Uranium 238	91		17	1	3	12/20/07	12/20/07

1(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D02-230-3-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-011
 Work Order: KC13R
 Matrix: SOLID

Date Collected: 11/28/07 1005
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.02	U	0.37	1.00	0.63	12/17/07	12/21/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.63	J	0.17	1.00	0.06	12/04/07	12/20/07
Uranium 235/236	0.036	U	0.045	1.00	0.055	12/04/07	12/20/07
Uranium 238	0.144	J	0.078	1.00	0.028	12/04/07	12/20/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.004	U	0.047	1.00	0.085	12/10/07	12/11/07
Cesium 137	0.001	U	0.054	1.00	0.10	12/10/07	12/11/07
Thorium 232	0.03	U	0.19	1.00	0.36	12/10/07	12/11/07
Uranium 235	0.04	U	0.17	1.00	0.30	12/10/07	12/11/07
Uranium 238	-0.3	U	1.1	1.0	1.1	12/10/07	12/11/07
Iso NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.001	U	0.023	1.00	0.069	12/04/07	12/20/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.0007	U	0.033	1.00	0.084	12/04/07	12/20/07
Plutonium 239/40	-0.010	U	0.0090	1.00	0.066	12/04/07	12/20/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D03-230-3-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-012
 Work Order: KC13V
 Matrix: SOLID

Date Collected: 11/28/07 1010
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.40	U	0.47	1.00	0.77	12/17/07	12/21/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	30.4		2.6	1.0	0.02	12/13/07	12/19/07
Uranium 235/236	1.48		0.21	1.00	0.02	12/13/07	12/19/07
Uranium 238	5.48		0.55	1.00	0.03	12/13/07	12/19/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.3	U	24	1	2	12/10/07	12/11/07
Cesium 137	-0.5	U	3.1	1.0	2.8	12/10/07	12/11/07
Thorium 232	-1.5	U	4.6	1.0	8.2	12/10/07	12/11/07
Uranium 235	-0.6	U	12	1	5	12/10/07	12/11/07
Uranium 238	1.2	U	6.6	1.0	13	12/10/07	12/11/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.167	J	0.058	1.00	0.025	12/13/07	12/20/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.0005	U	0.012	1.00	0.029	12/13/07	12/19/07
Plutonium 239/40	-0.0022	U	0.0025	1.00	0.021	12/13/07	12/19/07

1(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: D01-110-3-SS

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280308-013
 Work Order: KC13W
 Matrix: SOLID

Date Collected: 11/28/07 0755
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7351143	Yld % 106
Technetium 99	0.14	U	0.18	1.00	0.29	12/17/07	12/21/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7344315	Yld %
Americium 241	1.5	U	2.2	1.0	4.0	12/10/07	12/11/07
Cesium 137	-4	U	90	1	9	12/10/07	12/11/07
Thorium 232	4.5	U	9.5	1.0	17	12/10/07	12/11/07
Uranium 235	3.1	U	9.8	1.0	18	12/10/07	12/11/07
Uranium 238	14	U	25	1	48	12/10/07	12/11/07
--- Other Detected Radionuclides ---							
Lead 214	13.9		5.9		10	12/10/07	12/11/07
0 NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7347430	Yld % 95
Neptunium 237	0.0015	U	0.0052	1.00	0.011	12/13/07	12/20/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7347431	Yld % 97
Plutonium 238	0.0007	U	0.0035	1.00	0.0091	12/13/07	12/19/07
Plutonium 239/40	-0.0016	U	0.0014	1.00	0.010	12/13/07	12/19/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7354466	Yld % 83
Uranium 233/234	1320		120	1	2	12/20/07	12/20/07
Uranium 235/236	53		11	1	1	12/20/07	12/20/07
Uranium 238	191		23	1	1	12/20/07	12/20/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

METHOD BLANK REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280308
 Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0018	U	0.0036	1.00	0.041	12/13/07	F7L130000-430B 12/20/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.035	U	0.040	1.00	0.051	12/13/07	F7L130000-431B 12/20/07
Plutonium 239/40	0.002	U	0.021	1.00	0.059	12/13/07	12/20/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.74	J	0.19	1.00	0.06	12/13/07	F7L130000-433B 12/20/07
Uranium 235/236	0.34	J	0.13	1.00	0.05	12/13/07	12/20/07
Uranium 238	0.33	J	0.12	1.00	0.05	12/13/07	12/20/07
Am-99 by LSC by DOE TC-02-RC Mod.							
Am-99	0.07	U	0.35	1.00	0.58	12/17/07	F7L170000-143B 12/20/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0019	U	0.0039	1.00	0.044	12/04/07	F7L040000-435B 12/20/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.009	U	0.045	1.00	0.10	12/04/07	F7L040000-437B 12/20/07
Plutonium 239/40	0.005	U	0.028	1.00	0.065	12/04/07	12/20/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	-0.003	U	0.020	1.00	0.060	12/04/07	F7L040000-439B 12/20/07
Uranium 235/236	-0.0041	U	0.0058	1.00	0.054	12/04/07	12/20/07
Uranium 238	0.006	U	0.018	1.00	0.043	12/04/07	12/20/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.016	U	0.065	1.00	0.11	12/10/07	F7L100000-315B 12/11/07
Cesium 137	0.020	U	0.042	1.00	0.072	12/10/07	12/11/07
Thorium 232	-0.06	U	0.53	1.00	0.32	12/10/07	12/11/07
Uranium 235	0.06	U	0.20	1.00	0.35	12/10/07	12/11/07
Uranium 238	0.17	U	0.79	1.00	1.1	12/10/07	12/11/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.009	U	0.016	1.00	0.027	12/20/07	F7L200000-466B 12/20/07
Uranium 235/236	0.0	U	0.0058	1.00	0.018	12/20/07	12/20/07
Uranium 238	0.009	U	0.016	1.00	0.026	12/20/07	12/20/07

..S(B)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only

Bold results are greater than the MDC

Laboratory Control Sample Report

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280308
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	GA-01-R MOD			F7L100000-315C
Americium 241	70.0	68.5	5.4	0.7		98	(85 - 118)
Cesium 137	29.5	29.9	1.9	0.2		101	(91 - 120)
Cobalt 60	42.4	41.1	2.7	0.1		97	(91 - 112)
	Batch #:	7344315		Analysis Date:	12/11/07		
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	TC-02-RC MOD			F7L170000-143C
Technetium 99	33.3	28.3	2.5	0.5	110	85	(64 - 114)
	Batch #:	7351143		Analysis Date:	12/20/07		

Laboratory Control Sample/LCS Duplicate Report

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280308
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2σ+/-)	% Yld	% Rec	Lab Sample ID	
						QC Control Limits	Precision
ISO NEPTUNIUM (SHORT CT) DOE A-01-R			pCi/g	A-01-R MOD		F7L130000-430C	
MOD							
Neptunium 237	13.3	11.9	1.2	117	90	(75 - 119)	
Spk 2	13.3	13.3	1.3	105	100	(75 - 119) 11 %RPD	
Batch #: 7347430			Analysis Date: 12/20/07				
ISO PLUTONIUM (SHORT CT) DOE A-01-R			pCi/g	A-01-R		F7L130000-431C	
MOD							
Plutonium 238	6.13	5.98	0.69	100	98	(77 - 112)	
Spk 2	6.13	6.12	0.70	98	100	(77 - 112) 2 %RPD	
Plutonium 239/40	5.77	5.80	0.67	100	100	(82 - 119)	
Spk 2	5.77	5.67	0.66	98	98	(82 - 119) 2 %RPD	
Batch #: 7347431			Analysis Date: 12/19/07				
ISO URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD		F7L130000-433C	
MOD							
Uranium 233/234	6.56	7.26	0.81	92	110	(76 - 128)	
Spk 2	6.56	8.06	0.89	83	123	(76 - 128) 10 %RPD	
Uranium 238	6.82	7.38	0.82	92	108	(74 - 125)	
Spk 2	6.82	7.58	0.85	83	111	(74 - 125) 3 %RPD	
Batch #: 7347433			Analysis Date: 12/19/07				
ISO NEPTUNIUM (SHORT CT) DOE A-01-R			pCi/g	A-01-R MOD		F7L040000-435C	
MOD							
Neptunium 237	13.3	12.2	1.2	114	92	(75 - 119)	
Spk 2	13.3	12.7	1.2	115	96	(75 - 119) 4 %RPD	
Batch #: 7338435			Analysis Date: 12/20/07				
ISO PLUTONIUM (SHORT CT) DOE A-01-R			pCi/g	A-01-R		F7L040000-437C	
MOD							
Plutonium 238	6.13	5.96	0.70	95	97	(77 - 112)	
Spk 2	6.13	5.52	0.65	102	90	(77 - 112) 8 %RPD	
Plutonium 239/40	5.77	6.30	0.73	95	109	(82 - 119)	
Spk 2	5.77	5.91	0.68	102	102	(82 - 119) 6 %RPD	
Batch #: 7338437			Analysis Date: 12/20/07				
ISO URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD		F7L040000-439C	
MOD							
Uranium 233/234	6.56	6.20	0.71	98	94	(76 - 128)	
Spk 2	6.56	6.64	0.75	96	101	(76 - 128) 7 %RPD	
Uranium 238	6.82	6.78	0.76	98	99	(74 - 125)	
Spk 2	6.82	7.09	0.79	96	104	(74 - 125) 5 %RPD	
Batch #: 7338439			Analysis Date: 12/20/07				
ISO URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD		F7L200000-466C	
MOD							
Uranium 233/234	3.28	3.57	0.40	93	109	(76 - 128)	
Spk 2	3.28	3.75	0.42	91	114	(76 - 128) 5 %RPD	
Uranium 238	3.41	3.61	0.41	93	106	(74 - 125)	
Spk 2	3.41	3.60	0.41	91	106	(74 - 125) 0.2 %RPD	
Batch #: 7354466			Analysis Date: 12/20/07				

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280308
 Matrix: SOLID

Date Sampled: 11/28/07
 Date Received: 11/28/07

Parameter	SAMPLE Result	Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ +/-)	% Yld	QC Sample ID Precision
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	GA-01-R MOD			F7K280308-001
Americium 241	0.030 U	0.062		-0.003 U	0.057		237 RPD
Cesium 137	-0.015 U	0.052		-0.02 U	0.10		12 RPD
Thorium 232	-0.04 U	0.31		-0.05 U	0.18		28 RPD
Uranium 235	0.72 J	0.34		0.30 J	0.17		83 RPD
Uranium 238	1.31	0.65		1.06	0.38		21 RPD
---Other Dedected Radionuclides---							
Thorium 234	1.31	0.65		1.06	0.38		21 RPD
Batch #:		7344315 (Sample)		7344315 (Duplicate)			
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	TC-02-RC MOD			F7K280308-001
Technetium 99	0.25 U	0.35	105	0.01 U	0.33	108	179 RPD
Batch #:		7351143 (Sample)		7351143 (Duplicate)			

NOTE(S)

Data are incomplete without the case narrative.
 Calculations are performed before rounding to avoid round-off error in calculated results

F7K280308

CLIENT ANALYSIS SUMMARY

Storage Loc: **RAD**
 Date Received: **2007-11-28**
 Analytical Due Date: **2007-12-25**
 Report Due Date: **2007-12-26**
 Report Type: **W**
 EDD Code: **00**

Project Manager: **IV** Quote #: **77705** SDG:
 Project: **313010.202** Hematite Site
 PO#: Report to: **Paul Ely**
 Client: **1381304 Energy Solutions, LLC**

#SMPS in LOT: **13**

Gamma Library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
1	D04-230-1-SS			2007-11-28 / 828	KC12W	SOLID
SAMPLE COMMENTS: LIMITED VOLUME RUN GAMMA FIRST DO NOT CONSUME						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	See URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-08 by LSC by DOE TC-02-RC Mod.	IM TC-08 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
2	D05-230-1-SS			2007-11-28 / 830	KC121	SOLID
SAMPLE COMMENTS: LIMITED VOLUME RUN GAMMA FIRST DO NOT CONSUME						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	See URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-08 by LSC by DOE TC-02-RC Mod.	IM TC-08 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
3	D06-230-1-SS			2007-11-28 / 842	KC124	SOLID
SAMPLE COMMENTS: LIMITED VOLUME RUN GAMMA FIRST DO NOT CONSUME						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	See URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-08 by LSC by DOE TC-02-RC Mod.	IM TC-08 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
4	D13-230-1-SS			2007-11-28 / 835	KC127	SOLID
SAMPLE COMMENTS: LIMITED VOLUME RUN GAMMA FIRST DO NOT CONSUME						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	See URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-08 by LSC by DOE TC-02-RC Mod.	IM TC-08 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
5	D15-230-1-SS			2007-11-28 / 858	KC13H	SOLID
SAMPLE COMMENTS: LIMITED VOLUME RUN GAMMA FIRST DO NOT CONSUME						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	See URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-08 by LSC by DOE TC-02-RC Mod.	IM TC-08 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
STL - St. Louis	Logged In by: VANIAI	2007-11-28	10:34:14	printed on: Friday, November 30, 2007 08:48 A		Page 1 of 3

F7K280308

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-11-28
 Analytical Due Date: 2007-12-25
 Report Due Date: 2007-12-25

Report Type: W
 EDD Code: 00

#SMPS in LOT: 13

Gamma Library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

6 D01-230-2-SS 2007-11-28 / 950 KC13J SOLID

SAMPLE COMMENTS:		LIMITED VOLUME RUN GAMMA FIRST		DO NOT CONSUME				
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hks by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-09 by LSC by DOE TC-02-RC Mod.	IM	TC-09 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A	WRK LOC	06

7 D02-230-2-SS 2007-11-28 / 935 KC13K SOLID

SAMPLE COMMENTS:		LIMITED VOLUME RUN GAMMA FIRST		DO NOT CONSUME				
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hks by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-09 by LSC by DOE TC-02-RC Mod.	IM	TC-09 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC	06

8 D03-230-2-SS 2007-11-28 / 965 KC13M SOLID

SAMPLE COMMENTS:		LIMITED VOLUME RUN GAMMA FIRST		DO NOT CONSUME				
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hks by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-09 by LSC by DOE TC-02-RC Mod.	IM	TC-09 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC	06

9 D04-230-2-SS 2007-11-28 / 1000 KC13P SOLID

SAMPLE COMMENTS:		LIMITED VOLUME RUN GAMMA FIRST		DO NOT CONSUME				
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hks by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-09 by LSC by DOE TC-02-RC Mod.	IM	TC-09 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A	WRK LOC	06

10 D01-230-3-SS 2007-11-28 / 1400 KC13Q SOLID

SAMPLE COMMENTS:		LIMITED VOLUME RUN GAMMA FIRST		DO NOT CONSUME				
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hks by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A	WRK LOC	06

F7K280308

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-28
 Analytical Due Date: 2007-12-25
 Report Due Date: 2007-12-25
 Report Type: W
 EDD Code: 00

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010.202 Hemafite Site
 PO#: Report to: Paul Ely
 Client: 1381304 Energy Solutions, LLC

#SMPS In LOT: 13

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX 2I	EML	A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-08 by LSC by DOE TC-02-RC Mod.	IM	TC-08 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
11	D02-230-3-SS			2007-11-28 / 1005	KC13R	SOLID
SAMPLE COMMENTS: LIMITED VOLUME RUN GAMMA FIRST DO NOT CONSUME						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & Hts by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-08 by LSC by DOE TC-02-RC Mod.	IM TC-08 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
12	D03-230-3-SS			2007-11-28 / 1010	KC13V	SOLID
SAMPLE COMMENTS: LIMITED VOLUME RUN GAMMA FIRST DO NOT CONSUME						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & Hts by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-08 by LSC by DOE TC-02-RC Mod.	IM TC-08 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
13	D01-110-3-SS			2007-11-28 / 766	KC13W	SOLID
SAMPLE COMMENTS: LIMITED VOLUME RUN GAMMA FIRST DO NOT CONSUME						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & Hts by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-08 by LSC by DOE TC-02-RC Mod.	IM TC-08 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06



Lot #(s):

89
F7K 280308
319
318

- 1341 -

Client: Energy Solutions COC/RFA No: SL-2, SL-3 Condition Upon Receipt Form
 Quote No: 77705 Initiated By: BA Date: 1/26/07
 Time: 1443

Shipping Information

Shipper Name: dash Multiple Packages Y N
 Shipping # (s):* Sample Temperature (s):**
 1. _____ 6. _____ 1. ambient 6. _____
 2. _____ 7. _____ 2. 1 7. _____
 3. _____ 8. _____ 3. _____ 8. _____
 4. _____ 9. _____ 4. _____ 9. _____
 5. _____ 10. _____ 5. _____ 10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines
 **Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	<input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N	Are there custody seals present on the cooler?	8.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Are there custody seals present on bottles?
2.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Do custody seals on cooler appear to be tampered with?	9.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Do custody seals on bottles appear to be tampered with?
3.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Were contents of cooler frisked after opening, but before unpacking?	10.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Was sample received with proper pH? (If not, make note below)
4.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Sample received with Chain of Custody?	11.	<input type="checkbox"/> Y <input type="checkbox"/> N	If N/A- Was pH taken by original TestAmerica lab?
5.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Sample received in proper containers?
6.	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	Was sample received broken?	13.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	Is sample volume sufficient for analysis?	14.	<input type="checkbox"/> Y <input type="checkbox"/> N	Was Internal COC/Workshare received?

¹ For DOB-AL (Pentax, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:
 Client Contact Name: _____ Informed by: _____
 Sample(s) processed "as is"
 Sample(s) on hold until: _____ If released, notify: _____
 Project Management Review: [Signature] Date: 12-3-07
 THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN



ANALYTICAL REPORT

PROJECT NO. 313010.202

Hematite Site

Lot #: F7K280316

Paul Ely

Energy Solutions, LLC
1009 Commerce Park Drive
Suite 100
Oak Ridge, TN 37830

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Ivan Vania", is written above the printed name and title.

Ivan Vania
Project Manager

December 21, 2007

Case Narrative
LOT NUMBER: F7K280316

This report contains the analytical results for the 40 samples received under chain of custody by TestAmerica St. Louis on November 28, 2007. These samples are associated with your Hematite Site project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Isotopic Uranium by Alpha Spectroscopy (EML A-01-R MOD)

In the initial preparation the Uranium samples required an additional dilution due to high activity. The Uranium activity results could not be replicated upon re-extract. This is attributed to hot spots in a non-homogeneous sample. The re-extract results are reported.

Affected Samples:

F7K280316 (8): BD-30-4.5-SL

Isotopic Plutonium by Alpha Spectroscopy (EML A-01-R MOD)

In the initial preparation the Plutonium samples had tracer recoveries below the 30% QC limit. The samples were re-prepared and reanalyzed. The reanalysis results are acceptable and reported.

Affected Samples:

F7K280316 (4): BD-29-2.5-SL

F7K280316 (13): BD-32-2.5-SL

Tc-99 by LSC (EML TC-02-RC MOD)

The Technetium-99M tracer recovered high indicating a potential low bias for sample results. The yields were truncated at 100% to eliminate biased results. Technetium-99 was not detected in the samples.

Affected Samples:

F7K280316 (37): BD-22-4.5-SL

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F7K280316

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EML GA-01-R MOD	
Isotopic Plutonium by Alpha Spectroscopy	EML A-01-R	
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Neptunium by Alpha Spectroscopy	EML A-01-R MOD	
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

SAMPLE SUMMARY

F7K280316

<u>NO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KC140	001	BD-27-2.5-SL	11/26/07	15:15
KC15G	002	BD-27-4.5-SL	11/26/07	15:15
KC15J	003	BD-27-13-SL	11/26/07	15:29
KC15M	004	BD-29-2.5-SL	11/26/07	09:55
KC15P	005	BD-29-4.5-SL	11/26/07	09:55
KC15R	006	BD-29-8.5-SL	11/26/07	10:02
KC153	007	BD-30-2.5-SL	11/21/07	09:50
KC154	008	BD-30-4.5-SL	11/21/07	09:50
KC16L	009	BD-30-9-SL	11/21/07	10:00
KC18L	010	BD-31-2.5-SL	11/26/07	15:50
KC18P	011	BD-31-4.5-SL	11/26/07	15:50
KC18T	012	BD-31-8.5-SL	11/26/07	15:55
KC180	013	BD-32-2.5-SL	11/26/07	09:20
KC185	014	BD-32-4.5-SL	11/26/07	09:20
KC189	015	BD-32-13-SL	11/26/07	09:28
KC19H	016	BD-33-2.5-SL	11/21/07	10:25
KC19N	017	BD-33-4.5-SL	11/21/07	10:25
KC19R	018	BD-33-12.5-SL	11/21/07	10:35
KC19W	019	BD-36-4.5-SL	11/26/07	10:42
KC192	020	BD-36-12.5-SL	11/26/07	10:54
KC194	021	BD-37-2.5-SL	11/26/07	13:20
KC199	022	BD-37-4.5-SL	11/26/07	13:20
KC2AC	023	BD-37-5-SL	11/26/07	13:24
KC2AF	024	BD-39-2.5-SL	11/26/07	13:00
KC2AH	025	BD-39-4.5-SL	11/26/07	13:00
KC2AK	026	BD-39-8.5-SL	11/26/07	13:05
KC2AN	027	BD-26-2.5-SL	11/21/07	08:25
KC2AV	028	BD-26-4.5-SL	11/21/07	08:25
KC2A0	029	BD-26-7.5-SL	11/21/07	08:30
KC2A4	030	BD-25-2.5-SL	11/26/07	13:50
KC2A9	031	BD-25-4.5-SL	11/26/07	13:50
KC2CA	032	BD-25-16.5-SL	11/26/07	14:10
KC2CF	033	BD-23-2.5-SL	11/26/07	16:20
KC2CJ	034	BD-23-4.5-SL	11/26/07	16:20
KC2CP	035	BD-23-5-SL	11/26/07	16:25
KC2CR	036	BD-22-2.5-SL	11/26/07	14:17

(Continued on next page)

SAMPLE SUMMARY

F7K280316

<u>NO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KC2C2	037	BD-22-4.5-SL	11/26/07	14:17
KC2C5	038	BD-22-12.5-SL	11/26/07	14:28
KC2C6	039	BD-21-2.5-SL	11/26/07	16:45
KC2C8	040	BD-21-4.5-SL	11/26/07	16:45

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, lryers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Energy Solutions, LLC

Client Sample ID: BD-27-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-001
 Work Order: KC140
 Matrix: SOLID

Date Collected: 11/26/07 1515
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.011	U	0.010	1.00	0.074	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.013	U	0.035	1.00	0.071	12/07/07	12/14/07
Plutonium 239/40	-0.0054	U	0.0063	1.00	0.052	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.37	U	0.40	1.00	0.69	12/13/07	12/18/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	7.11		0.81	1.00	0.05	12/07/07	12/14/07
Uranium 235/236	0.38	J	0.15	1.00	0.06	12/07/07	12/14/07
Uranium 238	0.90	J	0.21	1.00	0.05	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.017	U	0.077	1.00	0.13	12/03/07	12/14/07
Cesium 137	0.013	U	0.024	1.00	0.042	12/03/07	12/14/07
Thorium 232	0.02	U	0.10	1.00	0.20	12/03/07	12/14/07
Uranium 235	0.20	U	0.17	1.00	0.27	12/03/07	12/14/07
Uranium 238	0.72	U	0.40	1.00	1.1	12/03/07	12/14/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.121		0.078		0.12	12/03/07	12/14/07
Lead 212	0.040	U	0.066		0.12	12/03/07	12/14/07
Lead 214	0.166		0.074		0.10	12/03/07	12/14/07
Potassium 40	2.72		0.72		0.72	12/03/07	12/14/07
Thorium 234	0.72	U	0.40		1.1	12/03/07	12/14/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-27-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-002
 Work Order: KC15G
 Matrix: SOLID

Date Collected: 11/26/07 1515
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.29	U	0.42	1.00	0.69	12/13/07	12/18/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.02	U	0.13	1.00	0.22	12/03/07	12/08/07
Cesium 137	-0.014	U	0.061	1.00	0.11	12/03/07	12/08/07
Thorium 232	0.84	J	0.20	1.00	0.29	12/03/07	12/08/07
Uranium 235	0.11	U	0.29	1.00	0.49	12/03/07	12/08/07
Uranium 238	1.89		0.80	1.00	1.6	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.84		0.20		0.29	12/03/07	12/08/07
Bismuth 214	0.82		0.17		0.18	12/03/07	12/08/07
ed 212	1.33		0.23		0.17	12/03/07	12/08/07
ad 214	0.87		0.14		0.17	12/03/07	12/08/07
Potassium 40	16.0		2.0		0.8	12/03/07	12/08/07
Thallium 208	0.378		0.090		0.069	12/03/07	12/08/07
Thorium 234	1.89		0.80		1.6	12/03/07	12/08/07

Ⓢ(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-27-13-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-003
 Work Order: KC15J
 Matrix: SOLID

Date Collected: 11/26/07 1529
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.017	U	0.034	1.00	0.063	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.0102	U	0.0084	1.00	0.059	12/07/07	12/14/07
Plutonium 239/40	-0.0068	U	0.0069	1.00	0.053	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	2.24		0.35	1.00	0.05	12/07/07	12/14/07
Uranium 235/236	0.071	J	0.060	1.00	0.052	12/07/07	12/14/07
Uranium 238	1.04		0.22	1.00	0.06	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Cesium 137	-0.03	U	1.1	1.0	0.3	12/03/07	12/08/07
Thorium 232	1.10		0.37	1.00	0.69	12/03/07	12/08/07
Uranium 235	0.16	U	0.34	1.00	0.59	12/03/07	12/08/07
Uranium 238	1.58	U	0.94	1.00	2.6	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.10		0.37		0.69	12/03/07	12/08/07
Bismuth 212	2.1		1.2		1.0	12/03/07	12/08/07
Bismuth 214	1.70		0.35		0.24	12/03/07	12/08/07
Lead 212	1.44		0.24		0.19	12/03/07	12/08/07
Lead 214	1.21		0.27		0.26	12/03/07	12/08/07
Potassium 40	23.4		3.5		0.8	12/03/07	12/08/07
Thallium 208	0.69		0.16		0.11	12/03/07	12/08/07

(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-29-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-004
 Work Order: KC15M
 Matrix: SOLID

Date Collected: 11/26/07 0955
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341177	Yld % 93
Neptunium 237	-0.0119	U	0.0098	1.00	0.069	12/07/07	12/13/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7347172	Yld % 98
Technetium 99	1.33		0.45	1.00	0.68	12/13/07	12/18/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341180	Yld % 96
Uranium 233/234	12.2		1.2	1.0	0.06	12/07/07	12/14/07
Uranium 235/236	0.49	J	0.16	1.00	0.03	12/07/07	12/14/07
Uranium 238	2.63		0.39	1.00	0.05	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337299	Yld %
Americium 241	-0.06	U	0.15	1.00	0.26	12/03/07	12/08/07
ium 137	0.020	U	0.064	1.00	0.11	12/03/07	12/08/07
Thorium 232	0.59	J	0.20	1.00	0.34	12/03/07	12/08/07
Uranium 235	0.40	U	0.28	1.00	0.44	12/03/07	12/08/07
Uranium 238	3.44		0.92	1.00	1.7	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.59		0.20		0.34	12/03/07	12/08/07
Bismuth 214	1.10		0.22		0.14	12/03/07	12/08/07
Lead 212	1.06		0.20		0.16	12/03/07	12/08/07
Lead 214	1.03		0.16		0.13	12/03/07	12/08/07
Potassium 40	16.0		2.2		0.5	12/03/07	12/08/07
Thallium 208	0.268		0.080		0.092	12/03/07	12/08/07
Thorium 234	3.44		0.92		1.7	12/03/07	12/08/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7352393	Yld % 88
Plutonium 238	-0.027	U	0.015	1.00	0.089	12/18/07	12/20/07
Plutonium 239/40	-0.0039	U	0.0056	1.00	0.051	12/18/07	12/20/07

S(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-29-2.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-004X
 Work Order: KC15M
 Matrix: SOLID

Date Collected: 11/26/07 0955
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7352393	Yld % 94
Plutonium 238	-0.0057	U	0.0066	1.00	0.055	12/18/07	12/20/07
Plutonium 239/40	-0.0095	U	0.0085	1.00	0.063	12/18/07	12/20/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-29-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-005
 Work Order: KC15P
 Matrix: SOLID

Date Collected: 11/26/07 0955
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7347174	Yld % 105
Technetium 99	0.04	U	0.37	1.00	0.61	12/13/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337299	Yld %
Americium 241	0.02	U	0.16	1.00	0.27	12/03/07	12/08/07
Cesium 137	-0.016	U	0.076	1.00	0.13	12/03/07	12/08/07
Thorium 232	0.62	J	0.23	1.00	0.37	12/03/07	12/08/07
Uranium 235	0.16	U	0.36	1.00	0.61	12/03/07	12/08/07
Uranium 238	0.7	U	1.2	1.0	2.1	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.62		0.23		0.37	12/03/07	12/08/07
Bismuth 214	1.46		0.22		0.10	12/03/07	12/08/07
ed 212	1.54		0.27		0.21	12/03/07	12/08/07
ed 214	1.05		0.19		0.21	12/03/07	12/08/07
Potassium 40	17.8		2.3		1.0	12/03/07	12/08/07
Thallium 208	0.44		0.11		0.08	12/03/07	12/08/07

E(S)

Data are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-29-4.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-005X
 Work Order: KC15P
 Matrix: SOLID

Date Collected: 11/26/07 0955
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7347174	Yld # 109
Technetium 99	-0.18	U	0.35	1.00	0.59	12/13/07	12/17/07

E(S)

Data are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-29-8.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-006
 Work Order: KC15R
 Matrix: SOLID

Date Collected: 11/26/07 1002
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341177	Yld % 87
Neptunium 237	-0.017	U	0.012	1.00	0.080	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341178	Yld % 90
Plutonium 238	-0.011	U	0.025	1.00	0.084	12/07/07	12/14/07
Plutonium 239/40	0.0007	U	0.023	1.00	0.066	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341180	Yld % 86
Uranium 233/234	4.39		0.56	1.00	0.06	12/07/07	12/14/07
Uranium 235/236	0.22	J	0.11	1.00	0.03	12/07/07	12/14/07
Uranium 238	1.03		0.22	1.00	0.03	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337299	Yld %
Cesium 241	-0.001	U	0.19	1.00	0.33	12/03/07	12/08/07
Cesium 137	0.0	U	0.11	1.00	0.20	12/03/07	12/08/07
Thorium 232	1.04		0.34	1.00	0.60	12/03/07	12/08/07
Uranium 235	0.20	U	0.37	1.00	0.63	12/03/07	12/08/07
Uranium 238	2.3	U	1.3	1.0	2.5	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.04		0.34		0.60	12/03/07	12/08/07
Bismuth 214	1.19		0.26		0.16	12/03/07	12/08/07
Lead 212	1.32		0.23		0.19	12/03/07	12/08/07
Lead 214	1.41		0.27		0.25	12/03/07	12/08/07
Potassium 40	20.0		3.2		1.2	12/03/07	12/08/07
Thallium 208	0.64		0.13		0.06	12/03/07	12/08/07

S(B)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-30-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-007
 Work Order: KC153
 Matrix: SOLID

Date Collected: 11/21/07 0950
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	151		13	1	1	12/13/07	12/17/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	16.1		1.6	1.0	0.06	12/07/07	12/14/07
Uranium 235/236	0.72	J	0.20	1.00	0.07	12/07/07	12/14/07
Uranium 238	3.32		0.46	1.00	0.07	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.04	U	0.11	1.00	0.18	12/03/07	12/08/07
Cesium 137	-0.004	U	0.079	1.00	0.12	12/03/07	12/08/07
Thorium 232	0.07	U	0.16	1.00	0.28	12/03/07	12/08/07
Plutonium 235	1.37		0.35	1.00	0.46	12/03/07	12/08/07
Plutonium 238	2.74		0.72	1.00	1.4	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.85		0.19		0.14	12/03/07	12/08/07
Lead 212	0.243		0.089		0.090	12/03/07	12/08/07
Lead 214	1.11		0.21		0.13	12/03/07	12/08/07
Potassium 40	1.48		0.88		1.2	12/03/07	12/08/07
Thorium 234	2.74		0.72		1.4	12/03/07	12/08/07

#(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-30-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-008
 Work Order: KC154
 Matrix: SOLID

Date Collected: 11/21/07 0950
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Frep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.006	U	0.028	1.00	0.089	12/07/07	12/13/07
Batch # 7341177 Yld % 74							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.001	U	0.034	1.00	0.083	12/07/07	12/14/07
Plutonium 239/40	-0.0102	U	0.0092	1.00	0.068	12/07/07	12/14/07
Batch # 7341178 Yld % 88							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	20.2		1.8	1.0	0.6	12/13/07	12/17/07
Batch # 7347174 Yld % 106							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.038	U	0.092	1.00	0.15	12/03/07	12/08/07
Cesium 137	-0.003	U	0.37	1.00	0.07	12/03/07	12/08/07
Barium 137m	0.20	U	0.16	1.00	0.24	12/03/07	12/08/07
Uranium 235	1.06		0.26	1.00	0.44	12/03/07	12/08/07
Uranium 238	3.08		0.78	1.00	1.1	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.36		0.10		0.08	12/03/07	12/08/07
Lead 212	0.266		0.079		0.084	12/03/07	12/08/07
Lead 214	0.370		0.083		0.10	12/03/07	12/08/07
Potassium 40	5.0		1.1		0.8	12/03/07	12/08/07
Thallium 208	0.085		0.050		0.073	12/03/07	12/08/07
Thorium 234	3.08		0.78		1.1	12/03/07	12/08/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	10.0	J	9.4	250	8.9	12/18/07	12/20/07
Uranium 235/236	2.6	U	5.2	250	7.0	12/18/07	12/20/07
Uranium 238	10.4	J	9.4	250	5.6	12/18/07	12/20/07
Batch # 7352110 Yld % 103							

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-30-4.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-008X
 Work Order: KC154
 Matrix: SOLID

Date Collected: 11/21/07 0950
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7352110	Yld % 102
Uranium 233/234	2.4	U	6.6	250	14	12/18/07	12/20/07
Uranium 235/236	0.0	U	2.4	250	7.6	12/18/07	12/20/07
Uranium 238	3.6	U	6.5	250	11	12/18/07	12/20/07

E(S)

Data are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-30-9-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-009
 Work Order: KC16L
 Matrix: SOLID

Date Collected: 11/21/07 1000
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337299	Yld %
Americium 241	0.0078	U	0.0996	1.00	0.17	12/03/07	12/08/07
Cesium 137	-0.014	U	0.055	1.00	0.097	12/03/07	12/08/07
Thorium 232	0.71	J	0.21	1.00	0.35	12/03/07	12/08/07
Uranium 235	0.21	U	0.29	1.00	0.49	12/03/07	12/08/07
Uranium 238	1.64		0.62	1.00	1.3	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	0.71		0.21		0.35	12/03/07	12/08/07
Bismuth 214	0.67		0.16		0.20	12/03/07	12/08/07
Lead 212	0.94		0.16		0.16	12/03/07	12/08/07
Lead 214	1.10		0.16		0.18	12/03/07	12/08/07
Potassium 40	15.1		1.9		1.1	12/03/07	12/08/07
Thallium 209	0.280		0.075		0.096	12/03/07	12/08/07
Thorium 234	1.64		0.62		1.3	12/03/07	12/08/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-31-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-010
 Work Order: KC18L
 Matrix: SOLID

Date Collected: 11/26/07 1550
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0107	U	0.0096	1.00	0.071	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.041	U	0.036	1.00	0.12	12/07/07	12/14/07
Plutonium 239/40	-0.005	U	0.023	1.00	0.072	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.01	U	0.40	1.00	0.66	12/13/07	12/17/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	10.4		1.1	1.0	0.06	12/07/07	12/14/07
Uranium 235/236	0.67	J	0.19	1.00	0.06	12/07/07	12/14/07
Uranium 238	1.50		0.28	1.00	0.04	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.024	U	0.076	1.00	0.13	12/03/07	12/08/07
Cesium 137	0.010	U	0.026	1.00	0.048	12/03/07	12/08/07
Thorium 232	0.12	U	0.17	1.00	0.29	12/03/07	12/08/07
Uranium 235	0.84	J	0.27	1.00	0.34	12/03/07	12/08/07
Uranium 238	0.50	U	0.37	1.00	1.3	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.213		0.098		0.13	12/03/07	12/08/07
Lead 212	0.154		0.062		0.073	12/03/07	12/08/07
Lead 214	0.39		0.10		0.06	12/03/07	12/08/07
Potassium 40	1.52		0.70		0.84	12/03/07	12/08/07

(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-31-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-011
 Work Order: KC18P
 Matrix: SOLID

Date Collected: 11/26/07 1550
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.78	J	0.39	1.00	0.61	12/13/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.05	U	0.17	1.00	0.29	12/03/07	12/08/07
Cesium 137	-0.002	U	0.059	1.00	0.11	12/03/07	12/08/07
Thorium 232	1.01		0.27	1.00	0.40	12/03/07	12/08/07
Uranium 235	0.47	U	0.36	1.00	0.64	12/03/07	12/08/07
Uranium 238	2.2	U	2.0	1.0	2.4	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.01		0.27		0.40	12/03/07	12/08/07
Bismuth 212	1.19		0.52		0.66	12/03/07	12/08/07
Bismuth 214	1.03		0.21		0.23	12/03/07	12/08/07
Lead 212	1.25		0.23		0.20	12/03/07	12/08/07
Lead 214	1.18		0.21		0.16	12/03/07	12/08/07
Potassium 40	18.9		2.4		1.1	12/03/07	12/08/07
Thallium 208	0.50		0.11		0.09	12/03/07	12/08/07

3(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-31-8.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-012
 Work Order: KC18T
 Matrix: SOLID

Date Collected: 11/26/07 1555
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337299	Yld %
Americium 241	-0.03	U	0.19	1.00	0.32	12/03/07	12/08/07
Cesium 137	0.015	U	0.064	1.00	0.11	12/03/07	12/08/07
Thorium 232	1.13		0.31	1.00	0.43	12/03/07	12/08/07
Uranium 235	0.09	U	0.38	1.00	0.65	12/03/07	12/08/07
Uranium 238	1.8	U	1.0	1.0	1.9	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.13		0.31		0.43	12/03/07	12/08/07
Bismuth 214	1.19		0.25		0.25	12/03/07	12/08/07
Lead 212	1.54		0.30		0.25	12/03/07	12/08/07
Lead 214	1.21		0.20		0.20	12/03/07	12/08/07
Potassium 40	19.7		2.6		1.2	12/03/07	12/08/07
Lithium 208	0.48		0.12		0.10	12/03/07	12/08/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-32-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-013
 Work Order: KCL80
 Matrix: SOLID

Date Collected: 11/26/07 0920
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0107	U	0.0096	1.00	0.071	12/07/07	12/13/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.40	U	0.35	1.00	0.61	12/13/07	12/17/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	5.03		0.63	1.00	0.05	12/07/07	12/14/07
Uranium 235/236	0.146	J	0.089	1.00	0.036	12/07/07	12/14/07
Uranium 238	1.42		0.27	1.00	0.03	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.04	U	0.14	1.00	0.24	12/03/07	12/08/07
Cesium 137	0.001	U	0.070	1.00	0.13	12/03/07	12/08/07
Thorium 232	0.34	U	0.29	1.00	0.45	12/03/07	12/08/07
Uranium 235	0.38	U	0.34	1.00	0.54	12/03/07	12/08/07
Uranium 238	1.66	U	0.84	1.00	1.7	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Bismuth 214	0.93		0.24		0.19	12/03/07	12/08/07
Lead 212	0.84		0.20		0.17	12/03/07	12/08/07
Lead 214	1.01		0.23		0.17	12/03/07	12/08/07
Potassium 40	9.8		2.0		1	12/03/07	12/08/07
Thallium 208	0.306		0.085		0.052	12/03/07	12/08/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.0006	U	0.030	1.00	0.077	12/18/07	12/20/07
Plutonium 239/40	-0.0018	U	0.0037	1.00	0.042	12/18/07	12/20/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-32-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-014
 Work Order: KC185
 Matrix: SOLID

Date Collected: 11/26/07 0920
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Techneium 99	-0.29	U	0.35	1.00	0.60	12/13/07	12/17/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.07	U	0.13	1.00	0.22	12/03/07	12/08/07
Cesium 137	0.010	U	0.060	1.00	0.11	12/03/07	12/08/07
Thorium 232	1.16		0.28	1.00	0.41	12/03/07	12/08/07
Uranium 235	0.19	U	0.32	1.00	0.54	12/03/07	12/08/07
Uranium 238	2.20		0.85	1.00	1.6	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.16		0.28		0.41	12/03/07	12/08/07
Bismuth 214	1.16		0.21		0.13	12/03/07	12/08/07
Pd 212	1.46		0.28		0.21	12/03/07	12/08/07
Pd 214	1.05		0.17		0.17	12/03/07	12/08/07
Potassium 40	19.7		2.6		0.5	12/03/07	12/08/07
Thallium 208	0.45		0.13		0.09	12/03/07	12/08/07
Thorium 234	2.20		0.85		1.6	12/03/07	12/08/07

§(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-32-13-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-015
 Work Order: KC189
 Matrix: SOLID

Date Collected: 11/26/07 0928
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337299	Yld %
Americium 241	-0.007	U	0.21	1.00	0.36	12/03/07	12/08/07
Cesium 137	-0.0006	U	0.092	1.00	0.17	12/03/07	12/08/07
Thorium 232	1.14		0.33	1.00	0.43	12/03/07	12/08/07
Uranium 235	0.04	U	0.35	1.00	0.62	12/03/07	12/08/07
Uranium 238	1.2	U	1.6	1.0	2.8	12/03/07	12/08/07
--- Other Detected Radionuclides ---							
Actinium 228	1.14		0.33		0.43	12/03/07	12/08/07
Bismuth 214	1.51		0.31		0.26	12/03/07	12/08/07
Lead 212	1.68		0.30		0.24	12/03/07	12/08/07
Lead 214	1.65		0.30		0.17	12/03/07	12/08/07
Potassium 40	19.1		2.9		0.9	12/03/07	12/08/07
Thallium 208	0.42		0.11		0.06	12/03/07	12/08/07

Δ(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-33-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-016
 Work Order: KC19H
 Matrix: SOLID

Date Collected: 11/21/07 1025
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0095	U	0.0096	1.00	0.074	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.0114	U	0.0094	1.00	0.066	12/07/07	12/14/07
Plutonium 239/40	0.006	U	0.021	1.00	0.050	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	47.3		4.1	1.0	0.6	12/13/07	12/17/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	8.66		0.93	1.00	0.06	12/07/07	12/14/07
Uranium 235/236	0.38	J	0.14	1.00	0.05	12/07/07	12/14/07
Uranium 238	2.40		0.37	1.00	0.05	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.01	U	0.17	1.00	0.29	12/03/07	12/09/07
Cesium 137	0.001	U	0.066	1.00	0.12	12/03/07	12/09/07
Thorium 232	0.61	J	0.22	1.00	0.40	12/03/07	12/09/07
Uranium 235	0.41	U	0.38	1.00	0.62	12/03/07	12/09/07
Uranium 238	3.01		0.99	1.00	1.9	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.61		0.22		0.40	12/03/07	12/09/07
Bismuth 214	1.10		0.22		0.23	12/03/07	12/09/07
Lead 210	3.7		2.9		3.4	12/03/07	12/09/07
Lead 212	0.88		0.20		0.19	12/03/07	12/09/07
Lead 214	1.36		0.27		0.20	12/03/07	12/09/07
Potassium 40	13.2		2.0		1.1	12/03/07	12/09/07
Thallium 208	0.39		0.11		0.1	12/03/07	12/09/07
Thorium 234	3.01		0.99		1.9	12/03/07	12/09/07

(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-33-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-017
 Work Order: KC19N
 Matrix: SOLID

Date Collected: 11/21/07 1025
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7347174	Yld % 104
Technetium 99	7.76		0.84	1.00	0.62	12/13/07	12/18/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337299	Yld %
Americium 241	0.09	U	0.15	1.00	0.26	12/03/07	12/09/07
Cesium 137	0.019	U	0.055	1.00	0.097	12/03/07	12/09/07
Thorium 232	0.96	J	0.29	1.00	0.42	12/03/07	12/09/07
Uranium 235	0.06	U	0.34	1.00	0.59	12/03/07	12/09/07
Uranium 238	2.11		0.94	1.00	2.0	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.96		0.29		0.42	12/03/07	12/09/07
Bismuth 214	1.14		0.23		0.23	12/03/07	12/09/07
Pb 210	3.4		2.1		2.5	12/03/07	12/09/07
Pb 212	1.68		0.28		0.20	12/03/07	12/09/07
Lead 214	1.66		0.23		0.17	12/03/07	12/09/07
Potassium 40	18.7		2.3		1	12/03/07	12/09/07
Thallium 208	0.45		0.11		0.08	12/03/07	12/09/07
Thorium 234	2.11		0.94		2.0	12/03/07	12/09/07

4(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-33-12.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-018
 Work Order: KC19R
 Matrix: SOLID

Date Collected: 11/21/07 1035
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337299	Yld %
Americium 241	0.01	U	0.20	1.00	0.35	12/03/07	12/09/07
Cesium 137	0.037	U	0.095	1.00	0.17	12/03/07	12/09/07
Thorium 232	1.27		0.38	1.00	0.66	12/03/07	12/09/07
Uranium 235	0.17	U	0.45	1.00	0.77	12/03/07	12/09/07
Uranium 238	1.72	U	0.98	1.00	2.5	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	1.27		0.38		0.66	12/03/07	12/09/07
Bismuth 214	1.58		0.32		0.18	12/03/07	12/09/07
Lead 212	1.18		0.24		0.22	12/03/07	12/09/07
Lead 214	1.20		0.30		0.32	12/03/07	12/09/07
Potassium 40	19.6		3.3		1.3	12/03/07	12/09/07
thallium 208	0.43		0.13		0.09	12/03/07	12/09/07

RE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-36-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-019
 Work Order: KC19W
 Matrix: SOLID

Date Collected: 11/26/07 1042
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.012	U	0.034	1.00	0.071	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.007	U	0.022	1.00	0.051	12/07/07	12/14/07
Plutonium 239/40	0.005	U	0.022	1.00	0.056	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.24	U	0.40	1.00	0.68	12/13/07	12/18/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	16.4		1.6	1.0	0.06	12/07/07	12/14/07
Uranium 235/236	0.69	J	0.20	1.00	0.07	12/07/07	12/14/07
Uranium 238	1.77		0.32	1.00	0.07	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.06	U	0.24	1.00	0.25	12/03/07	12/09/07
Cesium 137	-0.005	U	0.077	1.00	0.12	12/03/07	12/09/07
Thorium 232	0.74	J	0.24	1.00	0.41	12/03/07	12/09/07
Uranium 235	0.58	U	0.41	1.00	0.65	12/03/07	12/09/07
Uranium 238	3.1		1.1	1.0	2.1	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.74		0.24		0.41	12/03/07	12/09/07
Bismuth 214	1.35		0.27		0.19	12/03/07	12/09/07
Lead 210	2.8		2.1		2.7	12/03/07	12/09/07
Lead 212	0.93		0.16		0.14	12/03/07	12/09/07
Lead 214	1.34		0.25		0.21	12/03/07	12/09/07
Potassium 40	15.6		2.4		0.6	12/03/07	12/09/07
Thallium 208	0.39		0.10		0.07	12/03/07	12/09/07
Thorium 234	3.1		1.1		2.1	12/03/07	12/09/07

4(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-36-12.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-020
 Work Order: KC192
 Matrix: SOLID

Date Collected: 11/26/07 1054
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337299	Yld %
Americium 241	0.09	U	0.14	1.00	0.24	12/03/07	12/09/07
Cesium 137	-0.034	U	0.092	1.00	0.13	12/03/07	12/09/07
Thorium 232	0.95	J	0.28	1.00	0.35	12/03/07	12/09/07
Uranium 235	0.07	U	0.31	1.00	0.53	12/03/07	12/09/07
Uranium 238	1	U	1.2	1.0	1.9	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.95		0.28		0.35	12/03/07	12/09/07
Bismuth 212	1.01		0.49		0.62	12/03/07	12/09/07
Bismuth 214	1.20		0.23		0.14	12/03/07	12/09/07
Lead 212	1.56		0.22		0.16	12/03/07	12/09/07
Lead 214	1.20		0.18		0.22	12/03/07	12/09/07
Potassium 40	19.5		2.6		1.2	12/03/07	12/09/07
Thallium 208	0.411		0.096		0.061	12/03/07	12/09/07

RE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-37-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-021
 Work Order: KC194
 Matrix: SOLID

Date Collected: 11/26/07 1320
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.005	U	0.026	1.00	0.067	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.006	U	0.022	1.00	0.070	12/07/07	12/14/07
Plutonium 239/40	0.008	U	0.019	1.00	0.040	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.09	U	0.38	1.00	0.63	12/13/07	12/18/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	2.57		0.39	1.00	0.06	12/07/07	12/14/07
Uranium 235/236	0.117	J	0.079	1.00	0.035	12/07/07	12/14/07
Uranium 238	1.12		0.24	1.00	0.05	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.03	U	0.13	1.00	0.22	12/03/07	12/09/07
Cesium 137	-0.001	U	0.054	1.00	0.097	12/03/07	12/09/07
Thorium 232	0.50	J	0.16	1.00	0.31	12/03/07	12/09/07
Uranium 235	1.04		0.37	1.00	0.50	12/03/07	12/09/07
Uranium 238	3.2		1.8	1.0	1.8	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.50		0.16		0.31	12/03/07	12/09/07
Bismuth 214	0.63		0.16		0.19	12/03/07	12/09/07
Lead 212	0.62		0.12		0.12	12/03/07	12/09/07
Lead 214	0.85		0.16		0.12	12/03/07	12/09/07
Potassium 40	11.6		1.6		0.8	12/03/07	12/09/07
Thallium 208	0.161		0.066		0.093	12/03/07	12/09/07
Thorium 234	3.2		1.8		1.8	12/03/07	12/09/07

I(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-37-2.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-021X
 Work Order: KC194
 Matrix: SOLID

Date Collected: 11/26/07 1320
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Americium 241	-0.07	U	0.15	1.00	0.26	12/03/07	12/09/07
Cesium 137	-0.005	U	0.048	1.00	0.086	12/03/07	12/09/07
Thorium 232	0.51	J	0.17	1.00	0.31	12/03/07	12/09/07
Uranium 235	0.64	J	0.36	1.00	0.56	12/03/07	12/09/07
Uranium 238	3.5		1.2	1.0	1.8	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.51		0.17		0.31	12/03/07	12/09/07
Bismuth 214	0.76		0.17		0.19	12/03/07	12/09/07
Lead 212	0.80		0.17		0.16	12/03/07	12/09/07
Lead 214	0.98		0.18		0.14	12/03/07	12/09/07
Potassium 40	9.9		1.6		1.3	12/03/07	12/09/07
Thallium 208	0.282		0.082		0.072	12/03/07	12/09/07
Thorium 234	3.5		1.2		1.8	12/03/07	12/09/07

:(8)

Data are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-37-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-022
 Work Order: KC199
 Matrix: SOLID

Date Collected: 11/26/07 1320
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7347174	Yld % 101
Technetium 99	0.009	U	0.38	1.00	0.63	12/13/07	12/18/07
Gamma Cs-137 @ Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Americium 241	-0.02	U	0.18	1.00	0.30	12/03/07	12/09/07
Cesium 137	0.0	U	0.044	1.00	0.088	12/03/07	12/09/07
Thorium 232	1.52		0.37	1.00	0.16	12/03/07	12/09/07
Uranium 235	0.13	U	0.34	1.00	0.58	12/03/07	12/09/07
Uranium 238	1.0	U	1.4	1.0	2.3	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	1.52		0.37		0.16	12/03/07	12/09/07
Bismuth 214	1.46		0.26		0.13	12/03/07	12/09/07
Lead 212	1.13		0.18		0.16	12/03/07	12/09/07
Lead 214	1.42		0.25		0.21	12/03/07	12/09/07
Potassium 40	18.5		2.8		0.9	12/03/07	12/09/07
Thallium 208	0.49		0.14		0.11	12/03/07	12/09/07

.E(S)

Data are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-37-5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-023
 Work Order: KC2AC
 Matrix: SOLID

Date Collected: 11/26/07 1324
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Americium 241	-0.08	U	0.31	1.00	0.33	12/03/07	12/09/07
Cesium 137	-0.02	U	0.27	1.00	0.16	12/03/07	12/09/07
Thorium 232	0.76	J	0.27	1.00	0.58	12/03/07	12/09/07
Uranium 235	0.18	U	0.35	1.00	0.60	12/03/07	12/09/07
Uranium 238	0.8	U	1.4	1.0	2.4	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.76		0.27		0.58	12/03/07	12/09/07
Bismuth 214	1.32		0.31		0.24	12/03/07	12/09/07
Lead 212	1.29		0.22		0.17	12/03/07	12/09/07
Lead 214	1.65		0.26		0.15	12/03/07	12/09/07
Potassium 40	16.1		2.6		0.7	12/03/07	12/09/07
Lithium 208	0.54		0.13		0.1	12/03/07	12/09/07

4(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-39-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-024
 Work Order: KC2AF
 Matrix: SOLID

Date Collected: 11/26/07 1300
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTONIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.005	U	0.025	1.00	0.066	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.025	U	0.033	1.00	0.10	12/07/07	12/14/07
Plutonium 239/40	-0.016	U	0.024	1.00	0.084	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.13	U	0.35	1.00	0.59	12/13/07	12/18/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.65		0.30	1.00	0.06	12/07/07	12/14/07
Uranium 235/236	0.105	J	0.077	1.00	0.057	12/07/07	12/14/07
Uranium 238	0.65	J	0.18	1.00	0.06	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.005	U	0.13	1.00	0.23	12/03/07	12/09/07
Cesium 137	0.019	U	0.057	1.00	0.10	12/03/07	12/09/07
Thorium 232	0.54	J	0.24	1.00	0.42	12/03/07	12/09/07
Uranium 235	-0.007	U	0.26	1.00	0.45	12/03/07	12/09/07
Uranium 238	1.21	U	0.96	1.00	1.3	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.54		0.24		0.42	12/03/07	12/09/07
Bismuth 214	0.92		0.20		0.13	12/03/07	12/09/07
Lead 212	0.77		0.16		0.14	12/03/07	12/09/07
Lead 214	1.04		0.19		0.13	12/03/07	12/09/07
Potassium 40	16.7		2.4		0.5	12/03/07	12/09/07
Thallium 208	0.314		0.073		0.039	12/03/07	12/09/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-39-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-025
 Work Order: KC2AH
 Matrix: SOLID

Date Collected: 11/26/07 1300
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7347174	Yld % 101
Technetium 99	-0.23	U	0.37	1.00	0.64	12/13/07	12/18/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Americium 241	0.05	U	0.15	1.00	0.25	12/03/07	12/09/07
Cesium 137	-0.011	U	0.070	1.00	0.13	12/03/07	12/09/07
Thorium 232	0.82	J	0.25	1.00	0.37	12/03/07	12/09/07
Uranium 235	0.16	U	0.34	1.00	0.58	12/03/07	12/09/07
Uranium 238	0.2	U	1.3	1.0	2.3	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.82		0.25		0.37	12/03/07	12/09/07
Bismuth 214	0.95		0.22		0.23	12/03/07	12/09/07
id 212	1.13		0.20		0.15	12/03/07	12/09/07
Lead 214	1.05		0.21		0.18	12/03/07	12/09/07
Potassium 40	19.4		2.7		0.7	12/03/07	12/09/07
Thallium 208	0.40		0.11		0.07	12/03/07	12/09/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-39-8.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-026
 Work Order: KC2AK
 Matrix: SOLID

Date Collected: 11/26/07 1305
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.009	U	0.032	1.00	0.070	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.005	U	0.046	1.00	0.10	12/07/07	12/14/07
Plutonium 239/40	-0.010	U	0.0089	1.00	0.066	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.58	J	0.18	1.00	0.05	12/07/07	12/14/07
Uranium 235/236	0.080	J	0.065	1.00	0.036	12/07/07	12/14/07
Uranium 238	1.02		0.23	1.00	0.05	12/07/07	12/14/07
Sum Cs-137 & Hits by DOE GA-01-R MOD.							
Cesium 137	-0.015	U	0.079	1.00	0.14	12/03/07	12/09/07
Thorium 232	1.28		0.33	1.00	0.39	12/03/07	12/09/07
Uranium 235	0.35	U	0.38	1.00	0.62	12/03/07	12/09/07
Uranium 238	0.4	U	1.3	1.0	2.2	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	1.28		0.33		0.39	12/03/07	12/09/07
Bismuth 214	1.18		0.24		0.25	12/03/07	12/09/07
Lead 212	1.62		0.26		0.20	12/03/07	12/09/07
Lead 214	1.56		0.24		0.16	12/03/07	12/09/07
Potassium 40	21.6		2.6		1.1	12/03/07	12/09/07
Thallium 208	0.41		0.16		0.13	12/03/07	12/09/07

1(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-26-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-027
 Work Order: KC2AN
 Matrix: SOLID

Date Collected: 11/21/07 0825
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.017	U	0.012	1.00	0.083	12/07/07	12/13/07
Batch # 7341177 Yld % 85							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.0131	U	0.00999	1.00	0.068	12/07/07	12/14/07
Plutonium 239/40	-0.0038	U	0.0053	1.00	0.049	12/07/07	12/14/07
Batch # 7341178 Yld % 94							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.86		0.46	1.00	0.65	12/13/07	12/18/07
Batch # 7347174 Yld % 99							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	1.24		0.25	1.00	0.06	12/07/07	12/14/07
Uranium 235/236	0.075	J	0.063	1.00	0.055	12/07/07	12/14/07
Uranium 238	0.73	J	0.18	1.00	0.03	12/07/07	12/14/07
Batch # 7341180 Yld % 92							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.06	U	0.15	1.00	0.26	12/03/07	12/09/07
Cesium 137	0.017	U	0.067	1.00	0.12	12/03/07	12/09/07
Thorium 232	0.68	J	0.23	1.00	0.45	12/03/07	12/09/07
Uranium 235	0.06	U	0.34	1.00	0.59	12/03/07	12/09/07
Uranium 238	1.2	U	1.1	1.0	1.9	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.68		0.23		0.45	12/03/07	12/09/07
Bismuth 214	0.92		0.19		0.12	12/03/07	12/09/07
Lead 212	0.85		0.16		0.14	12/03/07	12/09/07
Lead 214	0.84		0.18		0.20	12/03/07	12/09/07
Potassium 40	15.5		2.5		0.9	12/03/07	12/09/07
Thallium 208	0.405		0.093		0.047	12/03/07	12/09/07
Thorium 234	1.2	U	1.1		1.9	12/03/07	12/09/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-26-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-028
 Work Order: KC2AV
 Matrix: SOLID

Date Collected: 11/21/07 0825
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.029	U	0.048	1.00	0.082	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.021	U	0.013	1.00	0.079	12/07/07	12/14/07
Plutonium 239/40	-0.0113	U	0.0094	1.00	0.066	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	1.56		0.44	1.00	0.63	12/13/07	12/18/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.75	J	0.19	1.00	0.07	12/07/07	12/14/07
Uranium 235/236	0.034	U	0.045	1.00	0.063	12/07/07	12/14/07
Uranium 238	0.82	J	0.20	1.00	0.05	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.08	U	0.17	1.00	0.28	12/03/07	12/09/07
Cesium 137	-0.02	U	0.17	1.00	0.14	12/03/07	12/09/07
Thorium 232	1.13		0.33	1.00	0.44	12/03/07	12/09/07
Uranium 235	-0.08	U	0.90	1.00	0.64	12/03/07	12/09/07
Uranium 238	1.11	U	0.81	1.00	2.3	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	1.13		0.33		0.44	12/03/07	12/09/07
Bismuth 212	1.06		0.61		0.63	12/03/07	12/09/07
Bismuth 214	1.40		0.26		0.15	12/03/07	12/09/07
Lead 212	1.17		0.21		0.17	12/03/07	12/09/07
Lead 214	1.47		0.31		0.24	12/03/07	12/09/07
Potassium 40	18.3		2.8		0.7	12/03/07	12/09/07
Thallium 208	0.62		0.15		0.1	12/03/07	12/09/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-26-7.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-029
 Work Order: KC2A0
 Matrix: SOLID

Date Collected: 11/21/07 0830
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Americium 241	-0.05	U	0.33	1.00	0.27	12/03/07	12/09/07
Cesium 137	0.038	U	0.088	1.00	0.16	12/03/07	12/09/07
Thorium 232	0.99	J	0.32	1.00	0.54	12/03/07	12/09/07
Uranium 235	0.05	U	0.38	1.00	0.66	12/03/07	12/09/07
Uranium 238	2.0	U	1.0	1.0	2.1	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.99		0.32		0.54	12/03/07	12/09/07
Bismuth 214	1.46		0.31		0.23	12/03/07	12/09/07
Lead 212	1.26		0.24		0.21	12/03/07	12/09/07
Lead 214	1.14		0.21		0.25	12/03/07	12/09/07
Potassium 40	16.7		2.8		1.4	12/03/07	12/09/07
Sodium 208	0.48		0.12		0.08	12/03/07	12/09/07

:(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-25-2.5-SL

Sewern Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-030
 Work Order: KC2A4
 Matrix: SOLID

Date Collected: 11/26/07 1350
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.013	U	0.035	1.00	0.074	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.025	U	0.014	1.00	0.086	12/07/07	12/14/07
Plutonium 239/40	-0.0039	U	0.0055	1.00	0.051	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.004	U	0.38	1.00	0.64	12/13/07	12/18/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	20.4		1.9	1.0	0.06	12/07/07	12/14/07
Uranium 235/236	0.80	J	0.21	1.00	0.05	12/07/07	12/14/07
Uranium 238	2.87		0.42	1.00	0.04	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.004	U	0.099	1.00	0.17	12/03/07	12/09/07
Cesium 137	-0.003	U	0.080	1.00	0.10	12/03/07	12/09/07
Thorium 232	0.39	J	0.17	1.00	0.29	12/03/07	12/09/07
Uranium 235	0.52	J	0.25	1.00	0.36	12/03/07	12/09/07
Uranium 238	1.96		0.79	1.00	1.0	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.39		0.17		0.29	12/03/07	12/09/07
Bismuth 214	0.55		0.13		0.08	12/03/07	12/09/07
Lead 212	0.52		0.17		0.14	12/03/07	12/09/07
Lead 214	0.48		0.12		0.13	12/03/07	12/09/07
Potassium 40	6.8		1.4		1.0	12/03/07	12/09/07
Thallium 208	0.127		0.064		0.091	12/03/07	12/09/07
Thorium 234	1.96		0.79		1.0	12/03/07	12/09/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-25-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-031
 Work Order: KC2A9
 Matrix: SOLID

Date Collected: 11/26/07 1350
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7347174	Yld % 91
Technetium 99	0.19	U	0.43	1.00	0.71	12/13/07	12/18/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Americium 241	0.01	U	0.11	1.00	0.20	12/03/07	12/09/07
Cesium 137	-0.023	U	0.074	1.00	0.13	12/03/07	12/09/07
Thorium 232	0.85	J	0.25	1.00	0.43	12/03/07	12/09/07
Uranium 235	0.18	U	0.36	1.00	0.61	12/03/07	12/09/07
Uranium 238	3.09		0.94	1.00	1.7	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.85		0.25		0.43	12/03/07	12/09/07
Bismuth 214	1.05		0.21		0.17	12/03/07	12/09/07
Lead 212	1.28		0.25		0.19	12/03/07	12/09/07
Lead 214	1.06		0.18		0.23	12/03/07	12/09/07
Potassium 40	16.6		2.5		1.4	12/03/07	12/09/07
Thallium 208	0.46		0.11		0.06	12/03/07	12/09/07
Thorium 234	3.09		0.94		1.7	12/03/07	12/09/07

8(8)

DATA are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-25-16.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-032
 Work Order: KC2CA
 Matrix: SOLID

Date Collected: 11/26/07 1410
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341177	Yld % 84
Neptunium 237	-0.0107	U	0.0096	1.00	0.071	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341178	Yld % 90
Plutonium 238	0.013	U	0.031	1.00	0.062	12/07/07	12/14/07
Plutonium 239/40	-0.0099	U	0.0089	1.00	0.066	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341180	Yld % 83
Uranium 233/234	0.85	J	0.21	1.00	0.06	12/07/07	12/14/07
Uranium 235/236	0.134	J	0.088	1.00	0.058	12/07/07	12/14/07
Uranium 238	1.16	J	0.25	1.00	0.05	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Cesium 137	0.05	U	0.20	1.00	0.35	12/03/07	12/09/07
Thorium 232	1.03	U	0.32	1.00	0.49	12/03/07	12/09/07
Uranium 235	0.12	U	0.44	1.00	0.76	12/03/07	12/09/07
Uranium 238	0.8	U	1.5	1.0	2.6	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	1.03		0.32		0.49	12/03/07	12/09/07
Bismuth 214	1.04		0.31		0.39	12/03/07	12/09/07
Lead 212	1.36		0.23		0.18	12/03/07	12/09/07
Lead 214	1.28		0.29		0.28	12/03/07	12/09/07
Potassium 40	22.2		3.4		0.8	12/03/07	12/09/07
Thallium 208	0.43		0.14		0.17	12/03/07	12/09/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-23-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-033
 Work Order: KC2CF
 Matrix: SOLID

Date Collected: 11/26/07 1620
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	EL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341177	Yld % 82
Neptunium 237	0.014	U	0.034	1.00	0.067	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341178	Yld % 93
Plutonium 238	0.041	U	0.053	1.00	0.082	12/07/07	12/14/07
Plutonium 239/40	0.009	U	0.021	1.00	0.045	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7347174	Yld % 108
Technetium 99	0.81	J	0.38	1.00	0.59	12/13/07	12/18/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341180	Yld % 89
Uranium 233/234	4.04		0.53	1.00	0.06	12/07/07	12/14/07
Uranium 235/236	0.104	J	0.074	1.00	0.035	12/07/07	12/14/07
Uranium 238	0.77	J	0.19	1.00	0.04	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Americium 241	0.06	U	0.12	1.00	0.20	12/03/07	12/09/07
Cesium 137	-0.004	U	0.17	1.00	0.08	12/03/07	12/09/07
Thorium 232	0.68	J	0.22	1.00	0.28	12/03/07	12/09/07
Uranium 235	0.21	U	0.24	1.00	0.40	12/03/07	12/09/07
Uranium 238	0.32	U	0.97	1.00	1.7	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.68		0.22		0.28	12/03/07	12/09/07
Bismuth 214	1.17		0.20		0.1	12/03/07	12/09/07
Lead 212	0.73		0.13		0.11	12/03/07	12/09/07
Lead 214	0.77		0.14		0.16	12/03/07	12/09/07
Potassium 40	12.5		1.8		0.4	12/03/07	12/09/07
Thallium 208	0.315		0.071		0.045	12/03/07	12/09/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-23-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-034
 Work Order: KC2CJ
 Matrix: SOLID

Date Collected: 11/26/07 1620
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7347174	Yld % 107
Technetium 99	1.55		0.42	1.00	0.60	12/13/07	12/18/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Americium 241	0.02	U	0.16	1.00	0.28	12/03/07	12/09/07
Cesium 137	-0.001	U	0.058	1.00	0.11	12/03/07	12/09/07
Thorium 232	0.71	J	0.28	1.00	0.37	12/03/07	12/09/07
Uranium 235	-0.1	U	1.2	1.0	0.6	12/03/07	12/09/07
Uranium 238	1.9		1.5	1.0	1.9	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.71		0.28		0.37	12/03/07	12/09/07
Bismuth 214	1.10		0.24		0.21	12/03/07	12/09/07
Lead 212	1.12		0.20		0.16	12/03/07	12/09/07
Lead 214	1.06		0.21		0.19	12/03/07	12/09/07
Potassium 40	15.6		2.4		1.1	12/03/07	12/09/07
Thallium 208	0.41		0.11		0.09	12/03/07	12/09/07
Thorium 234	1.9		1.5		1.9	12/03/07	12/09/07

E(S)

Data are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-23-5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-035
 Work Order: KC2CP
 Matrix: SOLID

Date Collected: 11/26/07 1625
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Americium 241	0.09	U	0.14	1.00	0.24	12/03/07	12/09/07
Cesium 137	-0.01	U	0.14	1.00	0.14	12/03/07	12/09/07
Thorium 232	0.68	J	0.26	1.00	0.32	12/03/07	12/09/07
Uranium 235	0.06	U	0.36	1.00	0.62	12/03/07	12/09/07
Uranium 238	2.3		1.5	1.0	1.8	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.68		0.26		0.32	12/03/07	12/09/07
Bismuth 214	1.0		0.23		0.17	12/03/07	12/09/07
Lead 212	0.94		0.17		0.13	12/03/07	12/09/07
Lead 214	1.05		0.21		0.15	12/03/07	12/09/07
Potassium 40	13.0		2.4		1.7	12/03/07	12/09/07
Thallium 208	0.293		0.087		0.073	12/03/07	12/09/07
Thorium 234	2.3		1.5		1.8	12/03/07	12/09/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-22-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-036
 Work Order: KC2CR
 Matrix: SOLID

Date Collected: 11/26/07 1417
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341177	Yld % 83
Neptunium 237	0.003	U	0.025	1.00	0.067	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341178	Yld % 91
Plutonium 238	0.005	U	0.031	1.00	0.073	12/07/07	12/14/07
Plutonium 239/40	0.017	U	0.030	1.00	0.051	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7347172	Yld % 86
Technetium 99	-0.72	U	0.45	1.00	0.77	12/13/07	12/18/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341180	Yld % 94
Uranium 233/234	1.16		0.23	1.00	0.06	12/07/07	12/14/07
Uranium 235/236	0.032	U	0.042	1.00	0.059	12/07/07	12/14/07
Uranium 238	0.39	J	0.13	1.00	0.05	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Americium 241	-0.013	U	0.044	1.00	0.076	12/03/07	12/09/07
Cesium 137	-0.002	U	0.050	1.00	0.064	12/03/07	12/09/07
Thorium 232	0.0	U	0.022	1.00	0.081	12/03/07	12/09/07
Uranium 235	-0.007	U	0.088	1.00	0.16	12/03/07	12/09/07
Uranium 238	-0.11	U	0.58	1.00	0.66	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Lead 214	0.111		0.054		0.072	12/03/07	12/09/07
Potassium 40	0.96		0.48		0.50	12/03/07	12/09/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-22-2.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-036X
 Work Order: KC2CR
 Matrix: SOLID

Date Collected: 11/26/07 1417
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod. Technetium 99	-0.06	U	0.49	1.00	0.82	12/13/07	Yld % 81 12/18/07

E(S)

Data are incomplete without the case narrative.
 MDC is determined by instrument performance only.
 Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-22-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-037
 Work Order: KC2C2
 Matrix: SOLID

Date Collected: 11/26/07 1417
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.40	U	0.39	1.00	0.66	12/13/07	12/18/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.06	U	0.15	1.00	0.25	12/03/07	12/09/07
Cesium 137	-0.008	U	0.079	1.00	0.14	12/03/07	12/09/07
Thorium 232	0.99	J	0.31	1.00	0.39	12/03/07	12/09/07
Uranium 235	0.04	U	0.34	1.00	0.60	12/03/07	12/09/07
Uranium 238	-0.05	U	1.4	1.0	2.2	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.99		0.31		0.39	12/03/07	12/09/07
Bismuth 214	0.94		0.24		0.24	12/03/07	12/09/07
ed 212	1.14		0.20		0.16	12/03/07	12/09/07
A 214	1.03		0.19		0.20	12/03/07	12/09/07
Potassium 40	14.7		2.3		0.7	12/03/07	12/09/07
Thallium 208	0.50		0.11		0.06	12/03/07	12/09/07

:(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-22-12.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-038
 Work Order: KC2C5
 Matrix: SOLID

Date Collected: 11/26/07 1428
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341177	Yld % 80
Neptunium 237	0.025	U	0.035	1.00	0.034	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341178	Yld % 88
Plutonium 238	-0.003	U	0.022	1.00	0.068	12/07/07	12/14/07
Plutonium 239/40	-0.0056	U	0.0065	1.00	0.054	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341180	Yld % 79
Uranium 233/234	0.86	J	0.22	1.00	0.07	12/07/07	12/14/07
Uranium 235/236	0.038	U	0.051	1.00	0.072	12/07/07	12/14/07
Uranium 238	0.93	J	0.22	1.00	0.06	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7337393	Yld %
Cesium 137	0.03	U	0.16	1.00	0.28	12/03/07	12/09/07
Barium 137	-0.01	U	0.21	1.00	0.20	12/03/07	12/09/07
Thorium 232	1.43		0.38	1.00	0.45	12/03/07	12/09/07
Uranium 235	0.35	U	0.37	1.00	0.60	12/03/07	12/09/07
Uranium 238	0.5	U	1.6	1.0	2.7	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	1.43		0.38		0.45	12/03/07	12/09/07
Bismuth 214	1.56		0.32		0.24	12/03/07	12/09/07
Lead 212	1.41		0.23		0.18	12/03/07	12/09/07
Lead 214	1.51		0.29		0.20	12/03/07	12/09/07
Potassium 40	19.1		3.0		0.7	12/03/07	12/09/07
Thallium 208	0.47		0.11		0.07	12/03/07	12/09/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-21-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-039
 Work Order: KC2C6
 Matrix: SOLID

Date Collected: 11/26/07 1645
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.11	U	0.38	1.00	0.64	12/13/07	12/18/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.0314	U	0.100	1.00	0.17	12/03/07	12/09/07
Cesium 137	-0.006	U	0.10	1.00	0.08	12/03/07	12/09/07
Thorium 232	0.62	J	0.17	1.00	0.29	12/03/07	12/09/07
Uranium 235	0.21	U	0.22	1.00	0.35	12/03/07	12/09/07
Uranium 238	1.16	U	0.62	1.00	1.2	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.62		0.17		0.29	12/03/07	12/09/07
Bismuth 214	0.79		0.15		0.08	12/03/07	12/09/07
Pb 212	0.64		0.12		0.11	12/03/07	12/09/07
Po 214	0.84		0.15		0.08	12/03/07	12/09/07
Potassium 40	12.0		1.7		0.4	12/03/07	12/09/07
Thallium 208	0.138		0.059		0.079	12/03/07	12/09/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	3.08		0.44	1.00	0.05	12/07/07	12/14/07
Uranium 235/236	0.098	J	0.071	1.00	0.053	12/07/07	12/14/07
Uranium 238	0.73	J	0.18	1.00	0.05	12/07/07	12/14/07

(8)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-21-2.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-039X
 Work Order: KC2C6
 Matrix: SOLID

Date Collected: 11/26/07 1645
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7341181	Yld % 87
Uranium 233/234	3.08		0.45	1.00	0.05	12/07/07	12/14/07
Uranium 235/236	0.159	J	0.093	1.00	0.036	12/07/07	12/14/07
Uranium 238	0.86	J	0.20	1.00	0.05	12/07/07	12/14/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

Energy Solutions, LLC

Client Sample ID: BD-21-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280316-040
 Work Order: KC2C8
 Matrix: SOLID

Date Collected: 11/26/07 1645
 Date Received: 11/28/07 1443

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTONIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.001	U	0.025	1.00	0.074	12/07/07	12/13/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.006	U	0.034	1.00	0.079	12/07/07	12/14/07
Plutonium 239/40	-0.003	U	0.025	1.00	0.076	12/07/07	12/14/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.31	U	0.40	1.00	0.66	12/13/07	12/18/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.73	J	0.19	1.00	0.03	12/07/07	12/14/07
Uranium 235/236	0.053	U	0.056	1.00	0.059	12/07/07	12/14/07
Uranium 238	0.68	J	0.18	1.00	0.05	12/07/07	12/14/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.05	U	0.16	1.00	0.27	12/03/07	12/09/07
Cesium 137	-0.011	U	0.063	1.00	0.11	12/03/07	12/09/07
Thorium 232	0.81	J	0.25	1.00	0.39	12/03/07	12/09/07
Uranium 235	0.33	U	0.31	1.00	0.51	12/03/07	12/09/07
Uranium 238	1.5	U	1.1	1.0	1.6	12/03/07	12/09/07
--- Other Detected Radionuclides ---							
Actinium 228	0.81		0.25		0.39	12/03/07	12/09/07
Bismuth 214	1.11		0.22		0.19	12/03/07	12/09/07
Lead 212	1.45		0.26		0.20	12/03/07	12/09/07
Lead 214	1.01		0.19		0.19	12/03/07	12/09/07
Potassium 40	17.0		2.4		0.7	12/03/07	12/09/07
Thallium 208	0.46		0.10		0.05	12/03/07	12/09/07

I(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

METHOD BLANK REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280316
Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.58	U	0.38	1.00	0.66	12/13/07	F7L130000-172B
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.16	U	0.35	1.00	0.59	12/13/07	F7L130000-174B
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.005	U	0.054	1.00	0.098	12/03/07	F7L030000-299B
Cesium 137	0.0	U	0.033	1.00	0.066	12/03/07	12/09/07
Thorium 232	0.07	U	0.12	1.00	0.21	12/03/07	12/09/07
Uranium 235	-0.02	U	0.26	1.00	0.28	12/03/07	12/09/07
Uranium 238	0.48	U	0.76	1.00	1.1	12/03/07	12/09/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.010	U	0.046	1.00	0.082	12/03/07	F7L030000-393B
Cesium 137	-0.005	U	0.076	1.00	0.055	12/03/07	12/09/07
Thorium 232	0.0	U	0.026	1.00	0.098	12/03/07	12/09/07
Uranium 235	-0.013	U	0.077	1.00	0.14	12/03/07	12/09/07
Uranium 238	-0.14	U	0.62	1.00	0.73	12/03/07	12/09/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0021	U	0.0042	1.00	0.047	12/07/07	F7L070000-177B
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.021	U	0.037	1.00	0.064	12/07/07	F7L070000-178B
Plutonium 239/40	0.0	U	0.0090	1.00	0.028	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.008	U	0.020	1.00	0.042	12/07/07	F7L070000-180B
Uranium 235/236	0.0	U	0.011	1.00	0.033	12/07/07	12/14/07
Uranium 238	0.020	U	0.028	1.00	0.027	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.0006	U	0.021	1.00	0.059	12/07/07	F7L070000-181B
Uranium 235/236	-0.0022	U	0.0045	1.00	0.051	12/07/07	12/14/07
Uranium 238	0.0	U	0.0083	1.00	0.026	12/07/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.030	U	0.037	1.00	0.053	12/18/07	F7L180000-110B
Uranium 235/236	-0.0021	U	0.0043	1.00	0.048	12/18/07	12/20/07
Uranium 238	0.026	U	0.032	1.00	0.039	12/18/07	12/20/07

METHOD BLANK REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280316
 Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Iso PLUTONIUM (SHORT CT)	DOE A-01-R MOD		pCi/g	Batch #	7352393	Yld %	97 F7L180000-393B
Plutonium 238	-0.005	U	0.022	1.00	0.069	12/18/07	12/21/07
Plutonium 239/40	-0.0018	U	0.0037	1.00	0.042	12/18/07	12/21/07

X(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only

Bold results are greater than the MDC

Laboratory Control Sample Report

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280316

Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	105	8.3	1.3		102	(85 - 118)
Cesium 137	40.0	42.9	2.7	0.4		107	(91 - 120)
Cobalt 60	62.7	65.1	3.8	0.3		104	(91 - 112)
Batch #:	7337299		Analysis Date:		12/09/07		
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	103	105	8.3	1.5		101	(85 - 118)
Cesium 137	40.0	42.8	2.7	0.5		107	(91 - 120)
Cobalt 60	62.7	63.3	3.8	0.2		101	(91 - 112)
Batch #:	7337393		Analysis Date:		12/09/07		
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD.							
Neptunium 237	13.3	14.5	1.4	0.07	93	109	(75 - 119)
Batch #:	7341177		Analysis Date:		12/14/07		
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD.							
Plutonium 238	6.13	5.74	0.66	0.04	104	94	(77 - 112)
Plutonium 239/40	5.77	6.23	0.71	0.02	104	108	(82 - 119)
Batch #:	7341178		Analysis Date:		12/14/07		
ISO URANIUM (SHORT CT) DOE A-01-R MOD.							
Uranium 233/234	19.6	18.8	3.0	0.2	85	96	(76 - 128)
Uranium 238	19.6	16.1	2.7	0.2	85	82	(74 - 125)
Batch #:	7341180		Analysis Date:		12/14/07		
ISO URANIUM (SHORT CT) DOE A-01-R MOD.							
Uranium 233/234	19.6	23.0	3.3	0.5	95	118	(76 - 128)
Uranium 238	19.6	21.0	3.1	0.4	95	107	(74 - 125)
Batch #:	7341181		Analysis Date:		12/14/07		
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	33.3	27.7	2.5	0.6	109	83	(64 - 114)
Batch #:	7347172		Analysis Date:		12/18/07		
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	33.3	27.8	2.5	0.6	109	83	(64 - 114)
Batch #:	7347174		Analysis Date:		12/17/07		
ISO URANIUM (SHORT CT) DOE A-01-R MOD.							
Uranium 233/234	19.6	17.7	2.7	0.2	105	91	(76 - 128)
Uranium 238	19.6	16.9	2.6	0.2	105	86	(74 - 125)
Batch #:	7352110		Analysis Date:		12/20/07		

Laboratory Control Sample Report

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280316

Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	MDC	Lab Sample ID		QC Control Limits
					% Yld	% Rec	
Iso PLUTONIUM (SHORT CT) MOD	DOE A-01-R	pCi/g	A-01-R			F7L180000-393C	
Plutonium 238	6.13	6.43	0.75	0.07	89	105	(77 - 112)
Plutonium 239/40	5.77	6.61	0.77	0.06	89	114	(82 - 119)
	Batch #:	7352393		Analysis Date:	12/21/07		

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280316
 Matrix: SOLID

Date Sampled: 11/26/07
 Date Received: 11/28/07

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result		Total Uncert. (2σ +/-)	% Yld	QC Sample ID Precision	
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g	GA-01-R MOD			F7K280316-001		
Americium 241	-0.017	U	0.077		0.013	U	0.060		1480 %RPD	
Cesium 137	0.013	U	0.024		-0.014	U	0.094		9580 %RPD	
Thorium 232	0.02	U	0.10		0.11	U	0.11		145 %RPD	
Uranium 235	0.20	U	0.17		0.20	U	0.17		1 %RPD	
Uranium 238	0.72	U	0.40		0.80	J	0.37		11 %RPD	
---Other Dedected Radionuclides---										
Bismuth 214	0.121		0.078		0.267		0.078		75 %RPD	
Lead 212	0.040	U	0.066		0.116		0.055		96 %RPD	
Lead 214	0.166		0.074		0.145		0.060		13 %RPD	
Potassium 40	2.72		0.72		1.39		0.55		65 %RPD	
Thorium 234	0.72	U	0.40		0.80		0.37		11 %RPD	
Batch #: 7337299 (Sample)					7337299 (Duplicate)					
NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g	A-01-R MOD			F7K280316-001		
Neptunium 237	-0.011	U	0.010	85	0.005	U	0.026	81	578 %RPD	
Batch #: 7341177 (Sample)					7341177 (Duplicate)					
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g	A-01-R			F7K280316-001		
Plutonium 238	0.013	U	0.035	94	-0.002	U	0.028	101	288 %RPD	
Plutonium 239/40	-0.0054	U	0.0063	94	-0.0051	U	0.0060	101	5 %RPD	
Batch #: 7341178 (Sample)					7341178 (Duplicate)					
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g	A-01-R MOD			F7K280316-001		
Uranium 233/234	7.11		0.81	85	9.4		1.0	88	28 %RPD	
Uranium 235/236	0.38	J	0.15	85	0.42	J	0.15	88	11 %RPD	
Uranium 238	0.90	J	0.21	85	1.36		0.27	88	41 %RPD	
Batch #: 7341180 (Sample)					7341180 (Duplicate)					
Iso URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g	A-01-R MOD			F7K280316-008		
Uranium 233/234	10.0	J	9.4	103	2.4	U	6.6	102	123 %RPD	
Uranium 235/236	2.6	U	5.2	103	0.0	U	2.4	102	200 %RPD	
Uranium 238	10.4	J	9.4	103	3.6	U	6.5	102	96 %RPD	
Batch #: 7352110 (Sample)					7352110 (Duplicate)					
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g	A-01-R			F7K280316-004		
Plutonium 238	-0.027	U	0.015	88	-0.0057	U	0.0066	94	131 %RPD	
Plutonium 239/40	-0.0039	U	0.0056	88	-0.0095	U	0.0085	94	83 %RPD	
Batch #: 7352393 (Sample)					7352393 (Duplicate)					
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g	TC-02-RC MOD			F7K280316-005		
Technetium 99	0.04	U	0.37	105	-0.18	U	0.35	109	299 %RPD	
Batch #: 7347174 (Sample)					7347174 (Duplicate)					

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280316
 Matrix: SOLID

Date Sampled: 11/26/07
 Date Received: 11/28/07

Parameter	SAMPLE Result	Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ +/-)	% Yld	QC Sample ID Precision
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	GA-01-R MOD		F7K280316-021	
Americium 241	-0.03 U	0.13		-0.07 U	0.15		89 %RPD
Cesium 137	-0.001 U	0.054		-0.005 U	0.048		104 %RPD
Thorium 232	0.50 J	0.16		0.51 J	0.17		3 %RPD
Uranium 235	1.04	0.37		0.64 J	0.36		48 %RPD
Uranium 238	3.2	1.8		3.5	1.2		9 %RPD
---Other Deducted Radionuclides---							
Actinium 228	0.50	0.16		0.51	0.17		3 %RPD
Bismuth 214	0.63	0.16		0.76	0.17		20 %RPD
Lead 212	0.62	0.12		0.80	0.17		26 %RPD
Lead 214	0.86	0.16		0.98	0.18		13 %RPD
Potassium 40	11.6	1.6		9.9	1.6		16 %RPD
Thallium 208	0.161	0.066		0.282	0.082		55 %RPD
Uranium 234	3.2	1.8		3.5	1.2		9 %RPD
Batch #:		7337393 (Sample)		7337393 (Duplicate)			
Iso URANIUM (SHORT CT) DOE A-01-R MOD.			pCi/g	A-01-R MOD		F7K280316-039	
Uranium 233/234	3.08	0.44	96	3.08	0.45	87	0.09 %RPD
Uranium 235/236	0.098 J	0.071	96	0.159 J	0.093	87	48 %RPD
Uranium 238	0.73 J	0.18	96	0.86 J	0.20	87	17 %RPD
Batch #:		7341181 (Sample)		7341181 (Duplicate)			
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	TC-02-RC MOD		F7K280316-036	
Technetium 99	-0.72 U	0.45	86	-0.06 U	0.49	81	171 %RPD
Batch #:		7347172 (Sample)		7347172 (Duplicate)			

NOTE(S)

Data are incomplete without the case narrative.
 Calculations are performed before rounding to avoid round-off error in calculated results

F7K280316

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD

Project Manager: IV Quote #: 77705 SDG: Date Received: 2007-11-28
 Project: 313010.202 Hematta Site Analytical Due Date: 2007-12-25
 PO#: Report to: Paul Ely Report Due Date: 2007-12-28
 Client: 1381304 Energy Solutions, LLC Report Type: W
 #SMPS in LOT: 40 EDD Code: 00

Gamma Library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
1	BD-27-2.5-SL			2007-11-26 / 1515	KC140	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
2	BD-27-4.5-SL			2007-11-26 / 1515	KC15G	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
3	BD-27-13-SL			2007-11-26 / 1529	KC15J	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
4	BD-29-2.5-SL			2007-11-26 / 955	KC15M	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
5	BD-29-4.5-SL			2007-11-26 / 955	KC15P	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06

F7K280316

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV

Quote #: 77705

SDG:

Date Received: 2007-11-28

Project: S13010.202

Hematite Site

Analytical Due Date: 2007-12-26

PO#:

Report to: Paul Ely

Report Due Date: 2007-12-26

Client: 1381304 Energy Solutions, LLC

Report Type: W

#SMPS in LOT: 40

EDD Code: 00

Gamma library MUST contain U-238, U-235, Th-232, and Am-241 Standard QA/QC acceptable.

XX 0A	EML	GA-01-R MOD	Gamma Co-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-02 by LSC by DOE TC-02-RC Mod.	IM	TC-02 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
6	BD-29-8.5-SL			2007-11-26 / 1002	KC15R	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	Is PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	Is URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	Is NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
7	BD-30-2.5-SL			2007-11-21 / 950	KC153	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	Is URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-02 by LSC by DOE TC-02-RC Mod.	IM TC-02 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
8	BD-30-4.5-SL			2007-11-21 / 950	KC164	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	Is PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	Is URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-02 by LSC by DOE TC-02-RC Mod.	IM TC-02 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	Is NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
9	BD-30-9-SL			2007-11-21 / 1000	KC16L	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
10	BD-31-2.5-SL			2007-11-28 / 1550	KC18L	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Co-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

F7K280316

CLIENT ANALYSIS SUMMARY

Storage Loc: **RAD**

Project Manager: **IV**
 Project: **313010.202**
 PO#:
 Client: **1381304 Energy Solutions, LLC**

Quote #: **77705** SDG:
 Hematite Site
 Report to: **Paul Ely**

Date Received: **2007-11-28**
 Analytical Due Date: **2007-12-25**
 Report Due Date: **2007-12-26**
 Report Type: **W**
 EDD Code: **00**

#SMPS in LOT: **40**

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX 2H	EML	A-01-R	100 PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML	A-01-R MOD	100 URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-00 by LSC by DOE TC-02-RC Mod.	IM	TC-00 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML	A-01-R MOD	100 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
11	BD-31-4.5-SL			2007-11-26 / 1550	KC18P	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-00 by LSC by DOE TC-02-RC Mod.	IM TC-00 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
12	BD-31-8.5-SL			2007-11-26 / 1555	KC18T	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
13	BD-32-2.5-SL			2007-11-26 / 920	KC180	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	100 PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	100 URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-00 by LSC by DOE TC-02-RC Mod.	IM TC-00 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	100 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
14	BD-32-4.5-SL			2007-11-26 / 920	KC185	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-00 by LSC by DOE TC-02-RC Mod.	IM TC-00 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
15	BD-32-13-SL			2007-11-26 / 928	KC189	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
----------	------------------	---------	---------------	-------------------	-----------	---

F7K280316

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD

Project Manager: TV Quote #: 77706 SDG: Date Received: 2007-11-28
 Project: 313010.202 Hematite Site Analytical Due Date: 2007-12-26
 PO#: Report to: Paul Ely Report Due Date: 2007-12-26
 Client: 1381304 Energy Solutions, LLC Report Type: W
 #SMPS in LOT: 40 EDD Code: 00

Gamma Library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

16	BD-33-2.5-SL				2007-11-21 / 1025	KC19H	SOLID
SAMPLE COMMENTS:							
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and PFI Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-02 by LSC by DOE TC-02-RC Mod.	IM	TC-02 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

17	BD-33-4.5-SL				2007-11-21 / 1025	KC19N	SOLID
SAMPLE COMMENTS:							
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and PFI Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-02 by LSC by DOE TC-02-RC Mod.	IM	TC-02 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06

18	BD-33-12.5-SL				2007-11-21 / 1035	KC19R	SOLID
SAMPLE COMMENTS:							
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and PFI Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

19	BD-36-4.5-SL				2007-11-26 / 1042	KC19W	SOLID
SAMPLE COMMENTS:							
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and PFI Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-02 by LSC by DOE TC-02-RC Mod.	IM	TC-02 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

20	BD-36-12.5-SL				2007-11-26 / 1054	KC19Z	SOLID
SAMPLE COMMENTS:							
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hts by DOE GA-01-R MOD.	G6	Dry, Grind, and PFI Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

21	BD-37-2.5-SL				2007-11-26 / 1320	KC194	SOLID
SAMPLE COMMENTS:							
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06

F7K280316

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD

Project Manager: IV Quote #: 77705 8DG: Date Received: 2007-11-28
 Project: 313010.202 Hermetite Site Analytical Due Date: 2007-12-25
 PO#: Report to: Paul Ely Report Due Date: 2007-12-25
 Client: 1381304 Energy Solutions, LLC Report Type: W
 #SMPS in LOT: 40 EDD Code: 00

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX 0A	EML	GA-01-R MOD	Gamma Cs-137 & H1a by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML	A-01-R	150 PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML	A-01-R MOD	150 URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM	TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML	A-01-R MOD	150 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
22	BD-37-4.5-SL			2007-11-26 / 1320	KC199	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Cs-137 & H1a by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
23	BD-37-6-SL			2007-11-26 / 1324	KC2AC	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Cs-137 & H1a by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
24	BD-39-2.5-SL			2007-11-26 / 1300	KC2AF	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Cs-137 & H1a by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	J2	150 PLUTONIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	J2	150 URANIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	J2	150 NEPTUNIUM (SHORT CT) DOE A-01-R MOD	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
25	BD-39-4.5-SL			2007-11-26 / 1300	KC2AH	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Cs-137 & H1a by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	IM	TC-99 by LSC by DOE TC-02-RC Mod.	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
26	BD-39-8.5-SL			2007-11-26 / 1305	KC2AK	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	G6	Gamma Cs-137 & H1a by DOE GA-01-R MOD.	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

F7K280316

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD
 Date Received: 2007-11-28
 Analytical Due Date: 2007-12-25
 Report Due Date: 2007-12-28

Project Manager: IV Quote #: 77705 SDG:
 Project: 313010,202 Hematite Site
 PO#: Report to: Paul Ely
 Client: 1351304 Energy Solutions, LLC

#SMPS in LOT: 40 EDD Code: 00

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

XX 2H	EML	A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML	A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML	A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
27	BD-26-2.5-SL			2007-11-21 / 825	KC2AN	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fil Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
28	BD-26-4.5-SL			2007-11-21 / 825	KC2AV	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fil Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
29	BD-26-7.5-SL			2007-11-21 / 830	KC2A0	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fil Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
30	BD-25-2.5-SL			2007-11-28 / 1350	KC2A4	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fil Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
----------	------------------	---------	---------------	-------------------	-----------	---

F7K280316

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD

Project Manager: IV Quote #: 77705 SDG: Date Received: 2007-11-28
 Project: 313010.202 Hemette Site Analytical Due Date: 2007-12-25
 PO#: Report to: Paul Ely Report Due Date: 2007-12-26
 Client: 1381304 Energy Solutions, LLC Report Type: W
 #SMPS in LOT: 40 EDO Code: 00

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QAVC acceptable.

31	BD-25-4.5-SL			2007-11-26 / 1350	KC2A9	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grnd, and Fil Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08
XX 2Q	EML TC-02-RC MOD	TC-09 by LSC by DOE TC-02- RC Mod.	IM	TC-09 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	08

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
32	BD-25-16.5-SL			2007-11-26 / 1410	KC2CA	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grnd, and Fil Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08
XX 2H	EML A-01- R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
33	BD-23-2.5-SL			2007-11-26 / 1620	KC2CF	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grnd, and Fil Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08
XX 2H	EML A-01- R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-09 by LSC by DOE TC-02- RC Mod.	IM	TC-09 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
34	BD-23-4.5-SL			2007-11-26 / 1620	KC2CJ	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grnd, and Fil Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08
XX 2Q	EML TC-02-RC MOD	TC-09 by LSC by DOE TC-02- RC Mod.	IM	TC-09 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
35	BD-23-8-SL			2007-11-26 / 1625	KC2CP	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grnd, and Fil Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	08

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A			
36	BD-22-2.5-SL			2007-11-26 / 1417	KC2CR	SOLID			
SAMPLE COMMENTS:									
XX ZV	RAD SCREEN	RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06

F7K280316

CLIENT ANALYSIS SUMMARY

Storage Loc: RAD

Project Manager: IV Quote #: 77705 SDG: Date Received: 2007-11-28
 Project: 913010.202 Hematite Site Analytical Due Date: 2007-12-28
 POF: Report to: Paul Ely Report Due Date: 2007-12-28
 Client: 1391304 Energy Solutions, LLC Report Type: W
 #SMPS in LOT: 40 EDD Code: 00

Gamma Library MUST contain U-235, U-238, Th-232, and Am-241 Standard GAVOC acceptable.

XX 0A	EML	GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6	Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A	WRK LOC	06
XX 2H	EML	A-01-R	Isa PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2I	EML	A-01-R MOD	Isa URANIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 2Q	EML	TC-02-RC MOD	TC-09 by LSC by DOE TC-02-RC Mod.	IM	TC-09 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A	WRK LOC	06
XX 3K	EML	A-01-R MOD	Isa NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2	Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
37	BD-22-4.5-SL			2007-11-28 / 1417	KC2C2	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-09 by LSC by DOE TC-02-RC Mod.	IM TC-09 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
38	BD-22-12.6-SL			2007-11-28 / 1428	KC2C5	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	Isa PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	Isa URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	Isa NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
39	BD-21-2.6-SL			2007-11-28 / 1845	KC2C6	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	Isa URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-09 by LSC by DOE TC-02-RC Mod.	IM TC-09 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
40	BD-21-4.5-SL			2007-11-28 / 1645	KC2C8	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & HIs by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X	SPECIAL PROJECTS	PROT: A WRK LOC 06
XX 2H	EML A-01-R	Isa PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2I	EML A-01-R MOD	Isa URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 2Q	EML TC-02-RC MOD	TC-09 by LSC by DOE TC-02-RC Mod.	IM TC-09 by Extraction Chromatography Resin	01	STANDARD TEST SET	PROT: A WRK LOC 06
XX 3K	EML A-01-R MOD	Isa NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01	STANDARD TEST SET	PROT: A WRK LOC 06

CUR 1296

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Hematite
Address: _____
City: FESTUS, Mo
State: Mo Zip Code: _____

Project Manager: Dwane Quayle
Telephone Number: 816-348-7477
Site Contact: _____
Lab Contact: Ivan Venia

Date: 11/27/07
CoC Number: GC-2
Page: 1 of 7

Project Name: Hematite Characterization
Project Location: _____
Carrier/Waybill Number: 313010.202
Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Analysis	Isotopic - Tc-99	Isotopic - U	Isotopic - Pu	Isotopic - Np
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓

Sample ID Number	Date	Time	Matrix				Containers & Preservatives											
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	HNOH					
BD-27-2.5-SL	11/26/07	1515				✓												
BD-27-4.5-SL	11/26/07	1515				✓												
BD-27-15-SL	11/26/07	1529				✓												
BD-29-2.5-SL	11/26/07	0955				✓												
BD-29-4.5-SL	11/26/07	0955				✓												
BD-29-8.5-SL	11/26/07	1002				✓												
BD-30-2.5-SL	11/21/07	0950				✓												
BD-30-4.5-SL	11/21/07	0950				✓												

Possible Hazard Identification

Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client, Disposal by lab, Archive for ___ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 21 days Other 20 days

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
<u>[Signature]</u>	11/28/07	29	<u>[Signature]</u>	11/28/07	14
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Hematite
Address: 1
City: Festus, Mo
State: Mo Zip Code: _____

Project Manager: Dwane Quaye
Telephone Number: 816-348-7477
Site Contact: _____
Lab Contact: Ivan Venia

Date: 11/27/07
CoC Number: SC-2
Page: 5 of 7

Project Name: Hematite Characterization
Project Location: " 313010.202 "
Carrier/Waybill Number: _____
Contract/PO Number: _____

Analysis (Attach list if more space is needed)				
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Sample ID Number	Date	Time	Matrix			Containers & Preservatives						X-ray	Sorbic Tc-99	Sorbic U	Sorbic Pu	Isotopic U	
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH						Zn/NaOH
BD-23-2.5-SL	11/26/07	1620															
BD-23-4.5-SL	11/26/07	1620															
BD-23-8-SL	11/26/07	1625															
BD-22-2.5-SL	11/26/07	1447															
BD-22-4.5-SL	11/26/07	1447															
BD-22-12.5-SL	11/26/07	1428															
BD-21-2.5-SL	11/26/07	1645															
BD-21-4.5-SL	11/26/07	1645															

Possible Hazard Identification

Non-haz Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client, Disposal by lab, Archive for _____ months

Turn Around Time: 24 hrs 48 hrs 7 days 14 days 21 days Other 20 days

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/27/07</u>	<u>2:20</u>	<u>[Signature]</u>	<u>11/27/07</u>	<u>1:45</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

PROJECT NO. 313010.202

Hematite Site

Lot #: F7K280318

Paul Ely

**Energy Solutions, LLC
1009 Commerce Park Drive
Suite 100
Oak Ridge, TN 37830**

TRSTAMERICA LABORATORIES, INC.

Ivan Vania
**FVZ Ivan Vania
Project Manager**

December 19, 2007

Case Narrative
LOT NUMBER: F7K280318

This report contains the analytical results for the 10 samples received under chain of custody by TestAmerica St. Louis on November 28, 2007. These samples are associated with your Hematite Site project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Isotopic Uranium by Alpha Spectroscopy

The Uranium RPD/RER is not within method acceptance criteria. The sample is non-homogeneous. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F7K280318 (2): BD-20-2.5-SL

F7K280318 (8): BD-17-2.5-SL

F7K280318 (5): BD-18-2.5-SL

F7K280318 (9): BD-17-4.5-SL

F7K280318 (7): BD-18-8.5-SL

There were no nonconformances or observations noted with any other analysis on this lot.

METHODS SUMMARY**F7K280318**

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EML GA-01-R MOD	
Isotopic Plutonium by Alpha Spectroscopy	EML A-01-R	
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Neptunium by Alpha Spectroscopy	EML A-01-R MOD	
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

SAMPLE SUMMARY**F7K280318**

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KC149	001	BD-21-9-SL	11/26/07	16:45
KC15A	002	BD-20-2.5-SL	11/26/07	18:25
KC15C	003	BD-20-4.5-SL	11/26/07	18:25
KC15H	004	BD-20-16.5-SL	11/26/07	18:46
KC15L	005	BD-18-2.5-SL	11/26/07	17:10
KC15Q	006	BD-18-4.5-SL	11/26/07	17:10
KC15V	007	BD-18-8.5-SL	11/26/07	17:15
KC15X	008	BD-17-2.5-SL	11/26/07	17:45
KC150	009	BD-17-4.5-SL	11/26/07	17:45
KC151	010	BD-17-8.5-SL	11/26/07	17:50

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Energy Solutions, LLC

Client Sample ID: BD-21-9-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-001
 Work Order: KC149
 Matrix: SOLID

Date Collected: 11/26/07 1645
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7338220	Yld %
Americium 241	0.03	U	0.16	1.00	0.27	12/04/07	12/06/07
Cesium 137	0.031	U	0.058	1.00	0.098	12/04/07	12/06/07
Thorium 232	0.83	J	0.24	1.00	0.36	12/04/07	12/06/07
Uranium 235	0.27	U	0.36	1.00	0.59	12/04/07	12/06/07
Uranium 238	2.30		0.91	1.00	1.8	12/04/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	0.83		0.24		0.36	12/04/07	12/06/07
Bismuth 214	1.10		0.22		0.21	12/04/07	12/06/07
Lead 212	1.39		0.26		0.20	12/04/07	12/06/07
Lead 214	1.02		0.18		0.20	12/04/07	12/06/07
Potassium 40	16.2		2.1		1.0	12/04/07	12/06/07
Thallium 208	0.494		0.090		0.055	12/04/07	12/06/07
Thorium 234	2.30		0.91		1.8	12/04/07	12/06/07

(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: BD-21-9-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-001X
 Work Order: KC149
 Matrix: SOLID

Date Collected: 11/26/07 1645
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7338220	Yld %
Americium 241	0.05	U	0.16	1.00	0.28	12/04/07	12/06/07
Cesium 137	0.005	U	0.065	1.00	0.12	12/04/07	12/06/07
Thorium 232	1.0	J	0.29	1.00	0.46	12/04/07	12/06/07
Uranium 235	0.27	U	0.35	1.00	0.58	12/04/07	12/06/07
Uranium 238	2.8		1.7	1.0	2.1	12/04/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	1.0		0.29		0.46	12/04/07	12/06/07
Bismuth 214	1.10		0.27		0.21	12/04/07	12/06/07
Lead 212	0.96		0.22		0.21	12/04/07	12/06/07
Lead 214	1.19		0.23		0.20	12/04/07	12/06/07
Potassium 40	16.8		2.7		1	12/04/07	12/06/07
Thallium 208	0.44		0.10		0.05	12/04/07	12/06/07
Thorium 234	2.8		1.7		2.1	12/04/07	12/06/07

RE(S)

data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K280318 less than the sample detection limit. 467 of 508

Energy Solutions, LLC

Client Sample ID: BD-20-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-002
 Work Order: KC15A
 Matrix: SOLID

Date Collected: 11/26/07 1825
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7338220	Yld %
Americium 241	0.05	U	0.13	1.00	0.22	12/04/07	12/06/07
Cesium 137	-0.016	U	0.070	1.00	0.12	12/04/07	12/06/07
Thorium 232	0.67	J	0.22	1.00	0.37	12/04/07	12/06/07
Uranium 235	0.22	U	0.31	1.00	0.51	12/04/07	12/06/07
Uranium 238	1.57		0.70	1.00	1.4	12/04/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	0.67		0.22		0.37	12/04/07	12/06/07
Bismuth 214	1.02		0.20		0.11	12/04/07	12/06/07
Lead 212	1.16		0.21		0.15	12/04/07	12/06/07
Lead 214	1.01		0.21		0.16	12/04/07	12/06/07
Potassium 40	11.7		2.0		0.8	12/04/07	12/06/07
Thallium 208	0.272		0.077		0.057	12/04/07	12/06/07
Thorium 234	1.57		0.70		1.4	12/04/07	12/06/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338568	Yld % 87
Neptunium 237	-0.011	U	0.033	1.00	0.073	12/04/07	12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338570	Yld % 84
Plutonium 238	-0.006	U	0.036	1.00	0.080	12/04/07	12/10/07
Plutonium 239/40	0.009	U	0.025	1.00	0.048	12/04/07	12/10/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7345224	Yld % 102
Technetium 99	0.20	U	0.36	1.00	0.59	12/11/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338571	Yld % 60
Uranium 233/234	1.67		0.39	1.00	0.06	12/04/07	12/10/07
Uranium 235/236	0.13	J	0.10	1.00	0.05	12/04/07	12/10/07
Uranium 238	0.64	J	0.21	1.00	0.04	12/04/07	12/10/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit. 468 of 508

Energy Solutions, LLC

Client Sample ID: BD-20-2.5-SL DUP

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-002X
 Work Order: KC15A
 Matrix: SOLID

Date Collected: 11/26/07 1825
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.014	U	0.036	1.00	0.081	12/04/07	12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.009	U	0.038	1.00	0.070	12/04/07	12/10/07
Plutonium 239/40	-0.004	U	0.025	1.00	0.053	12/04/07	12/10/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	3.06		0.56	1.00	0.08	12/04/07	12/10/07
Uranium 235/236	0.092	J	0.082	1.00	0.042	12/04/07	12/10/07
Uranium 238	0.97	J	0.25	1.00	0.06	12/04/07	12/10/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	-0.40	U	0.37	1.00	0.63	12/11/07	12/14/07

E(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K280318 less than the sample detection limit. 469 of 508

Energy Solutions, LLC

Client Sample ID: BD-20-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-003
 Work Order: KC15C
 Matrix: SOLID

Date Collected: 11/26/07 1825
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7338220	Yld %
Americium 241	0.05	U	0.16	1.00	0.28	12/04/07	12/06/07
Cesium 137	-0.02	U	0.35	1.00	0.16	12/04/07	12/06/07
Thorium 232	0.64	J	0.35	1.00	0.47	12/04/07	12/06/07
Uranium 235	0.21	U	0.38	1.00	0.64	12/04/07	12/06/07
Uranium 238	2.4		1.7	1.0	2.0	12/04/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	0.64		0.35		0.47	12/04/07	12/06/07
Bismuth 214	1.45		0.26		0.14	12/04/07	12/06/07
Lead 212	1.31		0.21		0.16	12/04/07	12/06/07
Lead 214	0.90		0.19		0.21	12/04/07	12/06/07
Potassium 40	19.4		3.0		1.8	12/04/07	12/06/07
Thallium 208	0.48		0.11		0.08	12/04/07	12/06/07
Thorium 234	2.4		1.7		2.0	12/04/07	12/06/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7345224	Yld % 108
Technetium 99	-0.09	U	0.34	1.00	0.57	12/11/07	12/14/07

(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K280318 are less than the sample detection limit. 470 of 508

Energy Solutions, LLC

Client Sample ID: BD-20-16.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-004
 Work Order: KC15H
 Matrix: SOLID

Date Collected: 11/26/07 1846
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7338220	Yld %
Americium 241	-0.09	U	0.20	1.00	0.34	12/04/07	12/06/07
Cesium 137	-0.041	U	0.081	1.00	0.14	12/04/07	12/06/07
Thorium 232	1.54		0.32	1.00	0.38	12/04/07	12/06/07
Uranium 235	0.12	U	0.41	1.00	0.70	12/04/07	12/06/07
Uranium 238	2.6		1.2	1.0	2.1	12/04/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	1.54		0.32		0.38	12/04/07	12/06/07
Bismuth 214	1.45		0.24		0.16	12/04/07	12/06/07
Lead 210	4.2		3.3		3.7	12/04/07	12/06/07
Lead 212	1.38		0.24		0.22	12/04/07	12/06/07
Lead 214	1.53		0.24		0.17	12/04/07	12/06/07
Potassium 40	18.6		2.4		1.2	12/04/07	12/06/07
Lithium 208	0.58		0.12		0.1	12/04/07	12/06/07
Thorium 234	2.6		1.2		2.1	12/04/07	12/06/07

(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD-18-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-005
 Work Order: KC15L
 Matrix: SOLID

Date Collected: 11/26/07 1710
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7338220	Yld %
Americium 241	0.07	U	0.10	1.00	0.17	12/04/07	12/06/07
Cesium 137	-0.011	U	0.051	1.00	0.090	12/04/07	12/06/07
Thorium 232	0.54	J	0.17	1.00	0.29	12/04/07	12/06/07
Uranium 235	0.35	U	0.30	1.00	0.48	12/04/07	12/06/07
Uranium 238	2.17		0.82	1.00	1.5	12/04/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	0.54		0.17		0.29	12/04/07	12/06/07
Bismuth 214	0.70		0.16		0.18	12/04/07	12/06/07
Lead 212	0.84		0.15		0.13	12/04/07	12/06/07
Lead 214	0.97		0.17		0.13	12/04/07	12/06/07
Potassium 40	8.9		1.5		1.2	12/04/07	12/06/07
Thallium 208	0.324		0.089		0.076	12/04/07	12/06/07
Thorium 234	2.17		0.82		1.5	12/04/07	12/06/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338568	Yld % 83
Neptunium 237	-0.007	U	0.030	1.00	0.066	12/04/07	12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338570	Yld % 90
Plutonium 238	0.023	U	0.040	1.00	0.060	12/04/07	12/10/07
Plutonium 239/40	0.015	U	0.033	1.00	0.056	12/04/07	12/10/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7345224	Yld % 98
Technetium 99	-0.05	U	0.32	1.00	0.54	12/11/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338571	Yld % 81
Uranium 233/234	0.64	J	0.19	1.00	0.07	12/04/07	12/10/07
Uranium 235/236	0.026	U	0.043	1.00	0.062	12/04/07	12/10/07
Uranium 238	0.61	J	0.19	1.00	0.06	12/04/07	12/10/07

NOTE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K280318 is less than the sample detection limit. 472 of 508

Energy Solutions, LLC

Client Sample ID: BD-18-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-006
 Work Order: KC150
 Matrix: SOLID

Date Collected: 11/26/07 1710
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7338220	Yld %
Americium 241	0.03	U	0.16	1.00	0.28	12/04/07	12/06/07
Cesium 137	0.0006	U	0.077	1.00	0.14	12/04/07	12/06/07
Thorium 232	0.90	J	0.30	1.00	0.54	12/04/07	12/06/07
Uranium 235	0.12	U	0.40	1.00	0.69	12/04/07	12/06/07
Uranium 238	0.4	U	1.3	1.0	2.3	12/04/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	0.90		0.30		0.54	12/04/07	12/06/07
Bismuth 214	1.11		0.28		0.22	12/04/07	12/06/07
Lead 212	1.48		0.24		0.17	12/04/07	12/06/07
Lead 214	1.43		0.24		0.17	12/04/07	12/06/07
Potassium 40	17.2		2.7		1	12/04/07	12/06/07
Thallium 208	0.44		0.13		0.11	12/04/07	12/06/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7345224	Yld % 100
Technetium 99	-0.27	U	0.36	1.00	0.62	12/11/07	12/14/07

RE(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K280318 Result is less than the sample detection limit. 473 of 508

Energy Solutions, LLC

Client Sample ID: BD-18-8.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-007
 Work Order: KC15V
 Matrix: SOLID

Date Collected: 11/26/07 1715
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
				pCi/g		Batch # 7338220	Yld %
Americium 241	0.04	U	0.15	1.00	0.26	12/04/07	12/06/07
Cesium 137	-0.04	U	2.2	1.0	0.2	12/04/07	12/06/07
Thorium 232	0.92	J	0.33	1.00	0.45	12/04/07	12/06/07
Uranium 235	0.06	U	0.34	1.00	0.60	12/04/07	12/06/07
Uranium 238	1.1	U	1.5	1.0	2.4	12/04/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	0.92		0.33		0.45	12/04/07	12/06/07
Bismuth 214	1.09		0.24		0.19	12/04/07	12/06/07
Lead 212	1.29		0.24		0.20	12/04/07	12/06/07
Lead 214	0.92		0.19		0.24	12/04/07	12/06/07
Potassium 40	20.5		3.0		0.7	12/04/07	12/06/07
Thallium 208	0.64		0.14		0.09	12/04/07	12/06/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7338568	Yld % 90
Neptunium 237	0.016	U	0.035	1.00	0.059	12/04/07	12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7338570	Yld % 93
Plutonium 238	0.078	J	0.060	1.00	0.055	12/04/07	12/10/07
Plutonium 239/40	-0.005	U	0.024	1.00	0.051	12/04/07	12/10/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
				pCi/g		Batch # 7338571	Yld % 75
Uranium 233/234	0.71	J	0.22	1.00	0.07	12/04/07	12/10/07
Uranium 235/236	0.013	U	0.035	1.00	0.068	12/04/07	12/10/07
Uranium 238	1.01		0.27	1.00	0.07	12/04/07	12/10/07

E(S)

are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K280318 less than the sample detection limit. 474 of 508

Energy Solutions, LLC

Client Sample ID: BD-17-2.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-008
 Work Order: KC15X
 Matrix: SOLID

Date Collected: 11/26/07 1745
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.015	U	0.033	1.00	0.055	12/04/07	12/07/07
Batch # 7338568 Yld % 95							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.003	U	0.034	1.00	0.075	12/04/07	12/10/07
Plutonium 239/40	-0.010	U	0.031	1.00	0.068	12/04/07	12/10/07
Batch # 7338570 Yld % 86							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	5.03		0.66	1.00	0.65	12/11/07	12/14/07
Batch # 7345224 Yld % 96							
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	69.0		9.1	1.0	0.07	12/04/07	12/10/07
Uranium 235/236	3.20		0.59	1.00	0.04	12/04/07	12/10/07
Uranium 238	11.8		1.7	1.0	0.06	12/04/07	12/10/07
Batch # 7338571 Yld % 84							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.06	U	0.18	1.00	0.30	12/04/07	12/06/07
Cesium 137	-0.008	U	0.073	1.00	0.13	12/04/07	12/06/07
Thorium 232	0.58	J	0.20	1.00	0.29	12/04/07	12/06/07
Uranium 235	2.33		0.52	1.00	0.61	12/04/07	12/06/07
Uranium 238	6.5		2.3	1.0	2.3	12/04/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	0.58		0.20		0.29	12/04/07	12/06/07
Bismuth 214	1.15		0.23		0.15	12/04/07	12/06/07
Lead 210	3.4		2.5		3.0	12/04/07	12/06/07
Lead 212	1.01		0.19		0.15	12/04/07	12/06/07
Lead 214	1.08		0.22		0.17	12/04/07	12/06/07
Potassium 40	11.1		2.0		0.9	12/04/07	12/06/07
Thallium 208	0.306		0.094		0.076	12/04/07	12/06/07
Thorium 234	6.5		2.3		2.3	12/04/07	12/06/07

E(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K280318 less than the sample detection limit. 475 of 508

Energy Solutions, LLC

Client Sample ID: BD-17-4.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-009
 Work Order: KC150
 Matrix: SOLID

Date Collected: 11/26/07 1745
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7338220	Yld %
Americium 241	-0.06	U	0.28	1.00	0.29	12/04/07	12/06/07
Cesium 137	-0.05	U	0.47	1.00	0.15	12/04/07	12/06/07
Thorium 232	0.89	J	0.29	1.00	0.51	12/04/07	12/06/07
Uranium 235	0.15	U	0.25	1.00	0.42	12/04/07	12/06/07
Uranium 238	0.93	U	0.72	1.00	2.1	12/04/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	0.89		0.29		0.51	12/04/07	12/06/07
Bismuth 214	1.14		0.25		0.18	12/04/07	12/06/07
Lead 212	1.26		0.19		0.13	12/04/07	12/06/07
Lead 214	0.93		0.21		0.21	12/04/07	12/06/07
Potassium 40	18.3		2.7		0.6	12/04/07	12/06/07
Thallium 208	0.51		0.12		0.09	12/04/07	12/06/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338568	Yld % 82
Neptunium 237	0.034	U	0.054	1.00	0.078	12/04/07	12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338570	Yld % 87
Plutonium 238	-0.011	U	0.037	1.00	0.083	12/04/07	12/10/07
Plutonium 239/40	0.003	U	0.028	1.00	0.062	12/04/07	12/10/07
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7345224	Yld % 103
Technetium 99	-0.22	U	0.35	1.00	0.60	12/11/07	12/14/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		Batch # 7338571	Yld % 77
Uranium 233/234	2.43		0.46	1.00	0.07	12/04/07	12/10/07
Uranium 235/236	0.114	J	0.087	1.00	0.039	12/04/07	12/10/07
Uranium 238	1.27		0.29	1.00	0.03	12/04/07	12/10/07

NOTE(S)

Results are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Energy Solutions, LLC

Client Sample ID: BD-17-8.5-SL

Severn Trent Laboratories - Radiochemistry

Lab Sample ID: F7K280318-010
 Work Order: KC151
 Matrix: SOLID

Date Collected: 11/26/07 1750
 Date Received: 11/28/07 0000

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7338220	Yld %
Americium 241	-0.004	U	0.19	1.00	0.33	12/04/07	12/06/07
Cesium 137	0.0004	U	0.085	1.00	0.16	12/04/07	12/06/07
Thorium 232	0.86	J	0.32	1.00	0.50	12/04/07	12/06/07
Uranium 235	0.14	U	0.39	1.00	0.66	12/04/07	12/06/07
Uranium 238	0.4	U	1.4	1.0	2.5	12/04/07	12/06/07
--- Other Detected Radionuclides ---							
Actinium 228	0.86		0.32		0.50	12/04/07	12/06/07
Bismuth 214	1.08		0.25		0.17	12/04/07	12/06/07
Lead 212	1.14		0.18		0.13	12/04/07	12/06/07
Lead 214	1.24		0.23		0.15	12/04/07	12/06/07
Potassium 40	18.2		2.9		1.0	12/04/07	12/06/07
Gallium 208	0.55		0.13		0.09	12/04/07	12/06/07

E(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

LOT# F7K280318-010 less than the sample detection limit. 477 of 508

METHOD BLANK REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280318
 Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	Batch #	7338220	Yld %	F7L040000-220B
Americium 241	0.013	U	0.056	1.00	0.10	12/04/07	12/06/07
Cesium 137	-0.03	U	13	1	0.1	12/04/07	12/06/07
Thorium 232	0.07	U	0.11	1.00	0.19	12/04/07	12/06/07
Uranium 235	-0.05	U	0.47	1.00	0.26	12/04/07	12/06/07
Uranium 238	-0.07	U	0.65	1.00	0.92	12/04/07	12/06/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	7338568	Yld % 90	F7L040000-568B
Neptunium 237	0.050	U	0.061	1.00	0.078	12/04/07	12/07/07
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	7338570	Yld % 91	F7L040000-570B
Plutonium 238	0.046	U	0.051	1.00	0.062	12/04/07	12/10/07
Plutonium 239/40	-0.007	U	0.025	1.00	0.055	12/04/07	12/10/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	Batch #	7338571	Yld % 79	F7L040000-571B
Uranium 233/234	0.035	J	0.047	1.00	0.032	12/04/07	12/10/07
Uranium 235/236	0.0	U	0.0	1.0	0.04	12/04/07	12/10/07
Uranium 238	0.023	U	0.041	1.00	0.032	12/04/07	12/10/07
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	Batch #	7345224	Yld % 109	F7L110000-224B
Technetium 99	-0.24	U	0.33	1.00	0.57	12/11/07	12/14/07

RE(S)

Results are incomplete without the case narrative.

MDC is determined using instrument performance only
 Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

Laboratory Control Sample Report

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280318
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
GAMMA Cs-137 & Hits by DOE GA-01-R			pCi/g	GA-01-R MOD			F7L040000-220C
MOD.							
Americium 241	103	106	8.4	1.5		103	(85 - 118)
Cesium 137	40.0	41.8	2.6	0.4		104	(91 - 120)
Cobalt 60	62.7	64.4	3.9	0.3		103	(91 - 112)
	Batch #:	7338220		Analysis Date:	12/06/07		
ISO NEPTUNIUM (SHORT CT) DOE A-01-R			pCi/g	A-01-R MOD			F7L040000-568C
MOD							
Neptunium 237	13.3	13.3	1.5	0.07	97	100	(75 - 119)
	Batch #:	7338568		Analysis Date:	12/07/07		
ISO PLUTONIUM (SHORT CT) DOE A-01-R			pCi/g	A-01-R			F7L040000-570C
MOD							
Plutonium 238	6.13	6.5	1.0	0.1	85	107	(77 - 112)
Plutonium 239/40	5.77	6.8	1.0	0.07	85	117	(82 - 119)
	Batch #:	7338570		Analysis Date:	12/10/07		
ISO URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD			F7L040000-571C
Uranium 233/234	19.6	20.1	3.6	0.4	88	102	(76 - 128)
Uranium 238	19.6	21.2	3.8	0.3	88	108	(74 - 125)
	Batch #:	7338571		Analysis Date:	12/10/07		
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	TC-02-RC MOD			F7L110000-224C
Technetium 99	33.3	27.6	2.4	0.6	109	83	(64 - 114)
	Batch #:	7345224		Analysis Date:	12/14/07		

NOTE(S)

DUPLICATE EVALUATION REPORT

Severn Trent Laboratories - Radiochemistry

Client Lot ID: F7K280318
 Matrix: SOLID

Date Sampled: 11/26/07
 Date Received: 11/28/07

Parameter	SAMPLE Result	Total Uncert. (2σ+/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ+/-)	% Yld	QC Sample ID	Precision		
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		GA-01-R MOD		F7K280318-001		
Americium 241	0.03	U	0.16	0.05	U	0.16	47	%RPD		
Cesium 137	0.031	U	0.058	0.005	U	0.065	141	%RPD		
Thorium 232	0.83	J	0.24	1.0	J	0.29	18	%RPD		
Uranium 235	0.27	U	0.36	0.27	U	0.35	0.1	%RPD		
Uranium 238	2.30		0.91	2.8		1.7	19	%RPD		
---Other Dedected Radionuclides---										
Actinium 228	0.83		0.24	1.0		0.29	18	%RPD		
Bismuth 214	1.10		0.22	1.10		0.27	0.6	%RPD		
Lead 212	1.39		0.26	0.96		0.22	37	%RPD		
Lead 214	1.02		0.18	1.19		0.23	15	%RPD		
Potassium 40	16.2		2.1	16.8		2.7	4	%RPD		
Thallium 208	0.494		0.090	0.44		0.10	11	%RPD		
Thorium 234	2.30		0.91	2.8		1.7	19	%RPD		
Batch #: 7338220 (Sample)				7338220 (Duplicate)						
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD				pCi/g		A-01-R MOD		F7K280318-002		
Neptunium 237	-0.011	U	0.033	87	-0.014	U	0.036	81	23	%RPD
Batch #: 7338568 (Sample)				7338568 (Duplicate)						
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD				pCi/g		A-01-R		F7K280318-002		
Plutonium 238	-0.006	U	0.036	84	0.009	U	0.038	89	793	%RPD
Plutonium 239/40	0.009	U	0.025	84	-0.004	U	0.025	89	516	%RPD
Batch #: 7338570 (Sample)				7338570 (Duplicate)						
ISO URANIUM (SHORT CT) DOE A-01-R MOD				pCi/g		A-01-R MOD		F7K280318-002		
Uranium 233/234	1.67		0.39	60	3.06		0.56	74	59	%RPD
Uranium 235/236	0.13	J	0.10	60	0.092	J	0.082	74	32	%RPD
Uranium 238	0.64	J	0.21	60	0.97	J	0.25	74	41	%RPD
Batch #: 7338571 (Sample)				7338571 (Duplicate)						
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		TC-02-RC MOD		F7K280318-002		
Technetium 99	0.20	U	0.36	102	-0.40	U	0.37	97	600	%RPD
Batch #: 7345224 (Sample)				7345224 (Duplicate)						

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

J Result is greater than sample detection limit but less than stated reporting limit.

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Hematite
Address: _____
City: Festus, Mo
State: Mo Zip Code: _____

Project Manager: Duane Dwayne
Telephone Number: 865-368-7477
Site Contact: _____
Lab Contact: Ivan Venia

Date: 11/27/07
CoC Number: 3C-2
Page: 6 of 7

Project Name: Hematite Characterization
Project Location: " 313010.202 "
Carrier/Waybill Number: _____
Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Analysis	As	Ag	Al	Ar	B	Bi	Br	Ca	Cd	Co	Cu	Hg	Mn	Ni	Pb	Pu	Se	Sr	Tl	V	Zn	
As																						
Ag																						
Al																						
Ar																						
B																						
Bi																						
Br																						
Ca																						
Cd																						
Co																						
Cu																						
Hg																						
Mn																						
Ni																						
Pb																						
Pu																						
Se																						
Sr																						
Tl																						
V																						
Zn																						

Sample ID Number	Date	Time	Matrix				Containers & Preservatives															
			Aqueous	Sediment	Soil	Other	Unpres.	H2SO4	HNO3	HCl	NaOH	HAZ	HOA	Other	Isotopic	Other						
BD-21-9-SL	11/26/07	1645																				
BD-20-2.5-SL	11/26/07	1825																				
BD-20-4.5-SL	11/26/07	1825																				
BD-20-10.5-SL	11/26/07	1846																				
BD-19-2.5-SL	11/26/07	1710																				
BD-19-4.5-SL	11/26/07	1710																				
BD-19-8.5-SL	11/26/07	1715																				
BD-17-2.5-SL	11/26/07	1745																				

Possible Hazard Identification

Non-haz. Radioactive Flammable Skin Irritant Unknown

Sample Disposal: Return to client Disposal by lab Archive for ___ months

Turn Around Time

24 hrs

48 hrs

7 days

14 days

21 days

Other: 20 days

Relinquished by	Date	Time	Received by	Date	Time
<u>[Signature]</u>	11/27/07	283	<u>[Signature]</u>	11/27/07	283
Relinquished by:			Received by:		
Relinquished by:			Received by:		

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Hematite Project Manager: Duane Quayle
 Address: _____ Telephone Number: 865-348-7477
 City: FESTUS, MO Site Contact: _____
 State: MO Zip Code: _____ Lab Contact: Ivan Venia

Date: 11/27/07
 CoC Number: 502
 Page: 7 of 7

Project Name: Hematite Characterization
 Project Location: " 313010.202 "
 Carrier/Waybill Number: _____
 Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives							Aspec	Solupie, Te-99	Solupie - U	Solupie - Pu	Solupie - U/P	
			Aqueous	Bediment	Soil	Urpres.	H2SO4	HNO3	HCl	NaOH	ZnCl2	HNO3							
<u>BD-17-4.5-SL</u>	<u>11/26/07</u>	<u>1745</u>												<input checked="" type="checkbox"/>					
<u>BD-17-8.5-SL</u>	<u>11/26/07</u>	<u>1750</u>																	

Comments: _____

Possible Hazard Identification

Non-haz. Sample Disposal Return to client
 Radioactive Disposal by lab
 Flammable Archive for _____ months
 Skin Irritant
 Unknown

Turn Around Time

24 hrs
 48 hrs
 7 days
 14 days
 21 days
 Other 20 days

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>11/28/07</u>	<u>2:22</u>	<u>[Signature]</u>	<u>11/28/07</u>	<u>17:45</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		



Lot #(s): 89
F7K280318
316
318

- 1341 -

Client: Energy Solutions COC/RFA No: SL-2, SL-3 Date: 11/20/07
 Quote No: 77705 Initiated By: BA Time: 1443

Shipping Information

Shipper Name: ched Multiple Packages Y N
 Shipping # (s):*
 1. _____ 6. _____ 1. Ambient 6. _____
 2. _____ 7. _____ 2. 1 7. _____
 3. _____ 8. _____ 3. _____ 8. _____
 4. _____ 9. _____ 4. _____ 9. _____
 5. _____ 10. _____ 5. _____ 10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines
 **Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	Are there custody seals present on the cooler?	8.	<input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on bottles?
2.	<input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9.	<input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3.	<input checked="" type="radio"/> Y <input type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10.	<input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was sample received with proper pH? (If not, make note below)
4.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?	11.	<input checked="" type="radio"/> Y <input type="radio"/> N	If N/A - Was pH taken by original TestAmerica lab?
5.	<input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?
6.	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	Was sample received broken?	13.	<input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	<input checked="" type="radio"/> Y <input type="radio"/> N	Is sample volume sufficient for analysis?	14.	<input checked="" type="radio"/> Y <input type="radio"/> N	Was Internal COC/Workshare received?

¹ For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:
 Client Contact Name: _____ Informed by: _____
 Sample(s) processed "as is"
 Sample(s) on hold until: _____ If released, notify: _____
 Project Management Review: [Signature] Date: 11-3-7

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.



ANALYTICAL REPORT

REVISED

PROJECT NO. 313010.202

Hematite Site

Lot #: F7L050305

Paul Ely

Energy Solutions, LLC
1009 Commerce Park Drive
Suite 100
Oak Ridge, TN 37830

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "Ivan Vania", is written above the printed name and title.

Ivan Vania
Project Manager

January 7, 2008

METHODS SUMMARY

F7L050305

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EML GA-01-R MOD	
Isotopic Plutonium by Alpha Spectroscopy	EML A-01-R	
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Neptunium by Alpha Spectroscopy	EML A-01-R MOD	
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

SAMPLE SUMMARY

F7L050305

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
KDHL4	001	D08-230-1-SS	11/29/07	12:42
KDHMD	002	D15-230-1-SS	11/29/07	12:25
KDHMG	003	D05-230-1-SS	11/29/07	12:38
KDHMH	004	D13-230-1-SS	11/29/07	12:51
KDHMM	006	BD1-230-1-DUST	11/29/07	19:48
KDKAW	007	BD3-230-1-DUST	12/01/07	08:30

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Case Narrative

LOT NUMBER: F7L050305 – Revision 1

This report contains the analytical results for the seven samples received under chain of custody by TestAmerica St. Louis on December 5, 2007. These samples are associated with your Hematite Site project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

This revision contains corrected sample identification. The identification for sample F7L050308-007 was changed from "BD1-230-1-DUST" to "BD3-230-1-DUST."

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

The lot was received as various limited volume matrices. The entire sample was weighed and digested. These samples went through six digestions, including two straight HF digestions. Most of the samples did not digest completely to ash.

The samples were analyzed by gamma spectroscopy before a portion was aliquotted for Tc-99. The remainder of the samples were cooked to dryness and processed through the rest of the preparation as listed in the SOP. Most of the samples in the lot were consumed in order to run the analyses required.

The sample results are reported in pCi/g. The sample aliquots were calculated using the original sample weight that was digested. The samples were then brought up to 100 mLs and divided equally for all the analysis. The reporting limits for all analyses may be elevated due to the limited initial sample volumes or high activities of the samples.

Sample F7L050305-005 consisted of one small insect in total. There was not enough matrix to perform any analyses. The sample was removed from the lot and will not be invoiced.

Gamma Spectroscopy - Cesium-137 & Hits (EML GA-01-R MOD)

The reporting limits for various gamma isotopes were not met due to insufficient sample volume available for analysis.

Affected Samples:

F7L050305 (1): D08-230-1-SS

F7L050305 (2): D15-230-1-SS

F7L050305 (3): D05-230-1-SS

F7L050305 (4): D13-230-1-SS

F7L050305 (6): BD1-230-1-DUST

F7L050305 (7): BD1-230-1-DUST

The presence of Thorium-234/Uranium-238 indicates the presence of Protactinium-234M. The Protactinium-234M results were calculated above the MDA in the samples. However, the results may be biased high due to the low abundances at keyline 1001.3 keV.

Affected Samples:

F7L050305 (6): BD1-230-1-DUST

F7L050305 (7): BD1-230-1-DUST

Isotopic Uranium by Alpha Spectroscopy (EML A-01-R MOD)

The original preparation of Uranium samples required an additional dilution due to high activity. .

The re-extracted Uranium sample results are acceptable and reported. The reporting limits for Uranium were not met due to a reduction of sample size attributed to the high activity of the samples.

Affected Samples:

F7L050305 (4): D13-230-1-SS

F7L050305 (1): D08-230-1-SS

F7L050305 (6): BD1-230-1-DUST

F7L050305 (3): D05-230-1-SS

F7L050305 (7): BD1-230-1-DUST

Isotopic Plutonium by Alpha Spectroscopy (EML A-01-R MOD)

The high activity of Uranium-234 is interfering with the Plutonium spectra. The sample was re-prepared and reanalyzed at a dilution. In the re-extract batch the LCS recovery for Plutonium-239 is outside the upper QC limit, indicating a potential positive bias for that analyte. There was insufficient sample to perform re-preparation/reanalysis.

The reporting limit for Plutonium was not met due to a reduction of sample size attributed to the high activity of the sample.

Affected Samples:

F7L050305 (7): BD1-230-1-DUST

Neptunium by Alpha Spectroscopy EML A-01-R MOD

The high activity of Uranium in the sample is causing interference in the Neptunium tracer spectrum.

The sample was re-prepared and reanalyzed. In the re-extract batch the Neptunium LCS/LCSD tracer recovery is outside acceptance limits. LCS/LCSD spike recoveries are within QC limits demonstrating acceptable sample preparation and instrument performance. There is an apparent anomaly in the sample preparation, isolated to the LCS and not indicative of the batch.

Affected Samples:

F7L050305 (7): BD1-230-1-DUST

The Neptunium LCS tracer recovery is outside acceptance limits. LCS spike recoveries are within QC limits demonstrating acceptable sample preparation and instrument performance. There is an apparent anomaly in the sample preparation, isolated to the LCS and not indicative of the batch.

Affected Samples:

F7L050305 (1): D08-230-1-SS

F7L050305 (4): D13-230-1-SS

F7L050305 (2): D15-230-1-SS

F7L050305 (7): BD1-230-1-DUST

F7L050305 (3): D05-230-1-SS

Tc-99 by LSC (EML TC-02-RC MOD)

The Technesium-99 reporting limit was not met due to insufficient sample volume available for analysis. Analytical results are reported with the MDC achieved.

Affected Samples:

F7L050305 (2): D15-230-1-SS

F7L050305 (3): D05-230-1-SS

F7L050305 (6): BD1-230-1-DUST

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F7K280308

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EML GA-01-R MOD	
Isotopic Plutonium by Alpha Spectroscopy	EML A-01-R	
Isotopic Uranium by Alpha Spectroscopy	EML A-01-R MOD	
Neptunium by Alpha Spectroscopy	EML A-01-R MOD	
TC-99 by LSC	EML TC-02-RC MO	

References:

EML "ENVIRONMENTAL MEASUREMENTS LABORATORY PROCEDURES MANUAL"
HASL-300 28TH EDITION, VOLUME I and II DEPARTMENT OF ENERGY

SAMPLE SUMMARY

F7K280308

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KC12W	001	D04-230-1-SS	11/28/07	08:28
KC121	002	D05-230-1-SS	11/28/07	08:30
KC124	003	D08-230-1-SS	11/28/07	08:42
KC127	004	D13-230-1-SS	11/28/07	08:35
KC13H	005	D15-230-1-SS	11/28/07	08:59
KC13J	006	D01-230-2-SS	11/28/07	09:50
KC13K	007	D02-230-2-SS	11/28/07	09:35
KC13M	008	D03-230-2-SS	11/28/07	09:55
KC13P	009	D04-230-2-SS	11/28/07	10:00
KC13Q	010	D01-230-3-SS	11/28/07	14:00
KC13R	011	D02-230-3-SS	11/28/07	10:05
KC13V	012	D03-230-3-SS	11/28/07	10:10
KC13W	013	D01-110-3-SS	11/28/07	07:55

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Energy Solutions, LLC
Client Sample ID: D04-230-1-SS

Radiochemistry

Lab Sample ID: F7K280308-001
 Work Order: KC12W
 Matrix: SOLID

Date Collected: 11/28/07 0828
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7351143	Yld % 105
Technetium 99	0.25	U	0.35	1.00	0.57	12/17/07	12/20/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: D04-230-1-SS DUP

Radiochemistry

Lab Sample ID: F7K280308-001X
 Work Order: KC12W
 Matrix: SOLID

Date Collected: 11/28/07 0828
 Date Received: 11/28/07 1456

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.				pCi/g		Batch # 7351143	Yld % 108
Technetium 99	0.01	U	0.33	1.00	0.56	12/17/07	12/20/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC
Client Sample ID: D08-230-1-SS

Radiochemistry

Lab Sample ID: F7L050305-001
 Work Order: KDHL4
 Matrix: SOLID

Date Collected: 11/29/07 1242
 Date Received: 12/05/07 1225

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0045	U	0.0032	1.00	0.021	12/13/07	12/20/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.0033	U	0.0027	1.00	0.019	12/13/07	12/19/07
Plutonium 239/40	-0.0010	U	0.0015	1.00	0.014	12/13/07	12/19/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.12	U	0.28	1.00	0.47	12/17/07	12/21/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-0.24	U	0.80	1.00	1.3	12/17/07	12/17/07
Cesium 137	-0.01	U	0.60	1.00	1.1	12/17/07	12/17/07
Thorium 232	-0.8	U	10	1	4	12/17/07	12/17/07
Uranium 235	3.2	U	2.7	1.0	4.4	12/17/07	12/17/07
Uranium 238	4.9	U	3.7	1.0	11	12/17/07	12/17/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	65		10	1	2	12/20/07	12/20/07
Uranium 235/236	1.3	U	1.5	1.0	1.8	12/20/07	12/20/07
Uranium 238	11.6		3.9	1.0	1.9	12/20/07	12/20/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: D08-230-1-SS DUP

Radiochemistry

Lab Sample ID: F7L050305-001X
 Work Order: KDHL4
 Matrix: SOLID

Date Collected: 11/29/07 1242
 Date Received: 12/05/07 1225

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by DOE GA-01-R MOD.				pCi/g		Batch # 7351211	Yld %
Americium 241	-0.06	U	0.48	1.00	0.83	12/17/07	12/17/07
Cesium 137	0.06	U	0.50	1.00	0.94	12/17/07	12/17/07
Thorium 232	0.5	U	1.5	1.0	2.7	12/17/07	12/17/07
Uranium 235	3.8		2.0	1.0	3.0	12/17/07	12/17/07
Uranium 238	7.3	U	3.7	1.0	8.4	12/17/07	12/17/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: D15-230-1-SS

Radiochemistry

Lab Sample ID: F7L050305-002
 Work Order: KDHMD
 Matrix: SOLID

Date Collected: 11/29/07 1225
 Date Received: 12/05/07 1225

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.49	J	0.37	1.00	0.41	12/13/07	12/20/07
Batch # 7347430 Yld % 105							
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.11	U	0.23	1.00	0.43	12/13/07	12/19/07
Plutonium 239/40	-0.012	U	0.024	1.00	0.27	12/13/07	12/19/07
Batch # 7347431 Yld % 96							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	5.8	U	7.0	1.0	11	12/17/07	12/21/07
Batch # 7351143 Yld % 102							
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	808		69	1	0.4	12/13/07	12/19/07
Uranium 235/236	36.0		4.5	1.0	0.2	12/13/07	12/19/07
Uranium 238	130		12	1	0.3	12/13/07	12/19/07
Batch # 7347433 Yld % 93							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-7	U	18	1	30	12/17/07	12/17/07
Cesium 137	6	U	15	1	26	12/17/07	12/17/07
Thorium 232	-20	U	250	1	100	12/17/07	12/17/07
Uranium 235	77	U	66	1	110	12/17/07	12/17/07
Uranium 238	127	U	75	1	270	12/17/07	12/17/07
Batch # 7351211 Yld %							

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC
Client Sample ID: D05-230-1-SS

Radiochemistry

Lab Sample ID: F7L050305-003
 Work Order: KDHMG
 Matrix: SOLID

Date Collected: 11/29/07 1238
 Date Received: 12/05/07 1225

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.46	J	0.16	1.00	0.08	12/13/07	12/20/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.019	U	0.038	1.00	0.070	12/13/07	12/19/07
Plutonium 239/40	0.023	U	0.037	1.00	0.055	12/13/07	12/19/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.2	U	1.5	1.0	2.5	12/17/07	12/21/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-2.5	U	4.7	1.0	7.7	12/17/07	12/17/07
Cesium 137	0.2	U	3.0	1.0	5.4	12/17/07	12/17/07
Thorium 232	-2	U	27	1	22	12/17/07	12/17/07
Uranium 235	139		28	1	24	12/17/07	12/17/07
Uranium 238	246		40	1	64	12/17/07	12/17/07
--- Other Detected Radionuclides ---							
Bismuth 214	18.5		8.7		11	12/17/07	12/17/07
Thorium 234	246		40		64	12/17/07	12/17/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	2030		230	1	20	12/20/07	12/20/07
Uranium 235/236	106		39	1	14	12/20/07	12/20/07
Uranium 238	315		64	1	11	12/20/07	12/20/07

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Energy Solutions, LLC
Client Sample ID: D13-230-1-SS

Radiochemistry

Lab Sample ID: F7L050305-004
 Work Order: KDHHM
 Matrix: SOLID

Date Collected: 11/29/07 1251
 Date Received: 12/05/07 1225

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0024	U	0.0021	1.00	0.016	12/13/07	12/20/07
Batch # 7347430 Yld % 88							
ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	-0.0030	U	0.0022	1.00	0.014	12/13/07	12/19/07
Plutonium 239/40	0.0020	U	0.0041	1.00	0.0055	12/13/07	12/19/07
Batch # 7347431 Yld % 101							
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.43	U	0.27	1.00	0.43	12/17/07	12/21/07
Batch # 7351143 Yld % 96							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.48	U	0.60	1.00	0.99	12/17/07	12/18/07
Cesium 137	0.28	U	0.46	1.00	0.77	12/17/07	12/18/07
Thorium 232	-1.8	U	7.1	1.0	4.0	12/17/07	12/18/07
Uranium 235	12.8		3.6	1.0	4.3	12/17/07	12/18/07
Uranium 238	14.8		4.8	1.0	10	12/17/07	12/18/07
--- Other Detected Radionuclides ---							
Thorium 234	14.8		4.8		10	12/17/07	12/18/07
ISO URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	156		20	1	1	12/20/07	12/20/07
Uranium 235/236	6.3		3.3	1.0	1.1	12/20/07	12/20/07
Uranium 238	26.5		6.4	1.0	0.9	12/20/07	12/20/07
Batch # 7354466 Yld % 88							

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC

Client Sample ID: BD1-230-1-DUST

Radiochemistry

Lab Sample ID: F7L050305-006
 Work Order: KDHMM
 Matrix: SOLID

Date Collected: 11/29/07 1948
 Date Received: 12/05/07 1225

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	6.0	U	4.9	1.0	8.0	12/17/07	12/21/07
Batch # 7351143 Yld % 103							
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	35	U	25	1	40	12/17/07	12/18/07
Cesium 137	-0.1	U	12	1	21	12/17/07	12/18/07
Thorium 232	1	U	35	1	68	12/17/07	12/18/07
Uranium 235	2240		220	1	130	12/17/07	12/18/07
Uranium 238	5950		530	1	340	12/17/07	12/18/07
--- Other Detected Radionuclides ---							
Protactinium 234M	8900		2300		2600	12/17/07	12/18/07
Thorium 234	5950		530		340	12/17/07	12/18/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	54100		5100	1	200	12/20/07	12/20/07
Uranium 235/236	2800		640	1	90	12/20/07	12/20/07
Uranium 238	8000		1100	1	100	12/20/07	12/20/07

NOTE(S)

- Data are incomplete without the case narrative.
- MDC is determined by instrument performance only.
- Bold results are greater than the MDC
- U Result is less than the sample detection limit.

Energy Solutions, LLC
Client Sample ID: BD3-230-1-DUST

Radiochemistry

Lab Sample ID: F7L050305-007
 Work Order: KDKAW
 Matrix: SOLID

Date Collected: 12/01/07 0830
 Date Received: 12/05/07 1225

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.75	J	0.40	1.00	0.62	12/17/07	12/21/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	-5.6	U	5.9	1.0	9.7	12/17/07	12/18/07
Cesium 137	0.2	U	2.3	1.0	3.9	12/17/07	12/18/07
Thorium 232	1.5	U	7.2	1.0	12	12/17/07	12/18/07
Uranium 235	3310		270	1	40	12/17/07	12/18/07
Uranium 238	6240		500	1	90	12/17/07	12/18/07
--- Other Detected Radionuclides ---							
Bismuth 212	31		19		28	12/17/07	12/18/07
Protactinium 234M	9260		820		370	12/17/07	12/18/07
Thorium 234	6240		500		90	12/17/07	12/18/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	0.89	U	0.88	1.00	1.1	12/20/07	12/21/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	46	U	70	1	120	12/20/07	12/20/07
Plutonium 239/40	0.0	U	15	1	46	12/20/07	12/20/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	40900		3900	1	100	12/20/07	12/20/07
Uranium 235/236	1880		450	1	100	12/20/07	12/20/07
Uranium 238	6090		850	1	100	12/20/07	12/20/07

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F7L050305
 Matrix: SOLID

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0018	U	0.0036	1.00	0.041	12/13/07	F7L130000-430B 12/20/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.035	U	0.040	1.00	0.051	12/13/07	F7L130000-431B 12/20/07
Plutonium 239/40	0.002	U	0.021	1.00	0.059	12/13/07	12/20/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.74	J	0.19	1.00	0.06	12/13/07	F7L130000-433B 12/20/07
Uranium 235/236	0.34	J	0.13	1.00	0.05	12/13/07	12/20/07
Uranium 238	0.33	J	0.12	1.00	0.05	12/13/07	12/20/07
TC-99 by LSC by DOE TC-02-RC Mod.							
Technetium 99	0.07	U	0.35	1.00	0.58	12/17/07	F7L170000-143B 12/20/07
Gamma Cs-137 & Hits by DOE GA-01-R MOD.							
Americium 241	0.004	U	0.11	1.00	0.19	12/17/07	F7L170000-211B 12/18/07
Cesium 137	0.009	U	0.084	1.00	0.15	12/17/07	12/18/07
Thorium 232	-0.05	U	0.51	1.00	0.60	12/17/07	12/18/07
Uranium 235	-0.004	U	0.40	1.00	0.65	12/17/07	12/18/07
Uranium 238	0.2	U	1.2	1.0	1.7	12/17/07	12/18/07
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD							
Neptunium 237	-0.0007	U	0.012	1.00	0.034	12/20/07	F7L200000-468B 12/21/07
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD							
Plutonium 238	0.018	U	0.023	1.00	0.033	12/20/07	F7L200000-464B 12/21/07
Plutonium 239/40	0.002	U	0.012	1.00	0.031	12/20/07	12/21/07
Iso URANIUM (SHORT CT) DOE A-01-R MOD							
Uranium 233/234	0.009	U	0.016	1.00	0.027	12/20/07	F7L200000-466B 12/20/07
Uranium 235/236	0.0	U	0.0058	1.00	0.018	12/20/07	12/20/07
Uranium 238	0.009	U	0.016	1.00	0.026	12/20/07	12/20/07

NOTE(S)

data are incomplete without the case narrative.

MDC is determined using instrument performance only

Bold results are greater than the MDC

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F7L050305
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2σ+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
<hr/>							
TC-99 by LSC by DOE	TC-02-RC Mod.		pCi/g	TC-02-RC MOD			F7L170000-143C
Technetium 99	33.3	28.3	2.5	0.5	110	85	(64 - 114)
	Batch #:	7351143		Analysis Date:	12/20/07		
<hr/>							
Gamma Cs-137 & Hits by DOE	GA-01-R		pCi/g	GA-01-R MOD			F7L170000-211C
MOD.							
Americium 241	1570	1500	120	3		95	(85 - 118)
Cesium 137	626	634	37	2		101	(91 - 120)
Cobalt 60	1040	1020	58	2		98	(91 - 112)
	Batch #:	7351211		Analysis Date:	12/18/07		
<hr/>							

NOTE(S)

MDC is determined by instrument performance only
 Calculations are performed before rounding to avoid round-off error in calculated results

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID: F7L050305
 Matrix: SOLID

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	% Yld	% Rec	Lab Sample ID	
						QC Control Limits	Precision
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD		F7L130000-430C	
Neptunium 237	13.3	11.9	1.2	117	90	(75 - 119)	
Spk 2	13.3	13.3	1.3	105	100	(75 - 119) 11 %RPD	
Batch #: 7347430			Analysis Date: 12/20/07				
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R		F7L130000-431C	
Plutonium 238	6.13	5.98	0.69	100	98	(77 - 112)	
Spk 2	6.13	6.12	0.70	98	100	(77 - 112) 2 %RPD	
Plutonium 239/40	5.77	5.80	0.67	100	100	(82 - 119)	
Spk 2	5.77	5.67	0.66	98	98	(82 - 119) 2 %RPD	
Batch #: 7347431			Analysis Date: 12/19/07				
Iso URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD		F7L130000-433C	
Uranium 233/234	6.56	7.26	0.81	92	110	(76 - 128)	
Spk 2	6.56	8.06	0.89	83	123	(76 - 128) 10 %RPD	
Uranium 238	6.82	7.38	0.82	92	108	(74 - 125)	
Spk 2	6.82	7.58	0.85	83	111	(74 - 125) 3 %RPD	
Batch #: 7347433			Analysis Date: 12/19/07				
ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD		F7L200000-468C	
Neptunium 237	6.64	6.02	0.60	119	91	(75 - 119)	
Spk 2	6.64	6.23	0.62	112	94	(75 - 119) 3 %RPD	
Batch #: 7354468			Analysis Date: 12/21/07				
Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R		F7L200000-464C	
Plutonium 238	3.06	3.16	0.38	85	103	(77 - 112)	
Spk 2	3.06	3.19	0.37	89	104	(77 - 112) 1 %RPD	
Plutonium 239/40	2.88	3.52	a	85	122	a (82 - 119)	
Spk 2	2.88	3.20	0.37	89	111	(82 - 119) 9 %RPD	
Batch #: 7354464			Analysis Date: 12/21/07				
Iso URANIUM (SHORT CT) DOE A-01-R MOD			pCi/g	A-01-R MOD		F7L200000-466C	
Uranium 233/234	3.28	3.57	0.40	93	109	(76 - 128)	
Spk 2	3.28	3.75	0.42	91	114	(76 - 128) 5 %RPD	
Uranium 238	3.41	3.61	0.41	93	106	(74 - 125)	
Spk 2	3.41	3.60	0.41	91	106	(74 - 125) 0.2 %RPD	
Batch #: 7354466			Analysis Date: 12/20/07				

NOTE(S)

Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F7L050305
 Matrix: SOLID

Date Sampled: 11/28/07
 Date Received: 11/28/07

Parameter	SAMPLE Result	Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ +/-)	% Yld	QC Sample ID	
							Precision	
TC-99 by LSC by DOE TC-02-RC Mod.			pCi/g	TC-02-RC MOD			F7K280308-001	
Technetium 99	0.25 U	0.35	105	0.01 U	0.33	108	179	%RPD
	Batch #: 7351143 (Sample)			7351143 (Duplicate)				
Gamma Cs-137 & Hits by DOE GA-01-R MOD.			pCi/g	GA-01-R MOD			F7L050305-001	
Americium 241	-0.24 U	0.80		-0.06 U	0.48		121	%RPD
Cesium 137	-0.01 U	0.60		0.06 U	0.50		293	%RPD
Thorium 232	-0.8 U	10		0.5 U	1.5		803	%RPD
Uranium 235	3.2 U	2.7		3.8 U	2.0		19	%RPD
Uranium 238	4.9 U	3.7		7.3 U	3.7		38	%RPD
	Batch #: 7351211 (Sample)			7351211 (Duplicate)				

NOTE(S)

Data are incomplete without the case narrative.
 Calculations are performed before rounding to avoid round-off error in calculated results

U Result is less than the sample detection limit.

F7L050305

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-12-05
 Analytical Due Date: 2007-12-20
 Report Due Date: 2007-12-21
 Report Type: W
 EDD Code: 00

#SMPS in LOT: 6

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
1	D08-230-1-SS			2007-11-29 / 1242	KDHL4	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	Iso URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
2	D15-230-1-SS			2007-11-29 / 1225	KDHMD	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	Iso URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
3	D05-230-1-SS			2007-11-29 / 1238	KDHMG	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	Iso URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
4	D13-230-1-SS			2007-11-29 / 1251	KDHMH	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hls by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	Iso PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	Iso URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

F7L050305

CLIENT ANALYSIS SUMMARY

Storage Loc:

RAD

Project Manager: IV
 Project: 313010.202
 PO#:
 Client: 1381304 Energy Solutions, LLC

Quote #: 77705 SDG:
 Hematite Site
 Report to: Paul Ely

Date Received: 2007-12-05
 Analytical Due Date: 2007-12-20
 Report Due Date: 2007-12-21

Report Type: W
 EDD Code: 00

#SMPS in LOT: 6

Gamma library MUST contain U-235, U-238, Th-232, and Am-241 Standard QA/QC acceptable.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
5	D12-230-1-SS			2007-11-29 / 1650	KDHMJ	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
6	BD1-230-1-DUST			2007-11-29 / 1948	KDHMM	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	A
7	BD1-230-1-DUST			2007-11-29 / 830	KDKAW	SOLID
SAMPLE COMMENTS:						
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 0A	EML GA-01-R MOD	Gamma Cs-137 & Hits by DOE GA-01-R MOD.	G6 Dry, Grind, and Fill Geometry	2X SPECIAL PROJECTS	PROT: A WRK LOC	06
XX 2H	EML A-01-R	ISO PLUTONIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2I	EML A-01-R MOD	ISO URANIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 2Q	EML TC-02-RC MOD	TC-99 by LSC by DOE TC-02-RC Mod.	IM TC-99 by Extraction Chromatography Resin	01 STANDARD TEST SET	PROT: A WRK LOC	06
XX 3K	EML A-01-R MOD	ISO NEPTUNIUM (SHORT CT) DOE A-01-R MOD	J2 Extraction Chromatography - Sequential Actinides	01 STANDARD TEST SET	PROT: A WRK LOC	06

Soil Surveys, Sample Collections, & Chain-of-Custody Procedure

Attachment 5.2-Chain of Custody Record

Client: WEC Hematite
 Address: _____
 City: Festus, Mo.
 State: MO Zip Code: _____

Project Manager: Duane Quayle
 Telephone Number: 865-368-7477
 Site Contact: _____
 Lab Contact: Ivan Venia

Date: 11/29/07
 CoC Number: 5C-4 Revision 1
 Page: 1 of 1 RCE 12/4/07

Project Name: Hematite Characterization
 Project Location: _____
 Carrier/Waybill Number: 313010.202
 Contract/PO Number: _____

Analysis
(Attach list if more space is needed)

Sample ID Number	Date	Time	Matrix				Containers & Preservatives							Other									
			Air	Aqueous	Sediment	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	NaOH										
D08-230-1-53	11-29-07	12:42			X										X	X	X	X	X	X	X		
D15-230-1-55	11-29-07	12:25			X										X	X	X	X	X	X	X		
D05-230-1-55	11-29-07	12:38			X										X	X	X	X	X	X	X		
D13-230-1-55	11-29-07	12:51			X										X	X	X	X	X	X	X		
D12-230-1-55	11-29-07	16:50			X										X	X	X	X	X	X	X		
D01-230-1-DUST	11-29-07	17:48				X									X	X	X	X	X	X	X		
D02-230-1-DUST	RCE 12/5/07					X									X	X	X	X	X	X	X		RCE 12/6/07
D03-230-1-DUST	12-01-07	08:30				X									X	X	X	X	X	X	X		

Possible Hazard Identification

Non-haz. Sample Disposal Return to client
 Radioactive Disposal by lab
 Flammable Archive for _____ months
 Skin Irritant
 Unknown

Turn Around Time: 24 hrs
 48 hrs
 7 days
 14 days
 21 days
 Other: 15 days
RCE 11-29-07

Relinquished by:	Date	Time	Received by:	Date	Time
<u>Paul C. Ely</u>	<u>12/5/07</u>	<u>12:35</u>	<u>B. D. T.</u>	<u>12/5/07</u>	<u>12:35</u>
Relinquished by:			Received by:		
Relinquished by:			Received by:		

