0076475

SAF-RC-087
618-7 Burial Ground - Soil
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Rick Kerkow	L6-06	KW 3/13/08 Initials/Date
Kathy Wendt	H4-21	KW 3/13/08 Initials/Date

COMMENTS:

SDG J00163 SAF-RC-087

Rad only X Chem only Rad & Chem

X Complete Partial

WASTE SITE: 618-7 Stockpiles Green Turnings

RECEIVED
MAR 18 2008
EDMC

Analytical Data Package Prepared For

Washington Closure Hanford

RECEIVED
MAR 2008

Analysis Provided By

TestAmerica Richland
2800 George Washington Way
Richland WA, 99354
(509)375-3131
Assigned Laboratory Code: TALR

SDG Number: JT00163

Data Package Contains 18 Pages

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

March 12, 2008

Attention: Joan Kessner

SAF Number	:	RC-087
Date SDG Closed	:	February 29, 2008
Number of Samples	:	One (1)
Sample Type	:	Soil
SDG Number	:	J00163
Data Deliverable	:	Quick Turn Metals with Be / Summary

CASE NARRATIVE

I. Introduction

On February 27, 2008 one soil was received at STL Richland (STLR) for ICP metals analysis. Upon receipt, the sample was assigned the following laboratory ID numbers to correspond with the Washington Closure Hanford (WCH) specific ID;

WCH ID#	STLR ID#	MATRIX	DATE OF RECEIPT
J169F0	KHP19	SOIL	02/27/08

II. Sample Receipt

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

III. Analytical Results/Methodology

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

ICP Metals
ICP Metals by method SW-846 6010A

IV. Quality Control

SDG J00163 includes a minimum of one Laboratory Control Samples (LCS) and one method (reagent) blank. A duplicate sample, matrix spike sample and a matrix spike duplicate sample will be analyzed per 20 samples or per month, whichever is more frequent. Any exceptions have been noted in the "Comments" section.

Blanks and LCS are reported in mg/L units, other QC and sample results are reported in the same units.

V. Comments

ICP Metals

ICP Metals by method SW-846 6010A

One batch was analyzed for samples with the standard metal request list with beryllium analyzed in August 2006.

Batch 6151527:

The matrix spikes failed for several analytes due to a combination of two factors. First the homogeneity of the sample permitted a large sampling error. The material consisted of a mixture of metallic shavings and other material. No two aliquots will be the same. Second in several cases the amount of analyte far exceeded the amount of spike added to the sample. Except as noted, the LCS, batch blank, sample, sample duplicate, ICB, ICV, CCB and CCV results are within contractual limits.

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

Reviewed and approved:

Sandra Seger
Project Manager

Analysis Date: 2/28/2008

Sample ID J169F0 = KHP19 QC Batch #: 8058416

Analyte: Lead

* - Sample Result MDL 0.0039 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Pb (mg/g)	Results (ug/g)	Yield
KHP19-1AA	19.05	0.05	1	0.5561	1.712821	1712.821	*
KHP19-1AC-S	10.31	0.05	1	0.5051	1.02059	1020.59	
KHP19-1AE-S	13.05	0.05	1	0.5192	1.256741	1256.741	
KHP19-1AD-X	21.74	0.05	1	0.5605	1.93934	1939.34	
KHP3H1AA	0.0043				0.0043	0.0043	
KHP3H1AC	0.9482				0.9482		94.82%

Analyte: Cadmium

MDL 0.0002 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Cd (mg/g)	Results (ug/g)	Yield
KHP19-1AA	0.0606	0.05	1	0.5561	0.005449	5.44866	*
KHP19-1AC-S	0.9448	0.05	1	0.5051	0.093526	93.52603	
KHP19-1AE-S	0.9168	0.05	1	0.5192	0.08829	88.28968	
KHP19-1AD-X	0.0693	0.05	1	0.5605	0.006182	6.18198	
KHP3H1AA	0				0	<MDL	
KHP3H1AC	0.9567				0.9567		95.67%

Analyte: Chromium

MDL 0.0194 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Cr (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	2.121	0.05	1	0.5561	0.190703	190.7031	*
KHP19-1AC-S	2.723	0.05	1	0.5051	0.269551	269.5506	
KHP19-1AE-S	2.309	0.05	1	0.5192	0.222361	222.3613	
KHP19-1AD-X	0.8771	0.05	1	0.5605	0.078243	78.24264	
KHP3H1AA	-0.0005				-0.0005	<MDL	
KHP3H1AC	0.9685				0.9685		96.85%

Analyte: **Berylium**

MDL 0.0002 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	0.0021	0.05	1	0.5561	0.000189	0.188815	✗
KHP19-1AC-S	0.9721	0.05	1	0.5051	0.096228	96.22847	
KHP19-1AE-S	0.9606	0.05	1	0.5192	0.092508	92.5077	
KHP19-1AD-X	0.0018	0.05	1	0.5605	0.000161	0.160571	
KHP3H1AA	0.0001				0.0001	<MDL	
KHP3H1AC	1.004				1.004		100.40%

Analyte: **Barium**

MDL 0.0013 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	0.2564	0.05	1	0.5561	0.023053	23.05341	✗
KHP19-1AC-S	1.289	0.05	1	0.5051	0.127598	127.5985	
KHP19-1AE-S	1.198	0.05	1	0.5192	0.11537	115.3698	
KHP19-1AD-X	0.3467	0.05	1	0.5605	0.030928	30.92774	
KHP3H1AA	0.0002				0.0002	<MDL	
KHP3H1AC	0.9211				0.9211		92.11%

Analyte: **Silver**

MDL 0.004 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	0.0797	0.05	1	0.5561	0.007166	7.165977	✗
KHP19-1AC-S	0.9018	0.05	1	0.5051	0.089269	89.26945	
KHP19-1AE-S	0.9194	0.05	1	0.5192	0.08854	88.54006	
KHP19-1AD-X	0.0597	0.05	1	0.5605	0.005326	5.325602	
KHP3H1AA	0.0007				0.0007	<MDL	
KHP3H1AC	0.9157				0.9157		91.57%

Analyte: **Arsenic**

MDL 0.0074 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	0.0334	0.05	1	0.5561	0.003003	3.003057	X
KHP19-1AC-S	0.9291	0.05	1	0.5051	0.091972	91.97189	
KHP19-1AE-S	0.9236	0.05	1	0.5192	0.088945	88.94453	
KHP19-1AD-X	0.0307	0.05	1	0.5605	0.002739	2.738626	
KHP3H1AA	-0.0011				-0.0011	<MDL	
KHP3H1AC	0.9284				0.9284		92.84%

Analyte: **Selenium**

MDL 0.0276 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	-0.00807	0.05	1	0.5561	-0.000726	<MDL	X
KHP19-1AC-S	0.779	0.05	1	0.5051	0.077113	77.11344	
KHP19-1AE-S	0.0011	0.05	1	0.5192	0.000106	0.105932	
KHP19-1AD-X	-0.02367	0.05	1	0.5605	-0.002112	<MDL	
KHP3H1AA	0.00157				0.00157	<MDL	
KHP3H1AC	0.83367				0.83367		83.37%

Analyte: **Copper**

MDL 0 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	103.1	0.05	1	0.5561	9.269915	9269.915	
KHP19-1AC-S	136.3	0.05	1	0.5051	13.49238	13492.38	
KHP19-1AE-S	211.8	0.05	1	0.5192	20.39676	20396.76	
KHP19-1AD-X	103.1	0.05	1	0.5605	9.197145	9197.145	
KHP3H1AA	0.0012				0.0012	<MDL	
KHP3H1AC	0.9808				0.9808		98.08%

Analyte: **Iron**

MDL 0 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	166.5	0.05	1	0.5561	14.97033	14970.33	
KHP19-1AC-S	273	0.05	1	0.5051	27.02435	27024.35	
KHP19-1AE-S	190.6	0.05	1	0.5192	18.35516	18355.16	
KHP19-1AD-X	241.7	0.05	1	0.5605	21.56111	21561.11	
KHP3H1AA	0.0159				0.0159	<MDL	
KHP3H1AC	1.047				1.047		104.70%

Analyte: **Zinc**

MDL 0 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	40.91	0.05	1	0.5561	3.678295	3678.295	
KHP19-1AC-S	87.28	0.05	1	0.5051	8.639873	8639.873	
KHP19-1AE-S	41.11	0.05	1	0.5192	3.958975	3958.975	
KHP19-1AD-X	41.04	0.05	1	0.5605	3.661017	3661.017	
KHP3H1AA	0.0106				0.0106	<MDL	
KHP3H1AC	0.9222				0.9222		92.22%

Analyte: **Aluminium**

MDL 0 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	1229	0.05	1	0.5561	110.5017	110501.7	
KHP19-1AC-S	474.5	0.05	1	0.5051	46.9709	46970.9	
KHP19-1AE-S	779.5	0.05	1	0.5192	75.06741	75067.41	
KHP19-1AD-X	791.4	0.05	1	0.5605	70.59768	70597.68	
KHP3H1AA	0.0105				0.0105	<MDL	
KHP3H1AC	0.9114				0.9114		91.14%

Sample ID J169F0 = KHP19

* - Sample Result

Analysis Date: 2/28/2008
QC Batch #: 8058416-A
Analyte: Lead
MDL 0.0039 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Pb (mg/g)	Results (ug/g)	Yield
KHP19-1AA	18.78	0.05	1	0.5561	1.688545	1688.545	
KHP19-1AC-S	10.17	0.05	1	0.5051	1.006731	1006.731	-861.00%
KHP19-1AE-S	12.96	0.05	1	0.5192	1.248074	1248.074	-582.00%
KHP19-1AD-X	21.65	0.05	1	0.5605	1.931311	1931.311	
KHP19-1AA 100:1	0.2273	0.05	101	0.5605	2.04793	2047.93	
KHP19-1AD-X 100:1	0.2494	0.05	101	0.5605	2.247047	2247.047	
KHP3H1AA	0.0026				0.0026	<MDL	
KHP3H1AC	0.9312				0.9312		93.12%

Analyte: Cadmium
MDL 0.0002 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Cd (mg/g)	Results (ug/g)	Yield
KHP19-1AA	0.06	0.05	1	0.5561	0.005395	5.394713	
KHP19-1AC-S	0.9273	0.05	1	0.5051	0.091794	91.7937	86.73%
KHP19-1AE-S	0.9071	0.05	1	0.5192	0.087356	87.35555	84.71%
KHP19-1AD-X	0.0696	0.05	1	0.5605	0.006209	6.208742	
KHP19-1AA 100:1	0.0007	0.05	101	0.5605	0.006307	6.306869	
KHP19-1AD-X 100:1	0.0007	0.05	101	0.5605	0.006307	6.306869	
KHP3H1AA	0.0001				0.0001	<MDL	
KHP3H1AC	0.9357				0.9357		93.57%

Analyte: Chromium
MDL 0.0194 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Cr (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	2.108	0.05	1	0.5561	0.189534	189.5343	
KHP19-1AC-S	2.716	0.05	1	0.5051	0.268858	268.8577	60.80%
KHP19-1AE-S	2.321	0.05	1	0.5192	0.223517	223.5169	21.30%
KHP19-1AD-X	0.8833	0.05	1	0.5605	0.078796	78.79572	
KHP19-1AA 100:1	0.0236	0.05	101	0.5605	0.212632	212.6316	
KHP19-1AD-X 100:1	0.0094	0.05	101	0.5605	0.084692	84.69224	
KHP3H1AA	-0.0003				-0.0003	<MDL	
KHP3H1AC	0.9631				0.9631		96.31%

Analyte: **Berylium**
MDL 0.0002 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	0.0021	0.05	1	0.5561	0.000189	0.188815	
KHP19-1AC-S	0.958	0.05	1	0.5051	0.094833	94.83271	95.59%
KHP19-1AE-S	0.9544	0.05	1	0.5192	0.091911	91.91063	95.23%
KHP19-1AD-X	0.002	0.05	1	0.5605	0.000178	0.178412	
KHP19-1AA 100:1	0.0002	0.05	101	0.5605	0.001802	1.801963	
KHP19-1AD-X 100:1	0.0001	0.05	101	0.5605	0.000901	0.900981	
KHP3H1AA	0.0001				0.0001	<MDL	
KHP3H1AC	0.9856				0.9856		98.56%

Analyte: **Barium**
MDL 0.0013 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	0.252	0.05	1	0.5561	0.022658	22.6578	
KHP19-1AC-S	1.268	0.05	1	0.5051	0.12552	125.5197	101.60%
KHP19-1AE-S	1.182	0.05	1	0.5192	0.113829	113.829	93.00%
KHP19-1AD-X	0.3515	0.05	1	0.5605	0.031356	31.35593	
KHP19-1AA 100:1	0.003	0.05	101	0.5605	0.027029	27.02944	
KHP19-1AD-X 100:1	0.0039	0.05	101	0.5605	0.035138	35.13827	
KHP3H1AA	0.0001				0.0001	<MDL	
KHP3H1AC	0.9045				0.9045		90.45%

Analyte: **Silver**
MDL 0.004 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	0.0787	0.05	1	0.5561	0.007076	7.076065	
KHP19-1AC-S	0.8945	0.05	1	0.5051	0.088547	88.54682	81.58%
KHP19-1AE-S	0.9172	0.05	1	0.5192	0.088328	88.3282	83.85%
KHP19-1AD-X	0.0597	0.05	1	0.5605	0.005326	5.325602	
KHP19-1AA 100:1	0.0006	0.05	101	0.5605	0.005406	5.405888	
KHP19-1AD-X 100:1	0.0008	0.05	101	0.5605	0.007208	7.20785	
KHP3H1AA	0.0003				0.0003	<MDL	
KHP3H1AC	0.9065				0.9065		90.65%

Analyte: **Arsenic**

MDL 0.0074 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	0.0335	0.05	1	0.5561	0.003012	3.012048	
KHP19-1AC-S	0.9164	0.05	1	0.5051	0.090715	90.71471	88.29%
KHP19-1AE-S	0.921	0.05	1	0.5192	0.088694	88.69414	88.75%
KHP19-1AD-X	0.0341	0.05	1	0.5605	0.003042	3.041927	
KHP19-1AA 100:1	0.0012	0.05	101	0.5605	0.010812	10.81178	
KHP19-1AD-X 100:1	0.0003	0.05	101	0.5605	0.002703	2.702944	
KHP3H1AA	0.0005				0.0005	<MDL	
KHP3H1AC	0.9205				0.9205		92.05%

Analyte: **Selenium**

MDL 0.0276 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	-0.01277	0.05	1	0.5561	-0.001148	<MDL	
KHP19-1AC-S	0.7626	0.05	1	0.5051	0.07549	75.49	77.54%
KHP19-1AE-S	0.77361	0.05	1	0.5192	0.0745	74.50019	78.64%
KHP19-1AD-X	-0.02506	0.05	1	0.5605	-0.002236	<MDL	
KHP19-1AA 100:1	-0.00133	0.05	101	0.5605	-0.011983	<MDL	
KHP19-1AD-X 100:1	-0.00074	0.05	101	0.5605	-0.006667	<MDL	
KHP3H1AA	0.00372				0.00372	<MDL	
KHP3H1AC	0.81167				0.81167		81.17%

Analyte: **Copper**

MDL 0 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	109.1	0.05	1	0.5561	9.809387	9809.387	
KHP19-1AC-S	109.4	0.05	1	0.5051	10.82954	10829.54	30.00%
KHP19-1AE-S	222.8	0.05	1	0.5192	21.45609	21456.09	11370.00%
KHP19-1AD-X	109.1	0.05	1	0.5605	9.732382	9732.382	
KHP19-1AA 100:1	5.054	0.05	101	0.5605	45.53559	45535.59	✗
KHP19-1AD-X 100:1	5.394	0.05	101	0.5605	48.59893	48598.93	
KHP3H1AA	-0.0158				-0.0158	<MDL	
KHP3H1AC	0.9564				0.9564		95.64%

Analyte: **Iron**

MDL 0 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	164.8	0.05	1	0.5561	14.81748	14817.48	
KHP19-1AC-S	272	0.05	1	0.5051	26.92536	26925.36	10720.00%
KHP19-1AE-S	190.7	0.05	1	0.5192	18.36479	18364.79	2590.00%
KHP19-1AD-X	243	0.05	1	0.5605	21.67707	21677.07	
KHP19-1AA 100:1	2.024	0.05	101	0.5605	18.23586	18235.86	X
KHP19-1AD-X 100:1	2.849	0.05	101	0.5605	25.66896	25668.96	
KHP3H1AA	0.0227				0.0227	0.0227	
KHP3H1AC	1.031				1.031		103.10%

Analyte: **Zinc**

MDL 0 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	42.13	0.05	1	0.5561	3.787988	3787.988	
KHP19-1AC-S	87.58	0.05	1	0.5051	8.66957	8669.57	4545.00%
KHP19-1AE-S	42.33	0.05	1	0.5192	4.076464	4076.464	20.00%
KHP19-1AD-X	42.25	0.05	1	0.5605	3.768956	3768.956	
KHP19-1AA 100:1	2.633	0.05	101	0.5605	23.72284	23722.84	X
KHP19-1AD-X 100:1	2.852	0.05	101	0.5605	25.69599	25695.99	
KHP3H1AA	0.0019				0.0019	<MDL	
KHP3H1AC	0.9063				0.9063		90.63%

Analyte: **Aluminium**

MDL 0 ppm

Sample ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Aliquant (g)	Recov'd Be (mg/sa)	Results (ug/g)	Yield
KHP19-1AA	1253	0.05	1	0.5561	112.6596	112659.6	
KHP19-1AC-S	486.6	0.05	1	0.5051	48.16868	48168.68	-76640.00%
KHP19-1AE-S	804.5	0.05	1	0.5192	77.47496	77474.96	-44850.00%
KHP19-1AD-X	822.2	0.05	1	0.5605	73.34523	73345.23	
KHP19-1AA 100:1	18.26	0.05	101	0.5605	164.5192	164519.2	X
KHP19-1AD-X 100:1	10.35	0.05	101	0.5605	93.25156	93251.56	
KHP3H1AA	-0.0315				-0.0315	<MDL	
KHP3H1AC	0.8745				0.8745		87.45%

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			RC-087-019	Page 1 of 2
Collector RB Kerkow / B Lawrence	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code	Data Turnaround **24 Hours**
Project Designation 618-7 Burial Ground - Soil	Sampling Location 618-7 Stockpiles GREEN TURNINGS		SAF No. RC-087		
Ice Chest No.	Field Logbook No. EL-1359-12	COA RG61872600	Method of Shipment Government Vehicle		
Shipped To TestAmerica Incorporated, Richland	Offsite Property No.		Bill of Lading/Air Bill No.		

POSSIBLE SAMPLE HAZARDS/REMARKS

Potential Radiological and Beryllium contamination

Special Handling and/or Storage

None

Preservation	None RTC 2/25/08											
Type of Container	AG											
No. of Container(s)	1											
Volume	60mL											
SAMPLE ANALYSIS	See item (1) in Special Instructions.											

Sample No.	Matrix *	Sample Date	Sample Time										
J169F0	SOIL	2/25/08	14:50	X									
~~J169F1~~	~~SOIL~~												
~~J169F2~~	~~SOIL~~												
~~J169F3~~	~~SOIL~~												
~~J169F4~~	~~SOIL~~												

RTC 2/25/08

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From Blawrence B	Date/Time 2-25-08 1545	Received By/Stored In RTCOFFMAN/RT Coffman	Date/Time 1545 2/25/08
Relinquished By/Removed From RTCOFFMAN/RT Coffman	Date/Time 1610 2/25/08	Received By/Stored In MZ mstankovich	Date/Time 1610 2/25/08
Relinquished By/Removed From MZ mstankovich	Date/Time 1440 2/27/08	Received By/Stored In RJL LJLANE TAL-R	Date/Time 1440 2-27-08
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

None

(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Metals by ICP - 6010 - Quick Turn (Add On) {Aluminum, Beryllium, Copper, Iron, Zinc, Zirconium}

J8B270294
J00163
DUE 2-28-08
KHP19

Matrix *

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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

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WCH-EE-011

Radiological Counting Facility

Analysis Report for RCF19149

J169D0 SAF:RC-087 FF2/618-7 STOCKPILE GREEN TURNINGS

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF19149
Sample Description	: J169D0 SAF:RC-087 FF2/618-7 STOCKPILE GREEN TURNINGS
Sample Type	: 50 gram pill box
Unit	:
Sample Point	
Sample Size	: 4.000E+01 grams
Facility	: Default
Sample Taken On	: 2/25/2008 2:50:00PM
Acquisition Started	: 2/25/2008 3:53:47PM
Procedure	: 50 gram pill box
Operator	: RCT
Detector Name	: REGIE02
Geometry	: 50 ml Pill Box
Live Time	: 3600.0 seconds
Real Time	: 3645.3 seconds
Dead Time	: 1.24 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 80 - 4096
Peak Area Range (in channels)	: 80 - 4096
Identification Energy Tolerance	: 1.300 keV
Energy Calibration Used Done On	: 1/10/2008
Efficiency Calibration Used Done On	: 1/11/2008
Efficiency Calibration Description	: 50g Pill Box 1-10-2008
Sample Number	: 17539

INTERFERENCE CORRECTED REPORT

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
K-40		1.000	8.25E+00	2.91E+00	
U-238d	@	0.998	2.35E+00	1.82E+00	

Analysis Report for RCF19149

J169D0 SAF:RC-087 FF2/618-7 STOCKPILE GREEN TURNINGS

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity
d = identified by daughter product energy lines assumed to be in secular equilibrium

Errors quoted at 2.000 sigma

UNIDENTIFIED PEAKS

Peak Locate Performed on : 2/25/2008 4:54:40PM
Peak Locate From Channel : 80
Peak Locate To Channel : 4096

	Peak No.	Energy (keV)	Peak Rate (CPS)	Peak Rate (%) Uncertainty
m	2	77.07 Pb-212	1.12E-02	24.19
	4	238.56 Pb-212	1.41E-02	30.12
	5	351.99 Pb-214	1.17E-02	34.50

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet
Errors quoted at 2.000 sigma

NP = No Peak
UK = Unknown

NUCLIDE MDA REPORT

Nuclide Library Used : \\GOZER\ApexRoot\Default\Library\RCF UNKNOWN.NLB

	Nuclide Name	Energy (keV)		Yield(%)	Activity (pCi/grams)	Nuclide MDA (pCi/grams)	Line MDA (pCi/grams)
+	K-40	1460.83	*	10.67	8.25E+00	3.46E+00	3.46E+00
	CO-60	1173.24		99.90	5.42E-02	2.85E-01	3.19E-01
		1332.50		99.98	-8.86E-02		2.85E-01
	NB-94	702.63		99.81	-2.52E-02	2.57E-01	2.57E-01
		871.10		99.89	-1.85E-01		2.70E-01
	AG-108m	433.94		90.50	1.43E-02	2.14E-01	2.14E-01
		614.28		89.80	1.06E-01		3.25E-01
		722.94		90.80	1.80E-01		3.06E-01
	CS-137	661.66		85.21	1.34E-02	2.84E-01	2.84E-01
	EU-152	40.12		38.40	-9.34E-03	3.60E-01	3.60E-01
		45.38		11.10	2.82E-01		1.11E+00
		121.78		28.40	1.25E-01		4.04E-01
		244.69		7.51	7.66E-01		2.24E+00
		344.29		26.60	2.36E-01		7.46E-01
		411.12		2.23	-3.06E+00		1.00E+01
		443.89		2.80	1.52E+00		7.52E+00
		778.92		12.98	-1.75E+00		1.87E+00

Analysis Report for RCF19149

J169D0 SAF:RC-087 FF2/618-7 STOCKPILE GREEN TURNINGS

	Nuclide Name	Energy (keV)		Yield(%)	Activity (pCi/grams)	Nuclide MDA (pCi/grams)	Line MDA (pCi/grams)
		867.38		4.21	-2.14E+00		5.95E+00
		964.11		14.50	-9.28E-01		2.11E+00
		1085.89		9.94	-1.06E+00		3.48E+00
		1089.71		1.71	-3.10E-02		2.28E+01
		1112.07		13.60	-3.25E+00		2.18E+00
		1212.93		1.40	-3.83E+00		2.49E+01
		1299.16		1.63	-6.12E+00		1.76E+01
		1408.00		20.80	3.95E-01		1.44E+00
	EU-154	123.10		40.50	2.74E-02	2.83E-01	2.83E-01
		723.36		19.70	3.39E-01		1.40E+00
		873.23		11.45	-1.02E+00		2.43E+00
		1004.78		17.90	2.00E-01		1.88E+00
		1274.54		35.50	3.01E-01		9.30E-01
	EU-155	86.54		34.00	8.83E-02	3.57E-01	3.57E-01
		105.31		20.60	-4.21E-01		5.17E-01
	PB-212	74.81		10.50	-1.02E-01	7.59E-01	1.28E+00
		77.11		17.70	9.43E-03		7.59E-01
		87.19		6.27	1.61E-01		1.94E+00
	RA-226d	186.11		3.28	3.30E+00	6.33E-01	4.94E+00
		241.92		7.46	7.03E-01		2.65E+00
		295.09		19.20	6.17E-01		1.02E+00
		351.87		37.10	6.11E-01		6.33E-01
		609.31		46.10	3.96E-01		6.74E-01
		1120.27		15.00	5.32E-01		2.30E+00
		1764.49		15.90	9.78E-01		2.49E+00
	TH-232d	238.58		43.60	2.99E-01	4.34E-01	4.34E-01
		338.42		12.40	7.69E-01		1.58E+00
		583.02		30.87	3.93E-01		8.43E-01
		911.16		29.00	3.10E-01		1.20E+00
		968.97		17.40	1.34E+00		1.92E+00
	U-235	143.79		10.50	6.90E-01	3.05E-01	1.27E+00
		163.38		4.70	7.74E-01		2.66E+00
		185.74		53.00	2.04E-01		3.05E-01
		205.33		4.70	9.24E-01		3.09E+00
+	U-238d	63.29	*	3.80	2.35E+00	1.89E+00	2.91E+00
		92.56	*	5.41	2.52E+00		1.89E+00
	AM-241	59.54		35.70	-2.35E-02	3.40E-01	3.40E-01
	CM-243	99.52		14.40	7.34E-01	4.80E-01	7.91E-01
		103.73		23.00	-2.36E-01		4.80E-01
		116.93		8.32	4.42E-01		1.45E+00
		228.19		10.56	3.57E-01		1.50E+00
		277.60		14.00	4.73E-01		1.35E+00
	CM-245	99.52		21.10	5.01E-01	3.29E-01	5.40E-01
		103.73		33.60	-1.61E-01		3.29E-01
		116.93		12.20	3.01E-01		9.86E-01
		174.94		9.50	-1.68E-01		1.47E+00

Analysis Report for RCF19149

J169D0 SAF:RC-087 FF2/618-7 STOCKPILE GREEN TURNINGS

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

Reviewed and Approved:

DAVID M. BREHM

FEB 26 2008

(print/sign/date)

W...ington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		RC-087-018	Page 1 of 2
Collector RB Kerkow / B Lawrence	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code / Data Turnaround 24 Hours
Project Designation 618-7 Burial Ground - Soil	Sampling Location 618-7 Stockpiles GREEN TURNINGS		SAF No. RC-087	
Ice Chest No.	Field Logbook No. EL-1359-12	COA RG61872600	Method of Shipment Government Vehicle	
Shipped To Radiological Counting Facility	Offsite Property No.		Bill of Lading/Air Bill No.	

POSSIBLE SAMPLE HAZARDS/REMARKS

Potential Radiological and Beryllium contamination

Special Handling and/or Storage

None

Preservation	None										
Type of Container	P										
No. of Container(s)	1										
Volume	60mL										
SAMPLE ANALYSIS	RCF GEA Shipping Screen										

Sample No.	Matrix *	Sample Date	Sample Time		RCF								
J169D0	SOIL	2/25/08	14:50	X	19149								
~~J169D1~~	~~SOIL~~												
~~J169D2~~	~~SOIL~~												
~~J169D3~~	~~SOIL~~												
~~J169D4~~	~~SOIL~~												

2/25/08

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
B Lawrence B	2-25-08 1545	RT Coffman / RT Coffman	1545 2/25/08
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
RT COFFMAN / RT Coffman	1550 2/25/08	RCF K. Eliasen / Kum	2-25-08 1550
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

None

COPY

Matrix *

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

LABORATORY SECTION	Received By	Title		Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method		Disposed By	Date/Time

WCH-EE-011

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List DUE 2-28-08

Date/Time Received: 2-27-08 1440 **GM Screen Result** 0.2K

Client: WCH **SDG #:** J00163 NA[ ] **SAF #:** RC-087 NA [ ]

Work Order Number: J8B270294 **Chain of Custody #** RC-087-019

Shipping Container ID: _____ **Air Bill #** _____

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [✓] Wet [ ] Dry [ ]
6. Number of samples in shipping container: 1
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   - ___ Tape
   - ✓ Custody Seals
   - ___ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - ___ Broken
   - ___ Leaking
   - ___ Have Air Bubbles
   - (Only for samples requiring no head space.)
10. Sample pH taken? NA [✓] SOIL pH<2 [ ] pH>2 [ ] pH>9 [ ] **Amount HNO_3 Added** _____
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: RJP **Date:** 2-27-08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____