

APPENDIX G
ANALYTICAL DATA

Groundwater Data – Round 1
SEAD-48
Seneca Army Depot Activity

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 100 Summer Street

Boston, Massachusetts 02110
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: November 13, 2003

Client Sample ID: 48-2003
Sample ID: 89747001
Matrix: Ground Water
Collect Date: 06-OCT-03 14:00
Receive Date: 10-OCT-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis											
<i>Alphaspec Th, Liquid</i>											
Thorium-230	U	0.442	+/-0.431	0.686	1.00	pCi/L	AS1	11/13/03	0822	290530	1
Thorium-232	U	0.105	+/-0.244	0.589	1.00	pCi/L					
<i>Alphaspec U, Liquid</i>											
Uranium-233/234	U	0.799	+/-0.363	0.274	1.00	pCi/L	AS1	11/07/03	1236	285247	2
Uranium-235/236	U	0.137	+/-0.148	0.192	1.00	pCi/L					
Uranium-238		0.435	+/-0.257	0.109	1.00	pCi/L					
Rad Gas Flow Proportional Counting											
<i>GFPC, Gross Alpha Liquid</i>											
Alpha		2.93	+/-1.48	2.09	5.00	pCi/L	BXD1	11/01/03	2234	286905	3
<i>GFPC, Ra228, Liquid</i>											
Radium-228		1.46	+/-0.659	1.06	3.00	pCi/L	NKC1	10/28/03	1921	284406	4
Rad Radium-226											
<i>Lucas Cell, Ra226, liquid</i>											
Radium-226	U	0.547	+/-0.243	0.222	1.00	pCi/L	JS1	11/05/03	1055	286217	5
Rad Total Uranium											
<i>KPA, Total U, Liquid</i>											
Total Uranium		2.65	+/-0.0396	0.198	1.00	ug/L	PD	11/11/03	2119	284110	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

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Project: SEAD-48 Final Status Survey

Report Date: November 13, 2003

Client Sample ID: 48-2007
Sample ID: 89747002
Matrix: Ground Water
Collect Date: 06-OCT-03 15:30
Receive Date: 10-OCT-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis											
<i>Alphaspec Th, Liquid</i>											
Thorium-230	U	0.554	+/-0.434	0.642	1.00	pCi/L	AS1	11/13/03	0822	290530	1
Thorium-232	U	0.0621	+/-0.179	0.475	1.00	pCi/L					
<i>Alphaspec U, Liquid</i>											
Uranium-233/234	U	0.948	+/-0.377	0.174	1.00	pCi/L	AS1	11/07/03	1240	285247	2
Uranium-235/236	U	0.0992	+/-0.115	0.0992	1.00	pCi/L					
Uranium-238		0.593	+/-0.291	0.0989	1.00	pCi/L					
Rad Gas Flow Proportional Counting											
<i>GFPC, Gross Alpha Liquid</i>											
Alpha		1.86	+/-1.00	1.25	5.00	pCi/L	BXD1	11/01/03	2234	286905	3
<i>GFPC, Ra228, Liquid</i>											
Radium-228	U	0.643	+/-0.534	0.886	3.00	pCi/L	NKC1	10/28/03	1921	284406	4
Rad Radium-226											
<i>Lucas Cell, Ra226, liquid</i>											
Radium-226	U	0.663	+/-0.344	0.426	1.00	pCi/L	JS1	11/05/03	1055	286217	5
Rad Total Uranium											
<i>KPA, Total U, Liquid</i>											
Total Uranium		2.03	+/-0.0346	0.198	1.00	ug/L	PD	11/11/03	2123	284110	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

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Report Date: November 13, 2003

Client Sample ID: 48-2009
Sample ID: 89747003
Matrix: Ground Water
Collect Date: 06-OCT-03 15:30
Receive Date: 10-OCT-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis											
<i>Alphaspec Th, Liquid</i>											
Thorium-230	U	0.478 +/-0.415	0.504	1.00	pCi/L		AS1	11/13/03	0822	290530	1
Thorium-232	U	-0.000149 +/-0.00825	0.612	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>											
Uranium-233/234	U	0.780 +/-0.306	0.0807	1.00	pCi/L		AS1	11/07/03	1240	285247	2
Uranium-235/236	U	0.068 +/-0.0956	0.168	1.00	pCi/L						
Uranium-238		0.585 +/-0.263	0.142	1.00	pCi/L						
Rad Gas Flow Proportional Counting											
<i>GFPC, Gross Alpha Liquid</i>											
Alpha	U	1.38 +/-1.07	1.43	5.00	pCi/L		BXDI	11/01/03	2223	286905	3
<i>GFPC, Ra228, Liquid</i>											
Radium-228	U	0.936 +/-0.644	1.06	3.00	pCi/L		NKC1	10/28/03	1921	284406	4
Rad Radium-226											
<i>Lucas Cell, Ra226, liquid</i>											
Radium-226	U	0.629 +/-0.337	0.423	1.00	pCi/L		JS1	11/05/03	1055	286217	5
Rad Total Uranium											
<i>KPA, Total U, Liquid</i>											
Total Uranium		1.90 +/-0.0345	0.198	1.00	ug/L		PD	11/11/03	2125	284110	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

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Report Date: November 13, 2003

Client Sample ID: 48-2005
Sample ID: 89747004
Matrix: Ground Water
Collect Date: 07-OCT-03 10:45
Receive Date: 10-OCT-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis											
<i>Alphaspec Th, Liquid</i>											
Thorium-230	U	0.778	+/-0.635	0.830	1.00	pCi/L	AS1	11/13/03	0822	290530	1
Thorium-232	U	0.0469	+/-0.191	0.602	1.00	pCi/L					
<i>Alphaspec U, Liquid</i>											
Uranium-233/234	U	1.06	+/-0.393	0.166	1.00	pCi/L	AS1	11/07/03	1240	285247	2
Uranium-235/236	U	0.135	+/-0.145	0.219	1.00	pCi/L					
Uranium-238		0.693	+/-0.317	0.238	1.00	pCi/L					
Rad Gas Flow Proportional Counting											
<i>GFPC, Gross Alpha Liquid</i>											
Alpha		2.21	+/-1.14	1.23	5.00	pCi/L	BXD1	11/01/03	2223	286905	3
<i>GFPC, Ra228, Liquid</i>											
Radium-228	U	0.478	+/-0.583	0.980	3.00	pCi/L	NKC1	10/28/03	1921	284406	4
Rad Radium-226											
<i>Lucas Cell, Ra226, liquid</i>											
Radium-226	U	0.556	+/-0.320	0.406	1.00	pCi/L	JS1	11/05/03	1125	286217	5
Rad Total Uranium											
<i>KPA, Total U, Liquid</i>											
Total Uranium		2.56	+/-0.0412	0.198	1.00	ug/L	PD	11/11/03	2128	284110	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
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Report Date: November 13, 2003

Client Sample ID: 48-2006
Sample ID: 89747005
Matrix: Ground Water
Collect Date: 06-OCT-03 16:50
Receive Date: 10-OCT-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis											
<i>Alphaspec Th, Liquid</i>											
Thorium-230	U	0.657 +/-0.534	0.664	1.00	pCi/L		AS1	11/13/03	0827	290530	1
Thorium-232	U	0.130 +/-0.252	0.547	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>											
Uranium-233/234	U	2.24 +/-0.586	0.0873	1.00	pCi/L		AS1	11/07/03	1240	285247	2
Uranium-235/236	U	0.438 +/-0.233	0.0876	1.00	pCi/L						
Uranium-238		1.48 +/-0.457	0.154	1.00	pCi/L						
Rad Gas Flow Proportional Counting											
<i>GFPC, Gross Alpha Liquid</i>											
Alpha		2.12 +/-1.21	1.74	5.00	pCi/L		BXD1	11/01/03	2223	286905	3
<i>GFPC, Ra228, Liquid</i>											
Radium-228		1.07 +/-0.606	0.987	3.00	pCi/L		NKC1	10/28/03	1921	284406	4
Rad Radium-226											
<i>Lucas Cell, Ra226, liquid</i>											
Radium-226	U	0.215 +/-0.169	0.223	1.00	pCi/L		JS1	11/05/03	1125	286217	5
Rad Total Uranium											
<i>KPA, Total U, Liquid</i>											
Total Uranium		5.34 +/-0.0768	0.198	1.00	ug/L		PD	11/11/03	2139	284110	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

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Report Date: November 13, 2003

Client Sample ID: 48-0101
Sample ID: 89747006
Matrix: Ground Water
Collect Date: 08-OCT-03 14:45
Receive Date: 10-OCT-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
<i>Alphaspec Th, Liquid</i>												
Thorium-230	U	0.494	+/-0.411	0.518	1.00	pCi/L		AS1	11/13/03	0827	290530	1
Thorium-232	U	0.0743	+/-0.214	0.564	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>												
Uranium-233/234	U	0.328	+/-0.229	0.271	1.00	pCi/L		AS1	11/08/03	0941	285247	2
Uranium-235/236	U	0.0671	+/-0.0953	0.101	1.00	pCi/L						
Uranium-238	U	-0.0241	+/-0.028	0.232	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross Alpha Liquid</i>												
Alpha	U	-0.433	+/-0.428	1.27	5.00	pCi/L		BXD1	11/01/03	2223	286905	3
<i>GFPC, Ra228, Liquid</i>												
Radium-228	U	0.504	+/-0.644	1.08	3.00	pCi/L		NKC1	10/28/03	1921	284406	4
Rad Radium-226												
<i>Lucas Cell, Ra226, liquid</i>												
Radium-226	U	0.293	+/-0.250	0.376	1.00	pCi/L		JS1	11/05/03	1125	286217	5
Rad Total Uranium												
<i>KPA, Total U, Liquid</i>												
Total Uranium		0.253	+/-0.0093	0.198	1.00	ug/L		PD	11/11/03	2147	284110	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

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Report Date: November 13, 2003

Client Sample ID: 48-2001
Sample ID: 89747007
Matrix: Ground Water
Collect Date: 06-OCT-03 15:05
Receive Date: 10-OCT-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
<i>GFPC, Gross Alpha Liquid</i>											
Alpha		15.8 +/-2.02	1.75	5.00	pCi/L		BXD1	11/03/03	0627	286905	1
Rad Total Uranium											
<i>KPA, Total U, Liquid</i>											
Total Uranium		8.68 +/-0.148	0.198	1.00	ug/L		PD	11/11/03	2149	284110	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 900.0	
2	ASTM D 5174	

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Report Date: November 13, 2003

Client Sample ID: 48-2008
 Sample ID: 89747008
 Matrix: Ground Water
 Collect Date: 07-OCT-03 09:45
 Receive Date: 10-OCT-03
 Collector: Client

Project: PESI00103
 Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
<i>GFPC, Gross Alpha Liquid</i>											
Alpha		36.6	+/-5.69	4.24	5.00	pCi/L	BXD1	11/03/03	0629	286905	1
Rad Total Uranium											
<i>KPA, Total U, Liquid</i>											
Total Uranium		0.946	+/-0.0297	0.198	1.00	ug/L	PD	11/11/03	2150	284110	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 900.0	
2	ASTM D 5174	

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Report Date: November 13, 2003

Client Sample ID: 48-2004
Sample ID: 89747009
Matrix: Ground Water
Collect Date: 07-OCT-03 15:15
Receive Date: 10-OCT-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting											
<i>GFPC, Gross Alpha Liquid</i>											
Alpha		101 +/-17.4	19.2	5.00	pCi/L		BXD1	11/04/03	0238	286905	1
Rad Total Uranium											
<i>KPA, Total U, Liquid</i>											
Total Uranium		2.04 +/-0.0735	0.198	1.00	ug/L		PD	11/11/03	2152	284110	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 900.0	
2	ASTM D 5174	

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Report Date: November 13, 2003

Client Sample ID: 48-2001
Sample ID: 89747010
Matrix: Ground Water
Collect Date: 07-OCT-03 09:25
Receive Date: 10-OCT-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis											
<i>Alphaspec Th, Liquid</i>											
Thorium-230		0.923	+/-0.603	0.615	1.00		AS1	11/13/03	0827	290530	1
Thorium-232	U	0.0757	+/-0.218	0.575	1.00						
<i>Alphaspec U, Liquid</i>											
Uranium-233/234		3.45	+/-0.823	0.514	1.00		AS1	11/08/03	0941	285247	2
Uranium-235/236	U	0.197	+/-0.170	0.217	1.00						
Uranium-238		3.35	+/-0.784	0.217	1.00						
Rad Gas Flow Proportional Counting											
<i>GFPC, Ra228, Liquid</i>											
Radium-228		1.35	+/-0.713	1.17	3.00		NKC1	10/28/03	1921	284406	3
Rad Radium-226											
<i>Lucas Cell, Ra226, liquid</i>											
Radium-226	U	0.937	+/-0.367	0.337	1.00		JS1	11/05/03	1125	286217	4

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 904.0 Modified	
4	EPA 903.1 Modified	

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Report Date: November 13, 2003

Client Sample ID: 48-2008
Sample ID: 89747011
Matrix: Ground Water
Collect Date: 07-OCT-03 11:55
Receive Date: 10-OCT-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis											
<i>Alphaspec Th, Liquid</i>											
Thorium-230		1.07	+/-0.605	0.421	1.00	pCi/L	AS1	11/13/03	0830	290530	1
Thorium-232	U	0.118	+/-0.241	0.548	1.00	pCi/L					
<i>Alphaspec U, Liquid</i>											
Uranium-233/234	U	0.319	+/-0.200	0.196	1.00	pCi/L	AS1	11/08/03	0944	285247	2
Uranium-235/236	U	0.0499	+/-0.0815	0.150	1.00	pCi/L					
Uranium-238		0.269	+/-0.182	0.176	1.00	pCi/L					
Rad Gas Flow Proportional Counting											
<i>GFPC, Ra228, Liquid</i>											
Radium-228		1.22	+/-0.588	0.952	3.00	pCi/L	NKC1	10/28/03	1921	284406	3
Rad Radium-226											
<i>Lucas Cell, Ra226, liquid</i>											
Radium-226	U	0.495	+/-0.295	0.388	1.00	pCi/L	JS1	11/05/03	1215	286217	4

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 904.0 Modified	
4	EPA 903.1 Modified	

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Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: November 13, 2003

Client Sample ID: 48-2004
Sample ID: 89747012
Matrix: Ground Water
Collect Date: 08-OCT-03 15:30
Receive Date: 10-OCT-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis											
<i>Alphaspec Th, Liquid</i>											
Thorium-230		0.958	+/-0.546	0.338	1.00	pCi/L	AS1	11/13/03	0832	290530	1
Thorium-232	U	0.0299	+/-0.122	0.398	1.00	pCi/L					
<i>Alphaspec U, Liquid</i>											
Uranium-233/234	U	1.40	+/-0.453	0.196	1.00	pCi/L	AS1	11/08/03	0944	285247	2
Uranium-235/236	U	0.0644	+/-0.114	0.238	1.00	pCi/L					
Uranium-238		1.21	+/-0.418	0.196	1.00	pCi/L					
Rad Gas Flow Proportional Counting											
<i>GFPC, Ra228, Liquid</i>											
Radium-228		1.69	+/-0.606	0.948	3.00	pCi/L	NKC1	10/28/03	1923	284406	3
Rad Radium-226											
<i>Lucas Cell, Ra226, liquid</i>											
Radium-226	U	0.269	+/-0.230	0.346	1.00	pCi/L	JS1	11/05/03	1215	286217	4

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 904.0 Modified	
4	EPA 903.1 Modified	

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Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: November 13, 2003

Client Sample ID: 48-2002
Sample ID: 89747013
Matrix: Ground Water
Collect Date: 07-OCT-03 09:14
Receive Date: 10-OCT-03
Collector: Client

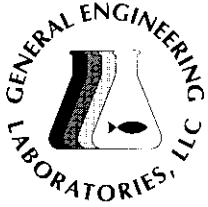
Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis											
<i>Alphaspec U, Liquid</i>											
Uranium-233/234	U	1.10	+/-0.888	1.22	1.00	pCi/L	AS1	11/12/03	1327	290532	1
Uranium-235/236	U	0.443	+/-0.628	1.06	1.00	pCi/L					
Uranium-238	U	0.773	+/-0.799	1.22	1.00	pCi/L					

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	

Groundwater Data – Round 2
SEAD-48
Seneca Army Depot Activity



GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

CASE NARRATIVE
for
Parsons Engineering Science, Inc.
Seneca Army Depot
SEAD 48 Project
SDG 110273

April 23, 2004

Laboratory Identification:

General Engineering Laboratories, LLC

Mailing Address:

P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29414

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The sample(s) arrived at General Engineering Laboratories, LLC (GEL) Charleston, South Carolina on April 6, 2004 for environmental analyses.. All sample containers arrived without any visible signs of tampering or breakage. The samples were delivered with chain of custody documentation and signatures.

The laboratory received the following sample(s):

<u>Laboratory Identification</u>	<u>Sample Description</u>
110273001	482016
110273002	482011
110273003	482010
110273004	482018
110273005	482012
110273006	482017
110273007	482013
110273008	482014
110273009	482015
110273010	482019

Case Narrative

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Internal Chain of Custody:

Custody was maintained for all samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry Analysis.

This data package, to the best of my knowledge, is in compliance with technical and administrative requirements.



Cheryl Jones
Project Manager

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: May 10, 2004

Page 1 of 2

Client Sample ID: 482016
Sample ID: 110273001
Matrix: Ground Water
Collect Date: 02-APR-04 12:30
Receive Date: 06-APR-04
Collector: Client
Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
<i>Alphaspec Th, Liquid</i>												
Thorium-230	U	0.262	+/-0.196	0.277	1.00	pCi/L		JS1	04/21/04	1021	325499	1
Thorium-232	U	0.045	+/-0.0865	0.191	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>												
Uranium-233/234		1.19	+/-0.737	0.883	1.00	pCi/L		JS1	04/13/04	1248	323269	2
Uranium-235/236	U	0.0537	+/-0.214	0.642	1.00	pCi/L						
Uranium-238	U	0.284	+/-0.353	0.543	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross Alpha Liquid</i>												
Alpha	U	1.93	+/-1.48	2.48	5.00	pCi/L		PD	04/27/04	0934	325810	3
<i>GFPC, Ra228, Liquid</i>												
Radium-228	U	0.401	+/-0.602	1.27	3.00	pCi/L		BXD1	04/27/04	1046	325655	4
Rad Radium-226												
<i>Lucas Cell, Ra226, liquid</i>												
Radium-226	U	0.221	+/-0.169	0.242	1.00	pCi/L		AB1	05/05/04	1345	324501	5
Rad Total Uranium												
<i>KPA, Total U, Liquid</i>												
Total Uranium		1.62	+/-0.0235	0.473	1.00	ug/L		JLB1	04/29/04	1839	324950	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	97	(15%-125%)
Uranium-232	Alphaspec U, Liquid	29	(25%-125%)

Notes:

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Report Date: May 10, 2004

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Client Sample ID: 482016
Sample ID: 110273001

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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- B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
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Address : 19101 Villaview Rd
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Project: SEAD-48 Final Status Survey

Report Date: May 10, 2004

Page 1 of 2

Client Sample ID: 482011
Sample ID: 110273002
Matrix: Ground Water
Collect Date: 02-APR-04 13:44
Receive Date: 06-APR-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
<i>Alphaspec Th, Liquid</i>												
Thorium-230	U	0.230	+/-0.195	0.274	1.00	pCi/L		JS1	04/21/04	1021	325499	1
Thorium-232	U	0.0447	+/-0.104	0.252	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>												
Uranium-233/234		0.582	+/-0.432	0.482	1.00	pCi/L		JS1	04/13/04	1248	323269	2
Uranium-235/236	U	-0.0373	+/-0.0517	0.483	1.00	pCi/L						
Uranium-238		0.387	+/-0.339	0.232	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross Alpha Liquid</i>												
Alpha	U	0.401	+/-0.966	2.15	5.00	pCi/L		PD	04/27/04	0934	325810	3
<i>GFPC, Ra228, Liquid</i>												
Radium-228	U	1.06	+/-0.652	1.28	3.00	pCi/L		BXD1	04/27/04	1046	325655	4
Rad Radium-226												
<i>Lucas Cell, Ra226, liquid</i>												
Radium-226	U	0.0584	+/-0.0989	0.175	1.00	pCi/L		AB1	05/05/04	1345	324501	5
Rad Total Uranium												
<i>KPA, Total U, Liquid</i>												
Total Uranium		1.10	+/-0.0217	0.473	1.00	ug/L		JLB1	04/29/04	1840	324950	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	96	(15%-125%)
Uranium-232	Alphaspec U, Liquid	45	(25%-125%)

Notes:

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Client Sample ID: 482011
Sample ID: 110273002

Project: PESI00103
Client ID: PESI003

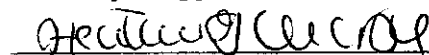
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Reviewed by

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Client Sample ID: 482010
Sample ID: 110273003
Matrix: Ground Water
Collect Date: 02-APR-04 14:57
Receive Date: 06-APR-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
<i>Alphaspec Th, Liquid</i>												
Thorium-230		0.344	+/-0.198	0.153	1.00	pCi/L		JS1	04/21/04	1021	325499	1
Thorium-232	U	0.0134	+/-0.0583	0.180	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>												
Uranium-233/234		1.97	+/-0.759	0.663	1.00	pCi/L		JS1	04/13/04	1248	323269	2
Uranium-235/236	U	-0.0479	+/-0.163	0.636	1.00	pCi/L						
Uranium-238		2.07	+/-0.755	0.437	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross Alpha Liquid</i>												
Alpha		4.42	+/-1.97	2.24	5.00	pCi/L		PD	04/27/04	0934	325810	3
<i>GFPC, Ra228, Liquid</i>												
Radium-228	U	0.637	+/-0.606	1.24	3.00	pCi/L		BXD1	04/27/04	1046	325655	4
Rad Radium-226												
<i>Lucas Cell, Ra226, liquid</i>												
Radium-226	U	0.105	+/-0.128	0.210	1.00	pCi/L		AB1	05/05/04	1345	324501	5
Rad Total Uranium												
<i>KPA, Total U, Liquid</i>												
Total Uranium		6.34	+/-0.0884	0.473	1.00	ug/L		JLB1	04/29/04	1842	324950	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	107	(15%-125%)
Uranium-232	Alphaspec U, Liquid	45	(25%-125%)

Notes:

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Page 2 of 2

Client Sample ID: 482010
Sample ID: 110273003

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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- B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Heather J. Cline
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: May 10, 2004

Page 1 of 2

Client Sample ID: 482018
Sample ID: 110273004
Matrix: Ground Water
Collect Date: 02-APR-04 15:00
Receive Date: 06-APR-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
<i>Alphaspec Th, Liquid</i>												
Thorium-230		0.465	+/-0.271	0.284	1.00	pCi/L		JS1	04/21/04	1021	325499	1
Thorium-232	U	0.0178	+/-0.0761	0.234	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>												
Uranium-233/234		2.53	+/-0.578	0.273	1.00	pCi/L		JS1	04/13/04	1248	323269	2
Uranium-235/236	U	0.00948	+/-0.0719	0.235	1.00	pCi/L						
Uranium-238		1.94	+/-0.505	0.210	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross Alpha Liquid</i>												
Alpha		5.15	+/-2.03	1.87	5.00	pCi/L		PD	04/27/04	0934	325810	3
<i>GFPC, Ra228, Liquid</i>												
Radium-228	U	0.608	+/-0.682	1.42	3.00	pCi/L		BXD1	04/27/04	1046	325655	4
Rad Radium-226												
<i>Lucas Cell, Ra226, liquid</i>												
Radium-226		0.601	+/-0.254	0.273	1.00	pCi/L		AB1	05/05/04	1345	324501	5
Rad Total Uranium												
<i>KPA, Total U, Liquid</i>												
Total Uranium		5.72	+/-0.079	0.473	1.00	ug/L		JLB1	04/29/04	1844	324950	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	75	(15%-125%)
Uranium-232	Alphaspec U, Liquid	92	(25%-125%)

Notes:

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Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: May 10, 2004

Page 2 of 2

Client Sample ID: 482018
Sample ID: 110273004

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	-------------	----	----	-------	----	---------	------	------	-------	--------

- B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Heather G. W. D.
Reviewed by

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Address : 19101 Villaview Rd
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Report Date: May 10, 2004

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Client Sample ID: 482012
Sample ID: 110273005
Matrix: Ground Water
Collect Date: 02-APR-04 16:30
Receive Date: 06-APR-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
<i>Alphaspec Th, Liquid</i>												
Thorium-230	U	0.199	+/-0.178	0.248	1.00	pCi/L		JS1	04/21/04	1021	325499	1
Thorium-232	U	0.00831	+/-0.0743	0.248	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>												
Uranium-233/234		0.635	+/-0.320	0.382	1.00	pCi/L		JS1	04/13/04	1248	323269	2
Uranium-235/236	U	0.00985	+/-0.0746	0.244	1.00	pCi/L						
Uranium-238		0.711	+/-0.316	0.244	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross Alpha Liquid</i>												
Alpha	U	2.07	+/-1.58	2.55	5.00	pCi/L		PD	04/27/04	0934	325810	3
<i>GFPC, Ra228, Liquid</i>												
Radium-228	U	0.682	+/-0.614	1.25	3.00	pCi/L		BXD1	04/27/04	1046	325655	4
Rad Radium-226												
<i>Lucas Cell, Ra226, liquid</i>												
Radium-226	U	0.172	+/-0.135	0.178	1.00	pCi/L		AB1	05/05/04	1415	324501	5
Rad Total Uranium												
<i>KPA, Total U, Liquid</i>												
Total Uranium		1.14	+/-0.0202	0.473	1.00	ug/L		JLB1	04/29/04	1845	324950	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	103	(15%-125%)
Uranium-232	Alphaspec U, Liquid	80	(25%-125%)

Notes:

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Project: SEAD-48 Final Status Survey

Report Date: May 10, 2004

Page 2 of 2

Client Sample ID: 482012
Sample ID: 110273005

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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- B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Project: SEAD-48 Final Status Survey

Report Date: May 10, 2004

Page 1 of 2

Client Sample ID: 482017
Sample ID: 110273006
Matrix: Ground Water
Collect Date: 03-APR-04 08:00
Receive Date: 06-APR-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
<i>Alphaspec Th, Liquid</i>												
Thorium-230		0.237	+/-0.186	0.217	1.00	pCi/L		JS1	04/21/04	1021	325499	1
Thorium-232		0.172	+/-0.152	0.104	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>												
Uranium-233/234		0.451	+/-0.294	0.366	1.00	pCi/L		JS1	04/13/04	1248	323269	2
Uranium-235/236	U	-0.0291	+/-0.0995	0.387	1.00	pCi/L						
Uranium-238	U	0.150	+/-0.170	0.266	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross Alpha Liquid</i>												
Alpha	U	0.360	+/-0.953	2.12	5.00	pCi/L		PD	04/27/04	1156	325810	3
<i>GFPC, Ra228, Liquid</i>												
Radium-228		1.22	+/-0.619	1.17	3.00	pCi/L		BXD1	04/27/04	1046	325655	4
Rad Radium-226												
<i>Lucas Cell, Ra226, liquid</i>												
Radium-226	U	0.0642	+/-0.126	0.227	1.00	pCi/L		AB1	05/05/04	1415	324501	5
Rad Total Uranium												
<i>KPA, Total U, Liquid</i>												
Total Uranium	U	0.451	+/-0.0101	0.473	1.00	ug/L		JLB1	04/29/04	1847	324950	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	88	(15%-125%)
Uranium-232	Alphaspec U, Liquid	86	(25%-125%)

Notes:

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Certificate of Analysis

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Cleveland, Ohio 44119
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: May 10, 2004

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Client Sample ID: 482017
Sample ID: 110273006

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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- B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Report Date: May 10, 2004

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Client Sample ID: 482013
Sample ID: 110273007
Matrix: Ground Water
Collect Date: 03-APR-04 09:40
Receive Date: 06-APR-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
<i>Alphaspec Th, Liquid</i>												
Thorium-230	U	0.214	+/-0.192	0.320	1.00	pCi/L	JS1	04/21/04	1021	325499	1	
Thorium-232	U	0.148	+/-0.138	0.166	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>												
Uranium-233/234	U	0.705	+/-0.600	0.940	1.00	pCi/L	JS1	04/13/04	1248	323269	2	
Uranium-235/236	U	-0.0959	+/-0.217	0.755	1.00	pCi/L						
Uranium-238		0.924	+/-0.622	0.692	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross Alpha Liquid</i>												
Alpha		2.15	+/-1.39	1.77	5.00	pCi/L	PD	04/27/04	1156	325810	3	
<i>GFPC, Ra228, Liquid</i>												
Radium-228		1.31	+/-0.681	1.31	3.00	pCi/L	BXD1	04/27/04	1046	325655	4	
Rad Radium-226												
<i>Lucas Cell, Ra226, liquid</i>												
Radium-226		0.727	+/-0.245	0.201	1.00	pCi/L	AB1	05/05/04	1415	324501	5	
Rad Total Uranium												
<i>KPA, Total U, Liquid</i>												
Total Uranium		0.748	+/-0.0815	0.473	1.00	ug/L	JLB1	04/29/04	1849	324950	6	

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	88	(15%-125%)
Uranium-232	Alphaspec U, Liquid	31	(25%-125%)

Notes:

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Project: SEAD-48 Final Status Survey

Report Date: May 10, 2004

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Client Sample ID: 482013
Sample ID: 110273007

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	-------------	----	----	-------	----	---------	------	------	-------	--------

- B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Heather Jones
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Project: SEAD-48 Final Status Survey

Report Date: May 10, 2004

Page 1 of 2

Client Sample ID: 482014
Sample ID: 110273008
Matrix: Ground Water
Collect Date: 03-APR-04 11:15
Receive Date: 06-APR-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
<i>Alphaspec Th, Liquid</i>												
Thorium-230	U	0.213	+/-0.190	0.263	1.00	pCi/L		JS1	04/21/04	1021	325499	1
Thorium-232	U	0.0271	+/-0.0748	0.200	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>												
Uranium-233/234	U	0.378	+/-0.378	0.641	1.00	pCi/L		JS1	04/13/04	1248	323269	2
Uranium-235/236	U	0.179	+/-0.246	0.443	1.00	pCi/L						
Uranium-238	U	0.358	+/-0.347	0.536	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross Alpha Liquid</i>												
Alpha	U	2.50	+/-1.70	2.69	5.00	pCi/L		PD	04/27/04	1156	325810	3
<i>GFPC, Ra228, Liquid</i>												
Radium-228	U	0.829	+/-0.730	1.50	3.00	pCi/L		BXD1	04/27/04	1046	325655	4
Rad Radium-226												
<i>Lucas Cell, Ra226, liquid</i>												
Radium-226		0.356	+/-0.190	0.213	1.00	pCi/L		AB1	05/05/04	1415	324501	5
Rad Total Uranium												
<i>KPA, Total U, Liquid</i>												
Total Uranium		0.786	+/-0.0144	0.473	1.00	ug/L		JLB1	04/29/04	1851	324950	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	80	(15%-125%)
Uranium-232	Alphaspec U, Liquid	39	(25%-125%)

Notes:

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Report Date: May 10, 2004

Page 2 of 2

Client Sample ID: 482014
Sample ID: 110273008

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	-------------	----	----	-------	----	---------	------	------	-------	--------

- B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Project: SEAD-48 Final Status Survey

Report Date: May 10, 2004

Page 1 of 2

Client Sample ID: 482015
Sample ID: 110273009
Matrix: Ground Water
Collect Date: 03-APR-04 12:25
Receive Date: 06-APR-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
<i>Alphaspec Th, Liquid</i>												
Thorium-230		0.438	+/-0.255	0.310	1.00	pCi/L		JS1	04/21/04	1021	325499	1
Thorium-232	U	0.106	+/-0.131	0.228	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>												
Uranium-233/234		2.64	+/-1.02	0.737	1.00	pCi/L		JS1	04/13/04	1248	323269	2
Uranium-235/236	U	-0.094	+/-0.213	0.740	1.00	pCi/L						
Uranium-238		1.88	+/-0.859	0.678	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross Alpha Liquid</i>												
Alpha		5.96	+/-2.22	2.36	5.00	pCi/L		PD	04/27/04	1336	325810	3
<i>GFPC, Ra228, Liquid</i>												
Radium-228	U	0.955	+/-1.05	1.76	3.00	pCi/L		BXD1	05/04/04	1140	328188	4
Rad Radium-226												
<i>Lucas Cell, Ra226, liquid</i>												
Radium-226	U	0.114	+/-0.158	0.269	1.00	pCi/L		AB1	05/05/04	1450	324501	5
Rad Total Uranium												
<i>KPA, Total U, Liquid</i>												
Total Uranium		6.30	+/-0.0867	0.473	1.00	ug/L		JLB1	04/29/04	1853	324950	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	92	(15%-125%)
Uranium-232	Alphaspec U, Liquid	31	(25%-125%)

Notes:

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Report Date: May 10, 2004

Page 2 of 2

Client Sample ID: 482015
Sample ID: 110273009

Project: PESI00103
Client ID: PESI003

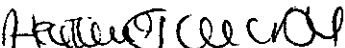
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
-----------	-----------	--------	-------------	----	----	-------	----	---------	------	------	-------	--------

- B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: May 10, 2004

Page 1 of 2

Client Sample ID: 482019
Sample ID: 110273010
Matrix: Ground Water
Collect Date: 03-APR-04 12:50
Receive Date: 06-APR-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis												
<i>Alphaspec Th, Liquid</i>												
Thorium-230	U	0.355	+/-0.268	0.404	1.00	pCi/L		JS1	04/21/04	1022	325499	1
Thorium-232	U	-0.0302	+/-0.0841	0.275	1.00	pCi/L						
<i>Alphaspec U, Liquid</i>												
Uranium-233/234	U	0.0104	+/-0.326	0.941	1.00	pCi/L		JS1	04/13/04	1248	323269	2
Uranium-235/236	U	-0.187	+/-0.122	0.853	1.00	pCi/L						
Uranium-238	U	0.0242	+/-0.183	0.600	1.00	pCi/L						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross Alpha Liquid</i>												
Alpha	U	-0.573	+/-0.555	1.87	5.00	pCi/L		PD	04/27/04	1336	325810	3
<i>GFPC, Ra228, Liquid</i>												
Radium-228	U	0.664	+/-0.585	1.19	3.00	pCi/L		BXD1	04/27/04	1046	325655	4
Rad Radium-226												
<i>Lucas Cell, Ra226, liquid</i>												
Radium-226	U	0.172	+/-0.125	0.172	1.00	pCi/L		AB1	05/05/04	1450	324501	5
Rad Total Uranium												
<i>KPA, Total U, Liquid</i>												
Total Uranium	U	0.407	+/-0.0158	0.473	1.00	ug/L		JLB1	04/29/04	1854	324950	6

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE EML HASL-300, U-02-RC Modified	
3	EPA 900.0	
4	EPA 904.0 Modified	
5	EPA 903.1 Modified	
6	ASTM D 5174	

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Thorium-229	Alphaspec Th, Liquid	77	(15%-125%)
Uranium-232	Alphaspec U, Liquid	35	(25%-125%)

Notes:

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Report Date: May 10, 2004

Page 2 of 2

Client Sample ID: 482019
Sample ID: 110273010

Project: PESI00103
Client ID: PESI003

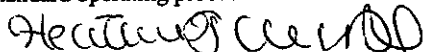
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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- B Target analyte was detected in the sample as well as the associated blank.
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Reviewed by

**Soil Boring Data
SEAD-48
Seneca Army Depot Activity**

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Company : Parsons
Address : 100 Summer Street

Boston, Massachusetts 02110
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 1 of 3

Client Sample ID: IGLOO 801-SB01; 0-0.5 ft
Sample ID: 86843001
Matrix: Soil
Collect Date: 04-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.36	+/-0.385	0.239	0.800						
Americium-241	U	-0.0245	+/-0.150	0.243	0.200						
Antimony-124	U	0.0662	+/-0.0603	0.113	0.100						
Antimony-125	U	0.011	+/-0.0817	0.150	0.200						
Barium-133	U	-0.0132	+/-0.0411	0.0677	0.100						
Barium-140	U	0.168	+/-2.14	3.88	0.500						
Beryllium-7	U	0.228	+/-0.499	0.928	0.700						
Bismuth-212		0.646	+/-0.402	0.456	0.500						
Bismuth-214		0.664	+/-0.170	0.118	0.200						
Cerium-139	U	0.00989	+/-0.030	0.0533	0.050						
Cerium-141	U	0.0134	+/-0.130	0.228	0.100						
Cerium-144	U	-0.113	+/-0.189	0.322	0.500						
Cesium-134	U	0.00	+/-0.0933	0.0958	0.100						
Cesium-136	U	0.122	+/-0.903	1.68	0.300						
Cesium-137	U	0.345	+/-0.0789	0.0621	0.100						
Chromium-51	U	0.200	+/-0.912	1.58	0.600						
Cobalt-56	U	-0.00856	+/-0.0515	0.0896	0.100						
Cobalt-57	U	-0.00514	+/-0.0243	0.0424	0.050						
Cobalt-58	U	-0.00244	+/-0.0536	0.0946	0.100						
Cobalt-60	U	-0.0185	+/-0.0408	0.0705	0.100						
Europium-152	U	0.0406	+/-0.0824	0.146	0.200						
Europium-154	U	0.214	+/-0.260	0.258	0.500						
Europium-155	U	0.0392	+/-0.0934	0.169	0.500						
Iridium-192	U	0.0136	+/-0.045	0.0785	0.100						
Iron-59	U	-0.00966	+/-0.172	0.314	0.300						
Lead-210	U	3.27	+/-4.03	5.98	4.00						
Lead-212		1.06	+/-0.166	0.119	0.100						
Lead-214		0.854	+/-0.156	0.105	0.100						
Manganese-54	U	0.0119	+/-0.0532	0.0641	0.100						
Mercury-203	U	0.024	+/-0.0768	0.120	0.100						
Neodymium-147	U	-2.16	+/-6.45	11.3	1000						
Neptunium-239	U	-0.127	+/-0.162	0.274	2.00						
Niobium-94	U	-0.0127	+/-0.0317	0.0539	1.00						
Niobium-95	U	0.0937	+/-0.134	0.179	0.050						
Potassium-40		25.0	+/-3.20	0.566	1.00						
Promethium-144	U	0.00697	+/-0.0357	0.0643	0.080						
Promethium-146	U	0.00627	+/-0.0379	0.0695	1.00						
Radium-226		0.664	+/-0.170	0.118	1.00						

SRB 09/28/03 1621 274785 1

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Company : Parsons
Address : 100 Summer Street

Boston, Massachusetts 02110

Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 801-SB01; 0-0.5 ft
Sample ID: 86843001

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Radium-228		1.36	+/-0.385	0.239	0.500						pCi/g
Ruthenium-106	U	-0.164	+/-0.320	0.542	0.800						pCi/g
Silver-110m	U	-0.00538	+/-0.0391	0.0602	0.080						pCi/g
Sodium-22	U	0.00	+/-0.0947	0.0773	0.080						pCi/g
Thallium-208		0.355	+/-0.0832	0.0696	0.080						pCi/g
Thorium-230		0.664	+/-0.170	0.118	1.00						pCi/g
Thorium-232		1.00	+/-0.157	0.113	0.500						pCi/g
Thorium-234	U	0.280	+/-1.67	1.98	2.00						pCi/g
Tin-113	U	0.00115	+/-0.0617	0.0925	0.100						pCi/g
Uranium-234		0.911	+/-0.225	0.204	1.00						pCi/g
Uranium-235	U	0.199	+/-0.188	0.338	0.500						pCi/g
Uranium-238	U	0.280	+/-1.67	1.98	1.00						pCi/g
Yttrium-88	U	-0.0139	+/-0.0464	0.0826	0.100						pCi/g
Zinc-65	U	0.0199	+/-0.112	0.182	0.300						pCi/g
Zirconium-95	U	0.00863	+/-0.093	0.168	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- b Sample preparation or preservation holding time exceeded.

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Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 801-SB01; 0-0.5 ft
Sample ID: 86843001

Project: PESI00103
Client ID: PESI003

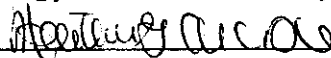
Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by



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Boston, Massachusetts 02110
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 801-SB02; 0-0.5'-3
Sample ID: 86843002
Matrix: Soil
Collect Date: 04-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.04 +/-0.270	0.186	0.800	pCi/g		SRB	09/28/03	1622	274785	1
Americium-241	U	-0.0432 +/-0.159	0.246	0.200	pCi/g						
Antimony-124	U	0.0312 +/-0.0508	0.095	0.100	pCi/g						
Antimony-125	U	-0.0635 +/-0.0826	0.139	0.200	pCi/g						
Barium-133	U	-0.271 +/-0.0629	0.0617	0.100	pCi/g						
Barium-140	U	-0.563 +/-2.05	3.54	0.500	pCi/g						
Beryllium-7	U	0.0862 +/-0.439	0.800	0.700	pCi/g						
Bismuth-212		0.565 +/-0.416	0.505	0.500	pCi/g						
Bismuth-214		0.838 +/-0.170	0.109	0.200	pCi/g						
Cerium-139	U	0.00436 +/-0.0309	0.0531	0.050	pCi/g						
Cerium-141	U	0.00571 +/-0.152	0.219	0.100	pCi/g						
Cerium-144	U	-0.0442 +/-0.191	0.323	0.500	pCi/g						
Cesium-134	U	0.00	0.0852	0.100	pCi/g						
Cesium-136	U	0.504 +/-0.857	1.66	0.300	pCi/g						
Cesium-137	U	0.0367 +/-0.0346	0.0663	0.100	pCi/g						
Chromium-51	U	-0.212 +/-0.865	1.42	0.600	pCi/g						
Cobalt-56	U	0.0163 +/-0.0496	0.0818	0.100	pCi/g						
Cobalt-57	U	0.00204 +/-0.0242	0.0418	0.050	pCi/g						
Cobalt-58	U	0.0325 +/-0.0522	0.100	0.100	pCi/g						
Cobalt-60	U	-0.0125 +/-0.030	0.0529	0.100	pCi/g						
Europium-152	U	0.0459 +/-0.0846	0.157	0.200	pCi/g						
Europium-154	U	-0.0531 +/-0.122	0.210	0.500	pCi/g						
Europium-155	U	0.126 +/-0.090	0.159	0.500	pCi/g						
Iridium-192	U	-0.00182 +/-0.0452	0.0754	0.100	pCi/g						
Iron-59	U	0.00268 +/-0.155	0.284	0.300	pCi/g						
Lead-210	U	0.968 +/-3.95	6.38	4.00	pCi/g						
Lead-212		1.12 +/-0.157	0.0886	0.100	pCi/g						
Lead-214		0.770 +/-0.140	0.101	0.100	pCi/g						
Manganese-54	U	0.0137 +/-0.0361	0.0658	0.100	pCi/g						
Mercury-203	U	-0.0199 +/-0.0693	0.114	0.100	pCi/g						
Neodymium-147	U	-0.259 +/-6.24	11.1	1000	pCi/g						
Neptunium-239	U	-0.151 +/-0.159	0.260	2.00	pCi/g						
Niobium-94	U	-0.0186 +/-0.0334	0.0553	1.00	pCi/g						
Niobium-95	U	-0.0383 +/-0.114	0.166	0.050	pCi/g						
Potassium-40		21.5 +/-2.57	0.618	1.00	pCi/g						
Promethium-144	U	0.0181 +/-0.035	0.0641	0.080	pCi/g						
Promethium-146	U	-0.00892 +/-0.0444	0.0681	1.00	pCi/g						
Radium-226		0.838 +/-0.170	0.109	1.00	pCi/g						
Radium-228		1.04 +/-0.270	0.186	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 801-SB02; 0-0.5'-3
Sample ID: 86843002

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.00575	+/-0.318	0.563	0.800						pCi/g
Silver-110m	U	-0.016	+/-0.0395	0.0577	0.080						pCi/g
Sodium-22	U	-0.019	+/-0.0446	0.0769	0.080						pCi/g
Thallium-208		0.361	+/-0.0787	0.0687	0.080						pCi/g
Thorium-230		0.838	+/-0.170	0.109	1.00						pCi/g
Thorium-232		1.06	+/-0.148	0.0838	0.500						pCi/g
Thorium-234	U	1.40	+/-1.64	2.05	2.00						pCi/g
Tin-113	U	0.000409	+/-0.0511	0.0913	0.100						pCi/g
Uranium-234		0.934	+/-0.262	0.191	1.00						pCi/g
Uranium-235	U	0.0095	+/-0.254	0.323	0.500						pCi/g
Uranium-238	U	1.40	+/-1.64	2.05	1.00						pCi/g
Yttrium-88	U	0.00397	+/-0.0337	0.0692	0.100						pCi/g
Zinc-65	U	0.0466	+/-0.0971	0.166	0.300						pCi/g
Zirconium-95	U	0.0277	+/-0.099	0.179	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 801-SB02; 0-0.5'-3
Sample ID: 86843002

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Contact: Katie Kadhubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 802-SB03:0-0.5 ft
Sample ID: 86843003
Matrix: Soil
Collect Date: 05-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.01 +/-0.313	0.220	0.800	pCi/g		SRB	09/28/03	1622	274785	1
Americium-241	U	-0.106 +/-0.174	0.276	0.200	pCi/g						
Antimony-124	U	-0.028 +/-0.049	0.0833	0.100	pCi/g						
Antimony-125	U	-0.00438 +/-0.0747	0.135	0.200	pCi/g						
Barium-133	U	0.00315 +/-0.0379	0.0582	0.100	pCi/g						
Barium-140	U	0.0314 +/-1.69	3.07	0.500	pCi/g						
Beryllium-7	U	-0.469 +/-0.417	0.682	0.700	pCi/g						
Bismuth-212	U	0.348 +/-0.421	0.454	0.500	pCi/g						
Bismuth-214		0.601 +/-0.161	0.103	0.200	pCi/g						
Cerium-139	U	0.0111 +/-0.028	0.050	0.050	pCi/g						
Cerium-141	U	0.0145 +/-0.124	0.195	0.100	pCi/g						
Cerium-144	U	-0.0201 +/-0.171	0.301	0.500	pCi/g						
Cesium-134	U	0.00 0.00 +/-0.0685	0.0745	0.100	pCi/g						
Cesium-136	U	-0.408 +/-0.936	1.32	0.300	pCi/g						
Cesium-137		0.0766 +/-0.0448	0.0567	0.100	pCi/g						
Chromium-51	U	-0.581 +/-0.793	1.28	0.600	pCi/g						
Cobalt-56	U	0.0632 +/-0.0478	0.0856	0.100	pCi/g						
Cobalt-57	U	-0.00426 +/-0.0213	0.0375	0.050	pCi/g						
Cobalt-58	U	-0.0128 +/-0.0582	0.0873	0.100	pCi/g						
Cobalt-60	U	-0.00298 +/-0.0305	0.0567	0.100	pCi/g						
Europium-152	U	0.00673 +/-0.0773	0.133	0.200	pCi/g						
Europium-154	U	0.109 +/-0.110	0.221	0.500	pCi/g						
Europium-155	U	0.0624 +/-0.0882	0.162	0.500	pCi/g						
Iridium-192	U	0.00564 +/-0.0386	0.067	0.100	pCi/g						
Iron-59	U	-0.00962 +/-0.145	0.266	0.300	pCi/g						
Lead-210	U	5.18 +/-6.15	10.8	4.00	pCi/g						
Lead-212		1.07 +/-0.148	0.0805	0.100	pCi/g						
Lead-214		0.850 +/-0.154	0.0922	0.100	pCi/g						
Manganese-54	U	0.0466 +/-0.0423	0.0568	0.100	pCi/g						
Mercury-203	U	0.00 +/-0.070	0.0933	0.100	pCi/g						
Neodymium-147	U	2.56 +/-5.61	10.3	1000	pCi/g						
Neptunium-239	U	-0.0358 +/-0.150	0.264	2.00	pCi/g						
Niobium-94	U	0.00893 +/-0.0318	0.0573	1.00	pCi/g						
Niobium-95	U	-0.0288 +/-0.108	0.161	0.050	pCi/g						
Potassium-40		26.4 +/-3.05	0.444	1.00	pCi/g						
Promethium-144	U	-0.0229 +/-0.0322	0.0534	0.080	pCi/g						
Promethium-146	U	-0.0142 +/-0.0391	0.0603	1.00	pCi/g						
Radium-226		0.601 +/-0.161	0.103	1.00	pCi/g						
Radium-228		1.01 +/-0.313	0.220	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 802-SB03:0-0.5 ft
Sample ID: 86843003

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.283 +/-0.280	0.449	0.800	pCi/g						
Silver-110m	U	-0.0141 +/-0.0364	0.0542	0.080	pCi/g						
Sodium-22	U	0.039 +/-0.0401	0.0805	0.080	pCi/g						
Thallium-208		0.289 +/-0.0737	0.058	0.080	pCi/g						
Thorium-230		0.601 +/-0.161	0.103	1.00	pCi/g						
Thorium-232		1.01 +/-0.141	0.0763	0.500	pCi/g						
Thorium-234	U	0.680 +/-2.23	2.33	2.00	pCi/g						
Tin-113	U	0.0157 +/-0.0497	0.0862	0.100	pCi/g						
Uranium-234		0.814 +/-0.179	0.169	1.00	pCi/g						
Uranium-235	U	0.0249 +/-0.213	0.291	0.500	pCi/g						
Uranium-238	U	0.680 +/-2.23	2.33	1.00	pCi/g						
Yttrium-88	U	-0.0014 +/-0.0266	0.0542	0.100	pCi/g						
Zinc-65	U	0.00221 +/-0.0932	0.150	0.300	pCi/g						
Zirconium-95	U	0.0549 +/-0.0898	0.169	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 802-SB03:0-0.5 ft
Sample ID: 86843003

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 802-SB04; 0-0.5 ft
Sample ID: 86843004
Matrix: Soil
Collect Date: 05-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
Gammascpec, Gamma, Solid w/Ra226											
Actinium-228		1.08	+/-0.301	0.215	0.800	pCi/g	SRB	09/28/03	1623	274785	1
Americium-241	U	0.0267	+/-0.136	0.220	0.200	pCi/g					
Antimony-124	U	0.0246	+/-0.0454	0.0844	0.100	pCi/g					
Antimony-125	U	0.0374	+/-0.0754	0.140	0.200	pCi/g					
Barium-133	U	0.00124	+/-0.0395	0.063	0.100	pCi/g					
Barium-140	U	-1.28	+/-1.68	2.72	0.500	pCi/g					
Beryllium-7	U	0.206	+/-0.409	0.762	0.700	pCi/g					
Bismuth-212		0.667	+/-0.362	0.448	0.500	pCi/g					
Bismuth-214		0.829	+/-0.150	0.0926	0.200	pCi/g					
Cerium-139	U	-0.00993	+/-0.0305	0.0517	0.050	pCi/g					
Cerium-141	U	0.0979	+/-0.120	0.216	0.100	pCi/g					
Cerium-144	U	0.0751	+/-0.182	0.322	0.500	pCi/g					
Cesium-134	U	0.00	+/-0.0576	0.0694	0.100	pCi/g					
Cesium-136	U	0.452	+/-0.706	1.37	0.300	pCi/g					
Cesium-137	U	0.120	+/-0.0526	0.0532	0.100	pCi/g					
Chromium-51	U	-0.353	+/-0.780	1.38	0.600	pCi/g					
Cobalt-56	U	0.0102	+/-0.0461	0.0827	0.100	pCi/g					
Cobalt-57	U	0.00205	+/-0.0227	0.0398	0.050	pCi/g					
Cobalt-58	U	-0.00165	+/-0.041	0.0726	0.100	pCi/g					
Cobalt-60	U	-0.0126	+/-0.0301	0.0527	0.100	pCi/g					
Europium-152	U	-0.00908	+/-0.081	0.145	0.200	pCi/g					
Europium-154	U	-0.015	+/-0.113	0.175	0.500	pCi/g					
Europium-155	U	0.0797	+/-0.0877	0.160	0.500	pCi/g					
Iridium-192	U	-0.00354	+/-0.0402	0.0727	0.100	pCi/g					
Iron-59	U	0.0116	+/-0.143	0.263	0.300	pCi/g					
Lead-210	U	0.725	+/-3.41	5.61	4.00	pCi/g					
Lead-212		1.16	+/-0.161	0.0841	0.100	pCi/g					
Lead-214		0.870	+/-0.166	0.103	0.100	pCi/g					
Manganese-54	U	0.0192	+/-0.0349	0.0638	0.100	pCi/g					
Mercury-203	U	0.0377	+/-0.0582	0.109	0.100	pCi/g					
Neodymium-147	U	3.01	+/-5.19	9.71	1000	pCi/g					
Neptunium-239	U	0.163	+/-0.191	0.262	2.00	pCi/g					
Niobium-94	U	-0.00683	+/-0.0288	0.0495	1.00	pCi/g					
Niobium-95	U	-0.0399	+/-0.102	0.148	0.050	pCi/g					
Potassium-40		25.6	+/-2.92	0.373	1.00	pCi/g					
Promethium-144	U	0.00216	+/-0.0282	0.0503	0.080	pCi/g					
Promethium-146	U	0.0234	+/-0.0315	0.0599	1.00	pCi/g					
Radium-226		0.829	+/-0.150	0.0926	1.00	pCi/g					
Radium-228		1.08	+/-0.301	0.215	0.500	pCi/g					

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Client Sample ID: IGLOO 802-SB04; 0-0.5 ft
Sample ID: 86843004

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.161 +/-0.270	0.453	0.800	pCi/g						
Silver-110m	U	0.0137 +/-0.0359	0.058	0.080	pCi/g						
Sodium-22	U	-0.00591 +/-0.0412	0.0638	0.080	pCi/g						
Thallium-208		0.392 +/-0.0957	0.0528	0.080	pCi/g						
Thorium-230		0.829 +/-0.150	0.0926	1.00	pCi/g						
Thorium-232		1.10 +/-0.153	0.0797	0.500	pCi/g						
Thorium-234		2.60 +/-1.76	1.81	2.00	pCi/g						
Tin-113	U	0.0223 +/-0.045	0.0836	0.100	pCi/g						
Uranium-234		0.808 +/-0.231	0.199	1.00	pCi/g						
Uranium-235	U	-0.0902 +/-0.182	0.307	0.500	pCi/g						
Uranium-238		2.60 +/-1.76	1.81	1.00	pCi/g						
Yttrium-88	U	0.0285 +/-0.0304	0.0699	0.100	pCi/g						
Zinc-65	U	-0.175 +/-0.101	0.153	0.300	pCi/g						
Zirconium-95	U	0.0499 +/-0.0875	0.162	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
I	EML HASL 300, 4.5.2.3	

Notes:

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- < Result is less than amount reported.
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 802-SB04; 0-0.5 ft
Sample ID: 86843004

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Contact: Katie Kadiubak

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Client Sample ID: IGLOO 803-SB05; 0-0.5 ft
Sample ID: 86843005
Matrix: Soil
Collect Date: 05-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.696 +/-0.136	0.0865	0.800	pCi/g		SRB	09/28/03	1852	274785	1
Americium-241	U	-0.115 +/-0.116	0.171	0.200	pCi/g						
Antimony-124	U	-0.0265 +/-0.0248	0.0417	0.100	pCi/g						
Antimony-125	U	0.050 +/-0.0358	0.0673	0.200	pCi/g						
Barium-133	U	-0.0144 +/-0.0206	0.0297	0.100	pCi/g						
Barium-140	U	0.635 +/-0.963	1.51	0.500	pCi/g						
Beryllium-7	U	0.0357 +/-0.220	0.373	0.700	pCi/g						
Bismuth-212		0.544 +/-0.211	0.193	0.500	pCi/g						
Bismuth-214		0.599 +/-0.079	0.0453	0.200	pCi/g						
Cerium-139	U	-0.00245 +/-0.0156	0.0273	0.050	pCi/g						
Cerium-141	U	0.0296 +/-0.0728	0.115	0.100	pCi/g						
Cerium-144	U	0.052 +/-0.101	0.181	0.500	pCi/g						
Cesium-134	U U ⁵	0.00 +/-0.0299	0.0339	0.100	pCi/g						
Cesium-136	U	0.118 +/-0.359	0.623	0.300	pCi/g						
Cesium-137		0.110 +/-0.023	0.0266	0.100	pCi/g						
Chromium-51	U	-0.359 +/-0.421	0.702	0.600	pCi/g						
Cobalt-56	U	-0.00398 +/-0.0223	0.0381	0.100	pCi/g						
Cobalt-57	U	0.00759 +/-0.0125	0.0225	0.050	pCi/g						
Cobalt-58	U	-0.00652 +/-0.0228	0.0389	0.100	pCi/g						
Cobalt-60	U	0.00476 +/-0.015	0.027	0.100	pCi/g						
Europium-152	U	-0.0179 +/-0.0405	0.0681	0.200	pCi/g						
Europium-154	U	-0.0267 +/-0.0496	0.0807	0.500	pCi/g						
Europium-155	U	0.0297 +/-0.0571	0.0854	0.500	pCi/g						
Iridium-192	U	-0.0128 +/-0.0208	0.0349	0.100	pCi/g						
Iron-59	U	-0.0141 +/-0.0741	0.124	0.300	pCi/g						
Lead-210	U	5.54 +/-4.79	7.59	4.00	pCi/g						
Lead-212		1.01 +/-0.096	0.0432	0.100	pCi/g						
Lead-214		0.755 +/-0.0904	0.0485	0.100	pCi/g						
Manganese-54	U	0.00587 +/-0.0161	0.0283	0.100	pCi/g						
Mercury-203	U U ⁵	0.00 +/-0.0611	0.0521	0.100	pCi/g						
Neodymium-147	U	0.580 +/-2.91	4.54	1000	pCi/g						
Neptunium-239	U	-0.0595 +/-0.0849	0.149	2.00	pCi/g						
Niobium-94	U	0.000115 +/-0.0128	0.0223	1.00	pCi/g						
Niobium-95	U	0.0749 +/-0.0648	0.0759	0.050	pCi/g						
Potassium-40		19.4 +/-1.34	0.227	1.00	pCi/g						
Promethium-144	U	-0.00785 +/-0.014	0.0238	0.080	pCi/g						
Promethium-146	U	0.000913 +/-0.0178	0.0301	1.00	pCi/g						
Radium-226		0.599 +/-0.079	0.0453	1.00	pCi/g						
Radium-228		0.696 +/-0.136	0.0865	0.500	pCi/g						

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Client Sample ID: IGLOO 803-SB05; 0-0.5 ft
Sample ID: 86843005

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.00535	+/-0.132	0.232	0.800						pCi/g
Silver-110m	U	0.00251	+/-0.0174	0.0267	0.080						pCi/g
Sodium-22	U	-0.0097	+/-0.0181	0.0295	0.080						pCi/g
Thallium-208		0.284	+/-0.0441	0.0242	0.080						pCi/g
Thorium-230		0.599	+/-0.079	0.0453	1.00						pCi/g
Thorium-232		0.954	+/-0.0909	0.0409	0.500						pCi/g
Thorium-234	U	0.347	+/-0.916	1.40	2.00						pCi/g
Tin-113	U	-0.00146	+/-0.0243	0.0411	0.100						pCi/g
Uranium-234		0.901	+/-0.133	0.0931	1.00						pCi/g
Uranium-235	U	0.0568	+/-0.156	0.160	0.500						pCi/g
Uranium-238	U	0.347	+/-0.916	1.40	1.00						pCi/g
Yttrium-88	U	0.00521	+/-0.0169	0.0309	0.100						pCi/g
Zinc-65	U	-0.0163	+/-0.0489	0.0697	0.300						pCi/g
Zirconium-95	U	0.0182	+/-0.0413	0.0731	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 803-SB05; 0-0.5 ft
Sample ID: 86843005

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Client Sample ID: IGLOO 803-SB06; 0-0.5 ft
Sample ID: 86843006
Matrix: Soil
Collect Date: 06-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.993 +/-0.177	0.0731	0.800	pCi/g		SRB	09/28/03	1853	274785	1
Americium-241	U	-0.0703 +/-0.0771	0.121	0.200	pCi/g						
Antimony-124	U	0.00844 +/-0.0222	0.0342	0.100	pCi/g						
Antimony-125	U	0.000837 +/-0.0313	0.055	0.200	pCi/g						
Barium-133	U	-0.00237 +/-0.0198	0.0226	0.100	pCi/g						
Barium-140	U	-0.129 +/-0.665	1.14	0.500	pCi/g						
Beryllium-7	U	0.147 +/-0.264	0.318	0.700	pCi/g						
Bismuth-212		0.801 +/-0.193	0.162	0.500	pCi/g						
Bismuth-214		0.704 +/-0.101	0.0399	0.200	pCi/g						
Cerium-139	U	-0.000926 +/-0.0115	0.0196	0.050	pCi/g						
Cerium-141	U	0.0359 +/-0.0575	0.0764	0.100	pCi/g						
Cerium-144	U	0.00611 +/-0.0708	0.123	0.500	pCi/g						
Cesium-134	U U J	0.00 +/-0.0228	0.0302	0.100	pCi/g						
Cesium-136	U	-0.0165 +/-0.314	0.521	0.300	pCi/g						
Cesium-137		0.133 +/-0.0288	0.0239	0.100	pCi/g						
Chromium-51	U	0.429 +/-0.416	0.492	0.600	pCi/g						
Cobalt-56	U	0.00152 +/-0.0196	0.0331	0.100	pCi/g						
Cobalt-57	U	-0.00799 +/-0.00894	0.0152	0.050	pCi/g						
Cobalt-58	U	-0.00484 +/-0.020	0.0334	0.100	pCi/g						
Cobalt-60	U	-0.00842 +/-0.0153	0.0257	0.100	pCi/g						
Europium-152	U	0.00558 +/-0.0327	0.0543	0.200	pCi/g						
Europium-154	U	-0.0636 +/-0.0452	0.0715	0.500	pCi/g						
Europium-155	U	0.044 +/-0.0547	0.0608	0.500	pCi/g						
Iridium-192	U	0.0143 +/-0.0189	0.028	0.100	pCi/g						
Iron-59	U	-0.0481 +/-0.0592	0.0993	0.300	pCi/g						
Lead-210	U	0.840 +/-3.77	4.24	4.00	pCi/g						
Lead-212		1.01 +/-0.114	0.0318	0.100	pCi/g						
Lead-214		0.866 +/-0.114	0.0361	0.100	pCi/g						
Manganese-54	U	0.00828 +/-0.0147	0.0253	0.100	pCi/g						
Mercury-203	U U J	0.00 +/-0.0377	0.0392	0.100	pCi/g						
Neodymium-147	U	-0.73 +/-2.20	3.77	1000	pCi/g						
Neptunium-239	U	0.0195 +/-0.0605	0.106	2.00	pCi/g						
Niobium-94	U	-0.00173 +/-0.012	0.0204	1.00	pCi/g						
Niobium-95	U U J	0.00 +/-0.0604	0.0682	0.050	pCi/g						
Potassium-40		22.9 +/-2.31	0.184	1.00	pCi/g						
Promethium-144	U	0.000181 +/-0.0151	0.0226	0.080	pCi/g						
Promethium-146	U	0.00325 +/-0.0146	0.0257	1.00	pCi/g						
Radium-226		0.704 +/-0.101	0.0399	1.00	pCi/g						
Radium-228		0.993 +/-0.177	0.0731	0.500	pCi/g						

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Client Sample ID: IGLOO 803-SB06; 0-0.5 ft
Sample ID: 86843006

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0536 +/-0.118	0.205	0.800	pCi/g						
Silver-110m	U	0.0149 +/-0.0145	0.023	0.080	pCi/g						
Sodium-22	U	-0.0232 +/-0.0164	0.0261	0.080	pCi/g						
Thallium-208		0.296 +/-0.0444	0.0214	0.080	pCi/g						
Thorium-230		0.704 +/-0.101	0.0399	1.00	pCi/g						
Thorium-232		0.957 +/-0.108	0.0301	0.500	pCi/g						
Thorium-234		1.28 +/-0.922	0.936	2.00	pCi/g						
Tin-113	U	-0.0142 +/-0.0199	0.0317	0.100	pCi/g						
Uranium-234		0.750 +/-0.119	0.0762	1.00	pCi/g						
Uranium-235	U	0.0636 +/-0.102	0.121	0.500	pCi/g						
Uranium-238		1.28 +/-0.922	0.936	1.00	pCi/g						
Yttrium-88	U	0.0101 +/-0.0145	0.0273	0.100	pCi/g						
Zinc-65	U	0.0188 +/-0.0411	0.0641	0.300	pCi/g						
Zirconium-95	U	-0.0164 +/-0.0446	0.0647	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 803-SB06; 0-0.5 ft
Sample ID: 86843006

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Client Sample ID: IGLOO 804-SB07; 0-0.5 ft
Sample ID: 86843007
Matrix: Soil
Collect Date: 06-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
GammaSpec, Gamma, Solid w/Ra226											
Actinium-228		0.899	+/-0.179	0.101	0.800						
Americium-241	U	0.0735	+/-0.0792	0.134	0.200						
Antimony-124	U	-0.0221	+/-0.0275	0.0446	0.100						
Antimony-125	U	-0.0115	+/-0.0456	0.0768	0.200						
Barium-133	U	-0.011	+/-0.0233	0.0344	0.100						
Barium-140	U	0.122	+/-0.965	1.63	0.500						
Beryllium-7	U	0.0979	+/-0.285	0.428	0.700						
Bismuth-212		0.401	+/-0.209	0.209	0.500						
Bismuth-214		3.73	+/-0.427	0.0497	0.200						
Cerium-139	U	0.00263	+/-0.0217	0.0315	0.050						
Cerium-141	U	0.106	+/-0.0687	0.120	0.100						
Cerium-144	U	0.0693	+/-0.116	0.191	0.500						
Cesium-134	U	0.00	+/-0.0279	0.0373	0.100						
Cesium-136	U	-0.453	+/-0.386	0.630	0.300						
Cesium-137	U	0.249	+/-0.0354	0.0273	0.100						
Chromium-51	U	-0.39	+/-0.481	0.807	0.600						
Cobalt-56	U	0.0131	+/-0.0267	0.0448	0.100						
Cobalt-57	U	0.00098	+/-0.0142	0.0235	0.050						
Cobalt-58	U	-0.0103	+/-0.030	0.0424	0.100						
Cobalt-60	U	-0.0132	+/-0.0215	0.0304	0.100						
Europium-152	U	-0.0084	+/-0.047	0.080	0.200						
Europium-154	U	0.0533	+/-0.0561	0.0991	0.500						
Europium-155	U	0.00223	+/-0.0541	0.0896	0.500						
Iridium-192	U	0.00656	+/-0.0237	0.0409	0.100						
Iron-59	U	-0.0706	+/-0.075	0.123	0.300						
Lead-210	U	3.30	+/-2.59	3.46	4.00						
Lead-212		1.01	+/-0.119	0.0474	0.100						
Lead-214		4.51	+/-0.520	0.0562	0.100						
Manganese-54	U	-0.0118	+/-0.0218	0.0303	0.100						
Mercury-203	U	0.00	+/-0.0412	0.0584	0.100						
Neodymium-147	U	-2.37	+/-3.03	4.94	1000						
Neptunium-239	U	-0.0484	+/-0.0958	0.157	2.00						
Niobium-94	U	0.0155	+/-0.0175	0.0269	1.00						
Niobium-95	U	0.00	+/-0.0573	0.0894	0.050						
Potassium-40		22.0	+/-2.25	0.268	1.00						
Promethium-144	U	-0.0097	+/-0.0169	0.0275	0.080						
Promethium-146	U	0.0265	+/-0.0214	0.037	1.00						
Radium-226		3.73	+/-0.427	0.0497	1.00						
Radium-228		0.899	+/-0.179	0.101	0.500						

SRB 09/28/03 1854 274785 1

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 804-SB07; 0-0.5 ft
Sample ID: 86843007

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0223	+/-0.149	0.251	0.800						pCi/g
Silver-110m	U	-0.00235	+/-0.0194	0.0282	0.080						pCi/g
Sodium-22	U	0.0193	+/-0.0204	0.0362	0.080						pCi/g
Thallium-208		0.261	+/-0.044	0.0302	0.080						pCi/g
Thorium-230		3.73	+/-0.427	0.0497	1.00						pCi/g
Thorium-232		0.955	+/-0.113	0.045	0.500						pCi/g
Thorium-234		2.47	+/-1.13	1.06	2.00						pCi/g
Tin-113	U	-0.00731	+/-0.0278	0.047	0.100						pCi/g
Uranium-234		4.44	+/-0.540	0.112	1.00						pCi/g
Uranium-235		0.292	+/-0.166	0.192	0.500						pCi/g
Uranium-238		2.47	+/-1.13	1.06	1.00						pCi/g
Yttrium-88	U	-0.0133	+/-0.0193	0.0312	0.100						pCi/g
Zinc-65	U	-0.0402	+/-0.0512	0.0727	0.300						pCi/g
Zirconium-95	U	-0.0104	+/-0.0491	0.0807	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
I	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 804-SB07; 0-0.5 ft
Sample ID: 86843007

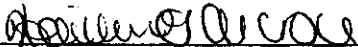
Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

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Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 1 of 3

Client Sample ID: IGLOO 804-SB08; 0-0.5 ft
Sample ID: 86843008
Matrix: Soil
Collect Date: 05-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.645 +/-0.137	0.0639	0.800	pCi/g		SRB	09/28/03	1854	274785	1
Americium-241	U	-0.0558 +/-0.0765	0.111	0.200	pCi/g						
Antimony-124	U	-0.00685 +/-0.0189	0.032	0.100	pCi/g						
Antimony-125	U	0.00902 +/-0.0295	0.049	0.200	pCi/g						
Barium-133	U	0.000588 +/-0.0149	0.0217	0.100	pCi/g						
Barium-140	U	0.0498 +/-0.627	1.08	0.500	pCi/g						
Beryllium-7	U	-0.0408 +/-0.154	0.266	0.700	pCi/g						
Bismuth-212		0.501 +/-0.175	0.139	0.500	pCi/g						
Bismuth-214		1.11 +/-0.138	0.0346	0.200	pCi/g						
Cerium-139	U	0.00649 +/-0.0135	0.0207	0.050	pCi/g						
Cerium-141	U	0.0364 +/-0.0607	0.0822	0.100	pCi/g						
Cerium-144	U	-0.047 +/-0.077	0.132	0.500	pCi/g						
Cesium-134	U	0.00 +/-0.0226	0.0238	0.100	pCi/g						
Cesium-136	U	0.00345 +/-0.264	0.438	0.300	pCi/g						
Cesium-137	U	0.0932 +/-0.0205	0.0178	0.100	pCi/g						
Chromium-51	U	0.105 +/-0.354	0.525	0.600	pCi/g						
Cobalt-56	U	-0.00238 +/-0.0166	0.0278	0.100	pCi/g						
Cobalt-57	U	-0.00201 +/-0.00941	0.0164	0.050	pCi/g						
Cobalt-58	U	-0.0195 +/-0.0171	0.0273	0.100	pCi/g						
Cobalt-60	U	-0.00117 +/-0.0105	0.018	0.100	pCi/g						
Europium-152	U	-0.00651 +/-0.0306	0.0508	0.200	pCi/g						
Europium-154	U	-0.0207 +/-0.0347	0.058	0.500	pCi/g						
Europium-155	U	-0.0141 +/-0.0373	0.0649	0.500	pCi/g						
Iridium-192	U	0.00811 +/-0.0158	0.0268	0.100	pCi/g						
Iron-59	U	-0.0531 +/-0.0507	0.0796	0.300	pCi/g						
Lead-210	U	-0.0466 +/-2.29	3.43	4.00	pCi/g						
Lead-212		0.777 +/-0.0907	0.0305	0.100	pCi/g						
Lead-214		1.35 +/-0.160	0.0355	0.100	pCi/g						
Manganese-54	U	-0.0054 +/-0.0122	0.0202	0.100	pCi/g						
Mercury-203	U	0.019 +/-0.0235	0.0401	0.100	pCi/g						
Neodymium-147	U	-0.379 +/-1.93	3.31	1000	pCi/g						
Neptunium-239	U	-0.0292 +/-0.064	0.111	2.00	pCi/g						
Niobium-94	U	0.00437 +/-0.00966	0.0166	1.00	pCi/g						
Niobium-95	U	0.0215 +/-0.0819	0.0472	0.050	pCi/g						
Potassium-40		16.3 +/-1.66	0.168	1.00	pCi/g						
Promethium-144	U	0.00427 +/-0.0107	0.0184	0.080	pCi/g						
Promethium-146	U	0.00931 +/-0.0135	0.0226	1.00	pCi/g						
Radium-226		1.11 +/-0.138	0.0346	1.00	pCi/g						
Radium-228		0.645 +/-0.137	0.0639	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 804-SB08; 0-0.5 ft
Sample ID: 86843008

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.00823	+/-0.098	0.168	0.800						pCi/g
Silver-110m	U	0.0144	+/-0.0122	0.019	0.080						pCi/g
Sodium-22	U	-0.00748	+/-0.0127	0.0212	0.080						pCi/g
Thallium-208		0.223	+/-0.0318	0.018	0.080						pCi/g
Thorium-230		1.11	+/-0.138	0.0346	1.00						pCi/g
Thorium-232		0.735	+/-0.0859	0.0289	0.500						pCi/g
Thorium-234	U	0.839	+/-0.938	0.883	2.00						pCi/g
Tin-113	U	0.0104	+/-0.0179	0.030	0.100						pCi/g
Uranium-234		1.40	+/-0.185	0.0735	1.00						pCi/g
Uranium-235		0.143	+/-0.156	0.129	0.500						pCi/g
Uranium-238	U	0.839	+/-0.938	0.883	1.00						pCi/g
Yttrium-88	U	-0.00124	+/-0.0115	0.0196	0.100						pCi/g
Zinc-65	U	0.0019	+/-0.0319	0.0478	0.300						pCi/g
Zirconium-95	U	0.0457	+/-0.0399	0.0564	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 804-SB08; 0-0.5 ft
Sample ID: 86843008

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Client Sample ID: IGLOO 804-SB09; 0-0.5 ft
Sample ID: 86843009
Matrix: Soil
Collect Date: 12-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.04	+/-0.195	0.102	0.800						
Americium-241	U	0.00257	+/-0.0613	0.101	0.200						
Antimony-124	U	-0.0321	+/-0.0259	0.042	0.100						
Antimony-125	U	0.0701	+/-0.0518	0.0742	0.200						
Barium-133	U	0.00347	+/-0.0215	0.0312	0.100						
Barium-140	U	0.815	+/-0.792	1.09	0.500						
Beryllium-7	U	-0.0533	+/-0.253	0.355	0.700						
Bismuth-212		0.605	+/-0.195	0.208	0.500						
Bismuth-214		4.14	+/-0.481	0.0486	0.200						
Cerium-139	U	-0.00392	+/-0.0181	0.0286	0.050						
Cerium-141	U	0.00	+/-0.0918	0.107	0.100						
Cerium-144	U	0.0167	+/-0.122	0.175	0.500						
Cesium-134	U	0.00	+/-0.0272	0.0327	0.100						
Cesium-136	U	-0.112	+/-0.276	0.443	0.300						
Cesium-137		0.122	+/-0.0275	0.027	0.100						
Chromium-51	U	-0.0456	+/-0.450	0.653	0.600						
Cobalt-56	U	-0.00451	+/-0.0238	0.0391	0.100						
Cobalt-57	U	0.0141	+/-0.0136	0.0223	0.050						
Cobalt-58	U	0.0157	+/-0.0263	0.0388	0.100						
Cobalt-60	U	-0.00753	+/-0.0177	0.0294	0.100						
Europium-152	U	-0.00829	+/-0.0451	0.0739	0.200						
Europium-154	U	-0.0198	+/-0.0536	0.089	0.500						
Europium-155	U	0.0353	+/-0.0389	0.0822	0.500						
Iridium-192	U	-0.00506	+/-0.0219	0.0361	0.100						
Iron-59	U	0.0316	+/-0.0693	0.114	0.300						
Lead-210		3.75	+/-2.09	2.03	4.00						
Lead-212		0.968	+/-0.107	0.0534	0.100						
Lead-214		4.97	+/-0.531	0.0513	0.100						
Manganese-54	U	0.00686	+/-0.025	0.0314	0.100						
Mercury-203	U	0.0262	+/-0.0354	0.0527	0.100						
Neodymium-147	U	1.12	+/-2.23	3.19	1000						
Neptunium-239	U	-0.061	+/-0.0943	0.150	2.00						
Niobium-94	U	0.0247	+/-0.0195	0.0259	1.00						
Niobium-95	U	0.00	+/-0.0601	0.0855	0.050						
Potassium-40	U	24.5	+/-1.87	0.261	1.00						
Promethium-144	U	0.0147	+/-0.0158	0.0269	0.080						
Promethium-146	U	0.0282	+/-0.0208	0.0346	1.00						
Radium-226		4.14	+/-0.481	0.0486	1.00						
Radium-228		1.04	+/-0.195	0.102	0.500						

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Client Sample ID: IGLOO 804-SB09; 0-0.5 ft
Sample ID: 86843009

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0419	+/-0.141	0.236	0.800						pCi/g
Silver-110m	U	0.0177	+/-0.0185	0.0267	0.080						pCi/g
Sodium-22	U	-0.00733	+/-0.0195	0.0324	0.080						pCi/g
Thallium-208		0.316	+/-0.0426	0.026	0.080						pCi/g
Thorium-230		4.14	+/-0.481	0.0486	1.00						pCi/g
Thorium-232		0.922	+/-0.102	0.0509	0.500						pCi/g
Thorium-234		0.997	+/-0.844	0.878	2.00						pCi/g
Tin-113	U	0.0163	+/-0.0285	0.0416	0.100						pCi/g
Uranium-234		4.78	+/-0.593	0.105	1.00						pCi/g
Uranium-235		0.281	+/-0.158	0.170	0.500						pCi/g
Uranium-238		0.997	+/-0.844	0.878	1.00						pCi/g
Yttrium-88	U	0.0312	+/-0.0189	0.0356	0.100						pCi/g
Zinc-65	U	0.0091	+/-0.0507	0.0747	0.300						pCi/g
Zirconium-95	U	0.0111	+/-0.0434	0.0728	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 804-SB09; 0-0.5 ft
Sample ID: 86843009

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

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Contact: Katie Kadhubak
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Client Sample ID: IGLOO 804-SB09; 0.5-2 ft
Sample ID: 86843010
Matrix: Soil
Collect Date: 12-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.07	+/-0.229	0.177	0.800						
Americium-241	U	0.0274	+/-0.0606	0.0875	0.200						
Antimony-124	U	-0.0333	+/-0.0445	0.0701	0.100						
Antimony-125	U	-0.0219	+/-0.0716	0.117	0.200						
Barium-133	U	-0.0208	+/-0.0351	0.0495	0.100						
Barium-140	U	0.286	+/-1.16	1.93	0.500						
Beryllium-7	U	0.073	+/-0.371	0.616	0.700						
Bismuth-212		0.681	+/-0.389	0.403	0.500						
Bismuth-214		0.732	+/-0.142	0.0834	0.200						
Cerium-139	U	-0.0101	+/-0.024	0.0372	0.050						
Cerium-141	U	0.134	+/-0.0873	0.141	0.100						
Cerium-144	U	-0.0204	+/-0.151	0.237	0.500						
Cesium-134	U	0.0133	+/-0.0461	0.0559	0.100						
Cesium-136	U	-0.274	+/-0.446	0.732	0.300						
Cesium-137	U	0.0233	+/-0.0647	0.049	0.100						
Chromium-51	U	0.338	+/-0.595	1.00	0.600						
Cobalt-56	U	-0.0054	+/-0.0409	0.0696	0.100						
Cobalt-57	U	-0.000952	+/-0.020	0.0281	0.050						
Cobalt-58	U	-0.0325	+/-0.0383	0.0628	0.100						
Cobalt-60	U	0.00425	+/-0.0311	0.0532	0.100						
Europium-152	U	0.0335	+/-0.0683	0.115	0.200						
Europium-154	U	-0.00992	+/-0.109	0.158	0.500						
Europium-155	U	0.00	+/-0.077	0.105	0.500						
Iridium-192	U	-0.00337	+/-0.0324	0.0537	0.100						
Iron-59	U	-0.0965	+/-0.118	0.191	0.300						
Lead-210	U	0.140	+/-0.956	0.978	4.00						
Lead-212		1.12	+/-0.144	0.0624	0.100						
Lead-214		0.768	+/-0.130	0.0799	0.100						
Manganese-54	U	-0.00357	+/-0.030	0.0511	0.100						
Mercury-203	U	0.0506	+/-0.0605	0.073	0.100						
Neodymium-147	U	2.75	+/-2.61	5.50	1000						
Neptunium-239	U	-0.00165	+/-0.127	0.201	2.00						
Niobium-94	U	-0.00707	+/-0.028	0.045	1.00						
Niobium-95	U	0.0192	+/-0.081	0.123	0.050						
Potassium-40		25.3	+/-2.57	0.473	1.00						
Promethium-144	U	0.0211	+/-0.0297	0.0498	0.080						
Promethium-146	U	0.00803	+/-0.0326	0.0542	1.00						
Radium-226		0.732	+/-0.142	0.0834	1.00						
Radium-228		1.07	+/-0.229	0.177	0.500						

SRB 09/28/03 1855 274785 1

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 804-SB09; 0.5-2 ft
Sample ID: 86843010

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0759 +/-0.257	0.427	0.800	pCi/g						
Silver-110m	U	0.0125 +/-0.032	0.0469	0.080	pCi/g						
Sodium-22	U	-0.00374 +/-0.0396	0.0574	0.080	pCi/g						
Thallium-208		0.375 +/-0.0767	0.0451	0.080	pCi/g						
Thorium-230		0.732 +/-0.142	0.0834	1.00	pCi/g						
Thorium-232		1.07 +/-0.137	0.0595	0.500	pCi/g						
Thorium-234		1.35 +/-0.929	0.794	2.00	pCi/g						
Tin-113	U	-0.0148 +/-0.0379	0.062	0.100	pCi/g						
Uranium-234		0.841 +/-0.177	0.150	1.00	pCi/g						
Uranium-235	U	0.071 +/-0.146	0.231	0.500	pCi/g						
Uranium-238		1.35 +/-0.929	0.794	1.00	pCi/g						
Yttrium-88	U	0.0229 +/-0.0355	0.0672	0.100	pCi/g						
Zinc-65	U	-0.0167 +/-0.0884	0.128	0.300	pCi/g						
Zirconium-95	U	-0.0121 +/-0.077	0.131	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
I	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

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- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 804-SB09: 0.5-2 ft
Sample ID: 86843010

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 804-SB10; 0-0.5
Sample ID: 86843011
Matrix: Soil
Collect Date: 12-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.774 +/-0.258	0.172	0.800	pCi/g		SRB	09/29/03	0921	274785	1
Americium-241	U	0.0655 +/-0.105	0.172	0.200	pCi/g						
Antimony-124	U	-0.0227 +/-0.0414	0.069	0.100	pCi/g						
Antimony-125	U	0.0162 +/-0.067	0.120	0.200	pCi/g						
Barium-133	U	-0.0066 +/-0.0317	0.0458	0.100	pCi/g						
Barium-140	U	0.716 +/-0.949	1.95	0.500	pCi/g						
Beryllium-7	U	-0.135 +/-0.353	0.605	0.700	pCi/g						
Bismuth-212		0.543 +/-0.407	0.369	0.500	pCi/g						
Bismuth-214		0.630 +/-0.133	0.0851	0.200	pCi/g						
Cerium-139	U	-0.0145 +/-0.0228	0.0376	0.050	pCi/g						
Cerium-141	U	0.0813 +/-0.0803	0.142	0.100	pCi/g						
Cerium-144	U	-0.095 +/-0.141	0.232	0.500	pCi/g						
Cesium-134	U	0.0311 +/-0.0427	0.0576	0.100	pCi/g						
Cesium-136	U	0.193 +/-0.485	0.809	0.300	pCi/g						
Cesium-137		0.0856 +/-0.0347	0.0407	0.100	pCi/g						
Chromium-51	U	0.0203 +/-0.594	0.989	0.600	pCi/g						
Cobalt-56	U	0.0397 +/-0.0396	0.0683	0.100	pCi/g						
Cobalt-57	U	0.00546 +/-0.0174	0.0304	0.050	pCi/g						
Cobalt-58	U	-0.00235 +/-0.0406	0.0698	0.100	pCi/g						
Cobalt-60	U	0.0014 +/-0.0325	0.0586	0.100	pCi/g						
Europium-152	U	0.00621 +/-0.0676	0.113	0.200	pCi/g						
Europium-154	U	0.0104 +/-0.0919	0.166	0.500	pCi/g						
Europium-155	U	0.122 +/-0.0702	0.128	0.500	pCi/g						
Iridium-192	U	0.00974 +/-0.033	0.0559	0.100	pCi/g						
Iron-59	U	-0.0564 +/-0.104	0.179	0.300	pCi/g						
Lead-210	U	0.738 +/-3.13	4.53	4.00	pCi/g						
Lead-212		0.812 +/-0.114	0.0759	0.100	pCi/g						
Lead-214		0.761 +/-0.135	0.0804	0.100	pCi/g						
Manganese-54	U	-0.00875 +/-0.031	0.045	0.100	pCi/g						
Mercury-203	U	0.00586 +/-0.0473	0.0792	0.100	pCi/g						
Neodymium-147	U	-0.472 +/-3.07	5.34	1000	pCi/g						
Neptunium-239	U	0.0904 +/-0.122	0.215	2.00	pCi/g						
Niobium-94	U	0.00504 +/-0.0247	0.0434	1.00	pCi/g						
Niobium-95	U	0.0103 +/-0.0733	0.113	0.050	pCi/g						
Potassium-40		19.2 +/-2.44	0.515	1.00	pCi/g						
Promethium-144	U	-0.0142 +/-0.0249	0.0411	0.080	pCi/g						
Promethium-146	U	0.0139 +/-0.0284	0.0519	1.00	pCi/g						
Radium-226		0.630 +/-0.133	0.0851	1.00	pCi/g						
Radium-228		0.774 +/-0.258	0.172	0.500	pCi/g						

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Katie Kadlubak
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Client Sample ID: IGLOO 804-SB10; 0-0.5
Sample ID: 86843011

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0205	+/-0.232	0.409	0.800						pCi/g
Silver-110m	U	-0.00573	+/-0.0282	0.0423	0.080						pCi/g
Sodium-22	U	0.0037	+/-0.0334	0.0605	0.080						pCi/g
Thallium-208		0.274	+/-0.0568	0.0436	0.080						pCi/g
Thorium-230		0.630	+/-0.133	0.0851	1.00						pCi/g
Thorium-232		0.774	+/-0.109	0.0723	0.500						pCi/g
Thorium-234	U	1.01	+/-1.26	1.40	2.00						pCi/g
Tin-113	U	-0.00832	+/-0.0399	0.0648	0.100						pCi/g
Uranium-234		0.764	+/-0.187	0.157	1.00						pCi/g
Uranium-235	U	-0.0894	+/-0.138	0.227	0.500						pCi/g
Uranium-238	U	1.01	+/-1.26	1.40	1.00						pCi/g
Yttrium-88	U	0.00516	+/-0.0302	0.0587	0.100						pCi/g
Zinc-65	U	0.0269	+/-0.0834	0.135	0.300						pCi/g
Zirconium-95	U	-0.0113	+/-0.0708	0.121	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 804-SB10; 0-0.5
Sample ID: 86843011

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Client Sample ID: IGLOO 804-SB11; 0-0.5
Sample ID: 86843012
Matrix: Soil
Collect Date: 12-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.823 +/-0.232	0.186	0.800	pCi/g						
Americium-241	U	-0.0121 +/-0.251	0.375	0.200	pCi/g						
Antimony-124	U	-0.0398 +/-0.0507	0.0847	0.100	pCi/g						
Antimony-125	U	0.0242 +/-0.0926	0.158	0.200	pCi/g						
Barium-133	U	-0.0268 +/-0.0444	0.0628	0.100	pCi/g						
Barium-140	U	-0.427 +/-1.31	2.27	0.500	pCi/g						
Beryllium-7	U	-0.331 +/-0.436	0.741	0.700	pCi/g						
Bismuth-212		0.687 +/-0.476	0.438	0.500	pCi/g						
Bismuth-214		3.27 +/-0.416	0.0919	0.200	pCi/g						
Cerium-139	U	0.0208 +/-0.0421	0.066	0.050	pCi/g						
Cerium-141	U	0.00 +/-0.203	0.225	0.100	pCi/g						
Cerium-144	U	-0.158 +/-0.235	0.402	0.500	pCi/g						
Cesium-134	U	0.0422 +/-0.0551	0.067	0.100	pCi/g						
Cesium-136	U	0.0303 +/-0.536	0.925	0.300	pCi/g						
Cesium-137		0.337 +/-0.066	0.0503	0.100	pCi/g						
Chromium-51	U	-0.326 +/-0.971	1.41	0.600	pCi/g						
Cobalt-56	U	0.0156 +/-0.0414	0.0743	0.100	pCi/g						
Cobalt-57	U	-0.011 +/-0.0291	0.0507	0.050	pCi/g						
Cobalt-58	U	0.0614 +/-0.0511	0.0859	0.100	pCi/g						
Cobalt-60	U	-0.0256 +/-0.0319	0.0525	0.100	pCi/g						
Europium-152	U	0.0153 +/-0.0949	0.162	0.200	pCi/g						
Europium-154	U	0.00593 +/-0.0982	0.176	0.500	pCi/g						
Europium-155	U	0.0355 +/-0.144	0.207	0.500	pCi/g						
Iridium-192	U	-0.0275 +/-0.0456	0.0754	0.100	pCi/g						
Iron-59	U	-0.0617 +/-0.124	0.203	0.300	pCi/g						
Lead-210	U	1.54 +/-7.11	10.9	4.00	pCi/g						
Lead-212		0.664 +/-0.121	0.124	0.100	pCi/g						
Lead-214		4.00 +/-0.489	0.111	0.100	pCi/g						
Manganese-54	U	-0.0327 +/-0.0371	0.0598	0.100	pCi/g						
Mercury-203	U	-0.0128 +/-0.066	0.112	0.100	pCi/g						
Neodymium-147	U	-1.28 +/-3.82	6.64	1000	pCi/g						
Neptunium-239	U	0.000324 +/-0.202	0.358	2.00	pCi/g						
Niobium-94	U	0.0146 +/-0.0279	0.0503	1.00	pCi/g						
Niobium-95	U	0.00 +/-0.102	0.171	0.050	pCi/g						
Potassium-40		17.3 +/-2.18	0.509	1.00	pCi/g						
Promethium-144	U	0.00686 +/-0.0294	0.0523	0.080	pCi/g						
Promethium-146	U	0.0151 +/-0.0396	0.0681	1.00	pCi/g						
Radium-226		3.27 +/-0.416	0.0919	1.00	pCi/g						
Radium-228		0.823 +/-0.232	0.186	0.500	pCi/g						

SRB 09/29/03 1051 274785 1

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Client Sample ID: IGLOO 804-SB11; 0-0.5
Sample ID: 86843012

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.235 +/-0.260	0.484	0.800	pCi/g						
Silver-110m	U	0.0257 +/-0.0343	0.056	0.080	pCi/g						
Sodium-22	U	0.00223 +/-0.0358	0.0641	0.080	pCi/g						
Thallium-208		0.277 +/-0.068	0.0527	0.080	pCi/g						
Thorium-230		3.27 +/-0.416	0.0919	1.00	pCi/g						
Thorium-232		0.633 +/-0.116	0.118	0.500	pCi/g						
Thorium-234		7.63 +/-2.94	2.90	2.00	pCi/g						
Tin-113	U	-0.0141 +/-0.0522	0.0869	0.100	pCi/g						
Uranium-234		3.82 +/-0.529	0.227	1.00	pCi/g						
Uranium-235		0.732 +/-0.532	0.447	0.500	pCi/g						
Uranium-238		7.63 +/-2.94	2.90	1.00	pCi/g						
Yttrium-88	U	-0.0131 +/-0.035	0.0601	0.100	pCi/g						
Zinc-65	U	-0.00688 +/-0.0942	0.144	0.300	pCi/g						
Zirconium-95	U	-0.0431 +/-0.0817	0.137	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
I	EML HASL 300, 4.5.2.3	

Notes:

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 804-SB11; 0-0.5
Sample ID: 86843012

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Cheryl Jones
Reviewed by

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Client Sample ID: IGLOO 804-SB11: 0.5-2
Sample ID: 86843013
Matrix: Soil
Collect Date: 12-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.891 +/-0.231	0.196	0.800	pCi/g		SRB	09/29/03	0923	274785	1
Americium-241	U	-0.0759 +/-0.141	0.209	0.200	pCi/g						
Antimony-124	U	0.0209 +/-0.0479	0.0752	0.100	pCi/g						
Antimony-125	U	-0.0257 +/-0.0806	0.120	0.200	pCi/g						
Barium-133	U	-0.0149 +/-0.0345	0.0514	0.100	pCi/g						
Barium-140	U	0.300 +/-1.21	2.12	0.500	pCi/g						
Beryllium-7	U	-0.205 +/-0.390	0.652	0.700	pCi/g						
Bismuth-212		1.10 +/-0.435	0.357	0.500	pCi/g						
Bismuth-214		1.17 +/-0.206	0.0873	0.200	pCi/g						
Cerium-139	U	-0.00543 +/-0.0269	0.0441	0.050	pCi/g						
Cerium-141	U	0.0391 +/-0.0983	0.165	0.100	pCi/g						
Cerium-144	U	-0.0753 +/-0.169	0.276	0.500	pCi/g						
Cesium-134	U	0.0238 +/-0.058	0.0677	0.100	pCi/g						
Cesium-136	U	-0.144 +/-0.521	0.786	0.300	pCi/g						
Cesium-137	U	0.0368 +/-0.0245	0.0561	0.100	pCi/g						
Chromium-51	U	-0.388 +/-0.679	1.06	0.600	pCi/g						
Cobalt-56	U	-0.0131 +/-0.0388	0.0643	0.100	pCi/g						
Cobalt-57	U	0.00272 +/-0.0206	0.0345	0.050	pCi/g						
Cobalt-58	U	-0.0567 +/-0.0444	0.0664	0.100	pCi/g						
Cobalt-60	U	0.0346 +/-0.0296	0.0591	0.100	pCi/g						
Europium-152	U	-0.0864 +/-0.070	0.114	0.200	pCi/g						
Europium-154	U	0.0171 +/-0.0969	0.174	0.500	pCi/g						
Europium-155	U	0.00 +/-0.121	0.133	0.500	pCi/g						
Iridium-192	U	0.0192 +/-0.0375	0.0627	0.100	pCi/g						
Iron-59	U	0.0454 +/-0.119	0.218	0.300	pCi/g						
Lead-210	U	0.749 +/-3.46	5.36	4.00	pCi/g						
Lead-212		0.948 +/-0.131	0.0821	0.100	pCi/g						
Lead-214		1.27 +/-0.190	0.0834	0.100	pCi/g						
Manganese-54	U	0.00 +/-0.075	0.0469	0.100	pCi/g						
Mercury-203	U	0.0314 +/-0.0561	0.0845	0.100	pCi/g						
Neodymium-147	U	-0.792 +/-3.88	5.78	1000	pCi/g						
Neptunium-239	U	0.0296 +/-0.140	0.236	2.00	pCi/g						
Niobium-94	U	0.0139 +/-0.0249	0.0444	1.00	pCi/g						
Niobium-95	U	0.048 +/-0.081	0.128	0.050	pCi/g						
Potassium-40		20.5 +/-2.30	0.544	1.00	pCi/g						
Promethium-144	U	0.00445 +/-0.0277	0.048	0.080	pCi/g						
Promethium-146	U	0.014 +/-0.0344	0.061	1.00	pCi/g						
Radium-226		1.17 +/-0.206	0.0873	1.00	pCi/g						
Radium-228		0.891 +/-0.231	0.196	0.500	pCi/g						

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Client Sample ID: IGLOO 804-SB11; 0.5-2
Sample ID: 86843013

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.232 +/-0.291	0.471	0.800	pCi/g						
Silver-110m	U	0.019 +/-0.0173	0.0515	0.080	pCi/g						
Sodium-22	U	0.00586 +/-0.0352	0.0633	0.080	pCi/g						
Thallium-208		0.310 +/-0.0723	0.0536	0.080	pCi/g						
Thorium-230		1.17 +/-0.206	0.0873	1.00	pCi/g						
Thorium-232		0.904 +/-0.125	0.0782	0.500	pCi/g						
Thorium-234		2.41 +/-1.57	1.83	2.00	pCi/g						
Tin-113	U	-0.0107 +/-0.0427	0.0731	0.100	pCi/g						
Uranium-234		1.37 +/-0.258	0.158	1.00	pCi/g						
Uranium-235	U	0.192 +/-0.166	0.281	0.500	pCi/g						
Uranium-238		2.41 +/-1.57	1.83	1.00	pCi/g						
Yttrium-88	U	-0.00762 +/-0.0267	0.0478	0.100	pCi/g						
Zinc-65	U	0.00556 +/-0.0827	0.129	0.300	pCi/g						
Zirconium-95	U	0.0373 +/-0.0804	0.142	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
I	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 804-SB11; 0.5-2
Sample ID: 86843013

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Client Sample ID: IGLOO 804-SB11; 2-4
Sample ID: 86843014
Matrix: Soil
Collect Date: 12-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.04	+/-0.252	0.161	0.800						
Americium-241	U	0.0981	+/-0.159	0.240	0.200						
Antimony-124	U	0.0227	+/-0.0382	0.0691	0.100						
Antimony-125	U	0.0131	+/-0.0626	0.112	0.200						
Barium-133	U	-0.0299	+/-0.0301	0.0461	0.100						
Barium-140	U	0.739	+/-1.07	1.92	0.500						
Beryllium-7	U	-0.32	+/-0.330	0.542	0.700						
Bismuth-212		0.472	+/-0.338	0.325	0.500						
Bismuth-214		0.666	+/-0.132	0.0799	0.200						
Cerium-139	U	-0.00516	+/-0.0215	0.0361	0.050						
Cerium-141	U	0.0288	+/-0.085	0.133	0.100						
Cerium-144	U	-0.0998	+/-0.140	0.231	0.500						
Cesium-134	U	0.035	+/-0.0614	0.0627	0.100						
Cesium-136	U	0.0943	+/-0.432	0.759	0.300						
Cesium-137	U	-0.00231	+/-0.0263	0.0455	0.100						
Chromium-51	U	0.313	+/-0.537	0.927	0.600						
Cobalt-56	U	0.0235	+/-0.0386	0.0699	0.100						
Cobalt-57	U	0.00699	+/-0.0172	0.0301	0.050						
Cobalt-58	U	0.011	+/-0.0368	0.0656	0.100						
Cobalt-60	U	-0.018	+/-0.0285	0.0477	0.100						
Europium-152	U	-0.0238	+/-0.0622	0.101	0.200						
Europium-154	U	-0.0524	+/-0.114	0.165	0.500						
Europium-155	U	0.0568	+/-0.0742	0.123	0.500						
Iridium-192	U	-0.00646	+/-0.0293	0.0482	0.100						
Iron-59	U	0.0475	+/-0.112	0.207	0.300						
Lead-210	U	1.25	+/-5.19	8.83	4.00						
Lead-212		0.914	+/-0.119	0.0595	0.100						
Lead-214		0.876	+/-0.131	0.0751	0.100						
Manganese-54	U	-0.000549	+/-0.0293	0.0503	0.100						
Mercury-203	U	0.00765	+/-0.0468	0.0707	0.100						
Neodymium-147	U	-1.15	+/-2.72	4.64	1000						
Neptunium-239	U	0.0554	+/-0.117	0.205	2.00						
Niobium-94	U	0.0119	+/-0.0236	0.0423	1.00						
Niobium-95	U	0.102	+/-0.0795	0.116	0.050						
Potassium-40		22.4	+/-2.52	0.423	1.00						
Promethium-144	U	0.0215	+/-0.0245	0.0452	0.080						
Promethium-146	U	0.0104	+/-0.0272	0.0494	1.00						
Radium-226		0.666	+/-0.132	0.0799	1.00						
Radium-228		1.04	+/-0.252	0.161	0.500						

SRB 09/29/03 0925 274785 1

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Client Sample ID: IGLOO 804-SB11; 2-4
Sample ID: 86843014

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0135 +/-0.222	0.390	0.800	pCi/g						
Silver-110m	U	-0.00191 +/-0.0232	0.0405	0.080	pCi/g						
Sodium-22	U	-0.0194 +/-0.0413	0.060	0.080	pCi/g						
Thallium-208		0.308 +/-0.0676	0.0441	0.080	pCi/g						
Thorium-230		0.666 +/-0.132	0.0799	1.00	pCi/g						
Thorium-232		0.871 +/-0.113	0.0567	0.500	pCi/g						
Thorium-234	U	1.11 +/-2.64	1.85	2.00	pCi/g						
Tin-113	U	0.00347 +/-0.0377	0.0625	0.100	pCi/g						
Uranium-234		0.891 +/-0.211	0.144	1.00	pCi/g						
Uranium-235	U	0.170 +/-0.236	0.213	0.500	pCi/g						
Uranium-238	U	1.11 +/-2.64	1.85	1.00	pCi/g						
Yttrium-88	U	0.0161 +/-0.030	0.0611	0.100	pCi/g						
Zinc-65	U	-0.00584 +/-0.0772	0.120	0.300	pCi/g						
Zirconium-95	U	-0.0407 +/-0.123	0.125	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 804-SB11; 2-4
Sample ID: 86843014

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Albert J. Caciola
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Client Sample ID: IGLOO 805-SB12; 0-0.5
Sample ID: 86843015
Matrix: Soil
Collect Date: 06-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.17 +/-0.265	0.175	0.800	pCi/g		SRB	09/29/03	0931	274785	1
Americium-241	U	0.0514 +/-0.112	0.204	0.200	pCi/g						
Antimony-124	U	0.0138 +/-0.0429	0.0752	0.100	pCi/g						
Antimony-125	U	0.0582 +/-0.144	0.119	0.200	pCi/g						
Barium-133	U	-0.0311 +/-0.0356	0.0522	0.100	pCi/g						
Barium-140	U	1.68 +/-1.78	2.78	0.500	pCi/g						
Beryllium-7	U	0.0262 +/-0.405	0.706	0.700	pCi/g						
Bismuth-212		0.728 +/-0.406	0.363	0.500	pCi/g						
Bismuth-214		2.83 +/-0.310	0.0836	0.200	pCi/g						
Cerium-139	U	0.0138 +/-0.0295	0.046	0.050	pCi/g						
Cerium-141	U	0.132 +/-0.119	0.181	0.100	pCi/g						
Cerium-144	U	0.0909 +/-0.158	0.277	0.500	pCi/g						
Cesium-134	U	0.00	+/-0.0486	0.0613	0.100	pCi/g					
Cesium-136	U	-0.266 +/-0.701	1.19	0.300	pCi/g						
Cesium-137	U	0.158 +/-0.0453	0.0458	0.100	pCi/g						
Chromium-51	U	-0.0955 +/-0.701	1.24	0.600	pCi/g						
Cobalt-56	U	0.00053 +/-0.0412	0.0735	0.100	pCi/g						
Cobalt-57	U	0.00861 +/-0.0199	0.0351	0.050	pCi/g						
Cobalt-58	U	-0.0345 +/-0.0442	0.0748	0.100	pCi/g						
Cobalt-60	U	-0.00526 +/-0.0354	0.0604	0.100	pCi/g						
Europium-152	U	0.0481 +/-0.0702	0.128	0.200	pCi/g						
Europium-154	U	-0.0286 +/-0.0981	0.166	0.500	pCi/g						
Europium-155	U	0.104 +/-0.0989	0.129	0.500	pCi/g						
Iridium-192	U	-0.0104 +/-0.0343	0.0603	0.100	pCi/g						
Iron-59	U	-0.0843 +/-0.133	0.221	0.300	pCi/g						
Lead-210	U	5.15 +/-5.41	5.40	4.00	pCi/g						
Lead-212		1.04 +/-0.134	0.0856	0.100	pCi/g						
Lead-214		3.42 +/-0.388	0.0816	0.100	pCi/g						
Manganese-54	U	0.00891 +/-0.0351	0.0555	0.100	pCi/g						
Mercury-203	U	0.0265 +/-0.0609	0.0923	0.100	pCi/g						
Neodymium-147	U	0.161 +/-5.49	8.37	1000	pCi/g						
Neptunium-239	U	0.00918 +/-0.133	0.233	2.00	pCi/g						
Niobium-94	U	0.0201 +/-0.0261	0.0462	1.00	pCi/g						
Niobium-95	U	0.118 +/-0.0958	0.154	0.050	pCi/g						
Potassium-40		20.9 +/-1.77	0.537	1.00	pCi/g						
Promethium-144	U	0.000915 +/-0.0264	0.0451	0.080	pCi/g						
Promethium-146	U	0.0366 +/-0.0318	0.0584	1.00	pCi/g						
Radium-226		2.83 +/-0.310	0.0836	1.00	pCi/g						
Radium-228		1.17 +/-0.265	0.175	0.500	pCi/g						

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Client Sample ID: IGLOO 805-SB12; 0-0.5
Sample ID: 86843015

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.149 +/-0.258	0.457	0.800	pCi/g						
Silver-110m	U	0.00826 +/-0.0329	0.0502	0.080	pCi/g						
Sodium-22	U	-0.0105 +/-0.0358	0.0606	0.080	pCi/g						
Thallium-208		0.309 +/-0.0765	0.0459	0.080	pCi/g						
Thorium-230		2.83 +/-0.310	0.0836	1.00	pCi/g						
Thorium-232		0.988 +/-0.127	0.0811	0.500	pCi/g						
Thorium-234		3.19 +/-1.86	1.63	2.00	pCi/g						
Tin-113	U	-0.0473 +/-0.0426	0.071	0.100	pCi/g						
Uranium-234		3.63 +/-0.479	0.180	1.00	pCi/g						
Uranium-235		0.291 +/-0.255	0.282	0.500	pCi/g						
Uranium-238		3.19 +/-1.86	1.63	1.00	pCi/g						
Yttrium-88	U	0.0358 +/-0.0761	0.0607	0.100	pCi/g						
Zinc-65	U	-0.015 +/-0.0856	0.127	0.300	pCi/g						
Zirconium-95	U	-0.0278 +/-0.0852	0.141	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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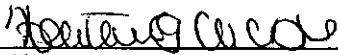
Client Sample ID: IGLOO 805-SB12; 0-0.5
Sample ID: 86843015

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Contact: Katie Kadlubak
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Client Sample ID: IGLOO 805-SB12; 0.5-2
Sample ID: 86843016
Matrix: Soil
Collect Date: 06-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.278 +/-0.146	0.0857	0.800	pCi/g						
Americium-241	U	-0.0137 +/-0.0574	0.107	0.200	pCi/g		SRB	09/29/03	0927	274785	1
Antimony-124	U	0.010 +/-0.0233	0.0434	0.100	pCi/g						
Antimony-125	U	8.380E-05 +/-0.0356	0.0657	0.200	pCi/g						
Barium-133	U	0.0044 +/-0.0192	0.032	0.100	pCi/g						
Barium-140	U	-0.344 +/-0.792	1.38	0.500	pCi/g						
Beryllium-7	U	-0.131 +/-0.202	0.353	0.700	pCi/g						
Bismuth-212	U	0.188 +/-0.189	0.209	0.500	pCi/g						
Bismuth-214		0.522 +/-0.0944	0.0479	0.200	pCi/g						
Cerium-139	U	-0.0222 +/-0.0151	0.0248	0.050	pCi/g						
Cerium-141	U	0.0362 +/-0.0653	0.102	0.100	pCi/g						
Cerium-144	U	0.0462 +/-0.0909	0.168	0.500	pCi/g						
Cesium-134	U	-0.000789 +/-0.0162	0.0289	0.100	pCi/g						
Cesium-136	U	-0.0789 +/-0.308	0.560	0.300	pCi/g						
Cesium-137	U	0.0138 +/-0.0142	0.0281	0.100	pCi/g						
Chromium-51	U	-0.343 +/-0.366	0.645	0.600	pCi/g						
Cobalt-56	U	-0.0257 +/-0.0246	0.039	0.100	pCi/g						
Cobalt-57	U	0.00821 +/-0.0106	0.0199	0.050	pCi/g						
Cobalt-58	U	-0.0127 +/-0.022	0.0371	0.100	pCi/g						
Cobalt-60	U	-0.00923 +/-0.0141	0.0241	0.100	pCi/g						
Europium-152	U	0.0136 +/-0.0364	0.0691	0.200	pCi/g						
Europium-154	U	0.020 +/-0.0392	0.0705	0.500	pCi/g						
Europium-155	U	0.0208 +/-0.0406	0.0762	0.500	pCi/g						
Iridium-192	U	0.0108 +/-0.0179	0.0346	0.100	pCi/g						
Iron-59	U	-0.00142 +/-0.0606	0.112	0.300	pCi/g						
Lead-210		3.11 +/-4.30	2.71	4.00	pCi/g						
Lead-212		0.307 +/-0.059	0.0405	0.100	pCi/g						
Lead-214		0.558 +/-0.0961	0.0489	0.100	pCi/g						
Manganese-54	U	0.000256 +/-0.0161	0.0286	0.100	pCi/g						
Mercury-203	U	0.00794 +/-0.028	0.0531	0.100	pCi/g						
Neodymium-147	U	-1.31 +/-2.44	4.27	1000	pCi/g						
Neptunium-239	U	0.00 +/-0.160	0.138	2.00	pCi/g						
Niobium-94	U	0.000611 +/-0.012	0.0217	1.00	pCi/g						
Niobium-95	U	0.0497 +/-0.0444	0.0779	0.050	pCi/g						
Potassium-40		5.57 +/-0.742	0.180	1.00	pCi/g						
Promethium-144	U	0.00653 +/-0.0155	0.0263	0.080	pCi/g						
Promethium-146	U	-0.00248 +/-0.0159	0.029	1.00	pCi/g						
Radium-226		0.522 +/-0.0944	0.0479	1.00	pCi/g						
Radium-228		0.278 +/-0.146	0.0857	0.500	pCi/g						

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Client Sample ID: IGLOO 805-SB12; 0.5-2
Sample ID: 86843016

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0707 +/-0.135	0.232	0.800	pCi/g						
Silver-110m	U	-0.0128 +/-0.0147	0.0244	0.080	pCi/g						
Sodium-22	U	0.00719 +/-0.0143	0.0257	0.080	pCi/g						
Thallium-208		0.101 +/-0.0342	0.0249	0.080	pCi/g						
Thorium-230		0.522 +/-0.0944	0.0479	1.00	pCi/g						
Thorium-232		0.290 +/-0.0559	0.0384	0.500	pCi/g						
Thorium-234		1.54 +/-1.20	0.858	2.00	pCi/g						
Tin-113	U	-0.00804 +/-0.0212	0.0383	0.100	pCi/g						
Uranium-234		0.592 +/-0.140	0.0995	1.00	pCi/g						
Uranium-235	U	0.074 +/-0.128	0.155	0.500	pCi/g						
Uranium-238		1.54 +/-1.20	0.858	1.00	pCi/g						
Yttrium-88	U	0.000377 +/-0.0153	0.0297	0.100	pCi/g						
Zinc-65	U	-0.0761 +/-0.0458	0.071	0.300	pCi/g						
Zirconium-95	U	0.0388 +/-0.0422	0.0772	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- > Result is greater than amount reported.
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 805-SB12; 0.5-2
Sample ID: 86843016

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

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Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 805-SB13; 0-0.5
Sample ID: 86843017
Matrix: Soil
Collect Date: 06-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.01 +/-0.290	0.180	0.800	pCi/g		SRB	09/29/03	1044	274785	1
Americium-241	U	0.00379 +/-0.037	0.0644	0.200	pCi/g						
Antimony-124	U	-0.0349 +/-0.0468	0.0789	0.100	pCi/g						
Antimony-125	U	-0.0337 +/-0.0785	0.130	0.200	pCi/g						
Barium-133	U	-0.0211 +/-0.0344	0.0495	0.100	pCi/g						
Barium-140	U	3.41 +/-3.24	3.50	0.500	pCi/g						
Beryllium-7	U	0.00618 +/-0.395	0.730	0.700	pCi/g						
Bismuth-212		0.929 +/-0.440	0.441	0.500	pCi/g						
Bismuth-214		0.947 +/-0.183	0.0975	0.200	pCi/g						
Cerium-139	U	-0.0132 +/-0.0229	0.0402	0.050	pCi/g						
Cerium-141	U	0.0302 +/-0.114	0.168	0.100	pCi/g						
Cerium-144	U	-0.137 +/-0.147	0.253	0.500	pCi/g						
Cesium-134	U	0.0784 +/-0.0637	0.0802	0.100	pCi/g						
Cesium-136	U	-0.646 +/-0.718	1.20	0.300	pCi/g						
Cesium-137		0.0902 +/-0.0569	0.0541	0.100	pCi/g						
Chromium-51	U	-0.378 +/-0.694	1.16	0.600	pCi/g						
Cobalt-56	U	0.00342 +/-0.0541	0.0851	0.100	pCi/g						
Cobalt-57	U	0.00602 +/-0.0172	0.0322	0.050	pCi/g						
Cobalt-58	U	-0.0472 +/-0.0501	0.0795	0.100	pCi/g						
Cobalt-60	U	0.0238 +/-0.0504	0.0652	0.100	pCi/g						
Europium-152	U	2.580E-05 +/-0.0712	0.124	0.200	pCi/g						
Europium-154	U	0.071 +/-0.0979	0.195	0.500	pCi/g						
Europium-155	U	0.0195 +/-0.0666	0.114	0.500	pCi/g						
Iridium-192	U	0.00915 +/-0.0354	0.0634	0.100	pCi/g						
Iron-59	U	-0.109 +/-0.154	0.262	0.300	pCi/g						
Lead-210		0.898 +/-0.572	0.582	4.00	pCi/g						
Lead-212		0.926 +/-0.165	0.0672	0.100	pCi/g						
Lead-214		0.952 +/-0.180	0.0903	0.100	pCi/g						
Manganese-54	U	0.0208 +/-0.0367	0.0683	0.100	pCi/g						
Mercury-203	U	0.0713 +/-0.0891	0.0828	0.100	pCi/g						
Neodymium-147	U	0.687 +/-5.13	9.51	1000	pCi/g						
Neptunium-239	U	-0.0141 +/-0.113	0.208	2.00	pCi/g						
Niobium-94	U	-0.0105 +/-0.029	0.0501	1.00	pCi/g						
Niobium-95	U	0.0895 +/-0.103	0.177	0.050	pCi/g						
Potassium-40		19.6 +/-2.30	0.558	1.00	pCi/g						
Promethium-144	U	-0.0384 +/-0.0306	0.0474	0.080	pCi/g						
Promethium-146	U	-0.00389 +/-0.0346	0.0632	1.00	pCi/g						
Radium-226		0.947 +/-0.183	0.0975	1.00	pCi/g						
Radium-228		1.01 +/-0.290	0.180	0.500	pCi/g						

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Client Sample ID: IGLOO 805-SB13; 0-0.5
Sample ID: 86843017

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0462	+/-0.288	0.528	0.800						pCi/g
Silver-110m	U	0.00456	+/-0.0364	0.0586	0.080						pCi/g
Sodium-22	U	0.0261	+/-0.0357	0.0715	0.080						pCi/g
Thallium-208		0.253	+/-0.0692	0.0518	0.080						pCi/g
Thorium-230		0.947	+/-0.183	0.0975	1.00						pCi/g
Thorium-232		0.877	+/-0.156	0.0637	0.500						pCi/g
Thorium-234		1.19	+/-0.651	0.649	2.00						pCi/g
Tin-113	U	-0.0211	+/-0.0451	0.0748	0.100						pCi/g
Uranium-234		1.16	+/-0.262	0.153	1.00						pCi/g
Uranium-235	U	0.0543	+/-0.204	0.260	0.500						pCi/g
Uranium-238		1.19	+/-0.651	0.649	1.00						pCi/g
Yttrium-88	U	-0.0109	+/-0.0349	0.0557	0.100						pCi/g
Zinc-65	U	-0.101	+/-0.102	0.168	0.300						pCi/g
Zirconium-95	U	0.0336	+/-0.0879	0.164	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 805-SB13; 0-0.5
Sample ID: 86843017

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

Hester D. O'Connell

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Client Sample ID: IGLOO 805-SB14; 0-4 in
Sample ID: 86843018
Matrix: Soil
Collect Date: 21-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
GammaSpec, Gamma, Solid w/Ra226											
Actinium-228	U	0.00	+/-0.239	0.303	0.800		SRB	09/29/03	1043	274785	1
Americium-241	U	0.184	+/-0.254	0.432	0.200						
Antimony-124	U	-0.0329	+/-0.0486	0.0855	0.100						
Antimony-125	U	-0.00883	+/-0.112	0.195	0.200						
Barium-133	U	-0.0347	+/-0.0534	0.0804	0.100						
Barium-140	U	1.64	+/-1.99	1.85	0.500						
Beryllium-7	U	-0.537	+/-0.571	0.810	0.700						
Bismuth-212	U	0.098	+/-0.285	0.527	0.500						
Bismuth-214	U	9.54	+/-0.917	0.121	0.200						
Cerium-139	U	-0.0114	+/-0.0406	0.0748	0.050						
Cerium-141	U	0.174	+/-0.159	0.224	0.100						
Cerium-144	U	0.321	+/-0.437	0.458	0.500						
Cesium-134	U	0.0268	+/-0.0403	0.0756	0.100						
Cesium-136	U	0.0834	+/-0.377	0.677	0.300						
Cesium-137	U	0.0469	+/-0.0586	0.0613	0.100						
Chromium-51	U	-0.674	+/-0.727	1.24	0.600						
Cobalt-56	U	0.0108	+/-0.0507	0.0917	0.100						
Cobalt-57	U	0.00426	+/-0.0302	0.0575	0.050						
Cobalt-58	U	-0.0126	+/-0.0526	0.081	0.100						
Cobalt-60	U	-0.0144	+/-0.0405	0.0718	0.100						
Europium-152	U	0.00481	+/-0.109	0.193	0.200						
Europium-154	U	-0.075	+/-0.116	0.200	0.500						
Europium-155	U	0.0199	+/-0.116	0.223	0.500						
Iridium-192	U	0.0615	+/-0.0485	0.0906	0.100						
Iron-59	U	-0.0173	+/-0.124	0.215	0.300						
Lead-210	U	18.0	+/-16.2	15.4	4.00						
Lead-212	U	0.309	+/-0.119	0.114	0.100						
Lead-214	U	11.6	+/-1.12	0.135	0.100						
Manganese-54	U	-0.000502	+/-0.0402	0.0716	0.100						
Mercury-203	U	-0.0257	+/-0.0645	0.114	0.100						
Neodymium-147	U	2.15	+/-5.05	3.88	1000						
Neptunium-239	U	-0.16	+/-0.212	0.396	2.00						
Niobium-94	U	0.057	+/-0.0332	0.0654	1.00						
Niobium-95	U	0.00	+/-0.0812	0.148	0.050						
Potassium-40	U	5.93	+/-1.05	0.734	1.00						
Promethium-144	U	0.0105	+/-0.0317	0.0589	0.080						
Promethium-146	U	0.037	+/-0.0662	0.0865	1.00						
Radium-226	U	9.54	+/-0.917	0.121	1.00						
Radium-228	U	0.00	+/-0.239	0.303	0.500						

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Client Sample ID: IGLOO 805-SB14; 0-4 in
Sample ID: 86843018

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.183 +/-0.291	0.511	0.800	pCi/g						
Silver-110m	U	0.00686 +/-0.0366	0.0601	0.080	pCi/g						
Sodium-22	U	-0.0272 +/-0.0418	0.0724	0.080	pCi/g						
Thallium-208		0.115 +/-0.0634	0.0593	0.080	pCi/g						
Thorium-230		9.54 +/-0.917	0.121	1.00	pCi/g						
Thorium-232		0.297 +/-0.114	0.109	0.500	pCi/g						
Thorium-234		11.4 +/-3.91	3.19	2.00	pCi/g						
Tin-113	U	-0.0231 +/-0.0594	0.102	0.100	pCi/g						
Uranium-234		11.4 +/-1.20	0.274	1.00	pCi/g						
Uranium-235		0.601 +/-0.534	0.494	0.500	pCi/g						
Uranium-238		11.4 +/-3.91	3.19	1.00	pCi/g						
Yttrium-88	U	-0.0103 +/-0.0413	0.0733	0.100	pCi/g						
Zinc-65	U	0.00105 +/-0.110	0.168	0.300	pCi/g						
Zirconium-95	U	0.031 +/-0.0826	0.154	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1548	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 805-SB14; 0-4 in
Sample ID: 86843018

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Heather D. Cline

Reviewed by

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Client Sample ID: IGLOO 805-SB14; 4-6in
Sample ID: 86843019
Matrix: Soil
Collect Date: 11-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
GammaSpec, Gamma, Solid w/Ra226											
Actinium-228		0.865 +/-0.312	0.290	0.800	pCi/g		SRB	09/29/03	1043	274785	1
Americium-241	U	-0.0306 +/-0.0506	0.0851	0.200	pCi/g						
Antimony-124	U	-0.0193 +/-0.066	0.103	0.100	pCi/g						
Antimony-125	U	-0.0174 +/-0.0978	0.169	0.200	pCi/g						
Barium-133	U	0.0225 +/-0.0437	0.0802	0.100	pCi/g						
Barium-140	U	1.17 +/-1.46	2.78	0.500	pCi/g						
Beryllium-7	U	-0.243 +/-0.517	0.856	0.700	pCi/g						
Bismuth-212	U	0.554 +/-0.521	0.589	0.500	pCi/g						
Bismuth-214		0.830 +/-0.192	0.133	0.200	pCi/g						
Cerium-139	U	-0.0199 +/-0.0324	0.051	0.050	pCi/g						
Cerium-141	U	0.0245 +/-0.137	0.191	0.100	pCi/g						
Cerium-144	U	-0.0352 +/-0.196	0.323	0.500	pCi/g						
Cesium-134	U	0.0375 +/-0.0491	0.0961	0.100	pCi/g						
Cesium-136	U	-0.00823 +/-0.851	1.51	0.300	pCi/g						
Cesium-137	U	-0.0146 +/-0.0452	0.080	0.100	pCi/g						
Chromium-51	U	0.0107 +/-0.838	1.49	0.600	pCi/g						
Cobalt-56	U	-0.00499 +/-0.0625	0.112	0.100	pCi/g						
Cobalt-57	U	-0.00624 +/-0.0223	0.0368	0.050	pCi/g						
Cobalt-58	U	-0.0516 +/-0.0679	0.112	0.100	pCi/g						
Cobalt-60	U	0.0185 +/-0.0463	0.0926	0.100	pCi/g						
Europium-152	U	0.0849 +/-0.102	0.152	0.200	pCi/g						
Europium-154	U	-0.0246 +/-0.145	0.265	0.500	pCi/g						
Europium-155	U	-0.00874 +/-0.0839	0.142	0.500	pCi/g						
Iridium-192	U	0.0253 +/-0.0427	0.0799	0.100	pCi/g						
Iron-59	U	0.113 +/-0.202	0.381	0.300	pCi/g						
Lead-210		1.29 +/-1.01	0.719	4.00	pCi/g						
Lead-212		0.840 +/-0.143	0.0881	0.100	pCi/g						
Lead-214		0.661 +/-0.172	0.135	0.100	pCi/g						
Manganese-54	U	0.00411 +/-0.0488	0.0888	0.100	pCi/g						
Mercury-203	U	0.016 +/-0.0645	0.117	0.100	pCi/g						
Neodymium-147	U	1.97 +/-4.93	9.02	1000	pCi/g						
Neptunium-239	U	0.0236 +/-0.153	0.262	2.00	pCi/g						
Niobium-94	U	-0.0172 +/-0.0355	0.0617	1.00	pCi/g						
Niobium-95	U	0.0964 +/-0.109	0.214	0.050	pCi/g						
Potassium-40		16.3 +/-2.20	0.511	1.00	pCi/g						
Promethium-144	U	0.0165 +/-0.0399	0.0761	0.080	pCi/g						
Promethium-146	U	0.00467 +/-0.0442	0.0785	1.00	pCi/g						
Radium-226		0.830 +/-0.192	0.133	1.00	pCi/g						
Radium-228		0.865 +/-0.312	0.290	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 805-SB14; 4-6in
Sample ID: 86843019

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.295	+/-0.361	0.715	0.800						pCi/g
Silver-110m	U	0.00671	+/-0.0448	0.0831	0.080						pCi/g
Sodium-22	U	-0.00928	+/-0.0527	0.0965	0.080						pCi/g
Thallium-208		0.266	+/-0.0926	0.0726	0.080						pCi/g
Thorium-230		0.829	+/-0.192	0.133	1.00						pCi/g
Thorium-232		0.800	+/-0.136	0.0838	0.500						pCi/g
Thorium-234		1.40	+/-1.01	0.901	2.00						pCi/g
Tin-113	U	-0.0283	+/-0.0502	0.0836	0.100						pCi/g
Uranium-234		0.799	+/-0.252	0.198	1.00						pCi/g
Uranium-235	U	0.0455	+/-0.254	0.335	0.500						pCi/g
Uranium-238		1.40	+/-1.01	0.901	1.00						pCi/g
Yttrium-88	U	-0.00843	+/-0.0384	0.0753	0.100						pCi/g
Zinc-65	U	0.111	+/-0.111	0.209	0.300						pCi/g
Zirconium-95	U	0.0974	+/-0.123	0.240	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1549	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 805-SB14; 4-6in
Sample ID: 86843019

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Report Date: September 29, 2003

Contact: Katie Kadlubak

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Project: SEAD-48 Final Status Survey

Client Sample ID: IGLOO 805-SB15; 0-0.5
Sample ID: 86843020
Matrix: Soil
Collect Date: 10-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.46 +/-0.406	0.314	0.800	pCi/g		SRB	09/29/03	1038	274785	1
Americium-241	U	0.00589 +/-0.109	0.178	0.200	pCi/g						
Antimony-124	U	0.00603 +/-0.0824	0.129	0.100	pCi/g						
Antimony-125	U	0.0427 +/-0.116	0.214	0.200	pCi/g						
Barium-133	U	0.00653 +/-0.0557	0.0901	0.100	pCi/g						
Barium-140	U	-0.933 +/-2.16	3.69	0.500	pCi/g						
Beryllium-7	U	-0.249 +/-0.617	1.08	0.700	pCi/g						
Bismuth-212		1.00 +/-0.742	0.598	0.500	pCi/g						
Bismuth-214		1.53 +/-0.280	0.158	0.200	pCi/g						
Cerium-139	U	-0.0499 +/-0.0441	0.0723	0.050	pCi/g						
Cerium-141	U	0.0725 +/-0.173	0.276	0.100	pCi/g						
Cerium-144	U	0.0637 +/-0.260	0.464	0.500	pCi/g						
Cesium-134	U	0.00 +/-0.0652	0.0808	0.100	pCi/g						
Cesium-136	U	0.663 +/-0.961	1.69	0.300	pCi/g						
Cesium-137	U	0.00 +/-0.0634	0.128	0.100	pCi/g						
Chromium-51	U	0.795 +/-1.03	1.95	0.600	pCi/g						
Cobalt-56	U	0.0385 +/-0.0654	0.128	0.100	pCi/g						
Cobalt-57	U	-0.0095 +/-0.0311	0.0543	0.050	pCi/g						
Cobalt-58	U	-0.0251 +/-0.0665	0.120	0.100	pCi/g						
Cobalt-60	U	0.00 +/-0.142	0.0866	0.100	pCi/g						
Europium-152	U	-0.0628 +/-0.107	0.188	0.200	pCi/g						
Europium-154	U	-0.0291 +/-0.150	0.267	0.500	pCi/g						
Europium-155	U	0.0617 +/-0.119	0.216	0.500	pCi/g						
Iridium-192	U	-0.00302 +/-0.0539	0.0983	0.100	pCi/g						
Iron-59	U	-0.112 +/-0.200	0.343	0.300	pCi/g						
Lead-210		2.25 +/-1.99	1.91	4.00	pCi/g						
Lead-212		1.12 +/-0.186	0.120	0.100	pCi/g						
Lead-214		1.77 +/-0.286	0.144	0.100	pCi/g						
Manganese-54	U	0.00888 +/-0.0466	0.0883	0.100	pCi/g						
Mercury-203	U	0.00 +/-0.129	0.134	0.100	pCi/g						
Neodymium-147	U	1.95 +/-6.01	11.1	1000	pCi/g						
Neptunium-239	U	-0.0662 +/-0.218	0.382	2.00	pCi/g						
Niobium-94	U	-0.00186 +/-0.0424	0.0746	1.00	pCi/g						
Niobium-95	U	0.0056 +/-0.141	0.228	0.050	pCi/g						
Potassium-40		19.4 +/-2.42	0.976	1.00	pCi/g						
Promethium-144	U	-0.00605 +/-0.047	0.082	0.080	pCi/g						
Promethium-146	U	0.0105 +/-0.0555	0.101	1.00	pCi/g						
Radium-226		1.53 +/-0.280	0.158	1.00	pCi/g						
Radium-228		1.46 +/-0.406	0.314	0.500	pCi/g						

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Client Sample ID: IGLOO 805-SB15; 0-0.5
Sample ID: 86843020

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.139 +/-0.401	0.740	0.800	pCi/g						
Silver-110m	U	-0.213 +/-0.0642	0.070	0.080	pCi/g						
Sodium-22	U	-0.011 +/-0.0545	0.097	0.080	pCi/g						
Thallium-208		0.305 +/-0.0943	0.0777	0.080	pCi/g						
Thorium-230		1.53 +/-0.280	0.158	1.00	pCi/g						
Thorium-232		1.06 +/-0.177	0.114	0.500	pCi/g						
Thorium-234		3.61 +/-1.96	1.60	2.00	pCi/g						
Tin-113	U	-0.0105 +/-0.0645	0.116	0.100	pCi/g						
Uranium-234		1.86 +/-0.408	0.278	1.00	pCi/g						
Uranium-235	U	0.388 +/-0.384	0.416	0.500	pCi/g						
Uranium-238		3.61 +/-1.96	1.60	1.00	pCi/g						
Yttrium-88	U	0.0169 +/-0.047	0.102	0.100	pCi/g						
Zinc-65	U	0.0393 +/-0.115	0.195	0.300	pCi/g						
Zirconium-95	U	0.0256 +/-0.132	0.249	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MJM1	08/27/03	1549	273471

The following Analytical Methods were performed

Method	Description	Analyst Comments
I	EML HASL 300, 4.5.2.3	

Notes:

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- > Result is greater than amount reported.
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 805-SB15: 0-0.5
Sample ID: 86843020

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Client Sample ID: IGLOO 805-SB15-1; 0.5-2
Sample ID: 86843021
Matrix: Soil
Collect Date: 10-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.783 +/-0.181	0.138	0.800	pCi/g						
Americium-241	U	0.00851 +/-0.0729	0.137	0.200	pCi/g						
Antimony-124	U	0.0129 +/-0.0271	0.0506	0.100	pCi/g						
Antimony-125	U	-0.0178 +/-0.048	0.0801	0.200	pCi/g						
Barium-133	U	0.00256 +/-0.0232	0.0362	0.100	pCi/g						
Barium-140	U	-0.268 +/-0.766	1.36	0.500	pCi/g						
Beryllium-7	U	-0.104 +/-0.242	0.431	0.700	pCi/g						
Bismuth-212		0.566 +/-0.248	0.259	0.500	pCi/g						
Bismuth-214		0.768 +/-0.125	0.0594	0.200	pCi/g						
Cerium-139	U	0.00789 +/-0.0167	0.0305	0.050	pCi/g						
Cerium-141	U	-0.0214 +/-0.0634	0.113	0.100	pCi/g						
Cerium-144	U	-0.0124 +/-0.108	0.193	0.500	pCi/g						
Cesium-134	U	0.0216 +/-0.0448	0.0463	0.100	pCi/g						
Cesium-136	U	0.0388 +/-0.364	0.643	0.300	pCi/g						
Cesium-137	U	0.0188 +/-0.0197	0.0349	0.100	pCi/g						
Chromium-51	U	0.000838 +/-0.403	0.703	0.600	pCi/g						
Cobalt-56	U	0.00513 +/-0.0279	0.0505	0.100	pCi/g						
Cobalt-57	U	-0.00566 +/-0.0128	0.0229	0.050	pCi/g						
Cobalt-58	U	-0.0194 +/-0.0279	0.0468	0.100	pCi/g						
Cobalt-60	U	-0.00261 +/-0.0203	0.0372	0.100	pCi/g						
Europium-152	U	0.00177 +/-0.0504	0.0874	0.200	pCi/g						
Europium-154	U	-0.0367 +/-0.059	0.102	0.500	pCi/g						
Europium-155	U	0.0468 +/-0.0512	0.0964	0.500	pCi/g						
Iridium-192	U	0.00458 +/-0.0229	0.0403	0.100	pCi/g						
Iron-59	U	0.022 +/-0.0834	0.150	0.300	pCi/g						
Lead-210	U	0.337 +/-2.00	3.46	4.00	pCi/g						
Lead-212		0.778 +/-0.104	0.0553	0.100	pCi/g						
Lead-214		1.00 +/-0.150	0.0573	0.100	pCi/g						
Manganese-54	U	0.0274 +/-0.0213	0.0412	0.100	pCi/g						
Mercury-203	U	-0.0307 +/-0.0349	0.058	0.100	pCi/g						
Neodymium-147	U	-0.554 +/-2.20	3.95	1000	pCi/g						
Neptunium-239	U	0.0464 +/-0.0919	0.170	2.00	pCi/g						
Niobium-94	U	0.00375 +/-0.0176	0.032	1.00	pCi/g						
Niobium-95	U	0.0321 +/-0.0539	0.0896	0.050	pCi/g						
Potassium-40		16.6 +/-1.86	0.335	1.00	pCi/g						
Promethium-144	U	-0.0145 +/-0.0199	0.0336	0.080	pCi/g						
Promethium-146	U	0.00399 +/-0.0218	0.0404	1.00	pCi/g						
Radium-226		0.768 +/-0.125	0.0594	1.00	pCi/g						
Radium-228		0.783 +/-0.181	0.138	0.500	pCi/g						

SRB 09/27/03 1004 274784 1

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Client Sample ID: IGLOO 805-SB15-1: 0.5-2
Sample ID: 86843021

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0112 +/-0.174	0.314	0.800	pCi/g						
Silver-110m	U	-0.0125 +/-0.0189	0.0323	0.080	pCi/g						
Sodium-22	U	-0.0134 +/-0.0214	0.0372	0.080	pCi/g						
Thallium-208		0.205 +/-0.0494	0.0335	0.080	pCi/g						
Thorium-230		0.767 +/-0.125	0.0594	1.00	pCi/g						
Thorium-232	J	0.742 +/-0.0988	0.0527	0.500	pCi/g						
Thorium-234	J	1.64 +/-1.32	1.12	2.00	pCi/g						
Tin-113	U	0.00502 +/-0.0292	0.0455	0.100	pCi/g						
Uranium-234		0.999 +/-0.198	0.113	1.00	pCi/g						
Uranium-235	U	0.077 +/-0.102	0.187	0.500	pCi/g						
Uranium-238	J	1.64 +/-1.32	1.12	1.00	pCi/g						
Yttrium-88	U	0.0224 +/-0.0206	0.0465	0.100	pCi/g						
Zinc-65	U	0.0492 +/-0.0575	0.0971	0.300	pCi/g						
Zirconium-95	U	-0.0277 +/-0.0534	0.0916	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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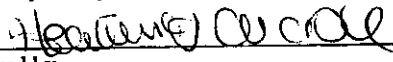
Client Sample ID: IGLOO 805-SB15-1; 0.5-2
Sample ID: 86843021

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 805-SB15-2; 0.5-2
Sample ID: 86843022
Matrix: Soil
Collect Date: 10-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.781 +/-0.183	0.138	0.800	pCi/g		SRB	09/27/03	1004	274784	1
Americium-241	U	0.0178 +/-0.221	0.282	0.200	pCi/g						
Antimony-124	U	0.00262 +/-0.0332	0.0609	0.100	pCi/g						
Antimony-125	U	-0.0328 +/-0.0574	0.0978	0.200	pCi/g						
Barium-133	U	0.0156 +/-0.0298	0.0482	0.100	pCi/g						
Barium-140	U	0.0344 +/-0.916	1.69	0.500	pCi/g						
Beryllium-7	U	-0.0201 +/-0.307	0.536	0.700	pCi/g						
Bismuth-212		0.400 +/-0.370	0.310	0.500	pCi/g						
Bismuth-214		1.00 +/-0.137	0.0716	0.200	pCi/g						
Cerium-139	U	0.0162 +/-0.0277	0.0461	0.050	pCi/g						
Cerium-141	U	0.0093 +/-0.0866	0.161	0.100	pCi/g						
Cerium-144	U	0.0145 +/-0.154	0.287	0.500	pCi/g						
Cesium-134	U	0.00 +/-0.0424	0.0556	0.100	pCi/g						
Cesium-136	U	-0.164 +/-0.374	0.639	0.300	pCi/g						
Cesium-137	U	0.00367 +/-0.0231	0.0424	0.100	pCi/g						
Chromium-51	U	-0.458 +/-0.558	0.958	0.600	pCi/g						
Cobalt-56	U	0.0031 +/-0.0314	0.0569	0.100	pCi/g						
Cobalt-57	U	-0.0137 +/-0.0192	0.0351	0.050	pCi/g						
Cobalt-58	U	-0.0237 +/-0.0322	0.0548	0.100	pCi/g						
Cobalt-60	U	-0.01 +/-0.0245	0.0434	0.100	pCi/g						
Europium-152	U	0.00854 +/-0.0619	0.111	0.200	pCi/g						
Europium-154	U	0.00611 +/-0.0787	0.138	0.500	pCi/g						
Europium-155	U	-0.00074 +/-0.0779	0.147	0.500	pCi/g						
Iridium-192	U	0.0157 +/-0.0315	0.0533	0.100	pCi/g						
Iron-59	U	-0.0143 +/-0.097	0.169	0.300	pCi/g						
Lead-210	U	2.98 +/-7.42	12.4	4.00	pCi/g						
Lead-212		1.10 +/-0.121	0.0701	0.100	pCi/g						
Lead-214		1.32 +/-0.169	0.0764	0.100	pCi/g						
Manganese-54	U	-0.000403 +/-0.0235	0.0422	0.100	pCi/g						
Mercury-203	U	0.078 +/-0.0458	0.0873	0.100	pCi/g						
Neodymium-147	U	-1.69 +/-2.52	4.45	1000	pCi/g						
Neptunium-239	U	0.0535 +/-0.135	0.255	2.00	pCi/g						
Niobium-94	U	-0.00641 +/-0.0198	0.0352	1.00	pCi/g						
Niobium-95	U	0.108 +/-0.0648	0.115	0.050	pCi/g						
Potassium-40		18.8 +/-1.49	0.354	1.00	pCi/g						
Promethium-144	U	0.00887 +/-0.0219	0.0406	0.080	pCi/g						
Promethium-146	U	0.000262 +/-0.0265	0.0466	1.00	pCi/g						
Radium-226		1.00 +/-0.137	0.0716	1.00	pCi/g						
Radium-228		0.781 +/-0.183	0.138	0.500	pCi/g						

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Boston, Massachusetts 02110
Contact: Kaie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 2 of 3

Client Sample ID: IGLOO 805-SB15-2; 0.5-2
Sample ID: 86843022

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0208 +/-0.196	0.357	0.800	pCi/g						
Silver-110m	U	-0.00782 +/-0.0214	0.0381	0.080	pCi/g						
Sodium-22	U	0.00213 +/-0.0286	0.0504	0.080	pCi/g						
Thallium-208		0.303 +/-0.0494	0.0421	0.080	pCi/g						
Thorium-230		1.00 +/-0.137	0.0716	1.00	pCi/g						
Thorium-232		1.04 +/-0.116	0.0668	0.500	pCi/g						
Thorium-234	J	3.48 +/-2.93	2.25	2.00	pCi/g						
Tin-113	U	-0.0102 +/-0.0335	0.0584	0.100	pCi/g						
Uranium-234		1.28 +/-0.230	0.157	1.00	pCi/g						
Uranium-235	U	0.197 +/-0.148	0.277	0.500	pCi/g						
Uranium-238	J	3.48 +/-2.93	2.25	1.00	pCi/g						
Yttrium-88	U	0.00198 +/-0.0245	0.0464	0.100	pCi/g						
Zinc-65	U	-0.144 +/-0.0719	0.106	0.300	pCi/g						
Zirconium-95	U	0.0405 +/-0.0616	0.116	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 805-SB15-2; 0.5-2
Sample ID: 86843022

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Katherine J. Arnesen
Reviewed by

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Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 806-SB16; 0-0.5
Sample ID: 86843023
Matrix: Soil
Collect Date: 06-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.601 +/-0.135	0.0925	0.800	pCi/g		SRB	09/27/03	1005	274784	1
Americium-241	U	-0.0116 +/-0.0694	0.121	0.200	pCi/g						
Antimony-124	U	-0.0162 +/-0.041	0.0416	0.100	pCi/g						
Antimony-125	U	0.00869 +/-0.0374	0.0689	0.200	pCi/g						
Barium-133	U	-0.0056 +/-0.0199	0.0314	0.100	pCi/g						
Barium-140	U	0.154 +/-0.753	1.43	0.500	pCi/g						
Beryllium-7	U	0.0497 +/-0.215	0.392	0.700	pCi/g						
Bismuth-212		0.362 +/-0.214	0.230	0.500	pCi/g						
Bismuth-214		0.744 +/-0.106	0.0515	0.200	pCi/g						
Cerium-139	U	0.00669 +/-0.0157	0.0288	0.050	pCi/g						
Cerium-141	U	0.0588 +/-0.0992	0.109	0.100	pCi/g						
Cerium-144	U	-0.00517 +/-0.0963	0.177	0.500	pCi/g						
Cesium-134	UV J	0.00 +/-0.0337	0.0386	0.100	pCi/g						
Cesium-136	U	0.200 +/-0.336	0.622	0.300	pCi/g						
Cesium-137		0.039 +/-0.0199	0.0298	0.100	pCi/g						
Chromium-51	U	-0.0146 +/-0.393	0.727	0.600	pCi/g						
Cobalt-56	U	0.00757 +/-0.022	0.041	0.100	pCi/g						
Cobalt-57	U	-0.00344 +/-0.0127	0.0233	0.050	pCi/g						
Cobalt-58	U	0.00145 +/-0.026	0.0412	0.100	pCi/g						
Cobalt-60	U	0.00858 +/-0.0166	0.0318	0.100	pCi/g						
Europium-152	U	-0.00531 +/-0.0391	0.0716	0.200	pCi/g						
Europium-154	U	0.0263 +/-0.0499	0.0948	0.500	pCi/g						
Europium-155	U	0.0587 +/-0.0452	0.0882	0.500	pCi/g						
Iridium-192	U	0.00359 +/-0.0204	0.0381	0.100	pCi/g						
Iron-59	U	-0.0525 +/-0.062	0.107	0.300	pCi/g						
Lead-210	U	0.693 +/-1.60	2.92	4.00	pCi/g						
Lead-212		0.756 +/-0.0809	0.0429	0.100	pCi/g						
Lead-214		0.885 +/-0.115	0.052	0.100	pCi/g						
Manganese-54	U	0.00783 +/-0.0179	0.0332	0.100	pCi/g						
Mercury-203	UV J	0.00 +/-0.0622	0.0537	0.100	pCi/g						
Neodymium-147	U	-0.579 +/-2.48	4.35	1000	pCi/g						
Neptunium-239	U	-0.0838 +/-0.0833	0.150	2.00	pCi/g						
Niobium-94	U	0.0139 +/-0.0142	0.0274	1.00	pCi/g						
Niobium-95	U	0.0499 +/-0.0729	0.0701	0.050	pCi/g						
Potassium-40		12.9 +/-1.12	0.211	1.00	pCi/g						
Promethium-144	U	-0.00515 +/-0.0153	0.0275	0.080	pCi/g						
Promethium-146	U	-0.00158 +/-0.0181	0.0325	1.00	pCi/g						
Radium-226		0.744 +/-0.106	0.0515	1.00	pCi/g						
Radium-228		0.601 +/-0.135	0.0925	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 806-SB16; 0-0.5
Sample ID: 86843023

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0359	+/-0.144	0.271	0.800						pCi/g
Silver-110m	U	-0.000745	+/-0.0182	0.0291	0.080						pCi/g
Sodium-22	U	0.00942	+/-0.0182	0.0345	0.080						pCi/g
Thallium-208		0.211	+/-0.044	0.028	0.080						pCi/g
Thorium-230		0.744	+/-0.106	0.0515	1.00						pCi/g
Thorium-232		0.718	+/-0.0768	0.0407	0.500						pCi/g
Thorium-234		1.99	+/-1.41	0.966	2.00						pCi/g
Tin-113	U	-0.00132	+/-0.0228	0.0415	0.100						pCi/g
Uranium-234		0.936	+/-0.172	0.110	1.00						pCi/g
Uranium-235	U	0.125	+/-0.207	0.178	0.500						pCi/g
Uranium-238		1.99	+/-1.41	0.966	1.00						pCi/g
Yttrium-88	U	0.0116	+/-0.0187	0.0382	0.100						pCi/g
Zinc-65	U	0.0364	+/-0.0478	0.0811	0.300						pCi/g
Zirconium-95	U	-0.00399	+/-0.0443	0.0803	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 806-SB16; 0-0.5
Sample ID: 86843023

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by



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Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 806-SB17; 0-0.5
Sample ID: 86843024
Matrix: Soil
Collect Date: 06-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.780	+/-0.177	0.128	0.800						
Americium-241	U	-0.0584	+/-0.0985	0.167	0.200						
Antimony-124	U	-0.0215	+/-0.0275	0.0472	0.100						
Antimony-125	U	0.0218	+/-0.0505	0.0893	0.200						
Barium-133	U	-4.140E-05	+/-0.0236	0.0367	0.100						
Barium-140	U	-0.864	+/-0.943	1.54	0.500						
Beryllium-7	U	-0.0996	+/-0.278	0.464	0.700						
Bismuth-212		0.696	+/-0.249	0.288	0.500						
Bismuth-214		0.845	+/-0.129	0.0572	0.200						
Cerium-139	U	-0.00646	+/-0.0175	0.0313	0.050						
Cerium-141	U	0.0332	+/-0.107	0.121	0.100						
Cerium-144	U	-0.0502	+/-0.109	0.196	0.500						
Cesium-134		0.0596	+/-0.0356	0.0467	0.100						
Cesium-136	U	0.168	+/-0.431	0.778	0.300						
Cesium-137		0.100	+/-0.0316	0.0347	0.100						
Chromium-51	U	-0.114	+/-0.479	0.830	0.600						
Cobalt-56	U	0.00546	+/-0.032	0.0509	0.100						
Cobalt-57	U	0.0202	+/-0.0294	0.0254	0.050						
Cobalt-58	U	-0.0468	+/-0.0289	0.0436	0.100						
Cobalt-60	U	0.00306	+/-0.0212	0.0394	0.100						
Europium-152	U	-0.0336	+/-0.0501	0.084	0.200						
Europium-154	U	0.0278	+/-0.0639	0.121	0.500						
Europium-155	U	0.00	+/-0.0945	0.0921	0.500						
Iridium-192	U	0.00159	+/-0.024	0.0424	0.100						
Iron-59	U	-0.00472	+/-0.0927	0.160	0.300						
Lead-210		7.51	+/-9.75	6.32	4.00						
Lead-212		0.913	+/-0.103	0.0511	0.100						
Lead-214		0.995	+/-0.130	0.058	0.100						
Manganese-54	U	0.0185	+/-0.0202	0.0383	0.100						
Mercury-203	U	0.0404	+/-0.0514	0.0599	0.100						
Neodymium-147	U	0.165	+/-2.97	5.45	1000						
Neptunium-239	U	-0.0757	+/-0.102	0.165	2.00						
Niobium-94	U	-0.0119	+/-0.0165	0.028	1.00						
Niobium-95	U	0.0101	+/-0.0566	0.0903	0.050						
Potassium-40		17.7	+/-1.51	0.358	1.00						
Promethium-144	U	-0.000638	+/-0.0181	0.0325	0.080						
Promethium-146	U	0.0164	+/-0.0221	0.040	1.00						
Radium-226		0.845	+/-0.129	0.0572	1.00						
Radium-228		0.780	+/-0.177	0.128	0.500						

SRB 09/27/03 1006 274784 1

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 806-SB17; 0-0.5
Sample ID: 86843024

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0323	+/-0.162	0.290	0.800						pCi/g
Silver-110m	U	-0.00886	+/-0.0225	0.0344	0.080						pCi/g
Sodium-22	U	0.0101	+/-0.0233	0.0441	0.080						pCi/g
Thallium-208		0.273	+/-0.0469	0.0343	0.080						pCi/g
Thorium-230		0.845	+/-0.129	0.0572	1.00						pCi/g
Thorium-232		0.867	+/-0.0982	0.0485	0.500						pCi/g
Thorium-234		1.51	+/-1.35	1.30	2.00						pCi/g
Tin-113	U	-0.00192	+/-0.0301	0.0519	0.100						pCi/g
Uranium-234		1.05	+/-0.186	0.113	1.00						pCi/g
Uranium-235	U	0.061	+/-0.197	0.193	0.500						pCi/g
Uranium-238		1.51	+/-1.35	1.30	1.00						pCi/g
Yttrium-88	U	-0.00208	+/-0.0231	0.037	0.100						pCi/g
Zinc-65	U	0.0238	+/-0.0535	0.0962	0.300						pCi/g
Zirconium-95	U	-0.0252	+/-0.0505	0.0869	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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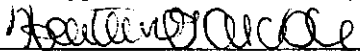
Client Sample ID: IGLOO 806-SB17; 0-0.5
Sample ID: 86843024

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


Reviewed by _____

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons
Address : 100 Summer Street

Boston, Massachusetts 02110

Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 1 of 3

Client Sample ID: IGLOO 806-SB18; 0-0.5
Sample ID: 86843025
Matrix: Soil
Collect Date: 12-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.06	+/-0.297	0.302	0.800						
Americium-241	U	-0.072	+/-0.224	0.356	0.200						
Antimony-124	U	0.000493	+/-0.0647	0.111	0.100						
Antimony-125	U	-0.0139	+/-0.121	0.209	0.200						
Barium-133	U	0.0328	+/-0.0531	0.0896	0.100						
Barium-140	U	0.204	+/-1.84	2.81	0.500						
Beryllium-7	U	0.0902	+/-0.838	0.942	0.700						
Bismuth-212		0.672	+/-0.489	0.595	0.500						
Bismuth-214		14.6	+/-1.72	0.132	0.200						
Cerium-139	U	0.00897	+/-0.0466	0.0793	0.050						
Cerium-141	U	0.00	+/-0.247	0.286	0.100						
Cerium-144	U	0.0303	+/-0.282	0.484	0.500						
Cesium-134	U	0.070	+/-0.0475	0.088	0.100						
Cesium-136	U	0.212	+/-1.02	1.09	0.300						
Cesium-137		0.326	+/-0.0734	0.0712	0.100						
Chromium-51	U	0.683	+/-1.05	1.75	0.600						
Cobalt-56	U	0.0541	+/-0.0651	0.113	0.100						
Cobalt-57	U	0.0513	+/-0.0526	0.0586	0.050						
Cobalt-58	U	-0.0269	+/-0.0735	0.105	0.100						
Cobalt-60	U	0.0128	+/-0.0494	0.0867	0.100						
Europium-152	U	0.0182	+/-0.132	0.217	0.200						
Europium-154	U	-0.0904	+/-0.145	0.242	0.500						
Europium-155	U	0.077	+/-0.130	0.228	0.500						
Iridium-192	U	-0.0504	+/-0.0606	0.0968	0.100						
Iron-59	U	-0.0847	+/-0.179	0.305	0.300						
Lead-210	U	7.37	+/-8.07	9.32	4.00						
Lead-212		1.14	+/-0.164	0.123	0.100						
Lead-214		16.8	+/-1.94	0.158	0.100						
Manganese-54	U	0.0254	+/-0.077	0.084	0.100						
Mercury-203	U	-0.0437	+/-0.0868	0.142	0.100						
Neodymium-147	U	1.97	+/-5.29	8.18	1000						
Neptunium-239	U	-0.0185	+/-0.235	0.405	2.00						
Niobium-94	U	0.00	+/-0.0601	0.0613	1.00						
Niobium-95	U	0.00	+/-0.145	0.232	0.050						
Potassium-40		24.5	+/-3.03	0.853	1.00						
Promethium-144	U	-0.00495	+/-0.0397	0.0671	0.080						
Promethium-146	U	0.00	+/-0.102	0.0988	1.00						
Radium-226		14.6	+/-1.72	0.132	1.00						
Radium-228		1.06	+/-0.297	0.302	0.500						

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Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 2 of 3

Client Sample ID: IGLOO 806-SB18; 0-0.5
Sample ID: 86843025Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.161	+/-0.356	0.596	0.800						pCi/g
Silver-110m	U	-0.0263	+/-0.0465	0.0671	0.080						pCi/g
Sodium-22	U	-0.0329	+/-0.0527	0.0879	0.080						pCi/g
Thallium-208		0.398	+/-0.0826	0.073	0.080						pCi/g
Thorium-230		14.6	+/-1.72	0.132	1.00						pCi/g
Thorium-232		1.09	+/-0.156	0.117	0.500						pCi/g
Thorium-234	U	2.37	+/-2.86	2.94	2.00						pCi/g
Tin-113	U	-0.0893	+/-0.075	0.116	0.100						pCi/g
Uranium-234		17.2	+/-2.07	0.283	1.00						pCi/g
Uranium-235		0.581	+/-0.431	0.461	0.500						pCi/g
Uranium-238	U	2.37	+/-2.86	2.94	1.00						pCi/g
Yttrium-88	U	0.0556	+/-0.0624	0.104	0.100						pCi/g
Zinc-65	U	-0.0367	+/-0.131	0.195	0.300						pCi/g
Zirconium-95	U	-0.0545	+/-0.119	0.196	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Boston, Massachusetts 02110
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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 3 of 3

Client Sample ID: IGLOO 806-SB18; 0-0.5
Sample ID: 86843025

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Boston, Massachusetts 02110
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 1 of 3

Client Sample ID: IGLOO 806-SB18; 0.5-2
Sample ID: 86843026
Matrix: Soil
Collect Date: 12-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.22	+/-0.245	0.145	0.800						
Americium-241	U	-0.0361	+/-0.117	0.191	0.200						
Antimony-124	U	0.0287	+/-0.0335	0.0613	0.100						
Antimony-125	U	0.0594	+/-0.0586	0.109	0.200						
Barium-133	U	-0.0109	+/-0.0286	0.0446	0.100						
Barium-140	U	0.238	+/-0.850	1.52	0.500						
Beryllium-7	U	-0.0432	+/-0.277	0.490	0.700						
Bismuth-212		1.05	+/-0.330	0.309	0.500						
Bismuth-214		1.91	+/-0.261	0.0716	0.200						
Cerium-139	U	-0.00678	+/-0.0243	0.0373	0.050						
Cerium-141	U	0.0183	+/-0.0765	0.135	0.100						
Cerium-144	U	-0.0237	+/-0.142	0.249	0.500						
Cesium-134	U	0.00	+/-0.047	0.053	0.100						
Cesium-136	U	-0.0677	+/-0.316	0.563	0.300						
Cesium-137	U	0.0276	+/-0.0271	0.0438	0.100						
Chromium-51	U	-0.367	+/-0.519	0.845	0.600						
Cobalt-56	U	0.0237	+/-0.0312	0.0567	0.100						
Cobalt-57	U	0.00818	+/-0.0174	0.0312	0.050						
Cobalt-58	U	-0.0153	+/-0.0318	0.0533	0.100						
Cobalt-60	U	-0.00305	+/-0.0226	0.0401	0.100						
Europium-152	U	0.00175	+/-0.057	0.103	0.200						
Europium-154	U	0.0462	+/-0.054	0.137	0.500						
Europium-155	U	0.0291	+/-0.0703	0.127	0.500						
Iridium-192	U	0.0199	+/-0.0298	0.0517	0.100						
Iron-59	U	-0.0216	+/-0.0864	0.153	0.300						
Lead-210	U	2.30	+/-2.84	4.83	4.00						
Lead-212		1.34	+/-0.162	0.0592	0.100						
Lead-214		2.14	+/-0.270	0.0743	0.100						
Manganese-54	U	0.0128	+/-0.0239	0.0427	0.100						
Mercury-203	U	0.00	+/-0.0629	0.0657	0.100						
Neodymium-147	U	0.162	+/-2.39	4.26	1000						
Neptunium-239	U	0.0111	+/-0.123	0.218	2.00						
Niobium-94	U	0.0174	+/-0.0297	0.0348	1.00						
Niobium-95	U	0.0785	+/-0.0624	0.103	0.050						
Potassium-40		21.4	+/-2.25	0.352	1.00						
Promethium-144	U	0.00952	+/-0.0217	0.0388	0.080						
Promethium-146	U	0.0241	+/-0.0258	0.0479	1.00						
Radium-226		1.91	+/-0.261	0.0716	1.00						
Radium-228		1.22	+/-0.245	0.145	0.500						

SRB 09/27/03 1007 274784 1

GENERAL ENGINEERING LABORATORIES, LLC

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Boston, Massachusetts 02110

Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 2 of 3

Client Sample ID: IGLOO 806-SB18; 0.5-2
Sample ID: 86843026Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0913 +/-0.188	0.342	0.800	pCi/g						
Silver-110m	U	0.0199 +/-0.0239	0.0394	0.080	pCi/g						
Sodium-22	U	0.0168 +/-0.0196	0.0499	0.080	pCi/g						
Thallium-208		0.349 +/-0.0699	0.0383	0.080	pCi/g						
Thorium-230		1.91 +/-0.261	0.0716	1.00	pCi/g						
Thorium-232		1.28 +/-0.155	0.0565	0.500	pCi/g						
Thorium-234		2.15 +/-1.66	1.59	2.00	pCi/g						
Tin-113	U	0.00241 +/-0.0356	0.0567	0.100	pCi/g						
Uranium-234		2.18 +/-0.336	0.160	1.00	pCi/g						
Uranium-235	U	0.0516 +/-0.131	0.232	0.500	pCi/g						
Uranium-238		2.15 +/-1.66	1.59	1.00	pCi/g						
Yttrium-88	U	-0.00944 +/-0.020	0.034	0.100	pCi/g						
Zinc-65	U	-0.0765 +/-0.0697	0.0964	0.300	pCi/g						
Zirconium-95	U	0.0565 +/-0.0642	0.117	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 3 of 3

Client Sample ID: IGLOO 806-SB18: 0.5-2
Sample ID: 86843026

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Certificate of Analysis

Company : Parsons
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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 1 of 3

Client Sample ID: IGLOO 806-SB19; 0-0.5
Sample ID: 86843027
Matrix: Soil
Collect Date: 10-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.04 +/-0.220	0.128	0.800	pCi/g		SRB	09/27/03	1008	274784	1
Americium-241	U	-0.0121 +/-0.0838	0.141	0.200	pCi/g						
Antimony-124	U	-0.00233 +/-0.0298	0.052	0.100	pCi/g						
Antimony-125	U	0.00975 +/-0.0478	0.0868	0.200	pCi/g						
Barium-133	U	0.0124 +/-0.0227	0.0378	0.100	pCi/g						
Barium-140	U	-0.149 +/-0.788	1.38	0.500	pCi/g						
Beryllium-7	U	0.121 +/-0.259	0.473	0.700	pCi/g						
Bismuth-212		0.769 +/-0.285	0.245	0.500	pCi/g						
Bismuth-214		0.793 +/-0.115	0.0625	0.200	pCi/g						
Cerium-139	U	-0.00671 +/-0.0175	0.0306	0.050	pCi/g						
Cerium-141	U	0.0136 +/-0.0733	0.109	0.100	pCi/g						
Cerium-144	U	-0.0396 +/-0.110	0.196	0.500	pCi/g						
Cesium-134	U	0.00 +/-0.0382	0.0488	0.100	pCi/g						
Cesium-136	U	-0.248 +/-0.432	0.625	0.300	pCi/g						
Cesium-137		0.387 +/-0.0574	0.0346	0.100	pCi/g						
Chromium-51	U	-0.244 +/-0.448	0.799	0.600	pCi/g						
Cobalt-56	U	-0.0139 +/-0.026	0.0455	0.100	pCi/g						
Cobalt-57	U	0.014 +/-0.0208	0.0239	0.050	pCi/g						
Cobalt-58	U	-0.0246 +/-0.0346	0.051	0.100	pCi/g						
Cobalt-60	U	-0.00475 +/-0.0222	0.0385	0.100	pCi/g						
Europium-152	U	0.00 +/-0.0695	0.0883	0.200	pCi/g						
Europium-154	U	-0.0509 +/-0.068	0.111	0.500	pCi/g						
Europium-155	U	0.0543 +/-0.0522	0.0981	0.500	pCi/g						
Iridium-192	U	0.00683 +/-0.0234	0.0433	0.100	pCi/g						
Iron-59	U	-0.0491 +/-0.090	0.153	0.300	pCi/g						
Lead-210	U	1.46 +/-2.15	3.80	4.00	pCi/g						
Lead-212		1.12 +/-0.134	0.0522	0.100	pCi/g						
Lead-214		0.999 +/-0.136	0.0608	0.100	pCi/g						
Manganese-54	U	0.0212 +/-0.021	0.0402	0.100	pCi/g						
Mercury-203	U	0.0485 +/-0.0522	0.0569	0.100	pCi/g						
Neodymium-147	U	1.05 +/-2.44	4.43	1000	pCi/g						
Neptunium-239	U	0.0293 +/-0.0894	0.164	2.00	pCi/g						
Niobium-94	U	0.00553 +/-0.0184	0.0324	1.00	pCi/g						
Niobium-95	U	0.0159 +/-0.0556	0.0969	0.050	pCi/g						
Potassium-40		22.3 +/-1.69	0.341	1.00	pCi/g						
Promethium-144	U	0.00864 +/-0.0197	0.0351	0.080	pCi/g						
Promethium-146	U	0.0278 +/-0.0248	0.0463	1.00	pCi/g						
Radium-226		0.793 +/-0.115	0.0625	1.00	pCi/g						
Radium-228		1.04 +/-0.220	0.128	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 806-SB19; 0-0.5
Sample ID: 86843027

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.215	+/-0.186	0.345	0.800						pCi/g
Silver-110m	U	-0.00322	+/-0.031	0.0333	0.080						pCi/g
Sodium-22	U	-0.0186	+/-0.0247	0.0405	0.080						pCi/g
Thallium-208		0.364	+/-0.0594	0.0345	0.080						pCi/g
Thorium-230		0.793	+/-0.115	0.0625	1.00						pCi/g
Thorium-232		1.07	+/-0.127	0.0497	0.500						pCi/g
Thorium-234	U	0.429	+/-1.10	1.14	2.00						pCi/g
Tin-113	U	-0.0234	+/-0.0285	0.0493	0.100						pCi/g
Uranium-234		0.988	+/-0.194	0.126	1.00						pCi/g
Uranium-235	U	0.0295	+/-0.159	0.191	0.500						pCi/g
Uranium-238	U	0.429	+/-1.10	1.14	1.00						pCi/g
Yttrium-88	U	0.00789	+/-0.0263	0.0449	0.100						pCi/g
Zinc-65	U	0.0306	+/-0.0431	0.097	0.300						pCi/g
Zirconium-95	U	0.0266	+/-0.0536	0.096	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
I	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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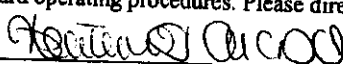
Client Sample ID: IGLOO 806-SB19; 0-0.5
Sample ID: 86843027

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons
Address : 100 Summer Street

Boston, Massachusetts 02110
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 1 of 3

Client Sample ID: IGLOO 806-SB20: 0-0.5
Sample ID: 86843028
Matrix: Soil
Collect Date: 10-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
Gammascpec, Gamma, Solid w/Ra226											
Actinium-228		1.01	+/-0.322	0.244	0.800						
Americium-241	U	-0.0526	+/-0.202	0.354	0.200						
Antimony-124	U	-0.0407	+/-0.0592	0.0985	0.100						
Antimony-125	U	0.187	+/-0.151	0.207	0.200						
Barium-133	U	0.0183	+/-0.0529	0.0825	0.100						
Barium-140	U	-0.668	+/-1.96	2.88	0.500						
Beryllium-7	U	-0.266	+/-0.619	0.922	0.700						
Bismuth-212	U	0.237	+/-0.330	0.492	0.500						
Bismuth-214		15.9	+/-1.79	0.116	0.200						
Cerium-139	U	-0.0135	+/-0.054	0.0804	0.050						
Cerium-141	U	0.00	+/-0.235	0.302	0.100						
Cerium-144	U	0.00599	+/-0.282	0.480	0.500						
Cesium-134	U	0.0424	+/-0.0472	0.0729	0.100						
Cesium-136	U	-0.774	+/-0.665	1.10	0.300						
Cesium-137		0.356	+/-0.0654	0.0632	0.100						
Chromium-51	U	0.882	+/-1.11	1.76	0.600						
Cobalt-56	U	0.00148	+/-0.0563	0.0945	0.100						
Cobalt-57	U	0.037	+/-0.0425	0.0601	0.050						
Cobalt-58	U	0.0462	+/-0.0628	0.0961	0.100						
Cobalt-60	U	-0.0283	+/-0.0481	0.0689	0.100						
Europium-152	U	-0.0961	+/-0.116	0.200	0.200						
Europium-154	U	0.00603	+/-0.140	0.211	0.500						
Europium-155	U	-0.0522	+/-0.130	0.223	0.500						
Iridium-192	U	-0.0591	+/-0.056	0.096	0.100						
Iron-59	U	-0.125	+/-0.155	0.260	0.300						
Lead-210		16.8	+/-9.17	8.72	4.00						
Lead-212		1.21	+/-0.175	0.122	0.100						
Lead-214		19.4	+/-2.21	0.139	0.100						
Manganese-54	U	-0.0271	+/-0.0711	0.0713	0.100						
Mercury-203	U	0.0283	+/-0.0792	0.141	0.100						
Neodymium-147	U	-3.05	+/-5.70	8.35	1000						
Neptunium-239	U	0.00541	+/-0.237	0.406	2.00						
Niobium-94	U	0.00	+/-0.0526	0.0643	1.00						
Niobium-95	U	0.00	+/-0.135	0.212	0.050						
Potassium-40		20.3	+/-2.33	0.678	1.00						
Promethium-144	U	-0.00731	+/-0.036	0.0606	0.080						
Promethium-146	U	0.0474	+/-0.0638	0.0866	1.00						
Radium-226		15.9	+/-1.79	0.116	1.00						
Radium-228		1.01	+/-0.322	0.244	0.500						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 2 of 3

Client Sample ID: IGLOO 806-SB20; 0-0.5
Sample ID: 86843028

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.138	+/-0.337	0.567	0.800						pCi/g
Silver-110m	U	-0.000515	+/-0.0425	0.0633	0.080						pCi/g
Sodium-22	U	0.00233	+/-0.051	0.0769	0.080						pCi/g
Thallium-208		0.245	+/-0.0579	0.0668	0.080						pCi/g
Thorium-230		15.9	+/-1.79	0.116	1.00						pCi/g
Thorium-232		1.15	+/-0.167	0.116	0.500						pCi/g
Thorium-234		3.41	+/-2.93	2.89	2.00						pCi/g
Tin-113	U	0.00298	+/-0.069	0.106	0.100						pCi/g
Uranium-234		19.0	+/-2.25	0.290	1.00						pCi/g
Uranium-235		0.836	+/-0.405	0.467	0.500						pCi/g
Uranium-238		3.41	+/-2.93	2.89	1.00						pCi/g
Yttrium-88	U	0.0756	+/-0.0467	0.0834	0.100						pCi/g
Zinc-65	U	0.0141	+/-0.102	0.156	0.300						pCi/g
Zirconium-95	U	-0.0799	+/-0.103	0.167	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 806-SB20; 0-0.5
Sample ID: 86843028

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 1 of 3

Client Sample ID: IGLOO 806-SB20; 0.5-2
Sample ID: 86843029
Matrix: Soil
Collect Date: 10-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid w/Ra226											
Actinium-228		1.01	+/-0.213	0.146	0.800						
Americium-241	U	0.0106	+/-0.0371	0.0663	0.200						
Antimony-124	U	0.00577	+/-0.0357	0.0643	0.100						
Antimony-125	U	0.0327	+/-0.0911	0.115	0.200						
Barium-133	U	-0.000921	+/-0.029	0.0448	0.100						
Barium-140	U	-0.403	+/-1.02	1.79	0.500						
Beryllium-7	U	-0.0771	+/-0.353	0.561	0.700						
Bismuth-212		0.948	+/-0.355	0.328	0.500						
Bismuth-214		5.28	+/-0.696	0.0738	0.200						
Cerium-139	U	-0.0209	+/-0.0223	0.0397	0.050						
Cerium-141	U	0.00	+/-0.113	0.137	0.100						
Cerium-144	U	0.00248	+/-0.128	0.238	0.500						
Cesium-134	U	0.0445	+/-0.0592	0.0559	0.100						
Cesium-136	U	-0.337	+/-0.515	0.762	0.300						
Cesium-137	U	-0.047	+/-0.026	0.0408	0.100						
Chromium-51	U	-0.0533	+/-0.544	0.947	0.600						
Cobalt-56	U	-0.00782	+/-0.0372	0.0637	0.100						
Cobalt-57	U	0.00419	+/-0.0155	0.0292	0.050						
Cobalt-58	U	-0.0191	+/-0.0416	0.061	0.100						
Cobalt-60	U	-0.028	+/-0.0285	0.0467	0.100						
Europium-152	U	-0.0216	+/-0.0636	0.109	0.200						
Europium-154	U	-0.00138	+/-0.0899	0.158	0.500						
Europium-155	U	0.0342	+/-0.0614	0.106	0.500						
Iridium-192	U	0.00277	+/-0.0306	0.0537	0.100						
Iron-59	U	-0.0484	+/-0.103	0.179	0.300						
Lead-210		5.06	+/-0.885	0.499	4.00						
Lead-212		1.19	+/-0.196	0.0627	0.100						
Lead-214		6.32	+/-0.830	0.0791	0.100						
Manganese-54	U	-0.00488	+/-0.0285	0.0489	0.100						
Mercury-203	U	0.0509	+/-0.068	0.0742	0.100						
Neodymium-147	U	-0.559	+/-2.78	4.99	1000						
Neptunium-239	U	-0.09	+/-0.103	0.189	2.00						
Niobium-94	U	0.0229	+/-0.0224	0.041	1.00						
Niobium-95	U	0.00	+/-0.0761	0.128	0.050						
Potassium-40		22.2	+/-2.26	0.468	1.00						
Promethium-144	U	0.00485	+/-0.0236	0.042	0.080						
Promethium-146	U	0.0233	+/-0.0276	0.0517	1.00						
Radium-226		5.28	+/-0.696	0.0738	1.00						
Radium-228		1.01	+/-0.213	0.146	0.500						

SRB 09/27/03 1009 274784 1

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Certificate of Analysis

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 806-SB20; 0.5-2
Sample ID: 86843029

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0142	+/-0.209	0.372	0.800						pCi/g
Silver-110m	U	-0.00635	+/-0.0237	0.0415	0.080						pCi/g
Sodium-22	U	-0.000226	+/-0.0328	0.0576	0.080						pCi/g
Thallium-208		0.390	+/-0.0735	0.0412	0.080						pCi/g
Thorium-230		5.28	+/-0.696	0.0738	1.00						pCi/g
Thorium-232		1.14	+/-0.187	0.0597	0.500						pCi/g
Thorium-234		3.29	+/-1.03	0.655	2.00						pCi/g
Tin-113	U	0.0135	+/-0.0504	0.064	0.100						pCi/g
Uranium-234		6.58	+/-1.02	0.139	1.00						pCi/g
Uranium-235		0.465	+/-0.287	0.261	0.500						pCi/g
Uranium-238		3.29	+/-1.03	0.655	1.00						pCi/g
Yttrium-88	U	0.0188	+/-0.0127	0.0497	0.100						pCi/g
Zinc-65	U	0.0187	+/-0.0774	0.122	0.300						pCi/g
Zirconium-95	U	0.0777	+/-0.0686	0.126	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
I	EML HASL 300, 4.5.2.3	

Notes:

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- > Result is greater than amount reported.
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Boston, Massachusetts 02110

Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 3 of 3

Client Sample ID: IGLOO 806-SB20; 0.5-2
Sample ID: 86843029

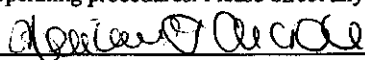
Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Contact: Katie Kadhubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 1 of 3

Client Sample ID: IGLOO 806-SB20; 2-4
Sample ID: 86843030
Matrix: Soil
Collect Date: 10-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.04 +/-0.281	0.190	0.800	pCi/g		SRB	09/27/03	1010	274784	1
Americium-241	U	0.019 +/-0.0349	0.0622	0.200	pCi/g						
Antimony-124	U	0.000635 +/-0.0399	0.0723	0.100	pCi/g						
Antimony-125	U	-0.0181 +/-0.0626	0.106	0.200	pCi/g						
Barium-133	U	0.0104 +/-0.032	0.0512	0.100	pCi/g						
Barium-140	U	-0.43 +/-1.21	1.98	0.500	pCi/g						
Beryllium-7	U	-0.104 +/-0.344	0.577	0.700	pCi/g						
Bismuth-212		0.813 +/-0.474	0.360	0.500	pCi/g						
Bismuth-214		0.797 +/-0.159	0.0871	0.200	pCi/g						
Cerium-139	U	-0.012 +/-0.0216	0.0344	0.050	pCi/g						
Cerium-141	U	0.060 +/-0.0937	0.129	0.100	pCi/g						
Cerium-144	U	0.158 +/-0.131	0.227	0.500	pCi/g						
Cesium-134	U	0.0313 +/-0.0338	0.0636	0.100	pCi/g						
Cesium-136	U	-0.466 +/-0.516	0.819	0.300	pCi/g						
Cesium-137	U	-0.0304 +/-0.028	0.0462	0.100	pCi/g						
Chromium-51	U	0.315 +/-0.539	0.978	0.600	pCi/g						
Cobalt-56	U	0.0165 +/-0.0401	0.0735	0.100	pCi/g						
Cobalt-57	U	-0.0104 +/-0.0162	0.0264	0.050	pCi/g						
Cobalt-58	U	-3.290E-05 +/-0.0405	0.0723	0.100	pCi/g						
Cobalt-60	U	0.0128 +/-0.0327	0.0617	0.100	pCi/g						
Europium-152	U	-0.0457 +/-0.0613	0.102	0.200	pCi/g						
Europium-154	U	-0.00969 +/-0.0925	0.167	0.500	pCi/g						
Europium-155	U	0.0386 +/-0.0581	0.101	0.500	pCi/g						
Iridium-192	U	-0.027 +/-0.0299	0.0497	0.100	pCi/g						
Iron-59	U	0.0485 +/-0.125	0.224	0.300	pCi/g						
Lead-210		1.20 +/-0.801	0.542	4.00	pCi/g						
Lead-212		0.946 +/-0.134	0.060	0.100	pCi/g						
Lead-214		0.920 +/-0.155	0.0748	0.100	pCi/g						
Manganese-54	U	0.00646 +/-0.0332	0.0592	0.100	pCi/g						
Mercury-203	U	0.00 +/-0.0647	0.0677	0.100	pCi/g						
Neodymium-147	U	-2.66 +/-3.51	5.58	1000	pCi/g						
Neptunium-239	U	-0.0693 +/-0.107	0.174	2.00	pCi/g						
Niobium-94	U	-0.00697 +/-0.0242	0.0426	1.00	pCi/g						
Niobium-95	U	0.0138 +/-0.111	0.127	0.050	pCi/g						
Potassium-40		20.3 +/-2.23	0.443	1.00	pCi/g						
Promethium-144	U	-0.0182 +/-0.029	0.0495	0.080	pCi/g						
Promethium-146	U	0.0122 +/-0.0312	0.055	1.00	pCi/g						
Radium-226		0.797 +/-0.159	0.0871	1.00	pCi/g						
Radium-228		1.04 +/-0.281	0.190	0.500	pCi/g						

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Client Sample ID: IGLOO 806-SB20; 2-4
Sample ID: 86843030

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.177	+/-0.243	0.459	0.800						pCi/g
Silver-110m	U	0.000779	+/-0.0273	0.0494	0.080						pCi/g
Sodium-22	U	-0.00374	+/-0.0337	0.0607	0.080						pCi/g
Thallium-208		0.304	+/-0.0746	0.0497	0.080						pCi/g
Thorium-230		0.797	+/-0.159	0.0871	1.00						pCi/g
Thorium-232		0.901	+/-0.128	0.0572	0.500						pCi/g
Thorium-234		1.61	+/-0.758	0.559	2.00						pCi/g
Tin-113	U	-5.920E-06	+/-0.036	0.0625	0.100						pCi/g
Uranium-234		0.954	+/-0.204	0.141	1.00						pCi/g
Uranium-235	U	0.118	+/-0.183	0.222	0.500						pCi/g
Uranium-238		1.61	+/-0.758	0.559	1.00						pCi/g
Yttrium-88	U	0.0327	+/-0.0278	0.0646	0.100						pCi/g
Zinc-65	U	-0.000818	+/-0.0828	0.125	0.300						pCi/g
Zirconium-95	U	0.0095	+/-0.0827	0.148	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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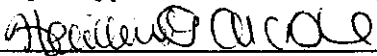
Client Sample ID: IGLOO 806-SB20; 2-4
Sample ID: 86843030

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Certificate of Analysis

Company : Parsons
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Boston, Massachusetts 02110

Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 807-SB21-1; 0-0.5
Sample ID: 86843031
Matrix: Soil
Collect Date: 07-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.960 +/-0.208	0.104	0.800	pCi/g		SRB	09/27/03	1011	274784	1
Americium-241	U	-0.0231 +/-0.128	0.196	0.200	pCi/g						
Antimony-124	U	-0.0223 +/-0.0307	0.0521	0.100	pCi/g						
Antimony-125	U	-0.0132 +/-0.0481	0.0805	0.200	pCi/g						
Barium-133	U	0.0245 +/-0.0238	0.0376	0.100	pCi/g						
Barium-140	U	0.582 +/-0.899	1.60	0.500	pCi/g						
Beryllium-7	U	0.0149 +/-0.289	0.451	0.700	pCi/g						
Bismuth-212		0.678 +/-0.274	0.237	0.500	pCi/g						
Bismuth-214		1.23 +/-0.169	0.0615	0.200	pCi/g						
Cerium-139	U	0.00299 +/-0.0226	0.0355	0.050	pCi/g						
Cerium-141	U	0.0386 +/-0.0605	0.136	0.100	pCi/g						
Cerium-144	U	-0.00314 +/-0.128	0.229	0.500	pCi/g						
Cesium-134	U	0.0346 +/-0.0292	0.0398	0.100	pCi/g						
Cesium-136	U	-0.152 +/-0.358	0.593	0.300	pCi/g						
Cesium-137	U	0.392 +/-0.0577	0.0336	0.100	pCi/g						
Chromium-51	U	-0.00841 +/-0.490	0.842	0.600	pCi/g						
Cobalt-56	U	-0.00988 +/-0.026	0.0439	0.100	pCi/g						
Cobalt-57	U	-0.00301 +/-0.016	0.0287	0.050	pCi/g						
Cobalt-58	U	0.00546 +/-0.0295	0.0451	0.100	pCi/g						
Cobalt-60	U	0.0267 +/-0.0272	0.029	0.100	pCi/g						
Europium-152	U	-0.0418 +/-0.0525	0.0868	0.200	pCi/g						
Europium-154	U	-0.0279 +/-0.0581	0.0991	0.500	pCi/g						
Europium-155	U	0.0354 +/-0.0641	0.117	0.500	pCi/g						
Iridium-192	U	0.00455 +/-0.0258	0.0447	0.100	pCi/g						
Iron-59	U	0.0125 +/-0.0785	0.135	0.300	pCi/g						
Lead-210	U	1.22 +/-3.73	5.88	4.00	pCi/g						
Lead-212		1.07 +/-0.132	0.0541	0.100	pCi/g						
Lead-214		1.53 +/-0.197	0.0625	0.100	pCi/g						
Manganese-54	U	0.00839 +/-0.0205	0.036	0.100	pCi/g						
Mercury-203	U	0.0275 +/-0.0575	0.0618	0.100	pCi/g						
Neodymium-147	U	-1.23 +/-2.61	4.52	1000	pCi/g						
Neptunium-239	U	-0.00273 +/-0.108	0.195	2.00	pCi/g						
Niobium-94	U	-0.0042 +/-0.0189	0.0281	1.00	pCi/g						
Niobium-95	U	0.0917 +/-0.0576	0.094	0.050	pCi/g						
Potassium-40		21.5 +/-2.25	0.253	1.00	pCi/g						
Promethium-144	U	-0.0078 +/-0.0292	0.0283	0.080	pCi/g						
Promethium-146	U	-0.00321 +/-0.0229	0.0384	1.00	pCi/g						
Radium-226		1.23 +/-0.169	0.0615	1.00	pCi/g						
Radium-228		0.960 +/-0.208	0.104	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 807-SB21-1; 0-0.5
Sample ID: 86843031

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.105 +/-0.165	0.279	0.800	pCi/g						
Silver-110m	U	0.0167 +/-0.0208	0.0333	0.080	pCi/g						
Sodium-22	U	-0.0103 +/-0.0212	0.0361	0.080	pCi/g						
Thallium-208		0.314 +/-0.0534	0.0311	0.080	pCi/g						
Thorium-230		1.23 +/-0.169	0.0615	1.00	pCi/g						
Thorium-232		1.01 +/-0.126	0.0514	0.500	pCi/g						
Thorium-234	U	1.35 +/-1.57	1.55	2.00	pCi/g						
Tin-113	U	0.0183 +/-0.0292	0.051	0.100	pCi/g						
Uranium-234		1.44 +/-0.231	0.133	1.00	pCi/g						
Uranium-235	U	0.0932 +/-0.141	0.213	0.500	pCi/g						
Uranium-238	U	1.35 +/-1.57	1.55	1.00	pCi/g						
Yttrium-88	U	0.00661 +/-0.0201	0.0371	0.100	pCi/g						
Zinc-65	U	0.0638 +/-0.0455	0.0805	0.300	pCi/g						
Zirconium-95	U	0.0441 +/-0.0501	0.0906	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 807-SB21-1; 0-0.5
Sample ID: 86843031

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Project: SEAD-48 Final Status Survey

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Page 1 of 3

Client Sample ID: IGLOO 807-SB23; 0-0.5
Sample ID: 86843034
Matrix: Soil
Collect Date: 11-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.02 +/-0.202	0.120	0.800	pCi/g		SRB	09/27/03	1013	274784	1
Americium-241	U	0.0267 +/-0.128	0.185	0.200	pCi/g						
Antimony-124	U	0.00848 +/-0.0241	0.0448	0.100	pCi/g						
Antimony-125	U	-0.00963 +/-0.0448	0.0824	0.200	pCi/g						
Barium-133	U	-0.000436 +/-0.0212	0.0331	0.100	pCi/g						
Barium-140	U	-0.852 +/-0.731	1.15	0.500	pCi/g						
Beryllium-7	U	-0.0246 +/-0.222	0.409	0.700	pCi/g						
Bismuth-212		0.899 +/-0.293	0.231	0.500	pCi/g						
Bismuth-214		0.899 +/-0.136	0.0552	0.200	pCi/g						
Cerium-139	U	0.00536 +/-0.0162	0.0302	0.050	pCi/g						
Cerium-141	U	0.0818 +/-0.0923	0.101	0.100	pCi/g						
Cerium-144	U	0.0148 +/-0.101	0.190	0.500	pCi/g						
Cesium-134	U	0.00 +/-0.0435	0.0426	0.100	pCi/g						
Cesium-136	U	-0.29 +/-0.344	0.555	0.300	pCi/g						
Cesium-137		0.0825 +/-0.0345	0.0332	0.100	pCi/g						
Chromium-51	U	0.0017 +/-0.381	0.674	0.600	pCi/g						
Cobalt-56	U	0.0184 +/-0.0259	0.0479	0.100	pCi/g						
Cobalt-57	U	0.00178 +/-0.0128	0.0242	0.050	pCi/g						
Cobalt-58	U	0.00684 +/-0.0387	0.0448	0.100	pCi/g						
Cobalt-60	U	-0.00094 +/-0.0187	0.034	0.100	pCi/g						
Europium-152	U	0.0229 +/-0.046	0.0827	0.200	pCi/g						
Europium-154	U	0.00177 +/-0.0684	0.123	0.500	pCi/g						
Europium-155	U	0.0457 +/-0.0522	0.101	0.500	pCi/g						
Iridium-192	U	-0.00908 +/-0.0216	0.0373	0.100	pCi/g						
Iron-59	U	0.0511 +/-0.085	0.153	0.300	pCi/g						
Lead-210	U	2.99 +/-4.12	7.03	4.00	pCi/g						
Lead-212		1.20 +/-0.143	0.0495	0.100	pCi/g						
Lead-214		1.08 +/-0.152	0.0558	0.100	pCi/g						
Manganese-54	U	0.0217 +/-0.0385	0.0342	0.100	pCi/g						
Mercury-203	U	0.00 +/-0.0685	0.0521	0.100	pCi/g						
Neodymium-147	U	-1.44 +/-1.97	3.46	1000	pCi/g						
Neptunium-239	U	-0.0201 +/-0.0867	0.163	2.00	pCi/g						
Niobium-94	U	0.0129 +/-0.0166	0.0308	1.00	pCi/g						
Niobium-95	U	0.055 +/-0.0524	0.0876	0.050	pCi/g						
Potassium-40		28.7 +/-2.97	0.305	1.00	pCi/g						
Promethium-144	U	-0.00212 +/-0.0178	0.0317	0.080	pCi/g						
Promethium-146	U	0.0101 +/-0.0197	0.0374	1.00	pCi/g						
Radium-226		0.899 +/-0.136	0.0552	1.00	pCi/g						
Radium-228		1.02 +/-0.202	0.120	0.500	pCi/g						

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Page 2 of 3

Client Sample ID: IGLOO 807-SB23; 0-0.5
Sample ID: 86843034

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0453	+/-0.153	0.283	0.800						pCi/g
Silver-110m	U	-0.000448	+/-0.0206	0.0325	0.080						pCi/g
Sodium-22	U	0.0009	+/-0.0249	0.0448	0.080						pCi/g
Thallium-208		0.379	+/-0.0627	0.0316	0.080						pCi/g
Thorium-230		0.899	+/-0.136	0.0552	1.00						pCi/g
Thorium-232		1.15	+/-0.137	0.0472	0.500						pCi/g
Thorium-234	U	1.42	+/-1.91	1.45	2.00						pCi/g
Tin-113	U	0.00192	+/-0.0258	0.0451	0.100						pCi/g
Uranium-234		1.03	+/-0.195	0.109	1.00						pCi/g
Uranium-235	U	0.165	+/-0.186	0.189	0.500						pCi/g
Uranium-238	U	1.42	+/-1.91	1.45	1.00						pCi/g
Yttrium-88	U	0.00738	+/-0.0218	0.0374	0.100						pCi/g
Zinc-65	U	0.00457	+/-0.0567	0.0903	0.300						pCi/g
Zirconium-95	U	-0.00596	+/-0.0547	0.0848	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXGI	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- > Result is greater than amount reported.
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 807-SB23; 0-0.5
Sample ID: 86843034

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Heather J. Ciccocioppo
Reviewed by

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Client Sample ID: IGLOO 807-SB23; 0.5-2
Sample ID: 86843035
Matrix: Soil
Collect Date: 11-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.29	+/-0.231	0.103	0.800						
Americium-241	U	0.0147	+/-0.0576	0.106	0.200						
Antimony-124	U	0.00925	+/-0.0252	0.0456	0.100						
Antimony-125	U	-0.00524	+/-0.0394	0.0681	0.200						
Barium-133	U	-0.0001	+/-0.0199	0.0308	0.100						
Barium-140	U	-0.107	+/-0.676	1.14	0.500						
Beryllium-7	U	0.00775	+/-0.211	0.365	0.700						
Bismuth-212		0.659	+/-0.212	0.197	0.500						
Bismuth-214		0.873	+/-0.128	0.0554	0.200						
Cerium-139	U	-0.0075	+/-0.017	0.0288	0.050						
Cerium-141	U	0.0923	+/-0.0922	0.102	0.100						
Cerium-144	U	-0.0656	+/-0.118	0.180	0.500						
Cesium-134	U	0.00	+/-0.0377	0.0391	0.100						
Cesium-136	U	-0.15	+/-0.312	0.438	0.300						
Cesium-137	U	0.00435	+/-0.016	0.0287	0.100						
Chromium-51	U	0.113	+/-0.354	0.635	0.600						
Cobalt-56	U	0.00724	+/-0.0224	0.0397	0.100						
Cobalt-57	U	-0.00162	+/-0.0133	0.0232	0.050						
Cobalt-58	U	-0.0108	+/-0.0251	0.0367	0.100						
Cobalt-60	U	0.00647	+/-0.0169	0.0307	0.100						
Europium-152	U	0.0559	+/-0.0488	0.0738	0.200						
Europium-154	U	-0.0361	+/-0.0561	0.0945	0.500						
Europium-155	U	0.00	+/-0.0838	0.0871	0.500						
Iridium-192	U	-0.00811	+/-0.0202	0.0352	0.100						
Iron-59	U	-0.000488	+/-0.0768	0.113	0.300						
Lead-210	U	1.41	+/-1.71	2.11	4.00						
Lead-212		1.29	+/-0.145	0.0449	0.100						
Lead-214		1.05	+/-0.138	0.0502	0.100						
Manganese-54	U	0.00364	+/-0.0183	0.0304	0.100						
Mercury-203	U	0.00	+/-0.0516	0.0498	0.100						
Neodymium-147	U	-2.24	+/-1.93	3.04	1000						
Neptunium-239	U	-0.0202	+/-0.0903	0.158	2.00						
Niobium-94	U	0.0141	+/-0.013	0.0261	1.00						
Niobium-95	U	0.00	+/-0.0428	0.0792	0.050						
Potassium-40	U	20.9	+/-1.70	0.246	1.00						
Promethium-144	U	0.00709	+/-0.0156	0.028	0.080						
Promethium-146	U	0.00	+/-0.0275	0.0338	1.00						
Radium-226		0.873	+/-0.128	0.0554	1.00						
Radium-228		1.29	+/-0.231	0.103	0.500						

SRB 09/27/03 1433 274784 1

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Report Date: September 29, 2003

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Client Sample ID: IGLOO 807-SB23; 0.5-2
Sample ID: 86843035

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0674	+/-0.146	0.266	0.800						pCi/g
Silver-110m	U	-0.00952	+/-0.0159	0.0274	0.080						pCi/g
Sodium-22	U	-0.0134	+/-0.0204	0.0343	0.080						pCi/g
Thallium-208		0.381	+/-0.059	0.0273	0.080						pCi/g
Thorium-230		0.873	+/-0.128	0.0554	1.00						pCi/g
Thorium-232		1.23	+/-0.138	0.0428	0.500						pCi/g
Thorium-234		1.85	+/-1.16	0.899	2.00						pCi/g
Tin-113	U	-0.00268	+/-0.0238	0.0414	0.100						pCi/g
Uranium-234		0.984	+/-0.176	0.109	1.00						pCi/g
Uranium-235		0.190	+/-0.188	0.186	0.500						pCi/g
Uranium-238		1.85	+/-1.16	0.899	1.00						pCi/g
Yttrium-88	U	0.0133	+/-0.0184	0.0358	0.100						pCi/g
Zinc-65	U	-0.0298	+/-0.0501	0.0729	0.300						pCi/g
Zirconium-95	U	0.0189	+/-0.0431	0.0773	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Certificate of Analysis

Company : Parsons
Address : 100 Summer Street

Boston, Massachusetts 02110

Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 807-SB23; 0.5-2
Sample ID: 86843035

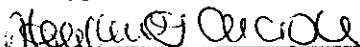
Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 807-SB23; 2-4
Sample ID: 86843036
Matrix: Soil
Collect Date: 11-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.01 +/-0.209	0.0963	0.800	pCi/g		SRB	09/23/03	0750	274782	1
Americium-241	U	-0.0259 +/-0.0659	0.105	0.200	pCi/g						
Antimony-124	U	-0.00487 +/-0.0239	0.0419	0.100	pCi/g						
Antimony-125	U	0.0502 +/-0.0453	0.0736	0.200	pCi/g						
Barium-133	U	0.0211 +/-0.0184	0.0326	0.100	pCi/g						
Barium-140	U	0.138 +/-0.521	0.896	0.500	pCi/g						
Beryllium-7	U	0.148 +/-0.227	0.355	0.700	pCi/g						
Bismuth-212		0.667 +/-0.231	0.220	0.500	pCi/g						
Bismuth-214		0.639 +/-0.103	0.0545	0.200	pCi/g						
Cerium-139	U	0.00188 +/-0.0175	0.0298	0.050	pCi/g						
Cerium-141	U	0.0364 +/-0.0563	0.0909	0.100	pCi/g						
Cerium-144	U	-0.00134 +/-0.105	0.181	0.500	pCi/g						
Cesium-134	U	0.00	+/-0.0233	0.036	0.100	pCi/g					
Cesium-136	U	0.125 +/-0.167	0.398	0.300	pCi/g						
Cesium-137	U	-0.0209 +/-0.0166	0.027	0.100	pCi/g						
Chromium-51	U	0.0816 +/-0.352	0.622	0.600	pCi/g						
Cobalt-56	U	0.0228 +/-0.0352	0.0367	0.100	pCi/g						
Cobalt-57	U	-0.00399 +/-0.013	0.0223	0.050	pCi/g						
Cobalt-58	U	0.00209 +/-0.0211	0.0371	0.100	pCi/g						
Cobalt-60	U	0.00342 +/-0.0178	0.0319	0.100	pCi/g						
Europium-152	U	0.00288 +/-0.0441	0.0772	0.200	pCi/g						
Europium-154	U	-0.0386 +/-0.0553	0.0924	0.500	pCi/g						
Europium-155	U	0.00	+/-0.0753	0.085	0.500	pCi/g					
Iridium-192	U	0.00706 +/-0.0205	0.0364	0.100	pCi/g						
Iron-59	U	0.0192 +/-0.0795	0.118	0.300	pCi/g						
Lead-210	U	0.781 +/-1.29	2.18	4.00	pCi/g						
Lead-212		1.03 +/-0.119	0.0437	0.100	pCi/g						
Lead-214		0.792 +/-0.106	0.053	0.100	pCi/g						
Manganese-54	U	-0.00762 +/-0.0187	0.0316	0.100	pCi/g						
Mercury-203	U	0.0371 +/-0.0445	0.0495	0.100	pCi/g						
Neodymium-147	U	-1.16 +/-1.46	2.34	1000	pCi/g						
Neptunium-239	U	-0.022 +/-0.0901	0.155	2.00	pCi/g						
Niobium-94	U	-0.00375 +/-0.0154	0.0267	1.00	pCi/g						
Niobium-95	U	0.042 +/-0.0431	0.0695	0.050	pCi/g						
Potassium-40		21.4 +/-1.74	0.260	1.00	pCi/g						
Promethium-144	U	-0.00373 +/-0.016	0.0277	0.080	pCi/g						
Promethium-146	U	-0.0029 +/-0.0194	0.033	1.00	pCi/g						
Radium-226		0.639 +/-0.103	0.0545	1.00	pCi/g						
Radium-228	U	1.01 +/-0.209	0.0963	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 807-SB23; 2-4
Sample ID: 86843036

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0405	+/-0.146	0.256	0.800						pCi/g
Silver-110m	U	0.0059	+/-0.0157	0.0283	0.080						pCi/g
Sodium-22	U	-0.0138	+/-0.0201	0.0336	0.080						pCi/g
Thallium-208		0.320	+/-0.0487	0.0284	0.080						pCi/g
Thorium-230		0.639	+/-0.103	0.0545	1.00						pCi/g
Thorium-232		0.987	+/-0.114	0.0419	0.500						pCi/g
Thorium-234	U	0.514	+/-0.927	0.915	2.00						pCi/g
Tin-113	U	-0.00445	+/-0.0238	0.0409	0.100						pCi/g
Uranium-234		0.779	+/-0.134	0.105	1.00						pCi/g
Uranium-235	U	0.081	+/-0.124	0.180	0.500						pCi/g
Uranium-238	U	0.514	+/-0.927	0.915	1.00						pCi/g
Yttrium-88	U	-0.00652	+/-0.0164	0.0289	0.100						pCi/g
Zinc-65	U	-0.000881	+/-0.0516	0.0785	0.300						pCi/g
Zirconium-95	U	0.0471	+/-0.039	0.0727	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXGI	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 807-SB23; 2-4
Sample ID: 86843036

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 807-SB24; 0-0.5
Sample ID: 86843037
Matrix: Soil
Collect Date: 11-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.14 +/-0.247	0.177	0.800	pCi/g		SRB	09/23/03	0753	274782	1
Americium-241	U	0.0254 +/-0.188	0.329	0.200	pCi/g						
Antimony-124	U	0.0243 +/-0.0366	0.0682	0.100	pCi/g						
Antimony-125	U	0.0749 +/-0.0758	0.124	0.200	pCi/g						
Barium-133	U	-0.00444 +/-0.0362	0.0546	0.100	pCi/g						
Barium-140	U	0.00189 +/-0.826	1.50	0.500	pCi/g						
Beryllium-7	U	0.372 +/-0.359	0.651	0.700	pCi/g						
Bismuth-212		1.14 +/-0.425	0.346	0.500	pCi/g						
Bismuth-214		0.837 +/-0.130	0.0818	0.200	pCi/g						
Cerium-139	U	-0.00854 +/-0.0276	0.0488	0.050	pCi/g						
Cerium-141	U	0.00513 +/-0.0928	0.167	0.100	pCi/g						
Cerium-144	U	0.0191 +/-0.192	0.307	0.500	pCi/g						
Cesium-134	U	0.00 +/-0.045	0.0618	0.100	pCi/g						
Cesium-136	U	0.0168 +/-0.408	0.620	0.300	pCi/g						
Cesium-137	U	0.232 +/-0.045	0.0369	0.100	pCi/g						
Chromium-51	U	0.186 +/-0.579	1.03	0.600	pCi/g						
Cobalt-56	U	0.00667 +/-0.0362	0.065	0.100	pCi/g						
Cobalt-57	U	0.00572 +/-0.0216	0.0394	0.050	pCi/g						
Cobalt-58	U	-0.0475 +/-0.0362	0.0576	0.100	pCi/g						
Cobalt-60	U	0.026 +/-0.0273	0.0543	0.100	pCi/g						
Europium-152	U	-0.0414 +/-0.0736	0.124	0.200	pCi/g						
Europium-154	U	-0.00166 +/-0.0907	0.157	0.500	pCi/g						
Europium-155	U	0.0557 +/-0.0894	0.166	0.500	pCi/g						
Iridium-192	U	0.00184 +/-0.0345	0.0604	0.100	pCi/g						
Iron-59	U	-0.044 +/-0.106	0.178	0.300	pCi/g						
Lead-210	U	2.07 +/-8.85	14.0	4.00	pCi/g						
Lead-212		1.44 +/-0.150	0.0776	0.100	pCi/g						
Lead-214		1.05 +/-0.144	0.0945	0.100	pCi/g						
Manganese-54	U	-0.00934 +/-0.0287	0.0495	0.100	pCi/g						
Mercury-203	U	0.0744 +/-0.0757	0.0838	0.100	pCi/g						
Neodymium-147	U	0.122 +/-2.28	4.15	1000	pCi/g						
Neptunium-239	U	0.0194 +/-0.151	0.276	2.00	pCi/g						
Niobium-94	U	-0.00161 +/-0.0232	0.0411	1.00	pCi/g						
Niobium-95	U	0.00787 +/-0.0632	0.113	0.050	pCi/g						
Potassium-40		22.8 +/-1.84	0.407	1.00	pCi/g						
Promethium-144	U	0.0105 +/-0.0247	0.0452	0.080	pCi/g						
Promethium-146	U	0.0257 +/-0.0331	0.0594	1.00	pCi/g						
Radium-226		0.837 +/-0.130	0.0818	1.00	pCi/g						
Radium-228	U	1.14 +/-0.247	0.177	0.500	pCi/g						

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Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 2 of 3

Client Sample ID: IGLOO 807-SB24; 0-0.5
Sample ID: 86843037

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.00191	+/-0.230	0.414	0.800						pCi/g
Silver-110m	U	-0.00625	+/-0.0259	0.0396	0.080						pCi/g
Sodium-22	U	-0.000365	+/-0.033	0.0571	0.080						pCi/g
Thallium-208		0.362	+/-0.059	0.0448	0.080						pCi/g
Thorium-230		0.837	+/-0.130	0.0818	1.00						pCi/g
Thorium-232		1.38	+/-0.144	0.0743	0.500						pCi/g
Thorium-234	U	2.26	+/-2.54	2.35	2.00						pCi/g
Tin-113	U	0.00245	+/-0.039	0.0679	0.100						pCi/g
Uranium-234		0.962	+/-0.224	0.181	1.00						pCi/g
Uranium-235	U	0.162	+/-0.170	0.310	0.500						pCi/g
Uranium-238	U	2.26	+/-2.54	2.35	1.00						pCi/g
Yttrium-88	U	-0.00739	+/-0.0239	0.0431	0.100						pCi/g
Zinc-65	U	-0.0386	+/-0.0811	0.115	0.300						pCi/g
Zirconium-95	U	0.0116	+/-0.0682	0.123	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
I	EML HASL 300, 4.5 2.3	

Notes:

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Report Date: September 29, 2003

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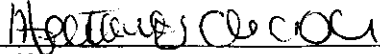
Client Sample ID: IGLOO 807-SB24; 0-0.5
Sample ID: 86843037

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Client Sample ID: IGLOO 808-SB25; 0-0.5
Sample ID: 86843038
Matrix: Soil
Collect Date: 07-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.331 +/-0.108	0.0833	0.800	pCi/g		SRB	09/23/03	1142	274782	1
Americium-241	U	0.0143 +/-0.0575	0.104	0.200	pCi/g						
Antimony-124	U	-0.013 +/-0.0205	0.0369	0.100	pCi/g						
Antimony-125	U	0.0203 +/-0.0339	0.0643	0.200	pCi/g						
Barium-133	U	0.00492 +/-0.0172	0.0287	0.100	pCi/g						
Barium-140	U	0.123 +/-0.523	1.01	0.500	pCi/g						
Beryllium-7	U	-0.000412 +/-0.191	0.346	0.700	pCi/g						
Bismuth-212	U	0.104 +/-0.108	0.212	0.500	pCi/g						
Bismuth-214		0.711 +/-0.0899	0.0431	0.200	pCi/g						
Cerium-139	U	-0.0018 +/-0.0131	0.0239	0.050	pCi/g						
Cerium-141	U	-0.0021 +/-0.0471	0.0871	0.100	pCi/g						
Cerium-144	U	0.0404 +/-0.082	0.156	0.500	pCi/g						
Cesium-134	U	0.0232 +/-0.0152	0.0307	0.100	pCi/g						
Cesium-136	U	0.145 +/-0.208	0.398	0.300	pCi/g						
Cesium-137		0.110 +/-0.0372	0.0216	0.100	pCi/g						
Chromium-51	U	0.181 +/-0.294	0.569	0.600	pCi/g						
Cobalt-56	U	-0.013 +/-0.0236	0.0349	0.100	pCi/g						
Cobalt-57	U	0.00284 +/-0.010	0.0191	0.050	pCi/g						
Cobalt-58	U	-0.0108 +/-0.0176	0.0308	0.100	pCi/g						
Cobalt-60	U	-0.000252 +/-0.0176	0.0279	0.100	pCi/g						
Europium-152	U	-0.0116 +/-0.0333	0.0611	0.200	pCi/g						
Europium-154	U	0.0148 +/-0.0399	0.0765	0.500	pCi/g						
Europium-155	U	-0.00277 +/-0.0384	0.073	0.500	pCi/g						
Iridium-192	U	-0.0104 +/-0.0166	0.0301	0.100	pCi/g						
Iron-59	U	0.00159 +/-0.0538	0.101	0.300	pCi/g						
Lead-210	U	2.56 +/-1.34	2.64	4.00	pCi/g						
Lead-212		0.341 +/-0.0541	0.0426	0.100	pCi/g						
Lead-214		0.845 +/-0.106	0.0448	0.100	pCi/g						
Manganese-54	U	-0.00721 +/-0.0142	0.025	0.100	pCi/g						
Mercury-203	U	0.00474 +/-0.0229	0.0438	0.100	pCi/g						
Neodymium-147	U	-0.0938 +/-1.47	2.64	1000	pCi/g						
Neptunium-239	U	0.00178 +/-0.0677	0.128	2.00	pCi/g						
Niobium-94	U	0.00463 +/-0.0118	0.0225	1.00	pCi/g						
Niobium-95	U	0.037 +/-0.0372	0.0647	0.050	pCi/g						
Potassium-40		7.10 +/-0.702	0.215	1.00	pCi/g						
Promethium-144	U	0.00348 +/-0.0123	0.0233	0.080	pCi/g						
Promethium-146	U	0.00481 +/-0.0156	0.029	1.00	pCi/g						
Radium-226		0.711 +/-0.0899	0.0431	1.00	pCi/g						
Radium-228	J	0.331 +/-0.108	0.0833	0.500	pCi/g						

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Client Sample ID: IGLOO 808-SB25; 0-0.5
Sample ID: 86843038

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.128 +/-0.149	0.150	0.800	pCi/g						
Silver-110m	U	0.000635 +/-0.0149	0.0243	0.080	pCi/g						
Sodium-22	U	0.00551 +/-0.0145	0.0279	0.080	pCi/g						
Thallium-208		0.106 +/-0.0353	0.0234	0.080	pCi/g						
Thorium-230		0.711 +/-0.0899	0.0431	1.00	pCi/g						
Thorium-232		0.326 +/-0.0516	0.0406	0.500	pCi/g						
Thorium-234	U	0.106 +/-0.954	0.898	2.00	pCi/g						
Tin-113	U	0.00427 +/-0.0203	0.0379	0.100	pCi/g						
Uranium-234		0.884 +/-0.128	0.0835	1.00	pCi/g						
Uranium-235	U	0.0736 +/-0.0791	0.150	0.500	pCi/g						
Uranium-238	U	0.106 +/-0.954	0.898	1.00	pCi/g						
Yttrium-88	U	0.00464 +/-0.017	0.0334	0.100	pCi/g						
Zinc-65	U	0.0154 +/-0.0389	0.065	0.300	pCi/g						
Zirconium-95	U	-0.0276 +/-0.0358	0.0622	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1407	273472

The following Analytical Methods were performed

Method	Description	Analyst Comments
I	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons
Address : 100 Summer Street

Boston, Massachusetts 02110
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 3 of 3

Client Sample ID: IGLOO 808-SB25; 0-0.5
Sample ID: 86843038

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Heidi A. Cole
Reviewed by

**Soil Boring Data and
Concrete Sample from Interior E0804 East Drain
SEAD-48
Seneca Army Depot Activity**

Page: 1 of 3
 Project #: 740497
 GEL Quote #: PESI00103
 COC Number ⁽¹⁾:
 PO Number:

General Engineering Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

GEL Chain of Custody and Analytical Request

Client Name: Parsons Phone #: (617) 457-7900
 Project/Site Name: SEAD-48 Fax #: (617) 457-7979
 Address: 100 Summer St. 8th Fl. Boston MA 02110

Collected by: E. Ashton Send Results To: Jackie Travers

Sample ID	Date Collected (mm-dd-yy)	Time Collected (Military) (hh:mm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:		Total number of containers	Preservative Type (6)	Comments	Chain of Custody
						Radioactive	TSCA Regulated				
001 19100 808-SB26; 0-0.5 ft	8/07/03	—	N	—	SO	X		1			
002 19100 808-SB27; 0-0.5 ft	8/10/03	—	N	—	SO	X		1			
003 19100 808-SB28; 0-0.5 ft	8/11/03	—	N	—	SO	X		1			
004 19100 808-SB29; 0-0.5 ft	8/10/03	—	N	—	SO	X		1			
005 19100 809-SB30; 0-0.5 ft	8/07/03	—	N	—	SO	X		1			
006 19100 809-SB31; 0-0.5 ft	8/07/03	—	N	—	SO	X		1			
007 19100 809-SB32; 0-0.5 ft	8/09/03	—	N	—	SO	X		1			
008 19100 809-SB33; 0-0.5 ft	8/09/03	—	N	—	SO	X		1			
009 19100 810-SB34; 0-0.5 ft	8/08/03	—	N	—	SO	X		1			
010 19100 810-SB35-1; 0-0.5 ft	8/07/03	—	N	—	SO	X		1			

TAT Requested: Normal: X Rush: Specify: (Subject to Surcharge) Fax Results: Yes / No Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Chain of Custody Signatures			Sample Shipping and Delivery Details		
Relinquished By (Signed)	Date	Time	Received By (Signed)	Date	Time
<u>[Signature]</u>	8/23/07	1230	<u>Valerie Davis</u>	8/23/07	0915
			Method of Shipment: <u>Fedex</u>	Date Shipped: <u>8/23/07</u>	
			Airbill #: <u>841676701112</u>		
			Airbill #:		

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filzer, P = Wipe, U = Urine, F = Fecal, N = Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6910B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6910B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: 23.7 C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

Page: 2 of 3
 Project #: 740497
 GEL Quote #: PESI 00103
 COC Number (1): _____
 PO Number: _____

Client Name: PARSONS Phone #: (617) 457-7900
 Project/Site Name: SEAD-48 Fax #: (617) 457-7979

Address: 100 Summer St. 8th Fl. Boston MA 02110
 Collected by: E. Ashton Send Results To: Jackie Travers

Sample ID	Date Collected (mm-dd-yy)	Time Collected (Military) (hh:mm)	QC Code (in)	Field Filtered (in)	Sample Matrix (in)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5)		Comments
						Radioactive	TSCA Regulated		(6)	Preservative Type (6)	
0119100810-SB35-2; 0-0.5 ft	8/07/03	—	FD	—	SO	X	X	1	X		Chain of Custody
0129100810-SB36; 0-0.5 ft	8/11/03	—	N	—	SO	X	X	1	X		Chain of Custody
0139100810-SB36; 0-2.4 ft	8/11/03	—	N	—	SO	X	X	1	X		Chain of Custody
0149100810-SB37; 0-0.5 ft	8/09/03	—	N	—	SO	X	X	1	X		Chain of Custody
0159100811-SB38; 0-0.5 ft	8/08/03	—	N	—	SO	X	X	1	X		Chain of Custody
0169100811-SB39; 0-0.5 ft	8/08/03	—	N	—	SO	X	X	1	X		Chain of Custody
0179100811-SB40-1; 0-0.5 ft	8/08/03	—	N	—	SO	X	X	1	X		Chain of Custody
0189100811-SB40-2; 0-0.5 ft	8/08/03	—	FD	—	SO	X	X	1	X		Chain of Custody
0199100811-SB40; 0.5-2 ft	8/08/03	—	N	—	SO	X	X	1	X		Chain of Custody
0209100811-SB41; 0-0.5 ft	8/09/03	—	N	—	SO	X	X	1	X		Chain of Custody

TAT Requested: Normal: X Rush: _____ Specify: _____ (Subject to Surcharge) Fax Results: Yes / No
 Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Chain of Custody Signatures
 Relinquished By (Signed) [Signature] Date 8/23/03 Time 1230
 Received By (Signed) [Signature] Date 8/23/03 Time 0915
 1. [Signature]
 2. [Signature]
 3. [Signature]

Sample Shipping and Delivery Details
 GEL PM: Valerie Davis
 Method of Shipment: FedEX Date Shipped: 8/23/03
 Airbill #: 84167670112
 Airbill #: _____

For Lab Receiving Use Only
 Custody Seal Intact? YES
 Cooler Temp: 40 C

WHITE = LABORATORY
 YELLOW = FILE
 PINK = CLIENT

GEL Chain of Custody and Analytical Request

General Engineering Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: PARSONS
Phone #: 617-457-7900

Project/Site Name: 8EAD-48
Fax #: 617 457-7979

Address: 100 Summer St. 8th Fl. Boston MA 02110

Collected by: E. Ashton Send Results To: Jackie Travers

[illegible]

TAT Requested: Normal: ☒ Rush: ☐	Specify: _____	Rush: _____	Yes / No	Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4
(Subject to Surcharge) Fax Results: _____				
Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards				

Chain of Custody Signatures			Sample Shipping and Delivery Details	
Relinquished By (Signed)	Date	Time	Received By (signed)	Date
<i>[Signature]</i>	8/23/03	1230	1 <i>[Signature]</i>	8/23/03
			2	
			3	

GEL PM: Valerie Davis	Date Shipped: 8/23/03	
Method of Shipment: Fed EX		
Airbill #: 84167670112		
Airbill #:		

1.) Chain of Custody Number = Client Determined

) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, ER = Equipment Blank, MS = Matrix Spike, S = Spiked Sample

.) Field Filtered: For liquid matrices, indicate with a • Y • for yes the sample was field filtered or • N • for sample was not field filtered.

) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, SO = Soil, SD =

Preservative Type: HA = Hydrochloric Acid; NT = Nitric Acid; SE = Sodium Metasilicate; SA = Sodium Acetate.

WHITE = LABORATORY
YELLOW = 1

QC = Control; N = Normal sample; LB = Trip blank; FU = Field Duplicate; EB = Equipment Blank; MS = Matrix Spike Sample; MSD = Matrix Spike Duplicate Sample; G = Grab; C = Composite

2) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, SO = Soil, SD = Sediment or Sludge.

Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

reservative type: HA = Hydrochonic Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, if no preservative is

WHITE - LABORATORY

WHITE = INFORMATION
YELLOW = FILE
PINK = CLIENT

For Lab Receiving Use Only:

Custody Seal Intact?

Cooler Temp.

UN

**Radiochemistry Case Narrative
Parsons Engineering, Inc. (PEI)
Work Order 86840**

Method/Analysis Information

Procedure:

Determination of Gamma Isotopes in Water and Soil

Analytical Method:

EML HASL 300, 4.5.2.3

Prep Method:

Dry Soil Prep

Analytical Batch Number:

274074

Prep Batch Number:

274071

Sample ID

Client ID

86840026

IGLOO 805-SB14A; 0-4 in

86840027

IGLOO 804-East Drain

1200482422

Method Blank (MB)

1200482424

Laboratory Control Sample (LCS)

1200482423

86840026(IGLOO 805-SB14A; 0-4 in) Sample Duplicate (DUP)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV.8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume(s) in this batch.

Designated QC

The following sample was used for QC: 86840026 (IGLOO 805-SB14A; 0-4 in).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:**NCR Documentation**

No NCR was generated for the preparation or analysis of this sample set.

Additional Comments

Due to high sample activity that raised the compton background, the duplicate sample 1200482423 (IGLOO 805-SB14A; 0-4 in) did not meet the GEL standard detection limit for Cs-137.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to interference.	Cerium-141	1200482423
			86840026
			86840027
		Manganese-54	1200482423
UI	Data rejected due to low abundance.	Mercury-203	86840026
		Americium-241	86840027
		Antimony-125	1200482423
			86840026
			86840027
		Barium-133	86840026
		Beryllium-7	86840026
		Bismuth-214	1200482422
		Cerium-139	86840026
		Europium-154	86840026
		Iridium-192	86840026
		Manganese-54	86840026
		Neodymium-147	86840026
		Neptunium-239	86840026
		Niobium-94	1200482423
			86840027
		Niobium-95	1200482423
			86840026
			86840027
		Promethium-146	1200482423
			86840026
			86840027
		Radium-226	1200482422
		Thorium-230	1200482422
		Yttrium-88	1200482423
			86840026
			86840027
		Zinc-65	1200482423
			86840026
			86840027
UI	Data rejected due to no valid peak.	Niobium-94	86840026

Method/Analysis Information**Procedure:**

Analytical Method:

Prep Method:

Determination of Gamma Isotopes in Water and Soil

EML HASL 300, 4.5.2.3

Dry Soil Prep

Analytical Batch Number: 274781
Prep Batch Number: 273433

Sample ID	Client ID
86840001	IGLOO 808-SB26; 0-0.5 ft
86840002	IGLOO 808-SB27; 0-0.5 ft
86840003	IGLOO 808-SB28; 0-0.5 ft
86840004	IGLOO 808-SB29; 0-0.5 ft
86840005	IGLOO 809-SB30; 0-0.5 ft
86840006	IGLOO 809-SB31; 0-0.5 ft
86840007	IGLOO 809-SB32; 0-0.5 ft
86840008	IGLOO 809-SB33; 0-0.5 ft
86840009	IGLOO 810-SB34; 0-0.5 ft
86840010	IGLOO 810-SB35-1; 0-0.5 ft
86840011	IGLOO 810-SB35-2; 0-0.5 ft
86840012	IGLOO 810-SB36; 0-0.5 ft
86840013	IGLOO 810-SB36; 0/2-4 ft
86840014	IGLOO 810-SB37; 0-0.5 ft
86840015	IGLOO 811-SB38; 0-0.5 ft
86840016	IGLOO 811-SB39; 0-0.5 ft
86840017	IGLOO 811-SB40-1; 0-0.5 ft
86840018	IGLOO 811-SB40-2; 0-0.5 ft
86840019	IGLOO 811-SB40; 0.5-2 ft
86840020	IGLOO 811-SB41; 0-0.5 ft
1200484142	Method Blank (MB)
1200484144	Laboratory Control Sample (LCS)
1200484143	86840001(IGLOO 808-SB26; 0-0.5 ft) Sample Duplicate (DUP)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV.8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume(s) in this batch.

Designated QC

The following sample was used for QC: 86840001 (IGLOO 808-SB26; 0-0.5 ft).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:**NCR Documentation**

No NCR was generated for the preparation or analysis of this sample set.

Additional Comments

For sample 1200484143 (IGLOO 808-SB26; 0-0.5 ft), the RPD for Th-230 fails at 21.8 %, but the RER passes at 0.624.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to interference.	Antimony-125	86840017
		Cerium-141	86840007
			86840017
			86840020
		Europium-155	86840015
		Mercury-203	86840014
			86840019
		Niobium-95	86840005
		Antimony-125	86840020
		Beryllium-7	86840020
UI	Data rejected due to low abundance.	Cerium-139	86840020
		Cesium-134	86840010
			86840017
		Niobium-94	86840020
		Niobium-95	86840017
			86840020
		Promethium-146	86840020
		Silver-110m	86840005
		Thorium-234	1200484142
		Uranium-238	1200484142
		Yttrium-88	86840020
		Zinc-65	86840020
		Americium-241	86840011
		Cesium-134	86840018
		Cobalt-58	86840019
UI	Data rejected due to no valid peak.	Lead-210	86840005
		Niobium-95	86840018
		Ruthenium-106	86840001
			86840004
		Thorium-232	86840005
		Uranium-234	86840005
		Uranium-235	86840007

Method/Analysis Information**Procedure:**

Analytical Method:

Prep Method:

Analytical Batch Number:

Prep Batch Number:

Determination of Gamma Isotopes in Water and Soil

EML HASL 300, 4.5.2.3

Dry Soil Prep

274782

273435

Sample ID**Client ID**

86840021

IGLOO 811-SB41; 0.5-2 ft

86840022

IGLOO 811-SB41; 0/2-4 ft

86840023

IGLOO 912-SB42; 0-0.5 ft

86840024

IGLOO 912-SB43; 0-0.5 ft

86840025

IGLOO 912-SB44; 0-3 in

1200484145

Method Blank (MB)

1200484147

Laboratory Control Sample (LCS)

1200484146

86840021(IGLOO 811-SB41; 0.5-2 ft) Sample Duplicate (DUP)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV.8.

Calibration Information:**Calibration Information**

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:**Blank Information**

The blank volume is representative of the sample volume(s) in this batch.

Designated QC

The following sample was used for QC: 86840021 (IGLOO 811-SB41; 0.5-2 ft).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:**Holding Time**

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons
Address : 100 Summer Street

Boston, Massachusetts 02110
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 1 of 3

Client Sample ID: IGLOO 808-SB26; 0-0.5 ft
Sample ID: 86840001
Matrix: Soil
Collect Date: 07-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.839 +/-0.207	0.178	0.800	pCi/g		SRB	09/23/03	1159	274781	1
Americium-241	U	-0.104 +/-0.269	0.308	0.200	pCi/g						
Antimony-124	U	0.0519 +/-0.0623	0.0796	0.100	pCi/g						
Antimony-125	U	-0.00405 +/-0.0783	0.133	0.200	pCi/g						
Barium-133	U	0.0178 +/-0.0366	0.0572	0.100	pCi/g						
Barium-140	U	0.334 +/-1.06	1.93	0.500	pCi/g						
Beryllium-7	U	-0.142 +/-0.370	0.614	0.700	pCi/g						
Bismuth-212		0.511 +/-0.328	0.373	0.500	pCi/g						
Bismuth-214	J	0.842 +/-0.140	0.0811	0.200	pCi/g						
Cerium-139	U	-0.00697 +/-0.0282	0.0491	0.050	pCi/g						
Cerium-141	U	0.0565 +/-0.102	0.183	0.100	pCi/g						
Cerium-144	U	-0.108 +/-0.179	0.309	0.500	pCi/g						
Cesium-134	U	0.0569 +/-0.0435	0.0591	0.100	pCi/g						
Cesium-136	U	0.0589 +/-0.439	0.779	0.300	pCi/g						
Cesium-137		0.254 +/-0.0645	0.0501	0.100	pCi/g						
Chromium-51	U	-0.158 +/-0.628	1.07	0.600	pCi/g						
Cobalt-56	U	-0.00425 +/-0.0448	0.0678	0.100	pCi/g						
Cobalt-57	U	0.0249 +/-0.0241	0.0403	0.050	pCi/g						
Cobalt-58	U	0.0196 +/-0.0388	0.0715	0.100	pCi/g						
Cobalt-60	U	0.0237 +/-0.0319	0.0619	0.100	pCi/g						
Europium-152	U	0.00723 +/-0.0771	0.133	0.200	pCi/g						
Europium-154	U	-0.015 +/-0.0879	0.151	0.500	pCi/g						
Europium-155	U	0.00136 +/-0.0898	0.161	0.500	pCi/g						
Iridium-192	U	-0.00293 +/-0.037	0.0636	0.100	pCi/g						
Iron-59	U	-0.0438 +/-0.109	0.184	0.300	pCi/g						
Lead-210	U	4.89 +/-9.35	14.6	4.00	pCi/g						
Lead-212		0.908 +/-0.114	0.078	0.100	pCi/g						
Lead-214		1.04 +/-0.154	0.0902	0.100	pCi/g						
Manganese-54	U	0.0395 +/-0.0291	0.0563	0.100	pCi/g						
Mercury-203	U	0.0767 +/-0.0554	0.101	0.100	pCi/g						
Neodymium-147	U	0.235 +/-2.98	5.39	1000	pCi/g						
Neptunium-239	U	0.169 +/-0.187	0.273	2.00	pCi/g						
Niobium-94	U	0.00986 +/-0.0238	0.0434	1.00	pCi/g						
Niobium-95	U	-0.0131 +/-0.0697	0.121	0.050	pCi/g						
Potassium-40		18.0 +/-1.59	0.433	1.00	pCi/g						
Promethium-144	U	0.0148 +/-0.0271	0.0497	0.080	pCi/g						
Promethium-146	U	-0.0101 +/-0.0361	0.0604	1.00	pCi/g						
Radium-226	J	0.842 +/-0.140	0.0811	1.00	pCi/g						

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Client Sample ID: IGLOO 808-SB26; 0-0.5 ft
Sample ID: 86840001

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Radium-228		0.839	+/-0.207	0.178	0.500						pCi/g
Ruthenium-106	U	0.00	+/-0.573	0.416	0.800						pCi/g
Silver-110m	U	0.00197	+/-0.0314	0.0489	0.080						pCi/g
Sodium-22	U	-0.00567	+/-0.032	0.0547	0.080						pCi/g
Thallium-208		0.277	+/-0.0641	0.0456	0.080						pCi/g
Thorium-230	J	0.842	+/-0.140	0.0811	1.00						pCi/g
Thorium-232		0.866	+/-0.109	0.0744	0.500						pCi/g
Thorium-234	U	0.473	+/-2.48	2.58	2.00						pCi/g
Tin-113	U	-0.00975	+/-0.0419	0.0708	0.100						pCi/g
Uranium-234		0.936	+/-0.243	0.190	1.00						pCi/g
Uranium-235	U	0.156	+/-0.173	0.312	0.500						pCi/g
Uranium-238	U	0.473	+/-2.48	2.58	1.00						pCi/g
Yttrium-88	U	0.0124	+/-0.030	0.0601	0.100						pCi/g
Zinc-65	U	-0.0706	+/-0.092	0.124	0.300						pCi/g
Zirconium-95	U	0.0444	+/-0.0714	0.133	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 808-SB26; 0-0.5 ft
Sample ID: 86840001

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Client Sample ID: IGLOO 808-SB27; 0-0.5 ft
Sample ID: 86840002
Matrix: Soil
Collect Date: 10-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.917 +/-0.247	0.163	0.800	pCi/g		SRB	09/23/03	1312	274781	1
Americium-241	U	0.0246 +/-0.110	0.187	0.200	pCi/g						
Antimony-124	U	0.0156 +/-0.0381	0.0706	0.100	pCi/g						
Antimony-125	U	-0.0116 +/-0.0576	0.104	0.200	pCi/g						
Barium-133	U	0.0122 +/-0.0345	0.0544	0.100	pCi/g						
Barium-140	U	-0.264 +/-0.937	1.65	0.500	pCi/g						
Beryllium-7	U	-0.093 +/-0.337	0.599	0.700	pCi/g						
Bismuth-212		0.537 +/-0.312	0.467	0.500	pCi/g						
Bismuth-214	J	0.825 +/-0.148	0.0901	0.200	pCi/g						
Cerium-139	U	-0.0183 +/-0.0229	0.0388	0.050	pCi/g						
Cerium-141	U	0.00697 +/-0.0787	0.140	0.100	pCi/g						
Cerium-144	U	0.117 +/-0.142	0.261	0.500	pCi/g						
Cesium-134	U	0.0301 +/-0.0302	0.0585	0.100	pCi/g						
Cesium-136	U	0.253 +/-0.387	0.755	0.300	pCi/g						
Cesium-137		0.269 +/-0.0655	0.0552	0.100	pCi/g						
Chromium-51	U	-0.46 +/-0.631	0.893	0.600	pCi/g						
Cobalt-56	U	-0.0233 +/-0.0357	0.0585	0.100	pCi/g						
Cobalt-57	U	-0.00347 +/-0.0173	0.0308	0.050	pCi/g						
Cobalt-58	U	-0.0308 +/-0.0399	0.0645	0.100	pCi/g						
Cobalt-60	U	0.0136 +/-0.0291	0.057	0.100	pCi/g						
Europium-152	U	0.0125 +/-0.0735	0.127	0.200	pCi/g						
Europium-154	U	0.0793 +/-0.0942	0.186	0.500	pCi/g						
Europium-155	U	0.0625 +/-0.0718	0.134	0.500	pCi/g						
Iridium-192	U	-0.0102 +/-0.035	0.0587	0.100	pCi/g						
Iron-59	U	-0.0229 +/-0.104	0.187	0.300	pCi/g						
Lead-210	U	1.26 +/-5.96	4.88	4.00	pCi/g						
Lead-212		0.867 +/-0.125	0.069	0.100	pCi/g						
Lead-214		0.928 +/-0.162	0.0848	0.100	pCi/g						
Manganese-54	U	0.00162 +/-0.031	0.0547	0.100	pCi/g						
Mercury-203	U	0.0349 +/-0.0629	0.0722	0.100	pCi/g						
Neodymium-147	U	-2.11 +/-2.59	4.34	1000	pCi/g						
Neptunium-239	U	0.0098 +/-0.125	0.225	2.00	pCi/g						
Niobium-94	U	-0.00252 +/-0.0249	0.0439	1.00	pCi/g						
Niobium-95	U	0.0235 +/-0.0736	0.118	0.050	pCi/g						
Potassium-40		20.4 +/-2.53	0.405	1.00	pCi/g						
Promethium-144	U	-0.00496 +/-0.0273	0.0477	0.080	pCi/g						
Promethium-146	U	0.0255 +/-0.0299	0.0575	1.00	pCi/g						
Radium-226	J	0.825 +/-0.148	0.0901	1.00	pCi/g						
Radium-228		0.917 +/-0.247	0.163	0.500	pCi/g						

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Client Sample ID: IGLOO 808-SB27; 0-0.5 ft
Sample ID: 86840002

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.199	+/-0.256	0.484	0.800						pCi/g
Silver-110m	U	0.00363	+/-0.0306	0.0488	0.080						pCi/g
Sodium-22	U	0.0287	+/-0.0342	0.0677	0.080						pCi/g
Thallium-208		0.238	+/-0.073	0.0441	0.080						pCi/g
Thorium-230	J	0.825	+/-0.148	0.0901	1.00						pCi/g
Thorium-232		0.830	+/-0.120	0.066	0.500						pCi/g
Thorium-234	UJ	1.13	+/-1.35	1.51	2.00						pCi/g
Tin-113	U	0.0237	+/-0.0406	0.0719	0.100						pCi/g
Uranium-234		1.02	+/-0.226	0.161	1.00						pCi/g
Uranium-235	U	-0.0257	+/-0.158	0.249	0.500						pCi/g
Uranium-238	U	1.13	+/-1.35	1.51	1.00						pCi/g
Yttrium-88	U	-0.00769	+/-0.0322	0.0583	0.100						pCi/g
Zinc-65	U	-0.0248	+/-0.0726	0.110	0.300						pCi/g
Zirconium-95	U	0.0284	+/-0.0645	0.121	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 808-SB27; 0-0.5 ft
Sample ID: 86840002

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Heather A. Cox
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Client Sample ID: IGLOO 808-SB28; 0-0.5 ft
Sample ID: 86840003
Matrix: Soil
Collect Date: 11-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.942 +/-0.196	0.161	0.800	pCi/g		SRB	09/25/03	1003	274781	1
Americium-241	U	-0.0229 +/-0.117	0.178	0.200	pCi/g						
Antimony-124	U	-0.00957 +/-0.0388	0.0671	0.100	pCi/g						
Antimony-125	U	0.0125 +/-0.0664	0.114	0.200	pCi/g						
Barium-133	U	-0.0104 +/-0.0314	0.0458	0.100	pCi/g						
Barium-140	U	-0.107 +/-0.898	1.58	0.500	pCi/g						
Beryllium-7	U	0.100 +/-0.357	0.610	0.700	pCi/g						
Bismuth-212		0.474 +/-0.343	0.348	0.500	pCi/g						
Bismuth-214	J	0.817 +/-0.138	0.0844	0.200	pCi/g						
Cerium-139	U	0.0024 +/-0.0247	0.0406	0.050	pCi/g						
Cerium-141	U	0.020 +/-0.0742	0.145	0.100	pCi/g						
Cerium-144	U	0.101 +/-0.156	0.263	0.500	pCi/g						
Cesium-134	U	0.0338 +/-0.0326	0.0599	0.100	pCi/g						
Cesium-136	U	0.248 +/-0.420	0.748	0.300	pCi/g						
Cesium-137		0.171 +/-0.048	0.0448	0.100	pCi/g						
Chromium-51	U	-0.0552 +/-0.620	0.927	0.600	pCi/g						
Cobalt-56	U	-0.0311 +/-0.0345	0.0553	0.100	pCi/g						
Cobalt-57	U	0.0118 +/-0.0191	0.0325	0.050	pCi/g						
Cobalt-58	U	0.0134 +/-0.0378	0.0673	0.100	pCi/g						
Cobalt-60	U	0.0122 +/-0.031	0.0568	0.100	pCi/g						
Europium-152	U	0.0341 +/-0.067	0.117	0.200	pCi/g						
Europium-154	U	0.000898 +/-0.0919	0.163	0.500	pCi/g						
Europium-155	U	0.106 +/-0.075	0.131	0.500	pCi/g						
Iridium-192	U	-0.0164 +/-0.0321	0.0537	0.100	pCi/g						
Iron-59	U	-0.0595 +/-0.111	0.190	0.300	pCi/g						
Lead-210	U	3.88 +/-2.87	4.70	4.00	pCi/g						
Lead-212		0.990 +/-0.108	0.0668	0.100	pCi/g						
Lead-214		0.927 +/-0.133	0.0792	0.100	pCi/g						
Manganese-54	U	0.00645 +/-0.0307	0.0536	0.100	pCi/g						
Mercury-203	U	0.0711 +/-0.061	0.0747	0.100	pCi/g						
Neodymium-147	U	-0.405 +/-2.69	4.46	1000	pCi/g						
Neptunium-239	U	0.0699 +/-0.129	0.220	2.00	pCi/g						
Niobium-94	U	0.0165 +/-0.0249	0.0449	1.00	pCi/g						
Niobium-95	U	-0.00254 +/-0.0694	0.104	0.050	pCi/g						
Potassium-40		20.9 +/-1.77	0.502	1.00	pCi/g						
Promethium-144	U	0.00567 +/-0.0253	0.0448	0.080	pCi/g						
Promethium-146	U	0.012 +/-0.0332	0.0571	1.00	pCi/g						
Radium-226	J	0.817 +/-0.138	0.0844	1.00	pCi/g						
Radium-228		0.942 +/-0.196	0.161	0.500	pCi/g						

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Client Sample ID: IGLOO 808-SB28; 0-0.5 ft
Sample ID: 86840003

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.03	+/-0.233	0.406	0.800						pCi/g
Silver-110m	U	0.0153	+/-0.0289	0.0463	0.080						pCi/g
Sodium-22	U	0.000267	+/-0.0334	0.0591	0.080						pCi/g
Thallium-208		0.351	+/-0.0633	0.0462	0.080						pCi/g
Thorium-230	J	0.817	+/-0.138	0.0844	1.00						pCi/g
Thorium-232		0.946	+/-0.103	0.0638	0.500						pCi/g
Thorium-234	UJ	1.01	+/-1.40	1.41	2.00						pCi/g
Tin-113	U	-0.025	+/-0.0374	0.0612	0.100						pCi/g
Uranium-234		0.829	+/-0.197	0.149	1.00						pCi/g
Uranium-235	U	0.0432	+/-0.160	0.251	0.500						pCi/g
Uranium-238	UJ	1.01	+/-1.40	1.41	1.00						pCi/g
Yttrium-88	U	-0.00692	+/-0.0311	0.0566	0.100						pCi/g
Zinc-65	U	-0.0391	+/-0.0868	0.126	0.300						pCi/g
Zirconium-95	U	0.0326	+/-0.0777	0.122	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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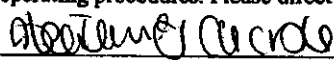
Client Sample ID: IGLOO 808-SB28; 0-0.5 ft
Sample ID: 86840003

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Client Sample ID: IGLOO 808-SB29: 0-0.5 ft
Sample ID: 86840004
Matrix: Soil
Collect Date: 10-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.314 +/-0.102	0.0766	0.800	pCi/g						
Americium-241	U	0.000694 +/-0.074	0.138	0.200	pCi/g						
Antimony-124	U	-0.00541 +/-0.0184	0.0338	0.100	pCi/g						
Antimony-125	U	0.0259 +/-0.0342	0.0645	0.200	pCi/g						
Barium-133	U	0.012 +/-0.0182	0.0308	0.100	pCi/g						
Barium-140	U	-0.096 +/-0.479	0.894	0.500	pCi/g						
Beryllium-7	U	0.246 +/-0.319	0.311	0.700	pCi/g						
Bismuth-212	U	0.132 +/-0.211	0.185	0.500	pCi/g						
Bismuth-214	J	0.750 +/-0.101	0.045	0.200	pCi/g						
Cerium-139	U	-0.0023 +/-0.0124	0.0235	0.050	pCi/g						
Cerium-141	U	0.0274 +/-0.0615	0.086	0.100	pCi/g						
Cerium-144	U	0.0474 +/-0.0786	0.155	0.500	pCi/g						
Cesium-134	U	0.0144 +/-0.015	0.0295	0.100	pCi/g						
Cesium-136	U	-0.331 +/-0.210	0.307	0.300	pCi/g						
Cesium-137	U	0.00644 +/-0.0142	0.0245	0.100	pCi/g						
Chromium-51	U	0.399 +/-0.489	0.488	0.600	pCi/g						
Cobalt-56	U	0.0042 +/-0.0194	0.036	0.100	pCi/g						
Cobalt-57	U	-0.00202 +/-0.00994	0.0193	0.050	pCi/g						
Cobalt-58	U	-0.0168 +/-0.0196	0.0332	0.100	pCi/g						
Cobalt-60	U	0.00326 +/-0.0134	0.0261	0.100	pCi/g						
Europium-152	U	-0.0143 +/-0.0341	0.0606	0.200	pCi/g						
Europium-154	U	-0.0181 +/-0.0428	0.0767	0.500	pCi/g						
Europium-155	U	0.0332 +/-0.0357	0.0729	0.500	pCi/g						
Iridium-192	U	-0.00212 +/-0.0172	0.0312	0.100	pCi/g						
Iron-59	U	0.021 +/-0.056	0.104	0.300	pCi/g						
Lead-210	U	0.779 +/-2.83	5.42	4.00	pCi/g						
Lead-212		0.392 +/-0.059	0.0374	0.100	pCi/g						
Lead-214		0.881 +/-0.121	0.0475	0.100	pCi/g						
Manganese-54	U	-0.0135 +/-0.0146	0.0244	0.100	pCi/g						
Mercury-203	U	0.0162 +/-0.0238	0.0453	0.100	pCi/g						
Neodymium-147	U	-0.387 +/-1.33	2.49	1000	pCi/g						
Neptunium-239	U	0.0125 +/-0.0666	0.132	2.00	pCi/g						
Niobium-94	U	-0.0119 +/-0.0117	0.0198	1.00	pCi/g						
Niobium-95	U	0.014 +/-0.0347	0.0585	0.050	pCi/g						
Potassium-40		9.07 +/-0.860	0.235	1.00	pCi/g						
Promethium-144	U	-3.810E-05 +/-0.013	0.024	0.080	pCi/g						
Promethium-146	U	-0.00667 +/-0.0157	0.0271	1.00	pCi/g						
Radium-226	J	0.750 +/-0.101	0.045	1.00	pCi/g						
Radium-228		0.314 +/-0.102	0.0766	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 808-SB29; 0-0.5 ft
Sample ID: 86840004

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gamma spec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U J	0.00	+/-0.263	0.213	0.800						pCi/g
Silver-110m	U	-0.00246	+/-0.013	0.0239	0.080						pCi/g
Sodium-22	U	-0.00678	+/-0.0155	0.0278	0.080						pCi/g
Thallium-208		0.0935	+/-0.0287	0.0268	0.080						pCi/g
Thorium-230	J	0.750	+/-0.101	0.045	1.00						pCi/g
Thorium-232		0.374	+/-0.0564	0.0357	0.500						pCi/g
Thorium-234	J	1.46	+/-1.34	1.04	2.00						pCi/g
Tin-113	U	-0.0102	+/-0.0196	0.0341	0.100						pCi/g
Uranium-234		0.901	+/-0.157	0.0885	1.00						pCi/g
Uranium-235	U	0.0711	+/-0.156	0.153	0.500						pCi/g
Uranium-238	J	1.46	+/-1.34	1.04	1.00						pCi/g
Yttrium-88	U	0.00888	+/-0.0168	0.0342	0.100						pCi/g
Zinc-65	U	-0.0237	+/-0.0354	0.0587	0.300						pCi/g
Zirconium-95	U	0.0237	+/-0.0331	0.0649	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXGJ	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Contact: Katie Kadlubak
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Client Sample ID: IGLOO 808-SB29; 0-0.5 ft
Sample ID: 86840004

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Agathe G. Cecile

Reviewed by

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Contact: Katie Kadhubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 809-SB30; 0-0.5 ft
Sample ID: 86840005
Matrix: Soil
Collect Date: 07-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.159	+/-0.107	0.115	0.800						
Americium-241	U	-0.0218	+/-0.126	0.199	0.200						
Antimony-124	U	-0.0106	+/-0.032	0.0492	0.100						
Antimony-125	U	-0.0352	+/-0.044	0.0776	0.200						
Barium-133	U	0.00104	+/-0.0233	0.0361	0.100						
Barium-140	U	-0.417	+/-0.905	1.38	0.500						
Beryllium-7	U	0.135	+/-0.248	0.464	0.700						
Bismuth-212	U	0.116	+/-0.168	0.277	0.500						
Bismuth-214	J	0.290	+/-0.0736	0.0587	0.200						
Cerium-139	U	0.00726	+/-0.018	0.033	0.050						
Cerium-141	U	-0.0196	+/-0.0737	0.120	0.100						
Cerium-144	U	0.00724	+/-0.110	0.202	0.500						
Cesium-134	U	-0.00576	+/-0.0249	0.0377	0.100						
Cesium-136	U	-0.108	+/-0.362	0.609	0.300						
Cesium-137		0.0721	+/-0.0329	0.0329	0.100						
Chromium-51	U	-0.161	+/-0.451	0.772	0.600						
Cobalt-56	U	-0.00252	+/-0.0273	0.0477	0.100						
Cobalt-57	U	0.00578	+/-0.0151	0.0254	0.050						
Cobalt-58	U	-0.00987	+/-0.0284	0.0489	0.100						
Cobalt-60	U	0.00727	+/-0.0205	0.0383	0.100						
Europium-152	U	-0.0148	+/-0.0506	0.0864	0.200						
Europium-154	U	0.0686	+/-0.0724	0.137	0.500						
Europium-155	U	0.0245	+/-0.0862	0.107	0.500						
Iridium-192	U	0.0117	+/-0.0244	0.0435	0.100						
Iron-59	U	0.0016	+/-0.077	0.141	0.300						
Lead-210	U	0.00	+/-9.06	7.09	4.00						
Lead-212	J	0.797	+/-0.104	0.0513	0.100						
Lead-214		1.94	+/-0.244	0.0603	0.100						
Manganese-54	U	0.0193	+/-0.0243	0.0398	0.100						
Mercury-203	U	-0.0358	+/-0.0358	0.0599	0.100						
Neodymium-147	U	0.0615	+/-2.38	4.32	1000						
Neptunium-239	U	0.00121	+/-0.128	0.171	2.00						
Niobium-94	U	0.00103	+/-0.0165	0.0296	1.00						
Niobium-95	J	0.00	+/-0.0872	0.101	0.050						
Potassium-40		3.12	+/-0.595	0.973	1.00						
Promethium-144	U	-0.00831	+/-0.019	0.0328	0.080						
Promethium-146	U	0.0152	+/-0.0208	0.0394	1.00						
Radium-226	J	0.290	+/-0.0736	0.0587	1.00						
Radium-228		0.159	+/-0.107	0.115	0.500						

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Client Sample ID: IGLOO 809-SB30; 0-0.5 ft
Sample ID: 86840005

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0503	+/-0.157	0.288	0.800						pCi/g
Silver-110m	UI J	0.00	+/-0.0414	0.0562	0.080						pCi/g
Sodium-22	U	0.0246	+/-0.0263	0.0497	0.080						pCi/g
Thallium-208		0.044	+/-0.0421	0.0335	0.080						pCi/g
Thorium-230	J	0.290	+/-0.0736	0.0587	1.00						pCi/g
Thorium-232	UI J	0.00	+/-0.0991	0.0488	0.500						pCi/g
Thorium-234	J	1.90	+/-1.99	1.55	2.00						pCi/g
Tin-113	U	-0.00663	+/-0.0285	0.0484	0.100						pCi/g
Uranium-234	UI J	0.00	+/-0.290	0.128	1.00						pCi/g
Uranium-235	U	0.0603	+/-0.174	0.195	0.500						pCi/g
Uranium-238		1.90	+/-1.99	1.55	1.00						pCi/g
Yttrium-88	U	-0.0333	+/-0.0285	0.0429	0.100						pCi/g
Zinc-65		0.517	+/-0.120	0.101	0.300						pCi/g
Zirconium-95	U	-0.0114	+/-0.057	0.0871	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXGI	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- > Result is greater than amount reported.
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 809-SB30; 0-0.5 ft
Sample ID: 86840005

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Client Sample ID: IGLOO 809-SB31; 0-0.5 ft
Sample ID: 86840006
Matrix: Soil
Collect Date: 07-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
GammaSpec, Gamma, Solid w/Ra226											
Actinium-228		0.798 +/-0.227	0.193	0.800	pCi/g		SRB	09/23/03	1320	274781	1
Americium-241	U	0.051 +/-0.122	0.201	0.200	pCi/g						
Antimony-124	U	-0.00422 +/-0.0447	0.0772	0.100	pCi/g						
Antimony-125	U	0.0102 +/-0.0718	0.129	0.200	pCi/g						
Barium-133	U	-0.0203 +/-0.0492	0.0524	0.100	pCi/g						
Barium-140	U	-0.785 +/-1.21	1.97	0.500	pCi/g						
Beryllium-7	U	-0.403 +/-0.399	0.646	0.700	pCi/g						
Bismuth-212		0.767 +/-0.400	0.370	0.500	pCi/g						
Bismuth-214	J	0.812 +/-0.159	0.094	0.200	pCi/g						
Cerium-139	U	-0.0131 +/-0.0255	0.0425	0.050	pCi/g						
Cerium-141	U	0.0811 +/-0.0899	0.162	0.100	pCi/g						
Cerium-144	U	-0.082 +/-0.158	0.266	0.500	pCi/g						
Cesium-134	U	0.0588 +/-0.0361	0.0684	0.100	pCi/g						
Cesium-136	U	0.183 +/-0.508	0.945	0.300	pCi/g						
Cesium-137		0.173 +/-0.0608	0.0488	0.100	pCi/g						
Chromium-51	U	0.482 +/-0.578	1.09	0.600	pCi/g						
Cobalt-56	U	-0.0246 +/-0.0422	0.0725	0.100	pCi/g						
Cobalt-57	U	0.00348 +/-0.0187	0.033	0.050	pCi/g						
Cobalt-58	U	0.031 +/-0.0431	0.0833	0.100	pCi/g						
Cobalt-60	U	0.039 +/-0.033	0.0682	0.100	pCi/g						
Europium-152	U	-0.0507 +/-0.0737	0.126	0.200	pCi/g						
Europium-154	U	-0.102 +/-0.104	0.161	0.500	pCi/g						
Europium-155	U	0.0991 +/-0.127	0.125	0.500	pCi/g						
Iridium-192	U	-0.0149 +/-0.0339	0.0593	0.100	pCi/g						
Iron-59	U	-0.0446 +/-0.127	0.219	0.300	pCi/g						
Lead-210	U	0.907 +/-3.14	5.25	4.00	pCi/g						
Lead-212		0.976 +/-0.132	0.0698	0.100	pCi/g						
Lead-214		0.944 +/-0.158	0.0938	0.100	pCi/g						
Manganese-54	U	0.00113 +/-0.0308	0.0562	0.100	pCi/g						
Mercury-203	U	0.024 +/-0.0491	0.0852	0.100	pCi/g						
Neodymium-147	U	1.50 +/-3.64	6.58	1000	pCi/g						
Neptunium-239	U	0.0437 +/-0.129	0.230	2.00	pCi/g						
Niobium-94	U	0.009 +/-0.0265	0.0474	1.00	pCi/g						
Niobium-95	U	0.085 +/-0.0838	0.142	0.050	pCi/g						
Potassium-40		18.7 +/-1.91	0.500	1.00	pCi/g						
Promethium-144	U	-0.00464 +/-0.0274	0.047	0.080	pCi/g						
Promethium-146	U	-0.00474 +/-0.0338	0.0592	1.00	pCi/g						
Radium-226	J	0.812 +/-0.159	0.094	1.00	pCi/g						
Radium-228		0.798 +/-0.227	0.193	0.500	pCi/g						

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Client Sample ID: IGLOO 809-SB31; 0-0.5 ft
Sample ID: 86840006

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.229 +/-0.293	0.397	0.800	pCi/g						
Silver-110m	U	-0.00635 +/-0.0342	0.0508	0.080	pCi/g						
Sodium-22	U	-0.0374 +/-0.0376	0.0587	0.080	pCi/g						
Thallium-208		0.263 +/-0.0665	0.0494	0.080	pCi/g						
Thorium-230	J	0.812 +/-0.159	0.094	1.00	pCi/g						
Thorium-232		0.931 +/-0.126	0.0665	0.500	pCi/g						
Thorium-234	UJ	0.594 +/-1.45	1.65	2.00	pCi/g						
Tin-113	U	-0.00207 +/-0.0398	0.0708	0.100	pCi/g						
Uranium-234		0.978 +/-0.221	0.172	1.00	pCi/g						
Uranium-235	U	0.042 +/-0.155	0.271	0.500	pCi/g						
Uranium-238	UJ	0.594 +/-1.45	1.65	1.00	pCi/g						
Yttrium-88	U	-0.0123 +/-0.034	0.0615	0.100	pCi/g						
Zinc-65	U	-0.0436 +/-0.103	0.149	0.300	pCi/g						
Zirconium-95	U	0.106 +/-0.0886	0.168	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
I	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 809-SB31; 0-0.5 ft
Sample ID: 86840006

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

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Boston, Massachusetts 02110

Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 809-SB32; 0-0.5 ft
Sample ID: 86840007
Matrix: Soil
Collect Date: 09-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.846 +/-0.209	0.149	0.800	pCi/g		SRB	09/25/03	1006	274781	1
Americium-241	U	0.057 +/-0.0971	0.160	0.200	pCi/g						
Antimony-124	U	-0.000884 +/-0.0348	0.0598	0.100	pCi/g						
Antimony-125	U	-0.0301 +/-0.0549	0.0933	0.200	pCi/g						
Barium-133	U	0.0128 +/-0.027	0.0436	0.100	pCi/g						
Barium-140	U	-0.105 +/-0.968	1.66	0.500	pCi/g						
Beryllium-7	U	0.117 +/-0.313	0.556	0.700	pCi/g						
Bismuth-212		0.768 +/-0.310	0.322	0.500	pCi/g						
Bismuth-214	J	0.908 +/-0.132	0.0715	0.200	pCi/g						
Cerium-139	U	-0.000509 +/-0.0215	0.0328	0.050	pCi/g						
Cerium-141	U/J	0.00 +/-0.127	0.115	0.100	pCi/g						
Cerium-144	U	0.0801 +/-0.123	0.216	0.500	pCi/g						
Cesium-134		0.0633 +/-0.0521	0.0556	0.100	pCi/g						
Cesium-136	U	0.123 +/-0.405	0.730	0.300	pCi/g						
Cesium-137		0.191 +/-0.041	0.0424	0.100	pCi/g						
Chromium-51	U	-0.262 +/-0.476	0.824	0.600	pCi/g						
Cobalt-56	U	0.0134 +/-0.0327	0.0579	0.100	pCi/g						
Cobalt-57	U	-2.860E-05 +/-0.0153	0.0265	0.050	pCi/g						
Cobalt-58	U	0.00621 +/-0.0346	0.0626	0.100	pCi/g						
Cobalt-60	U	0.035 +/-0.0211	0.0443	0.100	pCi/g						
Europium-152	U	-0.0229 +/-0.0559	0.0969	0.200	pCi/g						
Europium-154	U	0.00284 +/-0.0796	0.140	0.500	pCi/g						
Europium-155	U	0.0212 +/-0.0611	0.108	0.500	pCi/g						
Iridium-192	U	0.0244 +/-0.0266	0.0492	0.100	pCi/g						
Iron-59	U	0.0187 +/-0.122	0.189	0.300	pCi/g						
Lead-210	U	1.84 +/-2.48	4.18	4.00	pCi/g						
Lead-212		0.996 +/-0.122	0.0552	0.100	pCi/g						
Lead-214		0.985 +/-0.144	0.0689	0.100	pCi/g						
Manganese-54	U	0.00476 +/-0.025	0.0453	0.100	pCi/g						
Mercury-203	U	-0.00635 +/-0.0415	0.0684	0.100	pCi/g						
Neodymium-147	U	0.315 +/-2.55	4.48	1000	pCi/g						
Neptunium-239	U	-0.0955 +/-0.104	0.174	2.00	pCi/g						
Niobium-94	U	-0.018 +/-0.0216	0.0344	1.00	pCi/g						
Niobium-95	U	0.0859 +/-0.0638	0.107	0.050	pCi/g						
Potassium-40		20.7 +/-1.71	0.415	1.00	pCi/g						
Promethium-144	U	-0.00209 +/-0.0231	0.0391	0.080	pCi/g						
Promethium-146	U	0.0417 +/-0.0312	0.0476	1.00	pCi/g						
Radium-226	J	0.908 +/-0.132	0.0715	1.00	pCi/g						
Radium-228		0.846 +/-0.209	0.149	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 809-SB32; 0-0.5 ft
Sample ID: 86840007

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0563 +/-0.215	0.377	0.800	pCi/g						
Silver-110m	U	0.00225 +/-0.0271	0.0409	0.080	pCi/g						
Sodium-22	U	0.00115 +/-0.029	0.0509	0.080	pCi/g						
Thallium-208		0.317 +/-0.0628	0.0408	0.080	pCi/g						
Thorium-230	J	0.908 +/-0.132	0.0715	1.00	pCi/g						
Thorium-232		0.950 +/-0.117	0.0526	0.500	pCi/g						
Thorium-234	UI	1.16 +/-1.22	1.23	2.00	pCi/g						
Tin-113	U	-0.0539 +/-0.0318	0.0503	0.100	pCi/g						
Uranium-234		1.01 +/-0.188	0.137	1.00	pCi/g						
Uranium-235	UI	0.00 +/-0.251	0.218	0.500	pCi/g						
Uranium-238	UI	1.16 +/-1.22	1.23	1.00	pCi/g						
Yttrium-88	U	0.0151 +/-0.0271	0.0551	0.100	pCi/g						
Zinc-65	U	-0.00572 +/-0.072	0.108	0.300	pCi/g						
Zirconium-95	U	0.0391 +/-0.0681	0.120	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Report Date: September 29, 2003

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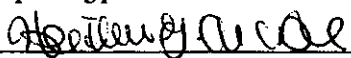
Client Sample ID: IGLOO 809-SB32; 0-0.5 ft
Sample ID: 86840007

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Client Sample ID: IGLOO 809-SB33; 0-0.5 ft
Sample ID: 86840008
Matrix: Soil
Collect Date: 09-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.351 +/-0.111	0.0843	0.800	pCi/g		SRB	09/25/03	1008	274781	1
Americium-241	U	0.00242 +/-0.0627	0.111	0.200	pCi/g						
Antimony-124	U	0.0118 +/-0.0205	0.0389	0.100	pCi/g						
Antimony-125	U	-0.000417 +/-0.0353	0.0664	0.200	pCi/g						
Barium-133	U	0.00633 +/-0.0179	0.0307	0.100	pCi/g						
Barium-140	U	0.0748 +/-0.532	0.995	0.500	pCi/g						
Beryllium-7	U	-0.0735 +/-0.182	0.333	0.700	pCi/g						
Bismuth-212	U	0.152 +/-0.166	0.191	0.500	pCi/g						
Bismuth-214	J	1.22 +/-0.160	0.0452	0.200	pCi/g						
Cerium-139	U	-0.0102 +/-0.0147	0.0265	0.050	pCi/g						
Cerium-141	U	0.0487 +/-0.0684	0.0955	0.100	pCi/g						
Cerium-144	U	0.0454 +/-0.0906	0.173	0.500	pCi/g						
Cesium-134	U	0.0175 +/-0.0149	0.029	0.100	pCi/g						
Cesium-136	U	-0.0759 +/-0.206	0.374	0.300	pCi/g						
Cesium-137		0.134 +/-0.0271	0.0245	0.100	pCi/g						
Chromium-51	U	0.0306 +/-0.320	0.615	0.600	pCi/g						
Cobalt-56	U	-0.00395 +/-0.0183	0.0323	0.100	pCi/g						
Cobalt-57	U	-0.00568 +/-0.011	0.0205	0.050	pCi/g						
Cobalt-58	U	-0.0144 +/-0.0195	0.0329	0.100	pCi/g						
Cobalt-60	U	0.0149 +/-0.0138	0.0279	0.100	pCi/g						
Europium-152	U	0.0055 +/-0.0403	0.0682	0.200	pCi/g						
Europium-154	U	-0.0106 +/-0.041	0.0739	0.500	pCi/g						
Europium-155	U	0.0213 +/-0.0429	0.0833	0.500	pCi/g						
Iridium-192	U	0.000189 +/-0.0176	0.0337	0.100	pCi/g						
Iron-59	U	-0.0417 +/-0.0506	0.0875	0.300	pCi/g						
Lead-210	U	-0.885 +/-1.65	2.90	4.00	pCi/g						
Lead-212		0.456 +/-0.0735	0.0419	0.100	pCi/g						
Lead-214		1.50 +/-0.196	0.0495	0.100	pCi/g						
Manganese-54	U	0.00713 +/-0.0145	0.027	0.100	pCi/g						
Mercury-203	U	-0.0012 +/-0.0232	0.0448	0.100	pCi/g						
Neodymium-147	U	1.16 +/-1.56	3.00	1000	pCi/g						
Neptunium-239	U	0.0384 +/-0.0756	0.146	2.00	pCi/g						
Niobium-94	U	-0.00521 +/-0.0115	0.0202	1.00	pCi/g						
Niobium-95	U	0.0292 +/-0.0392	0.0656	0.050	pCi/g						
Potassium-40		8.33 +/-1.01	0.221	1.00	pCi/g						
Promethium-144	U	0.00731 +/-0.0134	0.0251	0.080	pCi/g						
Promethium-146	U	0.0135 +/-0.0162	0.0316	1.00	pCi/g						
Radium-226	J	1.22 +/-0.160	0.0452	1.00	pCi/g						
Radium-228		0.351 +/-0.111	0.0843	0.500	pCi/g						

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Client Sample ID: IGLOO 809-SB33; 0-0.5 ft
Sample ID: 86840008

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0392	+/-0.121	0.226	0.800						pCi/g
Silver-110m	U	-0.0114	+/-0.0153	0.0226	0.080						pCi/g
Sodium-22	U	-0.00387	+/-0.0149	0.0269	0.080						pCi/g
Thallium-208		0.114	+/-0.0325	0.0229	0.080						pCi/g
Thorium-230	J	1.22	+/-0.160	0.0452	1.00						pCi/g
Thorium-232		0.435	+/-0.0701	0.040	0.500						pCi/g
Thorium-234	J	2.10	+/-1.25	0.943	2.00						pCi/g
Tin-113	U	-0.011	+/-0.0203	0.0374	0.100						pCi/g
Uranium-234		1.52	+/-0.237	0.101	1.00						pCi/g
Uranium-235	U	0.149	+/-0.174	0.174	0.500						pCi/g
Uranium-238	J	2.10	+/-1.25	0.943	1.00						pCi/g
Yttrium-88	U	-2.570E-05	+/-0.0151	0.0282	0.100						pCi/g
Zinc-65	U	0.0184	+/-0.0369	0.0626	0.300						pCi/g
Zirconium-95	U	0.00963	+/-0.0358	0.0661	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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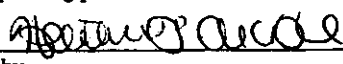
Client Sample ID: IGLOO 809-SB33; 0-0.5 ft
Sample ID: 86840008

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Client Sample ID: IGLOO 810-SB34; 0-0.5 ft
Sample ID: 86840009
Matrix: Soil
Collect Date: 08-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.491 +/-0.147	0.108	0.800	pCi/g		SRB	09/25/03	1008	274781	1
Americium-241	U	0.0163 +/-0.0215	0.0401	0.200	pCi/g						
Antimony-124	U	-0.00634 +/-0.0243	0.0435	0.100	pCi/g						
Antimony-125	U	-0.00699 +/-0.0424	0.0732	0.200	pCi/g						
Barium-133	U	-0.0463 +/-0.0219	0.0326	0.100	pCi/g						
Barium-140	U	-0.307 +/-0.689	1.22	0.500	pCi/g						
Beryllium-7	U	0.0912 +/-0.322	0.381	0.700	pCi/g						
Bismuth-212		0.331 +/-0.200	0.232	0.500	pCi/g						
Bismuth-214	J	1.31 +/-0.194	0.0509	0.200	pCi/g						
Cerium-139	U	0.00331 +/-0.0137	0.0258	0.050	pCi/g						
Cerium-141	U	0.0801 +/-0.0729	0.0857	0.100	pCi/g						
Cerium-144	U	-0.0451 +/-0.0776	0.144	0.500	pCi/g						
Cesium-134	U	0.0253 +/-0.0202	0.0386	0.100	pCi/g						
Cesium-136	U	0.245 +/-0.311	0.541	0.300	pCi/g						
Cesium-137		0.153 +/-0.0365	0.0267	0.100	pCi/g						
Chromium-51	U	0.264 +/-0.345	0.638	0.600	pCi/g						
Cobalt-56	U	0.0122 +/-0.0242	0.0446	0.100	pCi/g						
Cobalt-57	U	0.00304 +/-0.00947	0.0183	0.050	pCi/g						
Cobalt-58	U	0.0141 +/-0.0241	0.0449	0.100	pCi/g						
Cobalt-60	U	0.00279 +/-0.0195	0.0357	0.100	pCi/g						
Europium-152	U	-0.0053 +/-0.0421	0.0741	0.200	pCi/g						
Europium-154	U	-0.0141 +/-0.0555	0.0982	0.500	pCi/g						
Europium-155	U	0.0125 +/-0.0375	0.0665	0.500	pCi/g						
Iridium-192	U	-0.0137 +/-0.0197	0.0338	0.100	pCi/g						
Iron-59	U	0.0161 +/-0.0826	0.134	0.300	pCi/g						
Lead-210		1.97 +/-0.515	0.307	4.00	pCi/g						
Lead-212		0.559 +/-0.0989	0.0476	0.100	pCi/g						
Lead-214		1.48 +/-0.212	0.0522	0.100	pCi/g						
Manganese-54	U	-0.00162 +/-0.0194	0.030	0.100	pCi/g						
Mercury-203	U	0.0247 +/-0.0397	0.0491	0.100	pCi/g						
Neodymium-147	U	-1.33 +/-2.02	3.55	1000	pCi/g						
Neptunium-239	U	0.0162 +/-0.0626	0.121	2.00	pCi/g						
Niobium-94	U	0.00404 +/-0.0147	0.027	1.00	pCi/g						
Niobium-95	U	0.030 +/-0.0519	0.0845	0.050	pCi/g						
Potassium-40		11.8 +/-1.28	0.264	1.00	pCi/g						
Promethium-144	U	-0.00685 +/-0.0163	0.0284	0.080	pCi/g						
Promethium-146	U	0.0158 +/-0.0178	0.0346	1.00	pCi/g						
Radium-226	J	1.31 +/-0.194	0.0509	1.00	pCi/g						
Radium-228		0.491 +/-0.147	0.108	0.500	pCi/g						

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Client Sample ID: IGLOO 810-SB34; 0-0.5 ft
Sample ID: 86840009

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.00406	+/-0.135	0.248	0.800						pCi/g
Silver-110m	U	-0.00329	+/-0.0179	0.0281	0.080						pCi/g
Sodium-22	U	-0.0052	+/-0.0202	0.0358	0.080						pCi/g
Thallium-208		0.141	+/-0.0452	0.0295	0.080						pCi/g
Thorium-230	J	1.31	+/-0.194	0.0509	1.00						pCi/g
Thorium-232		0.533	+/-0.0943	0.0454	0.500						pCi/g
Thorium-234	J	1.45	+/-0.528	0.376	2.00						pCi/g
Tin-113	U	-0.0156	+/-0.0275	0.041	0.100						pCi/g
Uranium-234		1.48	+/-0.255	0.104	1.00						pCi/g
Uranium-235		0.170	+/-0.154	0.154	0.500						pCi/g
Uranium-238	J	1.45	+/-0.528	0.376	1.00						pCi/g
Yttrium-88	U	-0.000693	+/-0.0191	0.032	0.100						pCi/g
Zinc-65	U	0.00292	+/-0.050	0.0798	0.300						pCi/g
Zirconium-95	U	0.0277	+/-0.0438	0.0821	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 810-SB34; 0-0.5 ft
Sample ID: 86840009

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Anthony J. Nicole
Reviewed by

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Client Sample ID: IGLOO 810-SB35-1; 0-0.5 ft
Sample ID: 86840010
Matrix: Soil
Collect Date: 07-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.181 +/-0.121	0.112	0.800	pCi/g		SRB	09/25/03	1009	274781	1
Americium-241	U	0.00481 +/-0.0208	0.0376	0.200	pCi/g						
Antimony-124	U	0.0019 +/-0.0253	0.048	0.100	pCi/g						
Antimony-125	U	0.0223 +/-0.0386	0.0734	0.200	pCi/g						
Barium-133	U	0.00169 +/-0.0191	0.0318	0.100	pCi/g						
Barium-140	U	0.0492 +/-0.743	1.34	0.500	pCi/g						
Beryllium-7	U	0.100 +/-0.207	0.390	0.700	pCi/g						
Bismuth-212	U	0.180 +/-0.230	0.262	0.500	pCi/g						
Bismuth-214	J	0.429 +/-0.101	0.0555	0.200	pCi/g						
Cerium-139	U	-0.00855 +/-0.0133	0.0226	0.050	pCi/g						
Cerium-141	U	0.0302 +/-0.0648	0.0849	0.100	pCi/g						
Cerium-144	U	-0.00834 +/-0.0777	0.140	0.500	pCi/g						
Cesium-134	U/J	0.00 +/-0.0368	0.0418	0.100	pCi/g						
Cesium-136	U	-0.285 +/-0.310	0.501	0.300	pCi/g						
Cesium-137		0.0596 +/-0.0341	0.0354	0.100	pCi/g						
Chromium-51	U	-0.0143 +/-0.346	0.643	0.600	pCi/g						
Cobalt-56	U	-0.0145 +/-0.0244	0.0424	0.100	pCi/g						
Cobalt-57	U	0.00405 +/-0.00962	0.0179	0.050	pCi/g						
Cobalt-58	U	-0.00666 +/-0.0247	0.0447	0.100	pCi/g						
Cobalt-60	U	0.00107 +/-0.0171	0.0328	0.100	pCi/g						
Europium-152	U	0.00687 +/-0.0383	0.0718	0.200	pCi/g						
Europium-154	U	0.0328 +/-0.055	0.109	0.500	pCi/g						
Europium-155	U	0.00315 +/-0.0334	0.0619	0.500	pCi/g						
Iridium-192	U	-0.00364 +/-0.0184	0.034	0.100	pCi/g						
Iron-59	U	0.0265 +/-0.0738	0.138	0.300	pCi/g						
Lead-210		1.00 +/-0.481	0.324	4.00	pCi/g						
Lead-212		0.330 +/-0.0596	0.0384	0.100	pCi/g						
Lead-214		0.474 +/-0.095	0.051	0.100	pCi/g						
Manganese-54	U	-0.00272 +/-0.0196	0.0355	0.100	pCi/g						
Mercury-203	U	-0.0141 +/-0.0255	0.0464	0.100	pCi/g						
Neodymium-147	U	-0.302 +/-2.23	3.94	1000	pCi/g						
Neptunium-239	U	-0.00166 +/-0.0638	0.116	2.00	pCi/g						
Niobium-94	U	0.00404 +/-0.0157	0.0299	1.00	pCi/g						
Niobium-95	U	0.0213 +/-0.0493	0.084	0.050	pCi/g						
Potassium-40		7.16 +/-0.950	0.269	1.00	pCi/g						
Promethium-144	U	0.00727 +/-0.0175	0.0335	0.080	pCi/g						
Promethium-146	U	0.00464 +/-0.0205	0.034	1.00	pCi/g						
Radium-226	J	0.429 +/-0.101	0.0555	1.00	pCi/g						
Radium-228		0.181 +/-0.121	0.112	0.500	pCi/g						

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Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 810-SB35-1; 0-0.5 ft
Sample ID: 86840010

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0215	+/-0.145	0.272	0.800						pCi/g
Silver-110m	U	0.0118	+/-0.0188	0.0333	0.080						pCi/g
Sodium-22	U	0.0119	+/-0.020	0.0398	0.080						pCi/g
Thallium-208		0.0876	+/-0.0302	0.0335	0.080						pCi/g
Thorium-230	J	0.429	+/-0.101	0.0555	1.00						pCi/g
Thorium-232		0.314	+/-0.0567	0.0366	0.500						pCi/g
Thorium-234	J	1.54	+/-0.685	0.360	2.00						pCi/g
Tin-113	U	-0.0162	+/-0.0218	0.0378	0.100						pCi/g
Uranium-234		0.582	+/-0.138	0.0862	1.00						pCi/g
Uranium-235	U	0.0566	+/-0.121	0.144	0.500						pCi/g
Uranium-238	J	1.54	+/-0.685	0.360	1.00						pCi/g
Yttrium-88	U	-0.0104	+/-0.0229	0.0398	0.100						pCi/g
Zinc-65	U	-0.00117	+/-0.0484	0.0759	0.300						pCi/g
Zirconium-95	U	-0.0166	+/-0.0498	0.0898	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UJ Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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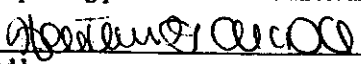
Client Sample ID: IGLOO 810-SB35-1; 0-0.5 ft
Sample ID: 86840010

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Client Sample ID: IGLOO 810-SB35-2; 0-0.5 ft
Sample ID: 86840011
Matrix: Soil
Collect Date: 07-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.554 +/-0.134	0.0819	0.800	pCi/g						
Americium-241	U J	0.00 +/-0.181	0.146	0.200	pCi/g						
Antimony-124	U	0.0154 +/-0.0254	0.0409	0.100	pCi/g						
Antimony-125	U	0.0323 +/-0.0348	0.0631	0.200	pCi/g						
Barium-133	U	0.00183 +/-0.0191	0.0294	0.100	pCi/g						
Barium-140	U	-0.244 +/-0.603	1.06	0.500	pCi/g						
Beryllium-7	U	0.0352 +/-0.183	0.336	0.700	pCi/g						
Bismuth-212		0.379 +/-0.180	0.174	0.500	pCi/g						
Bismuth-214	J	0.584 +/-0.104	0.0478	0.200	pCi/g						
Cerium-139	U	-0.00953 +/-0.0153	0.0272	0.050	pCi/g						
Cerium-141	U	0.0648 +/-0.064	0.101	0.100	pCi/g						
Cerium-144	U	0.0237 +/-0.0945	0.175	0.500	pCi/g						
Cesium-134	U	0.0298 +/-0.0233	0.0311	0.100	pCi/g						
Cesium-136	U	-0.0588 +/-0.257	0.436	0.300	pCi/g						
Cesium-137		0.0361 +/-0.0237	0.0244	0.100	pCi/g						
Chromium-51	U	-0.0103 +/-0.348	0.611	0.600	pCi/g						
Cobalt-56	U	-0.00744 +/-0.0187	0.032	0.100	pCi/g						
Cobalt-57	U	-0.00561 +/-0.0121	0.0219	0.050	pCi/g						
Cobalt-58	U	-0.00035 +/-0.0223	0.034	0.100	pCi/g						
Cobalt-60	U	-0.0045 +/-0.0129	0.0226	0.100	pCi/g						
Europium-152	U	-0.0153 +/-0.0394	0.0675	0.200	pCi/g						
Europium-154	U	-0.0124 +/-0.0444	0.0777	0.500	pCi/g						
Europium-155	U	0.0291 +/-0.0471	0.0889	0.500	pCi/g						
Iridium-192	U	0.0144 +/-0.0192	0.0347	0.100	pCi/g						
Iron-59	U	0.0139 +/-0.057	0.100	0.300	pCi/g						
Lead-210	U	1.95 +/-2.52	4.63	4.00	pCi/g						
Lead-212		0.566 +/-0.078	0.042	0.100	pCi/g						
Lead-214		0.608 +/-0.0958	0.0512	0.100	pCi/g						
Manganese-54	U	0.0126 +/-0.0126	0.0236	0.100	pCi/g						
Mercury-203	U	0.0228 +/-0.0278	0.0504	0.100	pCi/g						
Neodymium-147	U	-0.269 +/-1.77	3.18	1000	pCi/g						
Neptunium-239	U	-0.00263 +/-0.0813	0.150	2.00	pCi/g						
Niobium-94	U	-0.000172 +/-0.0124	0.022	1.00	pCi/g						
Niobium-95	U	0.0645 +/-0.0433	0.0675	0.050	pCi/g						
Potassium-40		13.3 +/-1.46	0.227	1.00	pCi/g						
Promethium-144	U	0.007 +/-0.0139	0.0253	0.080	pCi/g						
Promethium-146	U	0.00738 +/-0.0194	0.030	1.00	pCi/g						
Radium-226	J	0.584 +/-0.104	0.0478	1.00	pCi/g						
Radium-228		0.554 +/-0.134	0.0819	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 810-SB35-2; 0-0.5 ft
Sample ID: 86840011

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0329	+/-0.126	0.222	0.800						pCi/g
Silver-110m	U	0.0134	+/-0.0154	0.0255	0.080						pCi/g
Sodium-22	U	-0.00456	+/-0.0162	0.0283	0.080						pCi/g
Thallium-208		0.152	+/-0.0355	0.0244	0.080						pCi/g
Thorium-230	J	0.584	+/-0.104	0.0478	1.00						pCi/g
Thorium-232		0.539	+/-0.0743	0.040	0.500						pCi/g
Thorium-234	UJ	0.898	+/-1.12	1.10	2.00						pCi/g
Tin-113	U	-0.0141	+/-0.0213	0.0357	0.100						pCi/g
Uranium-234		0.741	+/-0.134	0.0894	1.00						pCi/g
Uranium-235		0.166	+/-0.123	0.165	0.500						pCi/g
Uranium-238	U	0.898	+/-1.12	1.10	1.00						pCi/g
Yttrium-88	U	1.770E-05	+/-0.0151	0.0274	0.100						pCi/g
Zinc-65	U	0.0193	+/-0.0398	0.0644	0.300						pCi/g
Zirconium-95	U	0.0254	+/-0.0373	0.0686	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 810-SB35-2; 0-0.5 ft
Sample ID: 86840011

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 810-SB36; 0-0.5 ft
Sample ID: 86840012
Matrix: Soil
Collect Date: 11-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.914 +/-0.207	0.111	0.800	pCi/g						
Americium-241	U	-0.0137 +/-0.0611	0.107	0.200	pCi/g						
Antimony-124	U	-0.0217 +/-0.0268	0.0451	0.100	pCi/g						
Antimony-125	U	-0.00768 +/-0.046	0.0777	0.200	pCi/g						
Barium-133	U	-0.00684 +/-0.0237	0.0353	0.100	pCi/g						
Barium-140	U	-0.0506 +/-0.640	1.07	0.500	pCi/g						
Beryllium-7	U	0.195 +/-0.292	0.387	0.700	pCi/g						
Bismuth-212		0.593 +/-0.244	0.245	0.500	pCi/g						
Bismuth-214	J	0.711 +/-0.112	0.0593	0.200	pCi/g						
Cerium-139	U	-0.00894 +/-0.0188	0.0309	0.050	pCi/g						
Cerium-141	U	0.031 +/-0.0785	0.105	0.100	pCi/g						
Cerium-144	U	0.0539 +/-0.114	0.195	0.500	pCi/g						
Cesium-134	U	0.0316 +/-0.0312	0.0376	0.100	pCi/g						
Cesium-136	U	0.109 +/-0.286	0.496	0.300	pCi/g						
Cesium-137		0.139 +/-0.0318	0.0305	0.100	pCi/g						
Chromium-51	U	0.154 +/-0.393	0.692	0.600	pCi/g						
Cobalt-56	U	0.0224 +/-0.0247	0.0449	0.100	pCi/g						
Cobalt-57	U	0.00204 +/-0.0141	0.0241	0.050	pCi/g						
Cobalt-58	U	0.0135 +/-0.0238	0.0427	0.100	pCi/g						
Cobalt-60	U	-0.00684 +/-0.0192	0.0328	0.100	pCi/g						
Europium-152	U	-0.0358 +/-0.0471	0.0783	0.200	pCi/g						
Europium-154	U	-0.0149 +/-0.0731	0.108	0.500	pCi/g						
Europium-155	U	0.0795 +/-0.0775	0.0902	0.500	pCi/g						
Iridium-192	U	0.00198 +/-0.0255	0.0391	0.100	pCi/g						
Iron-59	U	-0.00852 +/-0.0752	0.126	0.300	pCi/g						
Lead-210	U	0.378 +/-1.86	2.31	4.00	pCi/g						
Lead-212		0.915 +/-0.111	0.0502	0.100	pCi/g						
Lead-214		0.864 +/-0.120	0.0583	0.100	pCi/g						
Manganese-54	U	-0.00467 +/-0.0203	0.0344	0.100	pCi/g						
Mercury-203	U	0.0147 +/-0.0327	0.0578	0.100	pCi/g						
Neodymium-147	U	1.87 +/-1.82	3.22	1000	pCi/g						
Neptunium-239	U	-0.101 +/-0.0978	0.161	2.00	pCi/g						
Niobium-94	U	0.0242 +/-0.0249	0.0294	1.00	pCi/g						
Niobium-95	U	0.0212 +/-0.0615	0.0816	0.050	pCi/g						
Potassium-40		22.1 +/-1.79	0.270	1.00	pCi/g						
Promethium-144	U	0.0167 +/-0.0186	0.0336	0.080	pCi/g						
Promethium-146	U	0.0115 +/-0.0224	0.0389	1.00	pCi/g						
Radium-226	J	0.711 +/-0.112	0.0593	1.00	pCi/g						
Radium-228		0.914 +/-0.207	0.111	0.500	pCi/g						

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Client Sample ID: IGLOO 810-SB36; 0-0.5 ft
Sample ID: 86840012

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0565	+/-0.165	0.295	0.800						pCi/g
Silver-110m	U	0.0123	+/-0.019	0.0306	0.080						pCi/g
Sodium-22	U	-0.0055	+/-0.0266	0.0392	0.080						pCi/g
Thallium-208		0.235	+/-0.0498	0.0291	0.080						pCi/g
Thorium-230	J	0.711	+/-0.112	0.0593	1.00						pCi/g
Thorium-232		0.874	+/-0.106	0.048	0.500						pCi/g
Thorium-234	J	1.37	+/-1.00	0.918	2.00						pCi/g
Tin-113	U	0.00289	+/-0.0269	0.0463	0.100						pCi/g
Uranium-234		0.882	+/-0.165	0.118	1.00						pCi/g
Uranium-235	U	0.0642	+/-0.162	0.198	0.500						pCi/g
Uranium-238	J	1.37	+/-1.00	0.918	1.00						pCi/g
Yttrium-88	U	0.0172	+/-0.0204	0.0351	0.100						pCi/g
Zinc-65	U	0.0373	+/-0.0265	0.0779	0.300						pCi/g
Zirconium-95	U	0.0309	+/-0.054	0.0851	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 810-SB36; 0-0.5 ft
Sample ID: 86840012

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gei.com

Certificate of Analysis

Company : Parsons
Address : 100 Summer Street
Boston, Massachusetts 02110
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 810-SB36; 0/2-4 ft
Sample ID: 86840013
Matrix: Soil
Collect Date: 11-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.781 +/-0.284	0.213	0.800	pCi/g		SRB	09/25/03	1010	274781	1
Americium-241	U	-0.00389 +/-0.0746	0.115	0.200	pCi/g						
Antimony-124	U	-0.0076 +/-0.0562	0.0834	0.100	pCi/g						
Antimony-125	U	-0.0382 +/-0.0754	0.128	0.200	pCi/g						
Barium-133	U	0.0389 +/-0.0368	0.0614	0.100	pCi/g						
Barium-140	U	0.132 +/-1.21	2.12	0.500	pCi/g						
Beryllium-7	U	-0.0528 +/-0.424	0.733	0.700	pCi/g						
Bismuth-212		0.830 +/-0.448	0.449	0.500	pCi/g						
Bismuth-214	J	0.766 +/-0.176	0.104	0.200	pCi/g						
Cerium-139	U	-0.0131 +/-0.0284	0.0466	0.050	pCi/g						
Cerium-141	U	0.0851 +/-0.084	0.159	0.100	pCi/g						
Cerium-144	U	0.109 +/-0.185	0.319	0.500	pCi/g						
Cesium-134	U	0.0483 +/-0.0519	0.0734	0.100	pCi/g						
Cesium-136	U	-0.0864 +/-0.512	0.900	0.300	pCi/g						
Cesium-137		0.0664 +/-0.0578	0.0578	0.100	pCi/g						
Chromium-51	U	-0.145 +/-0.642	1.12	0.600	pCi/g						
Cobalt-56	U	-0.0498 +/-0.0447	0.0726	0.100	pCi/g						
Cobalt-57	U	-0.00612 +/-0.0221	0.037	0.050	pCi/g						
Cobalt-58	U	-0.0163 +/-0.0437	0.0768	0.100	pCi/g						
Cobalt-60	U	0.00403 +/-0.0356	0.0647	0.100	pCi/g						
Europium-152	U	-0.0449 +/-0.0804	0.137	0.200	pCi/g						
Europium-154	U	0.0869 +/-0.107	0.206	0.500	pCi/g						
Europium-155	U	0.045 +/-0.0834	0.145	0.500	pCi/g						
Iridium-192	U	0.0113 +/-0.0354	0.0636	0.100	pCi/g						
Iron-59	U	-0.105 +/-0.120	0.194	0.300	pCi/g						
Lead-210	U	0.452 +/-1.14	1.35	4.00	pCi/g						
Lead-212		0.735 +/-0.124	0.0812	0.100	pCi/g						
Lead-214		0.837 +/-0.156	0.100	0.100	pCi/g						
Manganese-54	U	0.0214 +/-0.0377	0.0702	0.100	pCi/g						
Mercury-203	U	0.0292 +/-0.0508	0.0921	0.100	pCi/g						
Neodymium-147	U	-1.33 +/-4.03	5.90	1000	pCi/g						
Neptunium-239	U	0.00602 +/-0.154	0.262	2.00	pCi/g						
Niobium-94	U	-0.00749 +/-0.0315	0.0529	1.00	pCi/g						
Niobium-95	U	0.0826 +/-0.0914	0.155	0.050	pCi/g						
Potassium-40		17.4 +/-2.06	0.505	1.00	pCi/g						
Promethium-144	U	0.0126 +/-0.0332	0.0587	0.080	pCi/g						
Promethium-146	U	-0.00816 +/-0.0385	0.0662	1.00	pCi/g						
Radium-226	J	0.766 +/-0.176	0.104	1.00	pCi/g						
Radium-228		0.781 +/-0.284	0.213	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 810-SB36; 0/2-4 ft
Sample ID: 86840013

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0545	+/-0.289	0.493	0.800						pCi/g
Silver-110m	U	0.0182	+/-0.0385	0.0609	0.080						pCi/g
Sodium-22	U	0.0314	+/-0.0389	0.0748	0.080						pCi/g
Thallium-208		0.249	+/-0.0765	0.062	0.080						pCi/g
Thorium-230	J	0.766	+/-0.176	0.104	1.00						pCi/g
Thorium-232		0.702	+/-0.118	0.0776	0.500						pCi/g
Thorium-234	J	1.50	+/-1.38	1.06	2.00						pCi/g
Tin-113	U	-0.00542	+/-0.052	0.0793	0.100						pCi/g
Uranium-234		0.681	+/-0.220	0.195	1.00						pCi/g
Uranium-235	U	0.193	+/-0.174	0.289	0.500						pCi/g
Uranium-238	J	1.50	+/-1.38	1.06	1.00						pCi/g
Yttrium-88	U	0.00743	+/-0.036	0.0724	0.100						pCi/g
Zinc-65	U	-0.00861	+/-0.0962	0.147	0.300						pCi/g
Zirconium-95	U	0.0678	+/-0.0825	0.159	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 810-SB36; 0/2-4 ft
Sample ID: 86840013

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Contact: Katie Kadlubak

Page 1 of 3

Project: SEAD-48 Final Status Survey

Client Sample ID: IGLOO 810-SB37; 0-0.5 ft
Sample ID: 86840014
Matrix: Soil
Collect Date: 09-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.973 +/-0.207	0.139	0.800	pCi/g		SRB	09/25/03	1105	274781	1
Americium-241	U	0.00286 +/-0.081	0.151	0.200	pCi/g						
Antimony-124	U	-0.0218 +/-0.0306	0.0524	0.100	pCi/g						
Antimony-125	U	0.017 +/-0.0556	0.0964	0.200	pCi/g						
Barium-133	U	0.00704 +/-0.0258	0.0403	0.100	pCi/g						
Barium-140	U	-0.236 +/-0.820	1.45	0.500	pCi/g						
Beryllium-7	U	0.119 +/-0.272	0.506	0.700	pCi/g						
Bismuth-212		0.633 +/-0.267	0.278	0.500	pCi/g						
Bismuth-214	J	0.836 +/-0.130	0.0696	0.200	pCi/g						
Cerium-139	U	0.00458 +/-0.018	0.0324	0.050	pCi/g						
Cerium-141	U	0.018 +/-0.0687	0.115	0.100	pCi/g						
Cerium-144	U	0.0379 +/-0.115	0.209	0.500	pCi/g						
Cesium-134	U	0.035 +/-0.0341	0.0516	0.100	pCi/g						
Cesium-136	U	0.00738 +/-0.364	0.636	0.300	pCi/g						
Cesium-137		0.0435 +/-0.0285	0.0325	0.100	pCi/g						
Chromium-51	U	0.0168 +/-0.481	0.832	0.600	pCi/g						
Cobalt-56	U	-0.00786 +/-0.0301	0.0522	0.100	pCi/g						
Cobalt-57	U	-0.00242 +/-0.014	0.0251	0.050	pCi/g						
Cobalt-58	U	0.00509 +/-0.0314	0.0565	0.100	pCi/g						
Cobalt-60	U	0.00176 +/-0.0229	0.0424	0.100	pCi/g						
Europium-152	U	-0.00607 +/-0.054	0.0923	0.200	pCi/g						
Europium-154	U	-0.0244 +/-0.0723	0.128	0.500	pCi/g						
Europium-155	U	0.079 +/-0.0585	0.110	0.500	pCi/g						
Iridium-192	U	8.110E-05 +/-0.0242	0.0419	0.100	pCi/g						
Iron-59	U	-0.0472 +/-0.0997	0.166	0.300	pCi/g						
Lead-210	U	1.53 +/-2.18	3.82	4.00	pCi/g						
Lead-212		1.11 +/-0.138	0.0564	0.100	pCi/g						
Lead-214		0.975 +/-0.150	0.0621	0.100	pCi/g						
Manganese-54	U	0.0174 +/-0.0206	0.0398	0.100	pCi/g						
Mercury-203	U/J	0.00 +/-0.047	0.0622	0.100	pCi/g						
Neodymium-147	U	-0.916 +/-2.20	3.90	1000	pCi/g						
Neptunium-239	U	0.0285 +/-0.102	0.187	2.00	pCi/g						
Niobium-94	U	-0.0135 +/-0.0198	0.0335	1.00	pCi/g						
Niobium-95	U	0.0181 +/-0.0976	0.0799	0.050	pCi/g						
Potassium-40		23.9 +/-2.56	0.348	1.00	pCi/g						
Promethium-144	U	-0.00236 +/-0.0219	0.0387	0.080	pCi/g						
Promethium-146	U	-0.00523 +/-0.0239	0.0431	1.00	pCi/g						
Radium-226	J	0.836 +/-0.130	0.0696	1.00	pCi/g						
Radium-228		0.973 +/-0.207	0.139	0.500	pCi/g						

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Page 2 of 3

Client Sample ID: IGLOO 810-SB37; 0-0.5 ft
Sample ID: 86840014

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0628 +/-0.186	0.327	0.800	pCi/g						
Silver-110m	U	-0.00145 +/-0.0225	0.0354	0.080	pCi/g						
Sodium-22	U	-0.00848 +/-0.0264	0.0468	0.080	pCi/g						
Thallium-208		0.322 +/-0.0577	0.0388	0.080	pCi/g						
Thorium-230	J	0.836 +/-0.130	0.0696	1.00	pCi/g						
Thorium-232		1.06 +/-0.131	0.0537	0.500	pCi/g						
Thorium-234	UJ	0.585 +/-1.05	1.24	2.00	pCi/g						
Tin-113	U	-0.014 +/-0.0318	0.0528	0.100	pCi/g						
Uranium-234		0.979 +/-0.206	0.111	1.00	pCi/g						
Uranium-235	U	0.0451 +/-0.171	0.209	0.500	pCi/g						
Uranium-238	UJ	0.585 +/-1.05	1.24	1.00	pCi/g						
Yttrium-88	U	0.00373 +/-0.0233	0.0452	0.100	pCi/g						
Zinc-65	U	-0.0465 +/-0.0622	0.101	0.300	pCi/g						
Zirconium-95	U	0.0482 +/-0.0584	0.109	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 810-SB37; 0-0.5 ft
Sample ID: 86840014

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 811-SB38; 0-0.5 ft
Sample ID: 86840015
Matrix: Soil
Collect Date: 08-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.03 +/-0.200	0.151	0.800	pCi/g						
Americium-241	U	-0.0514 +/-0.201	0.313	0.200	pCi/g						
Antimony-124	U	-0.00616 +/-0.0351	0.0629	0.100	pCi/g						
Antimony-125	U	0.0052 +/-0.0616	0.108	0.200	pCi/g						
Barium-133	U	0.009 +/-0.0308	0.0486	0.100	pCi/g						
Barium-140	U	-0.506 +/-0.934	1.63	0.500	pCi/g						
Beryllium-7	U	-0.10 +/-0.326	0.554	0.700	pCi/g						
Bismuth-212		0.762 +/-0.265	0.317	0.500	pCi/g						
Bismuth-214	J	0.932 +/-0.139	0.0701	0.200	pCi/g						
Cerium-139	U	0.003 +/-0.0253	0.0462	0.050	pCi/g						
Cerium-141	U	0.0741 +/-0.102	0.169	0.100	pCi/g						
Cerium-144	U	-0.0838 +/-0.163	0.293	0.500	pCi/g						
Cesium-134	U	0.047 +/-0.0372	0.0533	0.100	pCi/g						
Cesium-136	U	0.276 +/-0.457	0.837	0.300	pCi/g						
Cesium-137	U	0.0242 +/-0.0319	0.0429	0.100	pCi/g						
Chromium-51	U	-0.33 +/-0.598	1.03	0.600	pCi/g						
Cobalt-56	U	0.0248 +/-0.0332	0.0625	0.100	pCi/g						
Cobalt-57	U	0.00077 +/-0.0196	0.0362	0.050	pCi/g						
Cobalt-58	U	-0.0278 +/-0.0341	0.0572	0.100	pCi/g						
Cobalt-60	U	0.0014 +/-0.026	0.0479	0.100	pCi/g						
Europium-152	U	-0.018 +/-0.0706	0.122	0.200	pCi/g						
Europium-154	U	0.0353 +/-0.0808	0.147	0.500	pCi/g						
Europium-155	UVJ	0.00 +/-0.162	0.142	0.500	pCi/g						
Iridium-192	U	-0.0312 +/-0.0336	0.0565	0.100	pCi/g						
Iron-59	U	-0.025 +/-0.106	0.181	0.300	pCi/g						
Lead-210	U	4.36 +/-7.86	12.9	4.00	pCi/g						
Lead-212		0.994 +/-0.118	0.0739	0.100	pCi/g						
Lead-214		1.20 +/-0.163	0.0813	0.100	pCi/g						
Manganese-54	U	0.0362 +/-0.0348	0.0465	0.100	pCi/g						
Mercury-203	U	0.0445 +/-0.0465	0.0857	0.100	pCi/g						
Neodymium-147	U	-1.12 +/-2.91	5.18	1000	pCi/g						
Neptunium-239	U	-0.00657 +/-0.140	0.259	2.00	pCi/g						
Niobium-94	U	0.00959 +/-0.0232	0.0425	1.00	pCi/g						
Niobium-95	U	0.0552 +/-0.0667	0.111	0.050	pCi/g						
Potassium-40		19.0 +/-1.56	0.378	1.00	pCi/g						
Promethium-144	U	0.00237 +/-0.0235	0.0425	0.080	pCi/g						
Promethium-146	U	0.0115 +/-0.0308	0.0515	1.00	pCi/g						
Radium-226	J	0.932 +/-0.139	0.0701	1.00	pCi/g						
Radium-228		1.03 +/-0.200	0.151	0.500	pCi/g						

SRB 09/25/03 1108 274781 1

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Report Date: September 29, 2003

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Client Sample ID: IGLOO 811-SB38; 0-0.5 ft
Sample ID: 86840015

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.0353	+/-0.210	0.376	0.800						pCi/g
Silver-110m	U	-0.00438	+/-0.0268	0.0415	0.080						pCi/g
Sodium-22	U	0.0129	+/-0.0294	0.0534	0.080						pCi/g
Thallium-208		0.254	+/-0.0553	0.0433	0.080						pCi/g
Thorium-230	J	0.932	+/-0.139	0.0701	1.00						pCi/g
Thorium-232		0.947	+/-0.112	0.0704	0.500						pCi/g
Thorium-234	UJ	0.682	+/-1.85	2.28	2.00						pCi/g
Tin-113	U	0.0101	+/-0.038	0.0673	0.100						pCi/g
Uranium-234		1.26	+/-0.205	0.151	1.00						pCi/g
Uranium-235	U	0.0692	+/-0.152	0.281	0.500						pCi/g
Uranium-238	UJ	0.682	+/-1.85	2.28	1.00						pCi/g
Yttrium-88	U	-5.550E-06	+/-0.025	0.0472	0.100						pCi/g
Zinc-65	U	-0.0526	+/-0.0858	0.120	0.300						pCi/g
Zirconium-95	U	0.0447	+/-0.0649	0.122	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 811-SB38; 0-0.5 ft
Sample ID: 86840015

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 811-SB39; 0-0.5 ft
Sample ID: 86840016
Matrix: Soil
Collect Date: 08-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.608 +/-0.160	0.117	0.800	pCi/g						
Americium-241	U	0.0965 +/-0.136	0.127	0.200	pCi/g						
Antimony-124	U	0.00176 +/-0.026	0.0473	0.100	pCi/g						
Antimony-125	U	0.0203 +/-0.0423	0.0806	0.200	pCi/g						
Barium-133	U	-0.0034 +/-0.0224	0.0344	0.100	pCi/g						
Barium-140	U	-0.0565 +/-0.686	1.26	0.500	pCi/g						
Beryllium-7	U	-0.0559 +/-0.235	0.428	0.700	pCi/g						
Bismuth-212		0.686 +/-0.299	0.245	0.500	pCi/g						
Bismuth-214	J	0.835 +/-0.127	0.055	0.200	pCi/g						
Cerium-139	U	0.00445 +/-0.016	0.0296	0.050	pCi/g						
Cerium-141	U	-0.028 +/-0.0587	0.107	0.100	pCi/g						
Cerium-144	U	-0.108 +/-0.0987	0.174	0.500	pCi/g						
Cesium-134	U	0.0239 +/-0.0324	0.0408	0.100	pCi/g						
Cesium-136	U	-0.0643 +/-0.291	0.528	0.300	pCi/g						
Cesium-137		0.134 +/-0.0383	0.0337	0.100	pCi/g						
Chromium-51	U	-0.359 +/-0.389	0.647	0.600	pCi/g						
Cobalt-56	U	-0.0207 +/-0.025	0.0409	0.100	pCi/g						
Cobalt-57	U	-0.00616 +/-0.0119	0.0219	0.050	pCi/g						
Cobalt-58	U	-0.00126 +/-0.0294	0.0456	0.100	pCi/g						
Cobalt-60	U	0.0266 +/-0.0214	0.0427	0.100	pCi/g						
Europium-152	U	-0.023 +/-0.0506	0.076	0.200	pCi/g						
Europium-154	U	-0.0136 +/-0.0596	0.106	0.500	pCi/g						
Europium-155	U	0.0569 +/-0.0481	0.0938	0.500	pCi/g						
Iridium-192	U	0.0323 +/-0.0217	0.041	0.100	pCi/g						
Iron-59	U	-0.0866 +/-0.0761	0.126	0.300	pCi/g						
Lead-210		3.35 +/-3.56	3.19	4.00	pCi/g						
Lead-212		0.919 +/-0.116	0.0467	0.100	pCi/g						
Lead-214		1.01 +/-0.140	0.054	0.100	pCi/g						
Manganese-54	U	-0.00368 +/-0.0204	0.0356	0.100	pCi/g						
Mercury-203	U	0.0475 +/-0.0512	0.0561	0.100	pCi/g						
Neodymium-147	U	-0.261 +/-1.97	3.60	1000	pCi/g						
Neptunium-239	U	0.0725 +/-0.0795	0.154	2.00	pCi/g						
Niobium-94	U	-0.00139 +/-0.0183	0.0285	1.00	pCi/g						
Niobium-95	U	-0.0124 +/-0.052	0.079	0.050	pCi/g						
Potassium-40		16.2 +/-1.91	0.310	1.00	pCi/g						
Promethium-144	U	0.0139 +/-0.0183	0.0342	0.080	pCi/g						
Promethium-146	U	0.00855 +/-0.0205	0.0387	1.00	pCi/g						
Radium-226	J	0.835 +/-0.127	0.055	1.00	pCi/g						
Radium-228		0.608 +/-0.160	0.117	0.500	pCi/g						

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Client Sample ID: IGLOO 811-SB39; 0-0.5 ft
Sample ID: 86840016
Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0258	+/-0.152	0.279	0.800						pCi/g
Silver-110m	U	0.0124	+/-0.0193	0.0325	0.080						pCi/g
Sodium-22	U	-0.00484	+/-0.0217	0.0386	0.080						pCi/g
Thallium-208		0.286	+/-0.0544	0.030	0.080						pCi/g
Thorium-230	J	0.835	+/-0.127	0.055	1.00						pCi/g
Thorium-232		0.875	+/-0.111	0.0445	0.500						pCi/g
Thorium-234	J	2.22	+/-1.46	1.05	2.00						pCi/g
Tin-113	U	-0.00157	+/-0.027	0.0467	0.100						pCi/g
Uranium-234		1.04	+/-0.185	0.110	1.00						pCi/g
Uranium-235	U	0.0796	+/-0.0968	0.182	0.500						pCi/g
Uranium-238	J	2.22	+/-1.46	1.05	1.00						pCi/g
Yttrium-88	U	0.00554	+/-0.0204	0.0395	0.100						pCi/g
Zinc-65	U	-0.0325	+/-0.0556	0.0824	0.300						pCi/g
Zirconium-95	U	0.0176	+/-0.046	0.0848	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Project: SEAD-48 Final Status Survey

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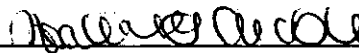
Client Sample ID: IGLOO 811-SB39; 0-0.5 ft
Sample ID: 86840016

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 811-SB40-1; 0-0.5 ft
Sample ID: 86840017
Matrix: Soil
Collect Date: 08-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.14 +/-0.266	0.167	0.800	pCi/g		SRB	09/25/03	1236	274781	1
Americium-241	U	0.0501 +/-0.140	0.257	0.200	pCi/g						
Antimony-124	U	-0.0101 +/-0.0392	0.0677	0.100	pCi/g						
Antimony-125	U	0.00 +/-0.123	0.142	0.200	pCi/g						
Barium-133	U	0.0195 +/-0.0358	0.0581	0.100	pCi/g						
Barium-140	U	0.309 +/-1.32	2.06	0.500	pCi/g						
Beryllium-7	U	-0.103 +/-0.369	0.647	0.700	pCi/g						
Bismuth-212		0.816 +/-0.323	0.357	0.500	pCi/g						
Bismuth-214	J	6.07 +/-0.766	0.0815	0.200	pCi/g						
Cerium-139	U	0.0184 +/-0.0335	0.0528	0.050	pCi/g						
Cerium-141	U	0.00 +/-0.125	0.189	0.100	pCi/g						
Cerium-144	U	-0.0424 +/-0.206	0.323	0.500	pCi/g						
Cesium-134	U	0.00 +/-0.0404	0.0576	0.100	pCi/g						
Cesium-136	U	0.0526 +/-0.467	0.837	0.300	pCi/g						
Cesium-137		0.218 +/-0.0514	0.0441	0.100	pCi/g						
Chromium-51	U	-0.333 +/-0.683	1.13	0.600	pCi/g						
Cobalt-56	U	0.022 +/-0.0396	0.0698	0.100	pCi/g						
Cobalt-57	U	-0.0072 +/-0.0227	0.0399	0.050	pCi/g						
Cobalt-58	U	-0.0343 +/-0.0478	0.0675	0.100	pCi/g						
Cobalt-60	U	0.00285 +/-0.0288	0.0513	0.100	pCi/g						
Europium-152	U	-0.0465 +/-0.0759	0.134	0.200	pCi/g						
Europium-154	U	0.00691 +/-0.0893	0.158	0.500	pCi/g						
Europium-155	U	0.0768 +/-0.088	0.160	0.500	pCi/g						
Iridium-192	U	0.00667 +/-0.0385	0.0652	0.100	pCi/g						
Iron-59	U	-0.00224 +/-0.110	0.195	0.300	pCi/g						
Lead-210	U	2.09 +/-5.57	6.09	4.00	pCi/g						
Lead-212		1.06 +/-0.141	0.0767	0.100	pCi/g						
Lead-214		7.56 +/-0.865	0.0961	0.100	pCi/g						
Manganese-54	U	0.021 +/-0.0242	0.0523	0.100	pCi/g						
Mercury-203	U	0.00185 +/-0.0563	0.0953	0.100	pCi/g						
Neodymium-147	U	4.11 +/-3.68	6.02	1000	pCi/g						
Neptunium-239	U	-0.0945 +/-0.153	0.268	2.00	pCi/g						
Niobium-94	U	0.0285 +/-0.0248	0.0448	1.00	pCi/g						
Niobium-95	U	0.00 +/-0.0861	0.143	0.050	pCi/g						
Potassium-40		19.6 +/-2.09	0.452	1.00	pCi/g						
Promethium-144	U	0.0127 +/-0.0255	0.0452	0.080	pCi/g						
Promethium-146	U	0.0232 +/-0.0331	0.0602	1.00	pCi/g						
Radium-226	J	6.07 +/-0.766	0.0815	1.00	pCi/g						
Radium-228		1.14 +/-0.266	0.167	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 811-SB40-1; 0-0.5 ft
Sample ID: 86840017

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.066	+/-0.233	0.413	0.800						pCi/g
Silver-110m	U	0.0339	+/-0.0313	0.044	0.080						pCi/g
Sodium-22	U	0.00239	+/-0.0325	0.0575	0.080						pCi/g
Thallium-208		0.407	+/-0.0846	0.0419	0.080						pCi/g
Thorium-230	J	6.07	+/-0.766	0.0815	1.00						pCi/g
Thorium-232		1.01	+/-0.134	0.0731	0.500						pCi/g
Thorium-234	J	5.24	+/-2.58	2.06	2.00						pCi/g
Tin-113	U	-0.0204	+/-0.0424	0.0746	0.100						pCi/g
Uranium-234		7.47	+/-0.916	0.179	1.00						pCi/g
Uranium-235		0.555	+/-0.303	0.334	0.500						pCi/g
Uranium-238	J	5.24	+/-2.58	2.06	1.00						pCi/g
Yttrium-88	U	0.00805	+/-0.0313	0.0571	0.100						pCi/g
Zinc-65	U	-0.00208	+/-0.077	0.119	0.300						pCi/g
Zirconium-95	U	0.0373	+/-0.0749	0.132	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- > Result is greater than amount reported.
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 811-SB40-1; 0-0.5 ft
Sample ID: 86840017

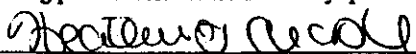
Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 811-SB40-2; 0-0.5 ft
Sample ID: 86840018
Matrix: Soil
Collect Date: 08-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228		1.04 +/-0.286	0.203	0.800	pCi/g		SRB	09/25/03	1443	274781	1
Americium-241	U	-0.0132 +/-0.144	0.256	0.200	pCi/g						
Antimony-124	U	-0.0349 +/-0.0483	0.0826	0.100	pCi/g						
Antimony-125	U	-0.0121 +/-0.0858	0.145	0.200	pCi/g						
Barium-133	U	-0.000879 +/-0.0408	0.0616	0.100	pCi/g						
Barium-140	U	1.52 +/-1.53	2.38	0.500	pCi/g						
Beryllium-7	U	-0.207 +/-0.502	0.724	0.700	pCi/g						
Bismuth-212		0.620 +/-0.372	0.431	0.500	pCi/g						
Bismuth-214	J	6.35 +/-0.594	0.0948	0.200	pCi/g						
Cerium-139	U	0.000106 +/-0.0376	0.056	0.050	pCi/g						
Cerium-141	U	0.154 +/-0.116	0.212	0.100	pCi/g						
Cerium-144	U	-0.0371 +/-0.206	0.348	0.500	pCi/g						
Cesium-134	U	0.00 +/-0.0506	0.0661	0.100	pCi/g						
Cesium-136	U	-0.652 +/-0.552	0.866	0.300	pCi/g						
Cesium-137		0.239 +/-0.0417	0.0498	0.100	pCi/g						
Chromium-51	U	-0.465 +/-0.774	1.32	0.600	pCi/g						
Cobalt-56	U	0.00753 +/-0.0474	0.0823	0.100	pCi/g						
Cobalt-57	U	-0.0132 +/-0.0259	0.0437	0.050	pCi/g						
Cobalt-58	U	0.0276 +/-0.0509	0.0794	0.100	pCi/g						
Cobalt-60	U	-0.00155 +/-0.0343	0.0599	0.100	pCi/g						
Europium-152	U	-0.0239 +/-0.0855	0.147	0.200	pCi/g						
Europium-154	U	0.0672 +/-0.105	0.169	0.500	pCi/g						
Europium-155	U	0.0356 +/-0.0957	0.167	0.500	pCi/g						
Iridium-192	U	0.0194 +/-0.0423	0.0744	0.100	pCi/g						
Iron-59	U	-0.161 +/-0.129	0.212	0.300	pCi/g						
Lead-210	U	5.71 +/-5.01	6.32	4.00	pCi/g						
Lead-212		1.14 +/-0.127	0.0876	0.100	pCi/g						
Lead-214		7.48 +/-0.652	0.0985	0.100	pCi/g						
Manganese-54	U	0.0251 +/-0.0373	0.0583	0.100	pCi/g						
Mercury-203	U	0.0645 +/-0.107	0.102	0.100	pCi/g						
Neodymium-147	U	-0.333 +/-4.44	6.49	1000	pCi/g						
Neptunium-239	U	0.0496 +/-0.174	0.300	2.00	pCi/g						
Niobium-94	U	0.0189 +/-0.0277	0.0498	1.00	pCi/g						
Niobium-95	U	0.00 +/-0.0956	0.162	0.050	pCi/g						
Potassium-40		20.0 +/-1.70	0.546	1.00	pCi/g						
Promethium-144	U	0.0263 +/-0.0296	0.0537	0.080	pCi/g						
Promethium-146	U	0.0562 +/-0.0457	0.0704	1.00	pCi/g						
Radium-226	J	6.35 +/-0.594	0.0948	1.00	pCi/g						
Radium-228		1.04 +/-0.286	0.203	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 811-SB40-2; 0-0.5 ft
Sample ID: 86840018

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0455	+/-0.266	0.473	0.800						pCi/g
Silver-110m	U	0.00157	+/-0.033	0.0506	0.080						pCi/g
Sodium-22	U	0.0243	+/-0.0383	0.0614	0.080						pCi/g
Thallium-208		0.360	+/-0.0775	0.0535	0.080						pCi/g
Thorium-230	J	6.34	+/-0.594	0.0948	1.00						pCi/g
Thorium-232		1.08	+/-0.121	0.0834	0.500						pCi/g
Thorium-234	J	6.96	+/-2.51	2.08	2.00						pCi/g
Tin-113	U	-0.0346	+/-0.0511	0.0854	0.100						pCi/g
Uranium-234		7.54	+/-0.711	0.203	1.00						pCi/g
Uranium-235		0.423	+/-0.303	0.361	0.500						pCi/g
Uranium-238	J	6.96	+/-2.51	2.08	1.00						pCi/g
Yttrium-88	U	0.00662	+/-0.0319	0.060	0.100						pCi/g
Zinc-65	U	0.0382	+/-0.0914	0.143	0.300						pCi/g
Zirconium-95	U	-0.0286	+/-0.0833	0.142	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 811-SB40-2; 0-0.5 ft
Sample ID: 86840018

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 811-SB40; 0.5-2 ft
Sample ID: 86840019
Matrix: Soil
Collect Date: 08-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228		0.798 +/-0.167	0.096	0.800	pCi/g		SRB	09/25/03	1444	274781	1
Americium-241	U	0.0197 +/-0.094	0.159	0.200	pCi/g						
Antimony-124	U	0.00669 +/-0.023	0.0433	0.100	pCi/g						
Antimony-125	U	0.0109 +/-0.0399	0.0716	0.200	pCi/g						
Barium-133	U	-0.00207 +/-0.0206	0.0325	0.100	pCi/g						
Barium-140	U	0.104 +/-0.620	1.17	0.500	pCi/g						
Beryllium-7	U	0.0248 +/-0.213	0.376	0.700	pCi/g						
Bismuth-212		0.303 +/-0.176	0.227	0.500	pCi/g						
Bismuth-214	J	0.658 +/-0.102	0.0568	0.200	pCi/g						
Cerium-139	U	0.0268 +/-0.0271	0.0271	0.050	pCi/g						
Cerium-141	U	0.0384 +/-0.0531	0.102	0.100	pCi/g						
Cerium-144	U	-0.0109 +/-0.0932	0.176	0.500	pCi/g						
Cesium-134	U	0.031 +/-0.0312	0.0403	0.100	pCi/g						
Cesium-136	U	-0.291 +/-0.367	0.506	0.300	pCi/g						
Cesium-137	U	-0.00633 +/-0.0159	0.0283	0.100	pCi/g						
Chromium-51	U	0.220 +/-0.356	0.661	0.600	pCi/g						
Cobalt-56	U	0.00609 +/-0.0227	0.0419	0.100	pCi/g						
Cobalt-57	U	-0.00353 +/-0.0116	0.0219	0.050	pCi/g						
Cobalt-58	UV J	0.00 +/-0.0915	0.0425	0.100	pCi/g						
Cobalt-60	U	-0.00323 +/-0.0178	0.0324	0.100	pCi/g						
Europium-152	U	-0.0196 +/-0.0424	0.0736	0.200	pCi/g						
Europium-154	U	-0.0441 +/-0.0658	0.0961	0.500	pCi/g						
Europium-155	U	0.0648 +/-0.0774	0.0857	0.500	pCi/g						
Iridium-192	U	-0.00462 +/-0.0199	0.0353	0.100	pCi/g						
Iron-59	U	-0.00723 +/-0.0731	0.127	0.300	pCi/g						
Lead-210	U	2.22 +/-3.49	6.13	4.00	pCi/g						
Lead-212		0.787 +/-0.0904	0.0497	0.100	pCi/g						
Lead-214		0.652 +/-0.103	0.0526	0.100	pCi/g						
Manganese-54	U	0.0111 +/-0.018	0.0338	0.100	pCi/g						
Mercury-203	UV J	0.00 +/-0.0583	0.0491	0.100	pCi/g						
Neodymium-147	U	0.787 +/-1.79	3.44	1000	pCi/g						
Neptunium-239	U	-0.0619 +/-0.0798	0.148	2.00	pCi/g						
Niobium-94	U	-0.0131 +/-0.0152	0.0221	1.00	pCi/g						
Niobium-95	U	0.0385 +/-0.0432	0.0748	0.050	pCi/g						
Potassium-40		16.6 +/-1.41	0.319	1.00	pCi/g						
Promethium-144	U	-0.00678 +/-0.0154	0.0273	0.080	pCi/g						
Promethium-146	U	-0.00544 +/-0.0194	0.0333	1.00	pCi/g						
Radium-226	J	0.658 +/-0.102	0.0568	1.00	pCi/g						
Radium-228		0.798 +/-0.167	0.096	0.500	pCi/g						

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Client Sample ID: IGLOO 811-SB40; 0.5-2 ft
Sample ID: 86840019

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.110	+/-0.140	0.271	0.800						pCi/g
Silver-110m	U	0.00621	+/-0.0164	0.0308	0.080						pCi/g
Sodium-22	U	-0.0161	+/-0.0239	0.035	0.080						pCi/g
Thallium-208		0.252	+/-0.0464	0.029	0.080						pCi/g
Thorium-230	J	0.658	+/-0.102	0.0568	1.00						pCi/g
Thorium-232		0.750	+/-0.0861	0.0473	0.500						pCi/g
Thorium-234	J	1.34	+/-1.46	1.22	2.00						pCi/g
Tin-113	U	-0.0127	+/-0.0244	0.0418	0.100						pCi/g
Uranium-234		0.845	+/-0.145	0.105	1.00						pCi/g
Uranium-235	U	0.0304	+/-0.0874	0.166	0.500						pCi/g
Uranium-238	J	1.34	+/-1.46	1.22	1.00						pCi/g
Yttrium-88	U	0.00179	+/-0.016	0.0314	0.100						pCi/g
Zinc-65	U	-0.0149	+/-0.0486	0.0825	0.300						pCi/g
Zirconium-95	U	0.00901	+/-0.0444	0.0818	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXGI	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Client Sample ID: IGLOO 811-SB40; 0.5-2 ft
Sample ID: 86840019

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Page 1 of 3

Client Sample ID: IGLOO 811-SB41; 0-0.5 ft
Sample ID: 86840020
Matrix: Soil
Collect Date: 09-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
Gammaspec, Gamma, Solid w/Ra226											
Actinium-228		0.935	+/-0.525	0.572	0.800						
Americium-241	U	-0.121	+/-0.470	0.803	0.200						
Antimony-124	U	-2.94	+/-0.271	0.224	0.100						
Antimony-125	U/S	0.00	+/-0.387	0.466	0.200						
Barium-133	U	0.123	+/-0.127	0.188	0.100						
Barium-140	U	2.20	+/-4.63	6.93	0.500						
Beryllium-7	U/S	0.00	+/-1.98	2.12	0.700						
Bismuth-212	U	0.364	+/-0.676	1.15	0.500						
Bismuth-214	J	74.4	+/-6.59	0.270	0.200						
Cerium-139	U/S	0.00	+/-0.123	0.180	0.050						
Cerium-141	U/S	0.00	+/-0.512	0.658	0.100						
Cerium-144	U	-0.369	+/-0.655	1.07	0.500						
Cesium-134	U	-0.0641	+/-0.0998	0.165	0.100						
Cesium-136	U	1.00	+/-1.88	2.69	0.300						
Cesium-137	U	0.322	+/-0.118	0.139	0.100						
Chromium-51	U	0.909	+/-2.71	4.02	0.600						
Cobalt-56	U	0.087	+/-0.133	0.224	0.100						
Cobalt-57	U	0.00647	+/-0.134	0.134	0.050						
Cobalt-58	U	-0.0611	+/-0.156	0.223	0.100						
Cobalt-60	U	-0.0517	+/-0.103	0.170	0.100						
Europium-152	U	0.275	+/-0.266	0.469	0.200						
Europium-154	U	0.492	+/-0.337	0.510	0.500						
Europium-155	U	0.280	+/-0.323	0.504	0.500						
Iridium-192	U	0.0513	+/-0.148	0.220	0.100						
Iron-59	U	-0.656	+/-0.442	0.616	0.300						
Lead-210		55.4	+/-18.4	19.3	4.00						
Lead-212		1.16	+/-0.296	0.260	0.100						
Lead-214		87.6	+/-7.18	0.321	0.100						
Manganese-54	U	0.053	+/-0.173	0.168	0.100						
Mercury-203	U	-0.24	+/-0.187	0.312	0.100						
Neodymium-147	U	-3.85	+/-14.4	20.3	1000						
Neptunium-239	U	-0.491	+/-0.552	0.906	2.00						
Niobium-94	U/S	0.00	+/-0.115	0.147	1.00						
Niobium-95	U/S	0.00	+/-0.679	0.679	0.050						
Potassium-40		18.9	+/-2.22	1.69	1.00						
Promethium-144	U	-0.00378	+/-0.0801	0.135	0.080						
Promethium-146	U/S	0.00	+/-0.190	0.203	1.00						
Radium-226	J	74.4	+/-6.59	0.270	1.00						
Radium-228		0.935	+/-0.525	0.572	0.500						

SRB 09/27/03 1437 274781 1

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Client Sample ID: IGLOO 811-SB41; 0-0.5 ft
Sample ID: 86840020

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.839	+/-0.754	1.25	0.800						pCi/g
Silver-110m	U	0.0711	+/-0.0966	0.145	0.080						pCi/g
Sodium-22	U	0.180	+/-0.122	0.186	0.080						pCi/g
Thallium-208		0.265	+/-0.126	0.142	0.080						pCi/g
Thorium-230	J	74.4	+/-6.59	0.270	1.00						pCi/g
Thorium-232		1.10	+/-0.282	0.247	0.500						pCi/g
Thorium-234	J	78.1	+/-15.3	6.58	2.00						pCi/g
Tin-113	U	0.163	+/-0.173	0.254	0.100						pCi/g
Uranium-234		87.2	+/-7.40	0.631	1.00						pCi/g
Uranium-235		5.68	+/-1.35	1.17	0.500						pCi/g
Uranium-238	J	78.1	+/-15.3	6.58	1.00						pCi/g
Yttrium-88	UI	0.00	+/-0.156	0.209	0.100						pCi/g
Zinc-65	UI	0.00	+/-0.323	0.500	0.300						pCi/g
Zirconium-95	U	-0.121	+/-0.278	0.399	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1359	273433

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Page 3 of 3

Client Sample ID: IGLOO 811-SB41; 0-0.5 ft
Sample ID: 86840020

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

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Client Sample ID: IGLOO 811-SB41; 0.5-2 ft
Sample ID: 86840021
Matrix: Soil
Collect Date: 09-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Actinium-228	J	1.08	+/-0.216	0.104	0.800	pCi/g	SRB	09/22/03	1319	274782	1
Americium-241	U	0.0539	+/-0.0638	0.107	0.200	pCi/g					
Antimony-124	U	0.0111	+/-0.0238	0.0431	0.100	pCi/g					
Antimony-125	U	0.0201	+/-0.0418	0.0737	0.200	pCi/g					
Barium-133	U	-0.00553	+/-0.0206	0.0311	0.100	pCi/g					
Barium-140	U	-0.236	+/-0.576	0.946	0.500	pCi/g					
Beryllium-7	U	-0.0242	+/-0.243	0.361	0.700	pCi/g					
Bismuth-212	J	0.575	+/-0.274	0.229	0.500	pCi/g					
Bismuth-214		0.808	+/-0.115	0.051	0.200	pCi/g					
Cerium-139	U	-0.0102	+/-0.0171	0.0286	0.050	pCi/g					
Cerium-141	U	0.037	+/-0.0735	0.0966	0.100	pCi/g					
Cerium-144	U	-0.0679	+/-0.107	0.181	0.500	pCi/g					
Cesium-134	U/J	0.00	+/-0.0367	0.0418	0.100	pCi/g					
Cesium-136	U	0.0375	+/-0.258	0.443	0.300	pCi/g					
Cesium-137	U	-0.00178	+/-0.0189	0.0288	0.100	pCi/g					
Chromium-51	U	-0.102	+/-0.353	0.613	0.600	pCi/g					
Cobalt-56	U	-0.00391	+/-0.0238	0.0409	0.100	pCi/g					
Cobalt-57	U	0.000236	+/-0.0135	0.0235	0.050	pCi/g					
Cobalt-58	U	-0.0018	+/-0.0243	0.042	0.100	pCi/g					
Cobalt-60	U	-0.00342	+/-0.0189	0.0328	0.100	pCi/g					
Europium-152	U	-0.00371	+/-0.0449	0.0782	0.200	pCi/g					
Europium-154	U	-0.0277	+/-0.063	0.107	0.500	pCi/g					
Europium-155	U	0.0173	+/-0.053	0.0935	0.500	pCi/g					
Iridium-192	U	0.00328	+/-0.0213	0.0376	0.100	pCi/g					
Iron-59	U	-0.0229	+/-0.0736	0.122	0.300	pCi/g					
Lead-210	U	0.788	+/-2.16	2.11	4.00	pCi/g					
Lead-212		1.10	+/-0.127	0.046	0.100	pCi/g					
Lead-214		0.972	+/-0.127	0.0531	0.100	pCi/g					
Manganese-54	U	0.00288	+/-0.0187	0.0326	0.100	pCi/g					
Mercury-203	U/J	0.00	+/-0.044	0.0494	0.100	pCi/g					
Neodymium-147	U	-1.15	+/-1.57	2.54	1000	pCi/g					
Neptunium-239	U	-0.00954	+/-0.0947	0.164	2.00	pCi/g					
Niobium-94	U	-0.000788	+/-0.0153	0.0267	1.00	pCi/g					
Niobium-95	U	0.0162	+/-0.047	0.0726	0.050	pCi/g					
Potassium-40		24.3	+/-1.95	0.282	1.00	pCi/g					
Promethium-144	U	0.00216	+/-0.0164	0.029	0.080	pCi/g					
Promethium-146	U	-0.00748	+/-0.0202	0.034	1.00	pCi/g					
Radium-226		0.808	+/-0.115	0.051	1.00	pCi/g					
Radium-228	J	1.08	+/-0.216	0.104	0.500	pCi/g					

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Client Sample ID: IGLOO 811-SB41; 0.5-2 ft
Sample ID: 86840021

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.00547	+/-0.154	0.271	0.800						pCi/g
Silver-110m	U	0.00454	+/-0.0169	0.0303	0.080						pCi/g
Sodium-22	U	-0.00993	+/-0.0229	0.0389	0.080						pCi/g
Thallium-208		0.287	+/-0.0491	0.0292	0.080						pCi/g
Thorium-230		0.808	+/-0.115	0.051	1.00						pCi/g
Thorium-232		1.06	+/-0.122	0.044	0.500						pCi/g
Thorium-234	J	2.21	+/-1.31	0.887	2.00						pCi/g
Tin-113	U	0.000589	+/-0.0239	0.0414	0.100						pCi/g
Uranium-234		0.997	+/-0.165	0.107	1.00						pCi/g
Uranium-235	U	0.0816	+/-0.162	0.192	0.500						pCi/g
Uranium-238	J	2.21	+/-1.31	0.887	1.00						pCi/g
Yttrium-88	U	0.00691	+/-0.0176	0.0338	0.100						pCi/g
Zinc-65	U	0.0167	+/-0.0521	0.0814	0.300						pCi/g
Zirconium-95	U	0.0236	+/-0.0434	0.0779	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1618	273435

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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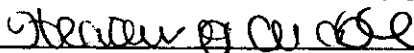
Client Sample ID: IGLOO 811-SB41; 0.5-2 ft
Sample ID: 86840021

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Contact: Katie Kadlubak

Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 811-SB41; 0/2-4 ft
Sample ID: 86840022
Matrix: Soil
Collect Date: 09-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
Gammascpec, Gamma, Solid w/Ra226											
Actinium-228	J	0.738 +/-0.205	0.131	0.800	pCi/g		SRB	09/23/03	0737	274782	1
Americium-241	U	0.00235 +/-0.0842	0.142	0.200	pCi/g						
Antimony-124	U	-0.0105 +/-0.0279	0.049	0.100	pCi/g						
Antimony-125	U	-0.0147 +/-0.0535	0.0792	0.200	pCi/g						
Barium-133	U	0.0141 +/-0.0223	0.0363	0.100	pCi/g						
Barium-140	U	-0.171 +/-0.632	1.13	0.500	pCi/g						
Beryllium-7	U	-0.0283 +/-0.246	0.446	0.700	pCi/g						
Bismuth-212	J	0.681 +/-0.283	0.292	0.500	pCi/g						
Bismuth-214		0.698 +/-0.126	0.0582	0.200	pCi/g						
Cerium-139	U	-0.00474 +/-0.0176	0.0311	0.050	pCi/g						
Cerium-141	U	-0.0095 +/-0.0606	0.108	0.100	pCi/g						
Cerium-144	U	-0.0236 +/-0.107	0.191	0.500	pCi/g						
Cesium-134	U	0.0421 +/-0.0366	0.0482	0.100	pCi/g						
Cesium-136	U	-0.203 +/-0.333	0.549	0.300	pCi/g						
Cesium-137	U	0.0106 +/-0.0205	0.0381	0.100	pCi/g						
Chromium-51	U	-0.153 +/-0.392	0.664	0.600	pCi/g						
Cobalt-56	U	-0.000843 +/-0.0267	0.0475	0.100	pCi/g						
Cobalt-57	U	-0.0079 +/-0.0133	0.0235	0.050	pCi/g						
Cobalt-58	U	-0.00745 +/-0.0261	0.0456	0.100	pCi/g						
Cobalt-60	U	-0.0122 +/-0.0212	0.0368	0.100	pCi/g						
Europium-152	U	-0.0448 +/-0.0526	0.0857	0.200	pCi/g						
Europium-154	U	-0.0052 +/-0.0721	0.131	0.500	pCi/g						
Europium-155	U	0.0529 +/-0.0957	0.0954	0.500	pCi/g						
Iridium-192	U	0.0249 +/-0.0229	0.042	0.100	pCi/g						
Iron-59	U	-0.00377 +/-0.0947	0.144	0.300	pCi/g						
Lead-210	U	0.534 +/-2.26	3.60	4.00	pCi/g						
Lead-212		0.823 +/-0.109	0.0507	0.100	pCi/g						
Lead-214		0.783 +/-0.126	0.0603	0.100	pCi/g						
Manganese-54	U	0.00683 +/-0.0212	0.0385	0.100	pCi/g						
Mercury-203	U	0.0199 +/-0.0349	0.0564	0.100	pCi/g						
Neodymium-147	U	-0.346 +/-1.92	3.46	1000	pCi/g						
Neptunium-239	Ø	-0.0658 +/-0.0916	0.161	2.00	pCi/g						
Niobium-94	U	0.00946 +/-0.019	0.0349	1.00	pCi/g						
Niobium-95	U	0.0224 +/-0.0666	0.0806	0.050	pCi/g						
Potassium-40		18.6 +/-2.05	0.300	1.00	pCi/g						
Promethium-144	U	0.00166 +/-0.0192	0.0346	0.080	pCi/g						
Promethium-146	U	0.00812 +/-0.0232	0.0431	1.00	pCi/g						
Radium-226		0.698 +/-0.126	0.0582	1.00	pCi/g						
Radium-228	J	0.738 +/-0.205	0.131	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 811-SB41; 0/2-4 ft
Sample ID: 86840022

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.061 +/-0.153	0.287	0.800	pCi/g						
Silver-110m	U	-0.00526 +/-0.0194	0.0343	0.080	pCi/g						
Sodium-22	U	-0.00214 +/-0.0262	0.0475	0.080	pCi/g						
Thallium-208		0.261 +/-0.0562	0.031	0.080	pCi/g						
Thorium-230		0.698 +/-0.126	0.0582	1.00	pCi/g						
Thorium-232		0.787 +/-0.104	0.0485	0.500	pCi/g						
Thorium-234	UJ	0.689 +/-1.33	1.12	2.00	pCi/g						
Tin-113	U	-0.00252 +/-0.0268	0.0458	0.100	pCi/g						
Uranium-234		0.696 +/-0.143	0.121	1.00	pCi/g						
Uranium-235	U	0.0375 +/-0.106	0.192	0.500	pCi/g						
Uranium-238	UJ	0.689 +/-1.33	1.12	1.00	pCi/g						
Yttrium-88	U	0.00868 +/-0.0204	0.0422	0.100	pCi/g						
Zinc-65	U	-0.00399 +/-0.0573	0.0868	0.300	pCi/g						
Zirconium-95	U	0.0799 +/-0.0903	0.0898	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1618	273435

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 811-SB41; 0/2-4 ft
Sample ID: 86840022

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Anthony A. Cioce
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Contact: Katie Kadlubak

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Client Sample ID: IGLOO 912-SB42; 0-0.5 ft
Sample ID: 86840023
Matrix: Soil
Collect Date: 20-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228	J	0.960 +/-0.208	0.143	0.800	pCi/g		SRB	09/23/03	0738	274782	1
Americium-241	U	7.870E-05 +/-0.0963	0.167	0.200	pCi/g						
Antimony-124	U	0.0123 +/-0.0469	0.0545	0.100	pCi/g						
Antimony-125	U	0.0324 +/-0.0655	0.114	0.200	pCi/g						
Barium-133	U	-0.00337 +/-0.033	0.0493	0.100	pCi/g						
Barium-140	U	0.497 +/-0.501	0.893	0.500	pCi/g						
Beryllium-7	U	-0.13 +/-0.264	0.433	0.700	pCi/g						
Bismuth-212	J	0.757 +/-0.372	0.318	0.500	pCi/g						
Bismuth-214		0.613 +/-0.106	0.0753	0.200	pCi/g						
Cerium-139	U	0.0161 +/-0.0209	0.0357	0.050	pCi/g						
Cerium-141	U	0.0102 +/-0.0629	0.105	0.100	pCi/g						
Cerium-144	U	-0.0164 +/-0.142	0.236	0.500	pCi/g						
Cesium-134	U/J	0.00 +/-0.0433	0.0558	0.100	pCi/g						
Cesium-136	U	0.0104 +/-0.221	0.380	0.300	pCi/g						
Cesium-137		0.106 +/-0.0461	0.0446	0.100	pCi/g						
Chromium-51	U	-0.0844 +/-0.395	0.675	0.600	pCi/g						
Cobalt-56	U	0.00723 +/-0.0321	0.0568	0.100	pCi/g						
Cobalt-57	U	-0.00336 +/-0.0168	0.028	0.050	pCi/g						
Cobalt-58	U	-0.0164 +/-0.0316	0.0528	0.100	pCi/g						
Cobalt-60	U	0.00173 +/-0.0231	0.0421	0.100	pCi/g						
Europium-152	U	0.020 +/-0.0637	0.111	0.200	pCi/g						
Europium-154	U	0.0349 +/-0.0893	0.163	0.500	pCi/g						
Europium-155	U	-0.0379 +/-0.0696	0.115	0.500	pCi/g						
Iridium-192	U	0.0144 +/-0.0274	0.0484	0.100	pCi/g						
Iron-59	U	-0.0278 +/-0.0819	0.143	0.300	pCi/g						
Lead-210	U	0.421 +/-3.15	4.13	4.00	pCi/g						
Lead-212		0.840 +/-0.0953	0.0666	0.100	pCi/g						
Lead-214		0.807 +/-0.119	0.0748	0.100	pCi/g						
Manganese-54	U	0.00147 +/-0.026	0.0454	0.100	pCi/g						
Mercury-203	U	0.0601 +/-0.0378	0.0629	0.100	pCi/g						
Neodymium-147	U	0.575 +/-1.23	2.14	1000	pCi/g						
Neptunium-239	U	-0.00337 +/-0.124	0.208	2.00	pCi/g						
Niobium-94	U	-0.00221 +/-0.0225	0.0392	1.00	pCi/g						
Niobium-95	U	0.022 +/-0.0294	0.084	0.050	pCi/g						
Potassium-40		18.6 +/-1.58	0.382	1.00	pCi/g						
Promethium-144	U	0.0172 +/-0.024	0.0439	0.080	pCi/g						
Promethium-146	U	-0.0116 +/-0.0302	0.050	1.00	pCi/g						
Radium-226		0.613 +/-0.106	0.0753	1.00	pCi/g						
Radium-228	J	0.960 +/-0.208	0.143	0.500	pCi/g						

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Client Sample ID: IGLOO 912-SB42; 0-0.5 ft
Sample ID: 86840023

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0272	+/-0.204	0.365	0.800						pCi/g
Silver-110m	U	-0.0145	+/-0.0285	0.0415	0.080						pCi/g
Sodium-22	U	0.0126	+/-0.0323	0.0588	0.080						pCi/g
Thallium-208		0.300	+/-0.0573	0.0413	0.080						pCi/g
Thorium-230		0.613	+/-0.106	0.0753	1.00						pCi/g
Thorium-232		0.812	+/-0.0921	0.0643	0.500						pCi/g
Thorium-234	J	1.50	+/-1.37	1.32	2.00						pCi/g
Tin-113	U	0.012	+/-0.0314	0.055	0.100						pCi/g
Uranium-234		0.862	+/-0.164	0.142	1.00						pCi/g
Uranium-235	U	0.0549	+/-0.141	0.237	0.500						pCi/g
Uranium-238	J	1.50	+/-1.37	1.32	1.00						pCi/g
Yttrium-88	U	0.0041	+/-0.0245	0.0477	0.100						pCi/g
Zinc-65	U	-0.012	+/-0.071	0.107	0.300						pCi/g
Zirconium-95	U	-0.0093	+/-0.0548	0.0949	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1618	273435

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 912-SB42: 0-0.5 ft
Sample ID: 86840023

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Heather A. C. Jones
Reviewed by

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Client Sample ID: IGLOO 912-SB43; 0-0.5 ft
Sample ID: 86840024
Matrix: Soil
Collect Date: 20-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228	J	0.856	+/-0.210	0.177	0.800						
Americium-241	U	0.00698	+/-0.0329	0.0589	0.200						
Antimony-124	U	0.0401	+/-0.0333	0.0643	0.100						
Antimony-125	U	-0.0316	+/-0.0655	0.110	0.200						
Barium-133	U	0.0101	+/-0.0299	0.0482	0.100						
Barium-140	U	0.356	+/-0.520	0.913	0.500						
Beryllium-7	U	0.222	+/-0.554	0.518	0.700						
Bismuth-212	J	0.449	+/-0.462	0.368	0.500						
Bismuth-214		0.663	+/-0.141	0.085	0.200						
Cerium-139	U	-0.00892	+/-0.0194	0.0314	0.050						
Cerium-141	U	-0.0486	+/-0.0539	0.0862	0.100						
Cerium-144	U	-0.00144	+/-0.114	0.193	0.500						
Cesium-134	U	0.0166	+/-0.0331	0.0607	0.100						
Cesium-136	U	0.146	+/-0.226	0.417	0.300						
Cesium-137		0.226	+/-0.0566	0.0462	0.100						
Chromium-51	U	-0.00823	+/-0.365	0.647	0.600						
Cobalt-56	U	0.030	+/-0.0344	0.0652	0.100						
Cobalt-57	U	-0.00179	+/-0.0145	0.0245	0.050						
Cobalt-58	U	0.0203	+/-0.0336	0.0629	0.100						
Cobalt-60	U	0.0111	+/-0.0289	0.055	0.100						
Europium-152	U	-0.0251	+/-0.0601	0.103	0.200						
Europium-154	U	0.0389	+/-0.0896	0.169	0.500						
Europium-155	UWJ	0.00	+/-0.081	0.0903	0.500						
Iridium-192	U	0.0176	+/-0.0252	0.0462	0.100						
Iron-59	U	-0.0976	+/-0.0954	0.149	0.300						
Lead-210	UWJ	0.00	+/-0.658	0.524	4.00						
Lead-212		1.00	+/-0.140	0.0591	0.100						
Lead-214		0.764	+/-0.144	0.076	0.100						
Manganese-54	U	-0.00686	+/-0.0269	0.0469	0.100						
Mercury-203	U	0.0174	+/-0.0466	0.0546	0.100						
Neodymium-147	U	0.120	+/-1.39	2.40	1000						
Neptunium-239	U	0.0113	+/-0.102	0.174	2.00						
Niobium-94	U	0.023	+/-0.0362	0.0459	1.00						
Niobium-95	U	0.0795	+/-0.0763	0.0917	0.050						
Potassium-40		21.5	+/-2.28	0.439	1.00						
Promethium-144	U	0.017	+/-0.0248	0.0466	0.080						
Promethium-146	U	0.00359	+/-0.0305	0.0532	1.00						
Radium-226		0.663	+/-0.141	0.085	1.00						
Radium-228	J	0.856	+/-0.210	0.177	0.500						

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 2 of 3

Client Sample ID: IGLOO 912-SB43; 0-0.5 ft
Sample ID: 86840024

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	0.0463	+/-0.211	0.391	0.800						pCi/g
Silver-110m	U	0.0252	+/-0.027	0.047	0.080						pCi/g
Sodium-22	U	0.0141	+/-0.0324	0.0611	0.080						pCi/g
Thallium-208		0.245	+/-0.0674	0.0452	0.080						pCi/g
Thorium-230		0.663	+/-0.141	0.0849	1.00						pCi/g
Thorium-232		0.970	+/-0.135	0.0571	0.500						pCi/g
Thorium-234	J	1.35	+/-0.638	0.554	2.00						pCi/g
Tin-113	U	-0.00979	+/-0.0304	0.0521	0.100						pCi/g
Uranium-234		0.835	+/-0.184	0.133	1.00						pCi/g
Uranium-235	U	0.0711	+/-0.117	0.201	0.500						pCi/g
Uranium-238	J	1.35	+/-0.638	0.554	1.00						pCi/g
Yttrium-88	U	0.00112	+/-0.0266	0.0508	0.100						pCi/g
Zinc-65	U	-0.0163	+/-0.078	0.115	0.300						pCi/g
Zirconium-95	U	0.0192	+/-0.0654	0.119	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1618	273435

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

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Boston, Massachusetts 02110
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 912-SB43; 0-0.5 ft
Sample ID: 86840024

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Heather G. O'Connell
Reviewed by

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Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 1 of 3

Client Sample ID: IGLOO 912-SB44; 0-3 in
Sample ID: 86840025
Matrix: Soil
Collect Date: 20-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid w/Ra226</i>											
Actinium-228	J	0.166	+/-0.0958	0.0729	0.800	pCi/g	SRB	09/23/03	0739	274782	1
Americium-241	U	-0.0374	+/-0.0825	0.129	0.200	pCi/g					
Antimony-124	U	-0.0352	+/-0.0181	0.0285	0.100	pCi/g					
Antimony-125	U	-0.00919	+/-0.0343	0.0586	0.200	pCi/g					
Barium-133	U	0.00448	+/-0.0169	0.0265	0.100	pCi/g					
Barium-140	U	-0.126	+/-0.234	0.406	0.500	pCi/g					
Beryllium-7	U	-0.00361	+/-0.147	0.267	0.700	pCi/g					
Bismuth-212	U J	0.00	+/-0.125	0.143	0.500	pCi/g					
Bismuth-214		0.528	+/-0.0834	0.0398	0.200	pCi/g					
Cerium-139	U	0.00055	+/-0.0133	0.0215	0.050	pCi/g					
Cerium-141	U	0.033	+/-0.0397	0.0627	0.100	pCi/g					
Cerium-144	U	-0.0102	+/-0.0795	0.146	0.500	pCi/g					
Cesium-134	U	0.0069	+/-0.0125	0.0231	0.100	pCi/g					
Cesium-136	U	-0.0491	+/-0.098	0.164	0.300	pCi/g					
Cesium-137		0.220	+/-0.0363	0.0223	0.100	pCi/g					
Chromium-51	U	0.0669	+/-0.216	0.387	0.600	pCi/g					
Cobalt-56	U	0.00171	+/-0.0158	0.0281	0.100	pCi/g					
Cobalt-57	U	-0.00469	+/-0.00968	0.0177	0.050	pCi/g					
Cobalt-58	U	-0.00469	+/-0.0145	0.0252	0.100	pCi/g					
Cobalt-60	U	0.00484	+/-0.0113	0.0215	0.100	pCi/g					
Europium-152	U	-0.0216	+/-0.0357	0.0608	0.200	pCi/g					
Europium-154	U	-0.00544	+/-0.036	0.0643	0.500	pCi/g					
Europium-155	U	0.0481	+/-0.0403	0.078	0.500	pCi/g					
Iridium-192	U	-0.00791	+/-0.0147	0.0253	0.100	pCi/g					
Iron-59	U	0.0279	+/-0.0359	0.0669	0.300	pCi/g					
Lead-210	U	1.48	+/-2.47	4.12	4.00	pCi/g					
Lead-212		0.208	+/-0.0467	0.0367	0.100	pCi/g					
Lead-214		0.620	+/-0.0979	0.044	0.100	pCi/g					
Manganese-54	U	0.000595	+/-0.0129	0.0228	0.100	pCi/g					
Mercury-203	U	-0.00155	+/-0.0196	0.0348	0.100	pCi/g					
Neodymium-147	U	0.479	+/-0.632	1.19	1000	pCi/g					
Neptunium-239	U	-0.00706	+/-0.0702	0.131	2.00	pCi/g					
Niobium-94	U	0.00734	+/-0.0107	0.0199	1.00	pCi/g					
Niobium-95	U	0.0275	+/-0.0426	0.0389	0.050	pCi/g					
Potassium-40		4.51	+/-0.632	0.213	1.00	pCi/g					
Promethium-144	U	-3.660E-05	+/-0.0114	0.0204	0.080	pCi/g					
Promethium-146	U	0.00433	+/-0.0149	0.0263	1.00	pCi/g					
Radium-226		0.528	+/-0.0834	0.0398	1.00	pCi/g					
Radium-228	J	0.166	+/-0.0958	0.0729	0.500	pCi/g					

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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

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Client Sample ID: IGLOO 912-SB44; 0-3 in
Sample ID: 86840025

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>Gammascpec, Gamma, Solid w/Ra226</i>											
Ruthenium-106	U	-0.000274	+/-0.112	0.201	0.800						pCi/g
Silver-110m	U	0.014	+/-0.013	0.0222	0.080						pCi/g
Sodium-22	U	-0.00194	+/-0.013	0.0233	0.080						pCi/g
Thallium-208		0.0569	+/-0.0245	0.0227	0.080						pCi/g
Thorium-230		0.528	+/-0.0834	0.0398	1.00						pCi/g
Thorium-232		0.201	+/-0.0452	0.0355	0.500						pCi/g
Thorium-234	UJ	0.966	+/-1.15	1.05	2.00						pCi/g
Tin-113	U	-0.00635	+/-0.0205	0.0305	0.100						pCi/g
Uranium-234		0.683	+/-0.121	0.0824	1.00						pCi/g
Uranium-235	U	0.106	+/-0.112	0.148	0.500						pCi/g
Uranium-238	UJ	0.966	+/-1.15	1.05	1.00						pCi/g
Yttrium-88	U	0.00647	+/-0.0128	0.0249	0.100						pCi/g
Zinc-65	U	0.0129	+/-0.0323	0.0527	0.300						pCi/g
Zirconium-95	U	-0.0211	+/-0.0273	0.0457	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXG1	08/27/03	1618	273435

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Report Date: September 29, 2003

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Client Sample ID: IGLOO 912-SB44; 0-3 in
Sample ID: 86840025

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.


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Contact: Katie Kadiubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 1 of 3

Client Sample ID: IGLOO 805-SB14A; 0-4 in
Sample ID: 86840026
Matrix: Soil
Collect Date: 11-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing											
<i>Gammasepec, Gamma, w/Ra226</i>											
Actinium-228	U	0.233	+/-0.283	0.395	0.800						
Americium-241	U	-1.44	+/-0.509	0.836	0.200						
Antimony-124	U	-0.0993	+/-0.108	0.161	0.100						
Antimony-125	UWJS	0.00	+/-0.337	0.351	0.200						
Barium-133	UWJS	0.00	+/-0.130	0.153	0.100						
Barium-140	J	4.79	+/-3.49	4.73	0.500						
Beryllium-7	UWJS	0.00	+/-1.50	1.56	0.700						
Bismuth-212	U	-0.11	+/-0.458	0.779	0.500						
Bismuth-214		218	+/-24.8	0.193	0.200						
Cerium-139	UWJS	0.00	+/-0.105	0.165	0.050						
Cerium-141	UWJS	0.00	+/-0.932	0.604	0.100						
Cerium-144	U	-1.06	+/-0.663	1.03	0.500						
Cesium-134	U	-0.0351	+/-0.0675	0.114	0.100						
Cesium-136	U	0.0146	+/-1.20	1.71	0.300						
Cesium-137	J	0.193	+/-0.0648	0.0975	0.100						
Chromium-51	U	-0.939	+/-2.13	3.20	0.600						
Cobalt-56	U	0.00932	+/-0.0901	0.152	0.100						
Cobalt-57	U	0.118	+/-0.0943	0.129	0.050						
Cobalt-58	U	-0.158	+/-0.107	0.152	0.100						
Cobalt-60	U	-0.0719	+/-0.0787	0.113	0.100						
Europium-152	U	-0.56	+/-0.225	0.369	0.200						
Europium-154	UWJS	0.00	+/-0.268	0.328	0.500						
Europium-155	U	-0.25	+/-0.278	0.511	0.500						
Iridium-192	UWJS	0.00	+/-0.121	0.179	0.100						
Iron-59	U	-0.028	+/-0.282	0.399	0.300						
Lead-210	UWJS	97.1	+/-27.4	24.2	4.00						
Lead-212		0.560	+/-0.226	0.247	0.100						
Lead-214		271	+/-29.8	0.251	0.100						
Manganese-54	UWJS	0.00	+/-0.119	0.115	0.100						
Mercury-203	UWJS	0.00	+/-0.212	0.275	0.100						
Neodymium-147	UWJS	0.00	+/-13.9	14.0	1000						
Neptunium-239	UWJS	0.00	+/-0.573	0.890	2.00						
Niobium-94	UWJS	0.00	+/-0.157	0.0875	1.00						
Niobium-95	UWJS	0.00	+/-1.41	0.418	0.050						
Potassium-40		4.71	+/-1.13	1.11	1.00						
Promethium-144	U	0.084	+/-0.0644	0.0957	0.080						
Promethium-146	UWJS	0.00	+/-0.178	0.153	1.00						
Radium-226		218	+/-24.8	0.193	1.00						
Radium-228	U	0.233	+/-0.283	0.395	0.500						

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Page 2 of 3

Client Sample ID: IGLOO 805-SB14A; 0-4 in
Sample ID: 86840026

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing											
<i>Gammascpec, Gamma, w/Ra226</i>											
Ruthenium-106	U	-0.54	+/-0.534	0.908	0.800						pCi/g
Silver-110m	U	0.0232	+/-0.0668	0.100	0.080						pCi/g
Sodium-22		0.302	+/-0.095	0.113	0.080						pCi/g
Thallium-208	J	0.383	+/-0.0836	0.115	0.080						pCi/g
Thorium-230		218	+/-24.8	0.193	1.00						pCi/g
Thorium-232	J	0.503	+/-0.215	0.235	0.500						pCi/g
Thorium-234		146	+/-28.9	6.48	2.00						pCi/g
Tin-113	U	0.156	+/-0.131	0.195	0.100						pCi/g
Uranium-234		267	+/-30.5	0.518	1.00						pCi/g
Uranium-235		14.9	+/-2.82	1.07	0.500						pCi/g
Uranium-238		146	+/-28.9	6.48	1.00						pCi/g
Yttrium-88	U/J	0.00	+/-0.100	0.130	0.100						pCi/g
Zinc-65	U/J	0.00	+/-0.276	0.285	0.300						pCi/g
Zirconium-95	U	-0.0311	+/-0.186	0.273	0.200						pCi/g

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AAK	09/01/03	1621	274071

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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Client Sample ID: IGLOO 805-SB14A; 0-4 in
Sample ID: 86840026

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Cheryl Jones
Reviewed by

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Company: Parsons
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Boston, Massachusetts 02110
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

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Client Sample ID: IGLOO 804-East Drain
Sample ID: 86840027
Matrix: Soil
Collect Date: 23-AUG-03 12:00
Receive Date: 26-AUG-03
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing											
<i>Gammascpec, Gamma, w/Ra226</i>											
Actinium-228		0.401 +/-0.176	0.163	0.800	pCi/g						
Americium-241	U	0.00 +/-0.130	0.207	0.200	pCi/g						
Antimony-124	U	-0.0117 +/-0.0384	0.0572	0.100	pCi/g						
Antimony-125	U	0.00 +/-0.106	0.134	0.200	pCi/g						
Barium-133	U	0.041 +/-0.0378	0.0568	0.100	pCi/g						
Barium-140	U	0.492 +/-0.702	0.999	0.500	pCi/g						
Beryllium-7	U	0.242 +/-0.490	0.519	0.700	pCi/g						
Bismuth-212	U	0.300 +/-0.237	0.322	0.500	pCi/g						
Bismuth-214		28.7 +/-3.27	0.0779	0.200	pCi/g						
Cerium-139	U	0.0145 +/-0.0364	0.0543	0.050	pCi/g						
Cerium-141	U	0.00 +/-0.139	0.162	0.100	pCi/g						
Cerium-144	U	-0.115 +/-0.202	0.340	0.500	pCi/g						
Cesium-134	U	-0.00629 +/-0.0281	0.047	0.100	pCi/g						
Cesium-136	U	0.213 +/-0.270	0.389	0.300	pCi/g						
Cesium-137	U	0.0348 +/-0.027	0.041	0.100	pCi/g						
Chromium-51	U	-0.892 +/-0.538	0.892	0.600	pCi/g						
Cobalt-56	U	0.00256 +/-0.034	0.057	0.100	pCi/g						
Cobalt-57	U	0.0136 +/-0.0298	0.0417	0.050	pCi/g						
Cobalt-58	U	0.000475 +/-0.038	0.0554	0.100	pCi/g						
Cobalt-60	U	-0.0154 +/-0.0292	0.0486	0.100	pCi/g						
Europium-152	U	-0.0576 +/-0.0826	0.139	0.200	pCi/g						
Europium-154	U	0.121 +/-0.0954	0.143	0.500	pCi/g						
Europium-155	U	-0.0699 +/-0.104	0.159	0.500	pCi/g						
Iridium-192	U	0.00125 +/-0.0391	0.059	0.100	pCi/g						
Iron-59	U	-0.146 +/-0.0902	0.141	0.300	pCi/g						
Lead-210	U	19.9 +/-4.47	4.05	4.00	pCi/g						
Lead-212	U	0.402 +/-0.0898	0.083	0.100	pCi/g						
Lead-214	U	35.4 +/-3.72	0.0955	0.100	pCi/g						
Manganese-54	U	0.0189 +/-0.047	0.0462	0.100	pCi/g						
Mercury-203	U	-0.0961 +/-0.0488	0.0809	0.100	pCi/g						
Neodymium-147	U	2.02 +/-1.82	2.65	1000	pCi/g						
Neptunium-239	U	-0.0165 +/-0.171	0.292	2.00	pCi/g						
Niobium-94	U	0.00 +/-0.0382	0.0431	1.00	pCi/g						
Niobium-95	U	0.00 +/-0.216	0.147	0.050	pCi/g						
Potassium-40	U	8.59 +/-0.878	0.472	1.00	pCi/g						
Promethium-144	U	0.00612 +/-0.0226	0.0387	0.080	pCi/g						
Promethium-146	U	0.00 +/-0.0497	0.0591	1.00	pCi/g						
Radium-226	U	28.7 +/-3.27	0.0779	1.00	pCi/g						
Radium-228		0.401 +/-0.176	0.163	0.500	pCi/g						

ADD 09/28/03 0930 274074 1

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons
Address : 100 Summer Street

Boston, Massachusetts 02110
Contact: Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 2 of 3

Client Sample ID: IGLOO 804-East Drain
Sample ID: 86840027

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
High Rad Testing											
<i>Gammascpec, Gamma, w/Ra226</i>											
Ruthenium-106	U	-0.131 +/-0.206	0.350	0.800	pCi/g						
Silver-110m	U	-0.0127 +/-0.0228	0.0386	0.080	pCi/g						
Sodium-22	U	0.0437 +/-0.0344	0.0517	0.080	pCi/g						
Thallium-208	J	0.0928 +/-0.0383	0.0427	0.080	pCi/g						
Thorium-230	J	28.7 +/-3.27	0.0779	1.00	pCi/g						
Thorium-232	J	0.388 +/-0.0866	0.080	0.500	pCi/g						
Thorium-234		22.8 +/-4.45	1.75	2.00	pCi/g						
Tin-113	U	0.000871 +/-0.0459	0.0678	0.100	pCi/g						
Uranium-234		35.4 +/-4.26	0.196	1.00	pCi/g						
Uranium-235		2.26 +/-0.502	0.384	0.500	pCi/g						
Uranium-238		22.8 +/-4.45	1.75	1.00	pCi/g						
Yttrium-88	U/J	0.00 +/-0.0323	0.0534	0.100	pCi/g						
Zinc-65	U/J	0.00 +/-0.0857	0.130	0.300	pCi/g						
Zirconium-95	U	-0.0635 +/-0.0593	0.0976	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AAK	09/01/03	1621	274071

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Notes:

The Qualifiers in this report are defined as follows :

- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis except where prohibited by the analytical procedure.

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons
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Boston, Massachusetts 02110
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Project: SEAD-48 Final Status Survey

Report Date: September 29, 2003

Page 3 of 3

Client Sample ID: IGLOO 804-East Drain
Sample ID: 86840027

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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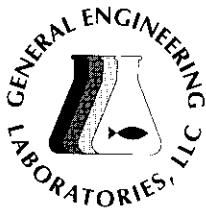
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Heidi A. Cole
Reviewed by

Soil Boring Sample Analysis- Additional Investigation
SEAD-48
Seneca Army Depot Activity

**PARSONS ENGINEERING SCIENCE, INC.
SENECA ARMY DEPOT
SEAD 48 November 2004
SDG 125850**



GENERAL ENGINEERING LABORATORIES, LLC

a Member of THE GEL GROUP, INC.

Meeting Today's Needs with a Vision for Tomorrow

CASE NARRATIVE

for

Parsons Engineering Science, Inc.

Seneca Army Depot

SEAD 48 Project

SDG 125850

December 14, 2004

Laboratory Identification:

General Engineering Laboratories, LLC

Mailing Address:

P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29414

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The sample(s) arrived at General Engineering Laboratories, LLC (GEL) Charleston, South Carolina on November 18, 2004 for environmental analyses. All sample containers arrived without any visible signs of tampering or breakage. The samples were delivered with chain of custody documentation and signatures.

The laboratory received the following sample(s):

<u>Laboratory Identification</u>	<u>Sample Description</u>
125850001	E0804-A271-I-SS1
125850002	E0804-A271-I-SS3
125850003	E0804-A286-E-SS2
125850004	E0804-F296-H-SS1
125850005	E0804-F296-H-SS4
125850006	E0804-F301-F/G-SS3
125850007	E0804-F306-C/D-SS1
125850008	E0804-F306-C/D-SS4
125850009	E0805-A361-C-SS1
125850010	E0805-A361-C-SS3
125850011	E0805-F366-A-SS1
125850012	E0805-F366-A-SS4
125850013	E0805-F366-H/I/J-SS4
125850014	E0806-A416-H/I/J-SS3
125850015	E0811-A766-H/I-SS3
125850016	E0811-F761-H/I/J-SS1
125850017	E0811-F761-H/I/J-SS4
125850018	E0811-F766-I-SS1
125850019	E0811-F766-I-SS2
125850020	E0811-F766-I/J-SS3
125850021	A1107-B3-SS1
125850022	B0806-B5-SS2
125850023	CO912-A1-SS2
125850024	DO405-B2-SS1
125850025	EO403-A2-SS2

Case Narrative

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Internal Chain of Custody:

Custody was maintained for all samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry Analysis.

This data package, to the best of my knowledge, is in compliance with technical and administrative requirements.



Cheryl Jones
Project Manager

Page: 2 of 3
 Project #: 740497
 GEL Quote #:
 COC Number (1):
 PO Number:

GEL Chain of Custody and Analytical Request

General Engineering Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407
 Phone: (843) 556-8171
 Fax: (843) 766-1178

Client Name: Parsons Phone #: (216)486-9005 x282
 Project/Site Name: SEAD - 48 November 2004 Fax #:
 Address: 19101 Villaview Rd, Cleveland OH 44119
 Collected by: J. Smith / J. Hackett Send Results To: Kathleen Kadwobak

Sample ID	Date Collected (mm-dd-yy)	Time Collected (Military) (hhmm)	QC Code (a)	Field Filtered (b)	Sample Matrix (c)	Radioactive	TSCA Regula	Total num	Gamma	Na	ad	Con	Fe (21-)	required for sample specific QC
E0805 - F306 - A - SS1	11-13-04	1440			SO			1	X					Please report all detects!
E0805 - F306 - A - SS4	11-16-04	1355			SO			1	X					
E0805 - F306 - H/I/J - SS4	11-16-04	1340			SO			1	X					
E0806 - A416 - H/I/J - SS3	11-16-04	1445			SO			1	X					
E0811 - A706 - H/I - SS3	11-16-04	1525			SO			1	X					
E0811 - F701 - H/I/J - SS1	11-16-04	1540			SO			1	X					
E0811 - F701 - H/I/J - SS4	11-16-04	1348			SO			1	X					
E0811 - F706 - I - SS1	11-13-04	0800			SO			1	X					
E0811 - F706 - I - SS2	11-13-04	0810			SO			1	X					
E0811 - F706 - I/J - SS3	11-16-04	1515			SO			1	X					

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge) Fax Results: Yes / No
 Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards
low-level radioactive

Chain of Custody Signatures			Sample Shipping and Delivery Details		
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>Jersey Sinc</u>	<u>11-17-04</u>	<u>1240</u>	<u>Chau</u>	<u>11/19/04</u>	<u>9120</u>

GEL PM:
 Method of Shipment: FEDEX Date Shipped: 11-17-04
 Airbill #: 847904499500
 Airbill #: 847904499511

1.) Chain of Custody Number = Client Determined
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
 4.) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = Nasal
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).
 6.) Preservative Type: HA = Hydrochloric Acid, NT = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

For Lab Receiving Use Only
 Custody Seal Intact? YES / NO
 Cooler Temp: C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

**Radiochemistry Case Narrative
Parsons Engineering, Inc. (PARS)
Work Order 125850**

Method/Analysis Information

Product:	Gammascpec, Gamma, Solid w/Ra226
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	383029
Prep Batch Number:	382653

Sample ID	Client ID
125850001	E0804-A271-I-SS1
125850002	E0804-A271-I-SS3
125850003	E0804-A286-E-SS2
125850004	E0804-F296-H-SS1
125850005	E0804-F296-H-SS4
125850006	E0804-F301-F/G-SS3
125850007	E0804-F306-C/D-SS1
125850008	E0804-F306-C/D-SS4
125850009	E0805-A361-C-SS1
125850010	E0805-A361-C-SS3
125850011	E0805-F366-A-SS1
125850012	E0805-F366-A-SS4
125850013	E0805-F366-H/I/J-SS4
125850014	E0806-A416-H/I/J-SS3
125850015	E0811-A766-H/I-SS3
125850016	E0811-F761-H/I/J-SS1
125850017	E0811-F761-H/I/J-SS4
125850018	E0811-F766-I-SS1
125850019	E0811-F766-I-SS2
125850020	E0811-F766-I/J-SS3
1200744603	Method Blank (MB)
1200744604	125850001(E0804-A271-I-SS1) Sample Duplicate (DUP)
1200744605	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 125850001 (E0804-A271-I-SS1).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to interference.	Cerium-141	125850017
			125850018
		Europium-155	125850020
UI	Data rejected due to low abundance.	Actinium-228	125850020
		Iron-59	125850017
		Niobium-94	125850017
			125850018
		Niobium-95	125850017
			125850018
			125850020
		Promethium-146	125850018
		Radium-228	125850020
		Yttrium-88	125850017
UI	Data rejected due to no valid peak.	Cobalt-58	125850020
		Thorium-234	125850020
		Uranium-238	125850020
UI	The data is rejected due to interference.	Mercury-203	125850005
UI	The data is rejected due to low abundance.	Barium-140	125850012
		Cesium-134	125850005
			125850006
			125850010
			125850014
		Niobium-94	125850007
			125850011
		Niobium-95	125850001
			125850004
			125850007

			125850011
			125850016
		Yttrium-88	125850007
		Zinc-65	125850004
UI	The data is rejected due to no valid peak.	Uranium-235	125850006

Method/Analysis Information

Product: Gammaspec, Gamma, Solid w/Ra226
Analytical Method: EML HASL 300, 4.5.2.3
Prep Method: Dry Soil Prep
Analytical Batch Number: 383030
Prep Batch Number: 382653

Sample ID	Client ID
125850021	A1107-B3-SS1
125850022	B0806-B5-SS2
125850023	CO912-A1-SS2
125850024	DO405-B2-SS1
125850025	EO403-A2-SS2
1200744606	Method Blank (MB)
1200744607	125850021(A1107-B3-SS1) Sample Duplicate (DUP)
1200744608	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 125850021 (A1107-B3-SS1).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to interference.	Mercury-203	125850024
UI	Data rejected due to low abundance.	Cesium-136	125850023
		Lead-210	1200744606
		Niobium-95	1200744607
		Thorium-234	1200744606
		Uranium-238	1200744606
UI	Data rejected due to no valid peak.	Cerium-139	125850025
		Cesium-134	125850024
		Cesium-137	125850025
		Tin-113	125850022

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: _____

St. C. Reel 12/21/04

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report for

PESI003 Parsons Engineering, Inc. (740497-30000)

Client SDG: 125850 GEL Work Order: 125850

The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- R Sample results are rejected due to sample preservation with HCl.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

** Indicates the analyte is a surrogate compound.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.



Reviewed by _____

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: December 21, 2004

Client Sample ID: E0804-A271-I-SS1
Sample ID: 125850001
Matrix: Soil
Collect Date: 15-NOV-04 07:40
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.826	+/-0.234	0.251	0.800	pCi/g		AKB	12/21/04	0744	383029	1
Americium-241	U	-0.0866	+/-0.195	0.301	0.200	pCi/g						
Antimony-124	U	0.0334	+/-0.0518	0.0941	0.100	pCi/g						
Antimony-125	U	0.0943	+/-0.108	0.199	0.200	pCi/g						
Barium-133	U	-1.27	+/-0.0908	0.0763	0.100	pCi/g						
Barium-140	U	-0.278	+/-0.838	1.43	0.500	pCi/g						
Beryllium-7	U	-0.10	+/-0.448	0.776	0.700	pCi/g						
Bismuth-212		0.935	+/-0.402	0.500	0.500	pCi/g						
Bismuth-214		4.54	+/-0.270	0.117	0.200	pCi/g						
Cerium-139	U	-0.00523	+/-0.0393	0.0661	0.050	pCi/g						
Cerium-141	U	0.047	+/-0.172	0.208	0.100	pCi/g						
Cerium-144	U	0.125	+/-0.247	0.431	0.500	pCi/g						
Cesium-134	U	0.0258	+/-0.0441	0.0798	0.100	pCi/g						
Cesium-136	U	-0.0413	+/-0.363	0.644	0.300	pCi/g						
Cesium-137		0.234	+/-0.062	0.0653	0.100	pCi/g						
Chromium-51	U	-0.258	+/-0.706	1.23	0.600	pCi/g						
Cobalt-56	U	-0.0251	+/-0.0452	0.0787	0.100	pCi/g						
Cobalt-57	U	-0.0202	+/-0.030	0.0501	0.050	pCi/g						
Cobalt-58	U	0.0425	+/-0.0484	0.0832	0.100	pCi/g						
Cobalt-60	U	-0.0251	+/-0.0453	0.0762	0.100	pCi/g						
Europium-152	U	0.00922	+/-0.106	0.189	0.200	pCi/g						
Europium-154	U	-0.0257	+/-0.130	0.196	0.500	pCi/g						
Europium-155	U	0.0249	+/-0.122	0.212	0.500	pCi/g						
Iridium-192	U	-0.00824	+/-0.0459	0.081	0.100	pCi/g						
Iron-59	U	-0.000657	+/-0.137	0.245	0.300	pCi/g						
Lead-210	U	6.06	+/-4.62	7.81	4.00	pCi/g						
Lead-212		0.830	+/-0.0894	0.121	0.100	pCi/g						
Lead-214		4.94	+/-0.246	0.132	0.100	pCi/g						
Manganese-54	U	-0.00238	+/-0.0479	0.0751	0.100	pCi/g						
Mercury-203	U	0.0551	+/-0.0818	0.115	0.100	pCi/g						
Neodymium-147	U	0.667	+/-2.20	3.94	1000	pCi/g						
Neptunium-239	U	-0.146	+/-0.215	0.360	2.00	pCi/g						
Niobium-94	U	0.0637	+/-0.0458	0.0694	1.00	pCi/g						
Niobium-95	UUI	0.00	+/-0.0874	0.158	0.050	pCi/g						
Potassium-40		17.3	+/-1.59	0.651	1.00	pCi/g						
Promethium-144	U	-0.0215	+/-0.0361	0.0595	0.080	pCi/g						
Promethium-146	U	0.0262	+/-0.049	0.0888	1.00	pCi/g						
Radium-226		4.54	+/-0.270	0.117	1.00	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-A271-I-SS1
Sample ID: 125850001

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Radium-228		0.826	+/-0.234	0.251	0.500	pCi/g						
Ruthenium-106	U	0.00239	+/-0.322	0.564	0.800	pCi/g						
Silver-110m	U	0.0332	+/-0.0372	0.0634	0.080	pCi/g						
Sodium-22	U	-0.0092	+/-0.0469	0.071	0.080	pCi/g						
Thallium-208		0.247	+/-0.0795	0.0682	0.080	pCi/g						
Thorium-230		4.54	+/-0.270	0.117	1.00	pCi/g						
Thorium-232		0.801	+/-0.0863	0.117	0.500	pCi/g						
Thorium-234	U	2.00	+/-2.05	2.61	2.00	pCi/g						
Tin-113	U	-0.0943	+/-0.0582	0.0936	0.100	pCi/g						
Uranium-234		4.96	+/-0.362	0.273	1.00	pCi/g						
Uranium-235	U	0.100	+/-0.368	0.415	0.500	pCi/g						
Uranium-238	U	2.00	+/-2.05	2.61	1.00	pCi/g						
Yttrium-88	U	0.0434	+/-0.0453	0.0737	0.100	pCi/g						
Zinc-65	U	-0.0299	+/-0.111	0.166	0.300	pCi/g						
Zirconium-95	U	-0.0377	+/-0.0921	0.154	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1109	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-A271-I-SS3
Sample ID: 125850002
Matrix: Soil
Collect Date: 16-NOV-04 11:20
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.696	+/-0.296	0.192	0.800	pCi/g		AKB	12/21/04	0749	383029	1
Americium-241	U	-0.0207	+/-0.241	0.406	0.200	pCi/g						
Antimony-124	U	-0.0223	+/-0.0393	0.0677	0.100	pCi/g						
Antimony-125	U	0.013	+/-0.0911	0.168	0.200	pCi/g						
Barium-133	U	-0.00179	+/-0.0452	0.0689	0.100	pCi/g						
Barium-140	U	0.106	+/-0.679	1.25	0.500	pCi/g						
Beryllium-7	U	-0.159	+/-0.386	0.684	0.700	pCi/g						
Bismuth-212		0.499	+/-0.338	0.413	0.500	pCi/g						
Bismuth-214		2.66	+/-0.198	0.0971	0.200	pCi/g						
Cerium-139	U	-0.0298	+/-0.0293	0.0496	0.050	pCi/g						
Cerium-141	U	0.053	+/-0.132	0.167	0.100	pCi/g						
Cerium-144	U	-0.0944	+/-0.214	0.336	0.500	pCi/g						
Cesium-134	U	0.0344	+/-0.0364	0.0707	0.100	pCi/g						
Cesium-136	U	0.225	+/-0.281	0.537	0.300	pCi/g						
Cesium-137		0.0987	+/-0.0605	0.0573	0.100	pCi/g						
Chromium-51	U	-0.335	+/-0.579	0.961	0.600	pCi/g						
Cobalt-56	U	0.063	+/-0.0797	0.068	0.100	pCi/g						
Cobalt-57	U	0.017	+/-0.0258	0.0479	0.050	pCi/g						
Cobalt-58	U	-0.031	+/-0.0482	0.0681	0.100	pCi/g						
Cobalt-60	U	0.00163	+/-0.0352	0.0658	0.100	pCi/g						
Europium-152	U	-0.0072	+/-0.0935	0.160	0.200	pCi/g						
Europium-154	U	-0.028	+/-0.106	0.190	0.500	pCi/g						
Europium-155	U	-0.0371	+/-0.100	0.179	0.500	pCi/g						
Iridium-192	U	0.0447	+/-0.0394	0.0731	0.100	pCi/g						
Iron-59	U	0.0386	+/-0.102	0.196	0.300	pCi/g						
Lead-210	U	3.63	+/-12.3	19.8	4.00	pCi/g						
Lead-212		0.586	+/-0.0937	0.0997	0.100	pCi/g						
Lead-214		3.07	+/-0.212	0.116	0.100	pCi/g						
Manganese-54	U	-0.013	+/-0.0339	0.058	0.100	pCi/g						
Mercury-203	U	-0.0131	+/-0.0525	0.0898	0.100	pCi/g						
Neodymium-147	U	-0.858	+/-1.63	2.84	1000	pCi/g						
Neptunium-239	U	-0.201	+/-0.173	0.298	2.00	pCi/g						
Niobium-94	U	0.020	+/-0.030	0.0566	1.00	pCi/g						
Niobium-95	U	0.0339	+/-0.0725	0.119	0.050	pCi/g						
Potassium-40		15.9	+/-1.41	0.557	1.00	pCi/g						
Promethium-144	U	-0.00851	+/-0.0305	0.0534	0.080	pCi/g						
Promethium-146	U	0.00539	+/-0.0409	0.0754	1.00	pCi/g						
Radium-226		2.66	+/-0.198	0.0971	1.00	pCi/g						
Radium-228		0.696	+/-0.296	0.192	0.500	pCi/g						

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-A271-I-SS3
Sample ID: 125850002

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.0429	+/-0.279	0.513	0.800	pCi/g						
Silver-110m	U	-0.0435	+/-0.0377	0.0506	0.080	pCi/g						
Sodium-22	U	-0.0102	+/-0.0385	0.0688	0.080	pCi/g						
Thallium-208		0.238	+/-0.0715	0.0545	0.080	pCi/g						
Thorium-230		2.66	+/-0.198	0.0971	1.00	pCi/g						
Thorium-232		0.566	+/-0.0905	0.0963	0.500	pCi/g						
Thorium-234	U	-1.38	+/-1.92	3.11	2.00	pCi/g						
Tin-113	U	-0.0137	+/-0.0468	0.0784	0.100	pCi/g						
Uranium-234		3.07	+/-0.258	0.230	1.00	pCi/g						
Uranium-235	U	0.116	+/-0.289	0.341	0.500	pCi/g						
Uranium-238	U	-1.38	+/-1.92	3.11	1.00	pCi/g						
Yttrium-88	U	0.0187	+/-0.034	0.0671	0.100	pCi/g						
Zinc-65	U	-0.00597	+/-0.0888	0.142	0.300	pCi/g						
Zirconium-95	U	0.0315	+/-0.072	0.135	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1109	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Certificate of Analysis

Company : Parsons Engineering
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-A286-E-SS2
Sample ID: 125850003
Matrix: Soil
Collect Date: 15-NOV-04 08:20
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.973	+/-0.203	0.155	0.800	pCi/g		AKB	12/21/04	0744	383029	1
Americium-241	U	-0.0246	+/-0.168	0.265	0.200	pCi/g						
Antimony-124	U	-0.00347	+/-0.0356	0.0634	0.100	pCi/g						
Antimony-125	U	-0.0383	+/-0.0778	0.113	0.200	pCi/g						
Barium-133	U	0.00392	+/-0.0343	0.0533	0.100	pCi/g						
Barium-140	U	-0.151	+/-0.609	1.03	0.500	pCi/g						
Beryllium-7	U	-0.127	+/-0.321	0.538	0.700	pCi/g						
Bismuth-212		0.887	+/-0.261	0.349	0.500	pCi/g						
Bismuth-214		1.12	+/-0.124	0.092	0.200	pCi/g						
Cerium-139	U	-0.00294	+/-0.027	0.0453	0.050	pCi/g						
Cerium-141	U	0.0642	+/-0.0814	0.143	0.100	pCi/g						
Cerium-144	U	-0.0578	+/-0.177	0.298	0.500	pCi/g						
Cesium-134	U	0.0621	+/-0.0364	0.0648	0.100	pCi/g						
Cesium-136	U	0.0782	+/-0.238	0.428	0.300	pCi/g						
Cesium-137	U	0.0356	+/-0.0324	0.0422	0.100	pCi/g						
Chromium-51	U	-0.0693	+/-0.489	0.852	0.600	pCi/g						
Cobalt-56	U	0.00182	+/-0.0355	0.0629	0.100	pCi/g						
Cobalt-57	U	0.0219	+/-0.0284	0.0366	0.050	pCi/g						
Cobalt-58	U	-0.00545	+/-0.0368	0.0644	0.100	pCi/g						
Cobalt-60	U	0.00995	+/-0.0268	0.0508	0.100	pCi/g						
Europium-152	U	0.000111	+/-0.0677	0.119	0.200	pCi/g						
Europium-154	U	0.0257	+/-0.0859	0.159	0.500	pCi/g						
Europium-155	U	0.0442	+/-0.0909	0.160	0.500	pCi/g						
Iridium-192	U	0.0241	+/-0.0326	0.0594	0.100	pCi/g						
Iron-59	U	-0.0122	+/-0.0961	0.165	0.300	pCi/g						
Lead-210	U	2.58	+/-4.87	8.06	4.00	pCi/g						
Lead-212		0.969	+/-0.0855	0.0725	0.100	pCi/g						
Lead-214		1.30	+/-0.154	0.086	0.100	pCi/g						
Manganese-54	U	-0.0169	+/-0.0266	0.0448	0.100	pCi/g						
Mercury-203	U	0.0525	+/-0.0529	0.0679	0.100	pCi/g						
Neodymium-147	U	0.252	+/-1.52	2.64	1000	pCi/g						
Neptunium-239	U	0.0646	+/-0.160	0.279	2.00	pCi/g						
Niobium-94	U	0.0111	+/-0.0234	0.0432	1.00	pCi/g						
Niobium-95	U	0.0225	+/-0.0577	0.0926	0.050	pCi/g						
Potassium-40		24.4	+/-1.48	0.446	1.00	pCi/g						
Promethium-144	U	0.0115	+/-0.026	0.0476	0.080	pCi/g						
Promethium-146	U	0.00232	+/-0.0312	0.0544	1.00	pCi/g						
Radium-226		1.12	+/-0.124	0.092	1.00	pCi/g						
Radium-228		0.973	+/-0.203	0.155	0.500	pCi/g						

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-A286-E-SS2
Sample ID: 125850003

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.0935	+/-0.231	0.427	0.800	pCi/g						
Silver-110m	U	0.0336	+/-0.0187	0.0472	0.080	pCi/g						
Sodium-22	U	0.00924	+/-0.0311	0.0576	0.080	pCi/g						
Thallium-208		0.302	+/-0.0501	0.0428	0.080	pCi/g						
Thorium-230		1.12	+/-0.124	0.0919	1.00	pCi/g						
Thorium-232		0.934	+/-0.0825	0.0699	0.500	pCi/g						
Thorium-234	U	1.04	+/-1.40	2.29	2.00	pCi/g						
Tin-113	U	-0.0082	+/-0.0368	0.0633	0.100	pCi/g						
Uranium-234		1.33	+/-0.198	0.183	1.00	pCi/g						
Uranium-235	U	0.00195	+/-0.176	0.299	0.500	pCi/g						
Uranium-238	U	1.04	+/-1.40	2.29	1.00	pCi/g						
Yttrium-88	U	-0.0079	+/-0.0292	0.0515	0.100	pCi/g						
Zinc-65	U	0.0135	+/-0.0764	0.117	0.300	pCi/g						
Zirconium-95	U	-0.0183	+/-0.0613	0.107	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1109	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-F296-H-SS1
Sample ID: 125850004
Matrix: Soil
Collect Date: 15-NOV-04 08:55
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.819	+/-0.220	0.197	0.800	pCi/g		AKB	12/21/04	0745	383029	1
Americium-241	U	0.133	+/-0.114	0.218	0.200	pCi/g						
Antimony-124	U	-0.00991	+/-0.0433	0.0665	0.100	pCi/g						
Antimony-125	U	0.027	+/-0.0814	0.144	0.200	pCi/g						
Barium-133	U	0.0099	+/-0.0406	0.064	0.100	pCi/g						
Barium-140	U	0.0532	+/-0.690	1.18	0.500	pCi/g						
Beryllium-7	U	0.0774	+/-0.531	0.594	0.700	pCi/g						
Bismuth-212		0.700	+/-0.318	0.372	0.500	pCi/g						
Bismuth-214		5.50	+/-0.614	0.093	0.200	pCi/g						
Cerium-139	U	0.0127	+/-0.0378	0.0593	0.050	pCi/g						
Cerium-141	U	0.120	+/-0.131	0.172	0.100	pCi/g						
Cerium-144	U	0.135	+/-0.212	0.380	0.500	pCi/g						
Cesium-134	U	0.0477	+/-0.0352	0.0586	0.100	pCi/g						
Cesium-136	U	0.0503	+/-0.263	0.474	0.300	pCi/g						
Cesium-137		0.314	+/-0.0598	0.0445	0.100	pCi/g						
Chromium-51	U	0.0689	+/-0.549	0.984	0.600	pCi/g						
Cobalt-56	U	-0.0421	+/-0.0366	0.0588	0.100	pCi/g						
Cobalt-57	U	0.0373	+/-0.0353	0.0435	0.050	pCi/g						
Cobalt-58	U	-0.0103	+/-0.043	0.0638	0.100	pCi/g						
Cobalt-60	U	0.0213	+/-0.0301	0.0559	0.100	pCi/g						
Europium-152	U	-0.0101	+/-0.0831	0.147	0.200	pCi/g						
Europium-154	U	-0.0062	+/-0.102	0.154	0.500	pCi/g						
Europium-155	U	0.0033	+/-0.0937	0.169	0.500	pCi/g						
Iridium-192	U	-0.0108	+/-0.0373	0.0658	0.100	pCi/g						
Iron-59	U	-0.00446	+/-0.0996	0.177	0.300	pCi/g						
Lead-210	U	2.73	+/-2.95	3.98	4.00	pCi/g						
Lead-212		0.785	+/-0.105	0.0912	0.100	pCi/g						
Lead-214		6.59	+/-0.585	0.107	0.100	pCi/g						
Manganese-54	U	-0.00347	+/-0.0363	0.0542	0.100	pCi/g						
Mercury-203	U	0.00297	+/-0.0486	0.0876	0.100	pCi/g						
Neodymium-147	U	-1.69	+/-2.04	2.84	1000	pCi/g						
Neptunium-239	U	0.0198	+/-0.177	0.318	2.00	pCi/g						
Niobium-94	U	0.0318	+/-0.0265	0.0492	1.00	pCi/g						
Niobium-95	UUI	0.00	+/-0.0896	0.160	0.050	pCi/g						
Potassium-40		19.8	+/-1.80	0.536	1.00	pCi/g						
Promethium-144	U	-0.0189	+/-0.0275	0.0468	0.080	pCi/g						
Promethium-146	U	0.0347	+/-0.0362	0.0655	1.00	pCi/g						
Radium-226		5.50	+/-0.614	0.093	1.00	pCi/g						
Radium-228		0.819	+/-0.220	0.197	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-F296-H-SS1
Sample ID: 125850004

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	-0.0402	+/-0.241	0.428	0.800	pCi/g						
Silver-110m	U	0.0313	+/-0.0305	0.0508	0.080	pCi/g						
Sodium-22	U	-0.002	+/-0.0371	0.0559	0.080	pCi/g						
Thallium-208		0.285	+/-0.0653	0.0509	0.080	pCi/g						
Thorium-230		5.50	+/-0.614	0.093	1.00	pCi/g						
Thorium-232		0.758	+/-0.101	0.088	0.500	pCi/g						
Thorium-234		1.95	+/-1.59	1.84	2.00	pCi/g						
Tin-113	U	0.013	+/-0.0468	0.0733	0.100	pCi/g						
Uranium-234		6.54	+/-0.640	0.212	1.00	pCi/g						
Uranium-235	U	0.257	+/-0.282	0.366	0.500	pCi/g						
Uranium-238		1.95	+/-1.59	1.84	1.00	pCi/g						
Yttrium-88	U	0.0296	+/-0.0372	0.0644	0.100	pCi/g						
Zinc-65	UUI	0.00	+/-0.104	0.186	0.300	pCi/g						
Zirconium-95	U	0.0434	+/-0.0644	0.118	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1109	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-F296-H-SS4
Sample ID: 125850005
Matrix: Soil
Collect Date: 16-NOV-04 10:58
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.650	+/-0.194	0.164	0.800	pCi/g		AKB	12/21/04	0821	383029	1
Americium-241	U	0.0483	+/-0.154	0.292	0.200	pCi/g						
Antimony-124	U	0.00803	+/-0.0333	0.0614	0.100	pCi/g						
Antimony-125	U	-0.026	+/-0.0699	0.125	0.200	pCi/g						
Barium-133	U	-0.00832	+/-0.0345	0.055	0.100	pCi/g						
Barium-140	U	-0.195	+/-0.543	0.949	0.500	pCi/g						
Beryllium-7	U	0.362	+/-0.594	0.527	0.700	pCi/g						
Bismuth-212		0.960	+/-0.372	0.331	0.500	pCi/g						
Bismuth-214		1.05	+/-0.156	0.0834	0.200	pCi/g						
Cerium-139	U	-0.0113	+/-0.0252	0.0438	0.050	pCi/g						
Cerium-141	U	0.0415	+/-0.073	0.134	0.100	pCi/g						
Cerium-144	U	0.202	+/-0.252	0.298	0.500	pCi/g						
Cesium-134	UUI	0.00	+/-0.0576	0.0693	0.100	pCi/g						
Cesium-136	U	-0.065	+/-0.247	0.442	0.300	pCi/g						
Cesium-137	U	0.0514	+/-0.0383	0.0619	0.100	pCi/g						
Chromium-51	U	-0.163	+/-0.414	0.751	0.600	pCi/g						
Cobalt-56	U	0.0115	+/-0.0317	0.059	0.100	pCi/g						
Cobalt-57	U	0.00152	+/-0.0192	0.0349	0.050	pCi/g						
Cobalt-58	U	0.00363	+/-0.0429	0.067	0.100	pCi/g						
Cobalt-60	U	0.00878	+/-0.0338	0.0635	0.100	pCi/g						
Europium-152	U	0.0368	+/-0.0749	0.128	0.200	pCi/g						
Europium-154	U	-0.0308	+/-0.117	0.176	0.500	pCi/g						
Europium-155	U	-0.0129	+/-0.0801	0.145	0.500	pCi/g						
Iridium-192	U	-0.0112	+/-0.028	0.0509	0.100	pCi/g						
Iron-59	U	-0.00939	+/-0.101	0.184	0.300	pCi/g						
Lead-210	U	5.41	+/-6.23	12.1	4.00	pCi/g						
Lead-212		0.861	+/-0.113	0.0732	0.100	pCi/g						
Lead-214		1.26	+/-0.157	0.0921	0.100	pCi/g						
Manganese-54	U	-0.0113	+/-0.0306	0.0518	0.100	pCi/g						
Mercury-203	UUI	0.00	+/-0.105	0.0734	0.100	pCi/g						
Neodymium-147	U	-0.284	+/-1.37	2.44	1000	pCi/g						
Neptunium-239	U	0.0812	+/-0.139	0.259	2.00	pCi/g						
Niobium-94	U	0.0321	+/-0.0268	0.0519	1.00	pCi/g						
Niobium-95	U	0.00501	+/-0.0991	0.0763	0.050	pCi/g						
Potassium-40		20.4	+/-2.11	0.509	1.00	pCi/g						
Promethium-144	U	7.850E-05	+/-0.0253	0.0453	0.080	pCi/g						
Promethium-146	U	0.00867	+/-0.0321	0.0597	1.00	pCi/g						
Radium-226		1.05	+/-0.156	0.0834	1.00	pCi/g						
Radium-228		0.650	+/-0.194	0.164	0.500	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-F296-H-SS4
Sample ID: 125850005

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	-0.0794	+/-0.238	0.415	0.800	pCi/g						
Silver-110m	U	0.0191	+/-0.0269	0.0467	0.080	pCi/g						
Sodium-22	U	-0.0108	+/-0.0423	0.0639	0.080	pCi/g						
Thallium-208		0.293	+/-0.061	0.0493	0.080	pCi/g						
Thorium-230		1.05	+/-0.156	0.0834	1.00	pCi/g						
Thorium-232		0.832	+/-0.109	0.0707	0.500	pCi/g						
Thorium-234	U	1.37	+/-1.68	2.26	2.00	pCi/g						
Tin-113	U	-0.0414	+/-0.035	0.059	0.100	pCi/g						
Uranium-234		1.28	+/-0.223	0.168	1.00	pCi/g						
Uranium-235	U	0.101	+/-0.167	0.304	0.500	pCi/g						
Uranium-238	U	1.37	+/-1.68	2.26	1.00	pCi/g						
Yttrium-88	U	0.00152	+/-0.0288	0.0579	0.100	pCi/g						
Zinc-65	U	-0.0388	+/-0.087	0.129	0.300	pCi/g						
Zirconium-95	U	0.00164	+/-0.072	0.113	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1109	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Company : Parsons Engineering
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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-F301-F/G-SS3
Sample ID: 125850006
Matrix: Soil
Collect Date: 16-NOV-04 10:55
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.608	+/-0.241	0.240	0.800	pCi/g		AKB	12/21/04	0954	383029	1
Americium-241	U	-0.0204	+/-0.147	0.283	0.200	pCi/g						
Antimony-124	U	0.0148	+/-0.0395	0.0746	0.100	pCi/g						
Antimony-125	U	0.0671	+/-0.0949	0.172	0.200	pCi/g						
Barium-133	U	-0.0112	+/-0.0476	0.0731	0.100	pCi/g						
Barium-140	U	-0.746	+/-0.709	1.14	0.500	pCi/g						
Beryllium-7	U	-0.293	+/-0.365	0.645	0.700	pCi/g						
Bismuth-212	U	0.386	+/-0.290	0.566	0.500	pCi/g						
Bismuth-214		4.41	+/-0.431	0.106	0.200	pCi/g						
Cerium-139	U	-0.0215	+/-0.0364	0.0578	0.050	pCi/g						
Cerium-141	U	0.0402	+/-0.103	0.173	0.100	pCi/g						
Cerium-144	U	-0.0514	+/-0.197	0.360	0.500	pCi/g						
Cesium-134	UUI	0.00	+/-0.044	0.0708	0.100	pCi/g						
Cesium-136	U	-0.276	+/-0.315	0.510	0.300	pCi/g						
Cesium-137		0.180	+/-0.0529	0.0503	0.100	pCi/g						
Chromium-51	U	0.00856	+/-0.574	1.02	0.600	pCi/g						
Cobalt-56	U	0.0398	+/-0.053	0.0899	0.100	pCi/g						
Cobalt-57	U	0.0354	+/-0.0405	0.0444	0.050	pCi/g						
Cobalt-58	U	0.00409	+/-0.0466	0.075	0.100	pCi/g						
Cobalt-60	U	0.0378	+/-0.0368	0.0751	0.100	pCi/g						
Europium-152	U	-0.00517	+/-0.0967	0.169	0.200	pCi/g						
Europium-154	U	-0.0416	+/-0.115	0.193	0.500	pCi/g						
Europium-155	U	0.0485	+/-0.0969	0.185	0.500	pCi/g						
Iridium-192	U	-0.00766	+/-0.0431	0.0671	0.100	pCi/g						
Iron-59	U	-0.0554	+/-0.113	0.191	0.300	pCi/g						
Lead-210	U	3.47	+/-4.86	7.57	4.00	pCi/g						
Lead-212		0.599	+/-0.0968	0.101	0.100	pCi/g						
Lead-214		5.18	+/-0.493	0.120	0.100	pCi/g						
Manganese-54	U	-0.0205	+/-0.0359	0.0616	0.100	pCi/g						
Mercury-203	U	0.0124	+/-0.0501	0.0902	0.100	pCi/g						
Neodymium-147	U	-0.734	+/-1.69	3.05	1000	pCi/g						
Neptunium-239	U	-0.171	+/-0.176	0.316	2.00	pCi/g						
Niobium-94	U	0.0284	+/-0.0304	0.0587	1.00	pCi/g						
Niobium-95	U	0.126	+/-0.0795	0.142	0.050	pCi/g						
Potassium-40		15.4	+/-1.69	0.709	1.00	pCi/g						
Promethium-144	U	-0.00994	+/-0.0292	0.052	0.080	pCi/g						
Promethium-146	U	0.0191	+/-0.0411	0.0736	1.00	pCi/g						
Radium-226		4.41	+/-0.431	0.106	1.00	pCi/g						
Radium-228		0.608	+/-0.241	0.240	0.500	pCi/g						

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Certificate of Analysis

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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: December 21, 2004

Client Sample ID: E0804-F301-F/G-SS3
Sample ID: 125850006

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	-0.0783	+/-0.272	0.491	0.800	pCi/g						
Silver-110m	U	0.0158	+/-0.0311	0.0535	0.080	pCi/g						
Sodium-22	U	-0.0155	+/-0.0414	0.0698	0.080	pCi/g						
Thallium-208		0.259	+/-0.0666	0.0572	0.080	pCi/g						
Thorium-230		4.41	+/-0.431	0.106	1.00	pCi/g						
Thorium-232		0.578	+/-0.0934	0.0978	0.500	pCi/g						
Thorium-234	U	2.33	+/-2.01	2.34	2.00	pCi/g						
Tin-113	U	0.0373	+/-0.0486	0.0809	0.100	pCi/g						
Uranium-234		5.20	+/-0.552	0.196	1.00	pCi/g						
Uranium-235	UUI	0.00	+/-0.384	0.355	0.500	pCi/g						
Uranium-238	U	2.33	+/-2.01	2.34	1.00	pCi/g						
Yttrium-88	U	0.0106	+/-0.0305	0.0635	0.100	pCi/g						
Zinc-65	U	-0.0501	+/-0.0979	0.140	0.300	pCi/g						
Zirconium-95	U	-0.069	+/-0.0776	0.130	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1109	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Company : Parsons Engineering
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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-F306-C/D-SS1
Sample ID: 125850007
Matrix: Soil
Collect Date: 15-NOV-04 11:15
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.821	+/-0.262	0.351	0.800	pCi/g		AKB	12/21/04	0954	383029	1
Americium-241	U	-0.139	+/-0.370	0.640	0.200	pCi/g						
Antimony-124	U	-0.000687	+/-0.0671	0.119	0.100	pCi/g						
Antimony-125	U	0.0152	+/-0.155	0.262	0.200	pCi/g						
Barium-133	U	0.017	+/-0.0727	0.113	0.100	pCi/g						
Barium-140	U	-0.543	+/-1.12	1.97	0.500	pCi/g						
Beryllium-7	U	0.171	+/-0.660	1.07	0.700	pCi/g						
Bismuth-212		0.716	+/-0.505	0.633	0.500	pCi/g						
Bismuth-214		13.2	+/-0.406	0.168	0.200	pCi/g						
Cerium-139	U	0.0507	+/-0.0619	0.103	0.050	pCi/g						
Cerium-141	U	0.286	+/-0.171	0.289	0.100	pCi/g						
Cerium-144	U	0.136	+/-0.356	0.658	0.500	pCi/g						
Cesium-134	U	-0.017	+/-0.0575	0.0984	0.100	pCi/g						
Cesium-136	U	0.00439	+/-0.501	0.787	0.300	pCi/g						
Cesium-137		0.264	+/-0.0748	0.0864	0.100	pCi/g						
Chromium-51	U	-0.64	+/-1.04	1.76	0.600	pCi/g						
Cobalt-56	U	0.029	+/-0.0679	0.121	0.100	pCi/g						
Cobalt-57	U	0.0143	+/-0.0443	0.0823	0.050	pCi/g						
Cobalt-58	U	0.0111	+/-0.066	0.116	0.100	pCi/g						
Cobalt-60	U	0.00276	+/-0.058	0.103	0.100	pCi/g						
Europium-152	U	-0.143	+/-0.161	0.268	0.200	pCi/g						
Europium-154	U	-0.0597	+/-0.287	0.284	0.500	pCi/g						
Europium-155	U	0.147	+/-0.175	0.332	0.500	pCi/g						
Iridium-192	U	0.00252	+/-0.0687	0.119	0.100	pCi/g						
Iron-59	U	-0.0914	+/-0.164	0.284	0.300	pCi/g						
Lead-210	U	3.39	+/-14.5	23.9	4.00	pCi/g						
Lead-212		1.05	+/-0.159	0.166	0.100	pCi/g						
Lead-214		15.2	+/-0.415	0.192	0.100	pCi/g						
Manganese-54	U	-0.00841	+/-0.0618	0.0927	0.100	pCi/g						
Mercury-203	U	0.064	+/-0.0888	0.158	0.100	pCi/g						
Neodymium-147	U	-1.54	+/-2.86	5.02	1000	pCi/g						
Neptunium-239	U	-0.307	+/-0.339	0.551	2.00	pCi/g						
Niobium-94	UUI	0.00	+/-0.0757	0.0862	1.00	pCi/g						
Niobium-95	UUI	0.00	+/-0.226	0.298	0.050	pCi/g						
Potassium-40		18.6	+/-1.66	0.989	1.00	pCi/g						
Promethium-144	U	0.0185	+/-0.0456	0.0821	0.080	pCi/g						
Promethium-146	U	0.0595	+/-0.0865	0.124	1.00	pCi/g						
Radium-226		13.2	+/-0.406	0.168	1.00	pCi/g						
Radium-228		0.821	+/-0.262	0.351	0.500	pCi/g						

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Certificate of Analysis

Company : Parsons Engineering
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-F306-C/D-SS1
Sample ID: 125850007

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.182	+/-0.400	0.732	0.800	pCi/g						
Silver-110m	U	0.0236	+/-0.0544	0.0872	0.080	pCi/g						
Sodium-22	U	-0.0217	+/-0.104	0.103	0.080	pCi/g						
Thallium-208		0.249	+/-0.0748	0.0834	0.080	pCi/g						
Thorium-230		13.2	+/-0.406	0.168	1.00	pCi/g						
Thorium-232		1.02	+/-0.154	0.160	0.500	pCi/g						
Thorium-234		9.31	+/-3.93	5.04	2.00	pCi/g						
Tin-113	U	-0.0795	+/-0.0831	0.136	0.100	pCi/g						
Uranium-234		14.9	+/-0.593	0.369	1.00	pCi/g						
Uranium-235		1.06	+/-0.584	0.687	0.500	pCi/g						
Uranium-238		9.31	+/-3.93	5.04	1.00	pCi/g						
Yttrium-88	UU1	0.00	+/-0.0598	0.118	0.100	pCi/g						
Zinc-65	U	0.200	+/-0.158	0.267	0.300	pCi/g						
Zirconium-95	U	-0.0458	+/-0.112	0.193	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0804-F306-C/D-SS4
Sample ID: 125850008
Matrix: Soil
Collect Date: 16-NOV-04 10:45
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.912	+/-0.254	0.212	0.800	pCi/g		AKB	12/21/04	0955	383029	1
Americium-241	U	0.0244	+/-0.176	0.285	0.200	pCi/g						
Antimony-124	U	-0.00975	+/-0.0434	0.078	0.100	pCi/g						
Antimony-125	U	0.0777	+/-0.0912	0.169	0.200	pCi/g						
Barium-133	U	-0.022	+/-0.0476	0.0708	0.100	pCi/g						
Barium-140	U	0.239	+/-0.771	1.30	0.500	pCi/g						
Beryllium-7	U	-0.295	+/-0.418	0.733	0.700	pCi/g						
Bismuth-212		0.701	+/-0.406	0.413	0.500	pCi/g						
Bismuth-214		2.30	+/-0.210	0.116	0.200	pCi/g						
Cerium-139	U	-0.0154	+/-0.0315	0.056	0.050	pCi/g						
Cerium-141	U	0.0623	+/-0.0892	0.168	0.100	pCi/g						
Cerium-144	U	0.0353	+/-0.204	0.378	0.500	pCi/g						
Cesium-134	U	-0.000618	+/-0.0433	0.0774	0.100	pCi/g						
Cesium-136	U	0.0399	+/-0.331	0.589	0.300	pCi/g						
Cesium-137	U	0.0191	+/-0.0375	0.064	0.100	pCi/g						
Chromium-51	U	0.113	+/-0.646	1.14	0.600	pCi/g						
Cobalt-56	U	0.0226	+/-0.049	0.0913	0.100	pCi/g						
Cobalt-57	U	-0.00175	+/-0.0248	0.0458	0.050	pCi/g						
Cobalt-58	U	0.0344	+/-0.0721	0.0979	0.100	pCi/g						
Cobalt-60	U	0.0138	+/-0.040	0.0771	0.100	pCi/g						
Europium-152	U	-0.0209	+/-0.105	0.180	0.200	pCi/g						
Europium-154	U	-0.0172	+/-0.112	0.205	0.500	pCi/g						
Europium-155	U	-0.0383	+/-0.0947	0.174	0.500	pCi/g						
Iridium-192	U	0.0321	+/-0.0425	0.078	0.100	pCi/g						
Iron-59	U	0.0279	+/-0.129	0.243	0.300	pCi/g						
Lead-210	U	2.38	+/-4.87	8.17	4.00	pCi/g						
Lead-212		0.850	+/-0.102	0.103	0.100	pCi/g						
Lead-214		2.47	+/-0.217	0.124	0.100	pCi/g						
Manganese-54	U	-0.00547	+/-0.0412	0.0725	0.100	pCi/g						
Mercury-203	U	0.00542	+/-0.0574	0.102	0.100	pCi/g						
Neodymium-147	U	-0.63	+/-2.10	3.30	1000	pCi/g						
Neptunium-239	U	-0.021	+/-0.171	0.317	2.00	pCi/g						
Niobium-94	U	0.00616	+/-0.0338	0.0617	1.00	pCi/g						
Niobium-95	U	0.0672	+/-0.0713	0.127	0.050	pCi/g						
Potassium-40		19.6	+/-1.61	0.561	1.00	pCi/g						
Promethium-144	U	-0.00972	+/-0.0341	0.0602	0.080	pCi/g						
Promethium-146	U	0.0183	+/-0.0411	0.0784	1.00	pCi/g						
Radium-226		2.30	+/-0.210	0.116	1.00	pCi/g						
Radium-228		0.912	+/-0.254	0.212	0.500	pCi/g						

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Project: **SEAD-48 Final Status Survey**

Report Date: December 21, 2004

Client Sample ID: E0804-F306-C/D-SS4
Sample ID: 125850008

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.125	+/-0.294	0.560	0.800	pCi/g						
Silver-110m	U	-0.014	+/-0.0335	0.0588	0.080	pCi/g						
Sodium-22	U	0.00148	+/-0.0397	0.0741	0.080	pCi/g						
Thallium-208		0.291	+/-0.0875	0.0666	0.080	pCi/g						
Thorium-230		2.30	+/-0.210	0.116	1.00	pCi/g						
Thorium-232		0.821	+/-0.0989	0.0996	0.500	pCi/g						
Thorium-234	U	1.99	+/-2.23	2.28	2.00	pCi/g						
Tin-113	U	0.0344	+/-0.0529	0.0958	0.100	pCi/g						
Uranium-234		2.71	+/-0.249	0.220	1.00	pCi/g						
Uranium-235	U	-0.0524	+/-0.199	0.361	0.500	pCi/g						
Uranium-238	U	1.99	+/-2.23	2.28	1.00	pCi/g						
Yttrium-88	U	0.00576	+/-0.0392	0.0769	0.100	pCi/g						
Zinc-65	U	0.0362	+/-0.103	0.174	0.300	pCi/g						
Zirconium-95	U	0.00812	+/-0.0879	0.160	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gei.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0805-A361-C-SS1
Sample ID: 125850009
Matrix: Soil
Collect Date: 14-NOV-04 14:05
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.291	+/-0.142	0.172	0.800	pCi/g		AKB	12/21/04	0957	383029	1
Americium-241	U	-0.0293	+/-0.163	0.230	0.200	pCi/g						
Antimony-124	U	0.0274	+/-0.037	0.0646	0.100	pCi/g						
Antimony-125	U	0.018	+/-0.0699	0.133	0.200	pCi/g						
Barium-133	U	0.00902	+/-0.0326	0.056	0.100	pCi/g						
Barium-140	U	-0.0267	+/-0.574	1.06	0.500	pCi/g						
Beryllium-7	U	-0.251	+/-0.319	0.560	0.700	pCi/g						
Bismuth-212		0.364	+/-0.310	0.363	0.500	pCi/g						
Bismuth-214		2.63	+/-0.169	0.0783	0.200	pCi/g						
Cerium-139	U	-0.00113	+/-0.0263	0.0486	0.050	pCi/g						
Cerium-141	U	0.0905	+/-0.0781	0.152	0.100	pCi/g						
Cerium-144	U	0.0666	+/-0.165	0.316	0.500	pCi/g						
Cesium-134	U	-0.000374	+/-0.028	0.0504	0.100	pCi/g						
Cesium-136	U	-0.0406	+/-0.312	0.490	0.300	pCi/g						
Cesium-137		0.160	+/-0.0483	0.0423	0.100	pCi/g						
Chromium-51	U	-0.0599	+/-0.460	0.872	0.600	pCi/g						
Cobalt-56	U	-0.000307	+/-0.0311	0.0592	0.100	pCi/g						
Cobalt-57	U	-0.00756	+/-0.0202	0.0377	0.050	pCi/g						
Cobalt-58	U	0.017	+/-0.0352	0.0625	0.100	pCi/g						
Cobalt-60	U	-0.00642	+/-0.0362	0.0554	0.100	pCi/g						
Europium-152	U	0.0688	+/-0.0731	0.145	0.200	pCi/g						
Europium-154	U	-0.099	+/-0.0918	0.147	0.500	pCi/g						
Europium-155	U	0.0197	+/-0.0796	0.154	0.500	pCi/g						
Iridium-192	U	0.0156	+/-0.0314	0.0614	0.100	pCi/g						
Iron-59	U	-0.00484	+/-0.0924	0.170	0.300	pCi/g						
Lead-210	U	1.69	+/-3.30	6.18	4.00	pCi/g						
Lead-212		0.237	+/-0.0707	0.0853	0.100	pCi/g						
Lead-214		3.04	+/-0.182	0.0913	0.100	pCi/g						
Manganese-54	U	-0.013	+/-0.0279	0.0506	0.100	pCi/g						
Mercury-203	U	-0.0391	+/-0.0434	0.0735	0.100	pCi/g						
Neodymium-147	U	-0.681	+/-1.55	2.78	1000	pCi/g						
Neptunium-239	U	0.00394	+/-0.135	0.258	2.00	pCi/g						
Niobium-94	U	0.00517	+/-0.0252	0.0462	1.00	pCi/g						
Niobium-95	U	0.0811	+/-0.0639	0.114	0.050	pCi/g						
Potassium-40		6.64	+/-0.785	0.505	1.00	pCi/g						
Promethium-144	U	0.00698	+/-0.0268	0.0494	0.080	pCi/g						
Promethium-146	U	0.0546	+/-0.049	0.0618	1.00	pCi/g						
Radium-226		2.63	+/-0.169	0.0783	1.00	pCi/g						
Radium-228		0.291	+/-0.142	0.172	0.500	pCi/g						

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0805-A361-C-SS1
Sample ID: 125850009

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.0572	+/-0.227	0.427	0.800	pCi/g						
Silver-110m	U	0.00396	+/-0.0263	0.0432	0.080	pCi/g						
Sodium-22	U	-0.0357	+/-0.0333	0.0532	0.080	pCi/g						
Thallium-208	U	0.0666	+/-0.0521	0.0685	0.080	pCi/g						
Thorium-230		2.63	+/-0.169	0.0783	1.00	pCi/g						
Thorium-232		0.228	+/-0.0681	0.0822	0.500	pCi/g						
Thorium-234	U	1.66	+/-1.64	1.94	2.00	pCi/g						
Tin-113	U	0.00824	+/-0.0359	0.0687	0.100	pCi/g						
Uranium-234		2.63	+/-0.249	0.187	1.00	pCi/g						
Uranium-235	U	0.115	+/-0.166	0.318	0.500	pCi/g						
Uranium-238	U	1.66	+/-1.64	1.94	1.00	pCi/g						
Yttrium-88	U	0.0213	+/-0.0273	0.061	0.100	pCi/g						
Zinc-65	U	0.0333	+/-0.0688	0.119	0.300	pCi/g						
Zirconium-95	U	0.0178	+/-0.0676	0.125	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Certificate of Analysis

Company : Parsons Engineering
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0805-A361-C-SS3
Sample ID: 125850010
Matrix: Soil
Collect Date: 16-NOV-04 14:05
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.439	+/-0.178	0.138	0.800	pCi/g		AKB	12/21/04	0957	383029	1
Americium-241	U	0.0376	+/-0.109	0.191	0.200	pCi/g						
Antimony-124	U	0.0183	+/-0.026	0.0546	0.100	pCi/g						
Antimony-125	U	-0.0299	+/-0.0558	0.104	0.200	pCi/g						
Barium-133	U	0.0129	+/-0.0274	0.0467	0.100	pCi/g						
Barium-140	U	-0.351	+/-0.418	0.740	0.500	pCi/g						
Beryllium-7	U	0.210	+/-0.295	0.480	0.700	pCi/g						
Bismuth-212		0.396	+/-0.240	0.275	0.500	pCi/g						
Bismuth-214		1.33	+/-0.132	0.075	0.200	pCi/g						
Cerium-139	U	-0.00904	+/-0.0197	0.0369	0.050	pCi/g						
Cerium-141	U	0.017	+/-0.0453	0.106	0.100	pCi/g						
Cerium-144	U	0.0813	+/-0.145	0.240	0.500	pCi/g						
Cesium-134	UUI	0.00	+/-0.0283	0.0496	0.100	pCi/g						
Cesium-136	U	-0.0825	+/-0.191	0.347	0.300	pCi/g						
Cesium-137		0.110	+/-0.0346	0.0393	0.100	pCi/g						
Chromium-51	U	-0.391	+/-0.383	0.650	0.600	pCi/g						
Cobalt-56	U	-0.0117	+/-0.0286	0.0502	0.100	pCi/g						
Cobalt-57	U	0.00144	+/-0.0156	0.0306	0.050	pCi/g						
Cobalt-58	U	0.0184	+/-0.0242	0.058	0.100	pCi/g						
Cobalt-60	U	0.00467	+/-0.0233	0.0453	0.100	pCi/g						
Europium-152	U	0.00794	+/-0.0592	0.109	0.200	pCi/g						
Europium-154	U	0.0658	+/-0.0765	0.155	0.500	pCi/g						
Europium-155	U	-0.000412	+/-0.061	0.121	0.500	pCi/g						
Iridium-192	U	-0.00505	+/-0.0252	0.0457	0.100	pCi/g						
Iron-59	U	-0.0202	+/-0.0731	0.135	0.300	pCi/g						
Lead-210	U	3.40	+/-2.93	5.52	4.00	pCi/g						
Lead-212		0.323	+/-0.0548	0.0734	0.100	pCi/g						
Lead-214		1.62	+/-0.129	0.076	0.100	pCi/g						
Manganese-54	U	0.0243	+/-0.0185	0.0421	0.100	pCi/g						
Mercury-203	U	0.0599	+/-0.0478	0.0603	0.100	pCi/g						
Neodymium-147	U	0.0966	+/-1.15	2.20	1000	pCi/g						
Neptunium-239	U	-0.0177	+/-0.107	0.210	2.00	pCi/g						
Niobium-94	U	-0.0115	+/-0.018	0.0315	1.00	pCi/g						
Niobium-95	U	0.0202	+/-0.0511	0.0859	0.050	pCi/g						
Potassium-40		8.54	+/-0.913	0.423	1.00	pCi/g						
Promethium-144	U	-0.0186	+/-0.021	0.0358	0.080	pCi/g						
Promethium-146	U	-0.000958	+/-0.0251	0.0482	1.00	pCi/g						
Radium-226		1.33	+/-0.132	0.075	1.00	pCi/g						
Radium-228		0.439	+/-0.178	0.138	0.500	pCi/g						

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: December 21, 2004

Client Sample ID: E0805-A361-C-SS3
Sample ID: 125850010

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	-0.00563	+/-0.181	0.341	0.800	pCi/g						
Silver-110m	U	0.00783	+/-0.0214	0.0414	0.080	pCi/g						
Sodium-22	U	0.0239	+/-0.0277	0.0562	0.080	pCi/g						
Thallium-208		0.0926	+/-0.0493	0.0382	0.080	pCi/g						
Thorium-230		1.33	+/-0.132	0.075	1.00	pCi/g						
Thorium-232		0.312	+/-0.053	0.0704	0.500	pCi/g						
Thorium-234	U	1.27	+/-1.22	1.54	2.00	pCi/g						
Tin-113	U	0.00662	+/-0.0304	0.0597	0.100	pCi/g						
Uranium-234		1.63	+/-0.162	0.159	1.00	pCi/g						
Uranium-235	U	0.0626	+/-0.160	0.244	0.500	pCi/g						
Uranium-238	U	1.27	+/-1.22	1.54	1.00	pCi/g						
Yttrium-88	U	-0.00335	+/-0.0202	0.0401	0.100	pCi/g						
Zinc-65	U	0.0442	+/-0.0584	0.107	0.300	pCi/g						
Zirconium-95	U	0.0406	+/-0.051	0.102	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0805-F366-A-SS1
Sample ID: 125850011
Matrix: Soil
Collect Date: 13-NOV-04 14:40
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		1.06	+/-0.361	0.321	0.800	pCi/g		AKB	12/21/04	0958	383029	1
Americium-241	U	0.0771	+/-0.248	0.439	0.200	pCi/g						
Antimony-124	U	0.00984	+/-0.0725	0.125	0.100	pCi/g						
Antimony-125	U	0.0686	+/-0.147	0.261	0.200	pCi/g						
Barium-133	U	-0.0112	+/-0.0691	0.106	0.100	pCi/g						
Barium-140	U	-0.564	+/-1.22	2.06	0.500	pCi/g						
Beryllium-7	U	-0.501	+/-0.696	1.01	0.700	pCi/g						
Bismuth-212	U	0.489	+/-0.579	0.656	0.500	pCi/g						
Bismuth-214		10.9	+/-0.378	0.163	0.200	pCi/g						
Cerium-139	U	-0.0442	+/-0.0616	0.0898	0.050	pCi/g						
Cerium-141	U	0.207	+/-0.132	0.285	0.100	pCi/g						
Cerium-144	U	0.0874	+/-0.347	0.594	0.500	pCi/g						
Cesium-134	U	0.0363	+/-0.0576	0.102	0.100	pCi/g						
Cesium-136	U	-0.12	+/-0.826	0.826	0.300	pCi/g						
Cesium-137		0.555	+/-0.0828	0.0844	0.100	pCi/g						
Chromium-51	U	-1.1	+/-0.984	1.67	0.600	pCi/g						
Cobalt-56	U	0.0198	+/-0.0631	0.115	0.100	pCi/g						
Cobalt-57	U	0.0396	+/-0.0426	0.0746	0.050	pCi/g						
Cobalt-58	U	-0.000362	+/-0.0813	0.120	0.100	pCi/g						
Cobalt-60	U	-0.00613	+/-0.0553	0.0837	0.100	pCi/g						
Europium-152	U	0.060	+/-0.150	0.267	0.200	pCi/g						
Europium-154	U	-0.0506	+/-0.154	0.264	0.500	pCi/g						
Europium-155	U	-0.0236	+/-0.165	0.283	0.500	pCi/g						
Iridium-192	U	0.017	+/-0.0633	0.113	0.100	pCi/g						
Iron-59	U	0.0529	+/-0.190	0.339	0.300	pCi/g						
Lead-210	U	8.98	+/-8.91	10.3	4.00	pCi/g						
Lead-212		0.833	+/-0.119	0.145	0.100	pCi/g						
Lead-214		12.3	+/-0.386	0.180	0.100	pCi/g						
Manganese-54	U	-0.0288	+/-0.0593	0.0885	0.100	pCi/g						
Mercury-203	U	-0.0109	+/-0.0823	0.145	0.100	pCi/g						
Neodymium-147	U	0.286	+/-3.23	5.62	1000	pCi/g						
Neptunium-239	U	0.0646	+/-0.299	0.515	2.00	pCi/g						
Niobium-94	UUI	0.00	+/-0.0753	0.0788	1.00	pCi/g						
Niobium-95	UUI	0.00	+/-0.138	0.238	0.050	pCi/g						
Potassium-40		18.8	+/-1.67	0.802	1.00	pCi/g						
Promethium-144	U	-0.017	+/-0.043	0.0718	0.080	pCi/g						
Promethium-146	U	0.0168	+/-0.0648	0.114	1.00	pCi/g						
Radium-226		10.9	+/-0.378	0.163	1.00	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Parsons Engineering
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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0805-F366-A-SS1
Sample ID: 125850011

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Radium-228		1.06	+/-0.361	0.321	0.500	pCi/g						
Ruthenium-106	U	0.172	+/-0.415	0.735	0.800	pCi/g						
Silver-110m	U	0.00607	+/-0.0534	0.0811	0.080	pCi/g						
Sodium-22	U	-0.0181	+/-0.0558	0.0956	0.080	pCi/g						
Thallium-208		0.253	+/-0.0738	0.100	0.080	pCi/g						
Thorium-230		10.9	+/-0.378	0.163	1.00	pCi/g						
Thorium-232		0.802	+/-0.115	0.140	0.500	pCi/g						
Thorium-234		6.78	+/-3.29	3.63	2.00	pCi/g						
Tin-113	U	-0.0457	+/-0.0883	0.132	0.100	pCi/g						
Uranium-234		12.1	+/-0.551	0.330	1.00	pCi/g						
Uranium-235		0.907	+/-0.417	0.643	0.500	pCi/g						
Uranium-238		6.78	+/-3.29	3.63	1.00	pCi/g						
Yttrium-88	U	-0.00217	+/-0.0619	0.0988	0.100	pCi/g						
Zinc-65	U	-0.0174	+/-0.150	0.225	0.300	pCi/g						
Zirconium-95	U	-0.149	+/-0.121	0.188	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC
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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0805-F366-A-SS4
Sample ID: 125850012
Matrix: Soil
Collect Date: 16-NOV-04 13:55
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.450	+/-0.164	0.139	0.800	pCi/g		AKB	12/21/04	0958	383029	1
Americium-241	U	0.122	+/-0.163	0.315	0.200	pCi/g						
Antimony-124	U	0.000936	+/-0.0275	0.052	0.100	pCi/g						
Antimony-125	U	0.0012	+/-0.0558	0.108	0.200	pCi/g						
Barium-133	U	0.0239	+/-0.0273	0.0485	0.100	pCi/g						
Barium-140	UUI	0.00	+/-0.719	0.774	0.500	pCi/g						
Beryllium-7	U	-0.0984	+/-0.251	0.466	0.700	pCi/g						
Bismuth-212		0.475	+/-0.208	0.300	0.500	pCi/g						
Bismuth-214		1.08	+/-0.119	0.0702	0.200	pCi/g						
Cerium-139	U	-0.00386	+/-0.020	0.0377	0.050	pCi/g						
Cerium-141	U	0.0289	+/-0.0588	0.115	0.100	pCi/g						
Cerium-144	U	0.140	+/-0.152	0.250	0.500	pCi/g						
Cesium-134	U	0.0218	+/-0.0268	0.0527	0.100	pCi/g						
Cesium-136	U	0.116	+/-0.193	0.371	0.300	pCi/g						
Cesium-137		0.0469	+/-0.0335	0.040	0.100	pCi/g						
Chromium-51	U	-0.099	+/-0.466	0.740	0.600	pCi/g						
Cobalt-56	U	0.0101	+/-0.0352	0.0584	0.100	pCi/g						
Cobalt-57	U	-0.000727	+/-0.0166	0.0322	0.050	pCi/g						
Cobalt-58	U	-0.00669	+/-0.0279	0.0503	0.100	pCi/g						
Cobalt-60	U	-0.00994	+/-0.021	0.0377	0.100	pCi/g						
Europium-152	U	-0.00112	+/-0.0601	0.109	0.200	pCi/g						
Europium-154	U	0.0662	+/-0.131	0.131	0.500	pCi/g						
Europium-155	U	0.0936	+/-0.0686	0.143	0.500	pCi/g						
Iridium-192	U	0.0219	+/-0.0289	0.0496	0.100	pCi/g						
Iron-59	U	0.00189	+/-0.074	0.141	0.300	pCi/g						
Lead-210	U	0.159	+/-8.08	13.9	4.00	pCi/g						
Lead-212		0.472	+/-0.0623	0.0752	0.100	pCi/g						
Lead-214		1.30	+/-0.118	0.082	0.100	pCi/g						
Manganese-54	U	0.0107	+/-0.0237	0.0454	0.100	pCi/g						
Mercury-203	U	0.0178	+/-0.0337	0.0641	0.100	pCi/g						
Neodymium-147	U	0.404	+/-1.51	1.98	1000	pCi/g						
Neptunium-239	U	-0.0515	+/-0.128	0.218	2.00	pCi/g						
Niobium-94	U	0.0245	+/-0.0191	0.0396	1.00	pCi/g						
Niobium-95	U	-0.00811	+/-0.0498	0.0786	0.050	pCi/g						
Potassium-40		13.5	+/-1.05	0.417	1.00	pCi/g						
Promethium-144	U	0.026	+/-0.0207	0.0428	0.080	pCi/g						
Promethium-146	U	0.0109	+/-0.026	0.0513	1.00	pCi/g						
Radium-226		1.08	+/-0.119	0.0702	1.00	pCi/g						
Radium-228		0.450	+/-0.164	0.139	0.500	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0805-F366-A-SS4
Sample ID: 125850012

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	-0.0853	+/-0.177	0.320	0.800	pCi/g						
Silver-110m	U	0.0108	+/-0.0233	0.0408	0.080	pCi/g						
Sodium-22	U	-0.0179	+/-0.0273	0.0475	0.080	pCi/g						
Thallium-208		0.149	+/-0.0399	0.0444	0.080	pCi/g						
Thorium-230		1.08	+/-0.119	0.0702	1.00	pCi/g						
Thorium-232		0.456	+/-0.0602	0.0726	0.500	pCi/g						
Thorium-234	U	0.921	+/-1.56	2.25	2.00	pCi/g						
Tin-113	U	0.0255	+/-0.0316	0.0605	0.100	pCi/g						
Uranium-234		1.24	+/-0.187	0.161	1.00	pCi/g						
Uranium-235	U	-0.139	+/-0.128	0.234	0.500	pCi/g						
Uranium-238	U	0.921	+/-1.56	2.25	1.00	pCi/g						
Yttrium-88	U	-0.0106	+/-0.0199	0.0344	0.100	pCi/g						
Zinc-65	U	-0.0466	+/-0.068	0.101	0.300	pCi/g						
Zirconium-95	U	0.0326	+/-0.0638	0.0929	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Certificate of Analysis

Company : Parsons Engineering
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0805-F366-H/IJ-SS4
Sample ID: 125850013
Matrix: Soil
Collect Date: 16-NOV-04 13:40
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.903	+/-0.172	0.171	0.800	pCi/g		AKB	12/21/04	1000	383029	1
Americium-241	U	-0.0249	+/-0.142	0.232	0.200	pCi/g						
Antimony-124	U	0.0148	+/-0.0333	0.0545	0.100	pCi/g						
Antimony-125	U	0.0243	+/-0.0576	0.105	0.200	pCi/g						
Barium-133	U	-0.00553	+/-0.0312	0.0483	0.100	pCi/g						
Barium-140	U	-0.0527	+/-0.448	0.778	0.500	pCi/g						
Beryllium-7	U	-0.0534	+/-0.254	0.440	0.700	pCi/g						
Bismuth-212		0.685	+/-0.318	0.313	0.500	pCi/g						
Bismuth-214		0.832	+/-0.107	0.0766	0.200	pCi/g						
Cerium-139	U	0.0178	+/-0.0234	0.0419	0.050	pCi/g						
Cerium-141	U	0.0177	+/-0.0729	0.121	0.100	pCi/g						
Cerium-144	U	0.0216	+/-0.153	0.270	0.500	pCi/g						
Cesium-134	U	0.0294	+/-0.026	0.0503	0.100	pCi/g						
Cesium-136	U	0.117	+/-0.189	0.352	0.300	pCi/g						
Cesium-137	U	-0.0126	+/-0.0203	0.0354	0.100	pCi/g						
Chromium-51	U	-0.069	+/-0.379	0.675	0.600	pCi/g						
Cobalt-56	U	-0.0351	+/-0.0273	0.0436	0.100	pCi/g						
Cobalt-57	U	-0.0117	+/-0.0192	0.033	0.050	pCi/g						
Cobalt-58	U	-0.0257	+/-0.0279	0.0465	0.100	pCi/g						
Cobalt-60	U	0.00281	+/-0.0248	0.0457	0.100	pCi/g						
Europium-152	U	0.012	+/-0.061	0.111	0.200	pCi/g						
Europium-154	U	0.00582	+/-0.0669	0.124	0.500	pCi/g						
Europium-155	U	-0.0181	+/-0.0774	0.137	0.500	pCi/g						
Iridium-192	U	0.0202	+/-0.0262	0.0491	0.100	pCi/g						
Iron-59	U	-0.058	+/-0.0741	0.121	0.300	pCi/g						
Lead-210	U	2.11	+/-4.17	7.16	4.00	pCi/g						
Lead-212		0.957	+/-0.0789	0.0653	0.100	pCi/g						
Lead-214		1.00	+/-0.105	0.0785	0.100	pCi/g						
Manganese-54	U	-0.00341	+/-0.024	0.0425	0.100	pCi/g						
Mercury-203	U	0.0403	+/-0.057	0.0591	0.100	pCi/g						
Neodymium-147	U	0.0424	+/-1.25	2.19	1000	pCi/g						
Neptunium-239	U	0.0989	+/-0.146	0.238	2.00	pCi/g						
Niobium-94	U	0.00372	+/-0.0191	0.0351	1.00	pCi/g						
Niobium-95	U	0.0166	+/-0.0466	0.0757	0.050	pCi/g						
Potassium-40		21.9	+/-1.20	0.311	1.00	pCi/g						
Promethium-144	U	0.00186	+/-0.020	0.0366	0.080	pCi/g						
Promethium-146	U	0.00292	+/-0.0262	0.0466	1.00	pCi/g						
Radium-226		0.832	+/-0.107	0.0766	1.00	pCi/g						
Radium-228		0.903	+/-0.172	0.171	0.500	pCi/g						

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0805-F366-H/I/J-SS4
Sample ID: 125850013

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.0365	+/-0.186	0.346	0.800	pCi/g						
Silver-110m	U	-0.00566	+/-0.0185	0.0331	0.080	pCi/g						
Sodium-22	U	0.00216	+/-0.0242	0.0447	0.080	pCi/g						
Thallium-208		0.288	+/-0.0542	0.0368	0.080	pCi/g						
Thorium-230		0.832	+/-0.107	0.0766	1.00	pCi/g						
Thorium-232		0.924	+/-0.0763	0.0631	0.500	pCi/g						
Thorium-234	U	0.520	+/-1.23	2.05	2.00	pCi/g						
Tin-113	U	-0.026	+/-0.0293	0.0493	0.100	pCi/g						
Uranium-234		1.02	+/-0.162	0.156	1.00	pCi/g						
Uranium-235	U	0.0387	+/-0.160	0.261	0.500	pCi/g						
Uranium-238	U	0.520	+/-1.23	2.05	1.00	pCi/g						
Yttrium-88	U	0.000978	+/-0.0248	0.046	0.100	pCi/g						
Zinc-65	U	0.0475	+/-0.0645	0.110	0.300	pCi/g						
Zirconium-95	U	0.0542	+/-0.055	0.106	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0806-A416-H/IJ-SS3
Sample ID: 125850014
Matrix: Soil
Collect Date: 16-NOV-04 14:45
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.940	+/-0.353	0.244	0.800	pCi/g		AKB	12/21/04	1002	383029	1
Americium-241	U	0.236	+/-0.274	0.462	0.200	pCi/g						
Antimony-124	U	-0.00639	+/-0.043	0.0755	0.100	pCi/g						
Antimony-125	U	0.0719	+/-0.0833	0.160	0.200	pCi/g						
Barium-133	U	0.0322	+/-0.0431	0.0735	0.100	pCi/g						
Barium-140	U	-0.602	+/-0.771	1.24	0.500	pCi/g						
Beryllium-7	U	-0.161	+/-0.388	0.673	0.700	pCi/g						
Bismuth-212		0.721	+/-0.373	0.441	0.500	pCi/g						
Bismuth-214		1.24	+/-0.230	0.106	0.200	pCi/g						
Cerium-139	U	0.0013	+/-0.0343	0.0591	0.050	pCi/g						
Cerium-141	U	0.0598	+/-0.103	0.183	0.100	pCi/g						
Cerium-144	U	-0.0858	+/-0.230	0.392	0.500	pCi/g						
Cesium-134	UUI	0.00	+/-0.0824	0.0884	0.100	pCi/g						
Cesium-136	U	0.127	+/-0.290	0.556	0.300	pCi/g						
Cesium-137	U	0.0136	+/-0.0354	0.0649	0.100	pCi/g						
Chromium-51	U	0.0342	+/-0.568	1.04	0.600	pCi/g						
Cobalt-56	U	0.00418	+/-0.0423	0.0794	0.100	pCi/g						
Cobalt-57	U	0.0243	+/-0.029	0.0524	0.050	pCi/g						
Cobalt-58	U	0.00617	+/-0.044	0.0829	0.100	pCi/g						
Cobalt-60	U	0.0441	+/-0.0602	0.0676	0.100	pCi/g						
Europium-152	U	-0.0378	+/-0.0954	0.168	0.200	pCi/g						
Europium-154	U	-0.00734	+/-0.111	0.202	0.500	pCi/g						
Europium-155	U	0.0764	+/-0.114	0.206	0.500	pCi/g						
Iridium-192	U	-0.00864	+/-0.0379	0.068	0.100	pCi/g						
Iron-59	U	-0.00177	+/-0.132	0.239	0.300	pCi/g						
Lead-210	U	-5.73	+/-10.3	16.2	4.00	pCi/g						
Lead-212		1.09	+/-0.141	0.0964	0.100	pCi/g						
Lead-214		1.57	+/-0.221	0.118	0.100	pCi/g						
Manganese-54	U	-0.00195	+/-0.0371	0.0682	0.100	pCi/g						
Mercury-203	U	0.0376	+/-0.0533	0.100	0.100	pCi/g						
Neodymium-147	U	-0.0436	+/-1.86	3.32	1000	pCi/g						
Neptunium-239	U	0.116	+/-0.203	0.364	2.00	pCi/g						
Niobium-94	U	0.00281	+/-0.0294	0.0527	1.00	pCi/g						
Niobium-95	U	0.0279	+/-0.0828	0.131	0.050	pCi/g						
Potassium-40		25.6	+/-2.53	0.574	1.00	pCi/g						
Promethium-144	U	0.0238	+/-0.0344	0.0643	0.080	pCi/g						
Promethium-146	U	0.00662	+/-0.0426	0.0773	1.00	pCi/g						
Radium-226		1.24	+/-0.230	0.106	1.00	pCi/g						
Radium-228		0.940	+/-0.353	0.244	0.500	pCi/g						

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2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: December 21, 2004

Client Sample ID: E0806-A416-H/I/J-SS3
Sample ID: 125850014

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.073	+/-0.307	0.558	0.800	pCi/g						
Silver-110m	U	-0.0122	+/-0.0346	0.0592	0.080	pCi/g						
Sodium-22	U	-0.00266	+/-0.0401	0.0729	0.080	pCi/g						
Thallium-208		0.352	+/-0.0901	0.0606	0.080	pCi/g						
Thorium-230		1.24	+/-0.230	0.106	1.00	pCi/g						
Thorium-232		1.05	+/-0.136	0.0931	0.500	pCi/g						
Thorium-234	U	2.31	+/-2.47	3.11	2.00	pCi/g						
Tin-113	U	-0.0309	+/-0.0483	0.0831	0.100	pCi/g						
Uranium-234		1.48	+/-0.294	0.230	1.00	pCi/g						
Uranium-235	U	0.0181	+/-0.233	0.404	0.500	pCi/g						
Uranium-238	U	2.31	+/-2.47	3.11	1.00	pCi/g						
Yttrium-88	U	0.016	+/-0.0244	0.0592	0.100	pCi/g						
Zinc-65	U	-0.0245	+/-0.108	0.165	0.300	pCi/g						
Zirconium-95	U	0.0108	+/-0.0821	0.147	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0811-A766-H/I-SS3
Sample ID: 125850015
Matrix: Soil
Collect Date: 16-NOV-04 15:25
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		1.14	+/-0.324	0.308	0.800	pCi/g		AKB	12/21/04	1003	383029	1
Americium-241	U	0.0191	+/-0.104	0.172	0.200	pCi/g						
Antimony-124	U	-0.015	+/-0.0644	0.112	0.100	pCi/g						
Antimony-125	U	0.0297	+/-0.0957	0.179	0.200	pCi/g						
Barium-133	U	0.0142	+/-0.0505	0.0834	0.100	pCi/g						
Barium-140	U	-0.546	+/-0.880	1.46	0.500	pCi/g						
Beryllium-7	U	0.129	+/-0.526	0.962	0.700	pCi/g						
Bismuth-212	U	0.464	+/-0.556	0.693	0.500	pCi/g						
Bismuth-214		0.981	+/-0.206	0.147	0.200	pCi/g						
Cerium-139	U	-0.0255	+/-0.0349	0.0586	0.050	pCi/g						
Cerium-141	U	0.0525	+/-0.109	0.195	0.100	pCi/g						
Cerium-144	U	-0.0358	+/-0.235	0.411	0.500	pCi/g						
Cesium-134	U	0.0804	+/-0.0714	0.0952	0.100	pCi/g						
Cesium-136	U	-0.0461	+/-0.348	0.636	0.300	pCi/g						
Cesium-137	U	0.0601	+/-0.084	0.0814	0.100	pCi/g						
Chromium-51	U	-0.578	+/-0.681	1.18	0.600	pCi/g						
Cobalt-56	U	0.0343	+/-0.0541	0.107	0.100	pCi/g						
Cobalt-57	U	0.00642	+/-0.0278	0.0499	0.050	pCi/g						
Cobalt-58	U	-0.00753	+/-0.0583	0.107	0.100	pCi/g						
Cobalt-60	U	0.00863	+/-0.0515	0.0962	0.100	pCi/g						
Europium-152	U	0.019	+/-0.111	0.204	0.200	pCi/g						
Europium-154	U	0.057	+/-0.142	0.273	0.500	pCi/g						
Europium-155	U	-0.0594	+/-0.126	0.194	0.500	pCi/g						
Iridium-192	U	0.00184	+/-0.0443	0.0814	0.100	pCi/g						
Iron-59	U	-0.00953	+/-0.149	0.273	0.300	pCi/g						
Lead-210	U	1.04	+/-1.50	1.85	4.00	pCi/g						
Lead-212		0.963	+/-0.134	0.111	0.100	pCi/g						
Lead-214		1.05	+/-0.237	0.136	0.100	pCi/g						
Manganese-54	U	-0.0217	+/-0.0482	0.0856	0.100	pCi/g						
Mercury-203	U	-0.0395	+/-0.0569	0.101	0.100	pCi/g						
Neodymium-147	U	-0.90	+/-2.36	4.09	1000	pCi/g						
Neptunium-239	U	0.227	+/-0.205	0.381	2.00	pCi/g						
Niobium-94	U	0.0213	+/-0.0419	0.0776	1.00	pCi/g						
Niobium-95	U	0.00939	+/-0.0913	0.170	0.050	pCi/g						
Potassium-40		23.2	+/-2.46	0.756	1.00	pCi/g						
Promethium-144	U	-0.000321	+/-0.0438	0.0775	0.080	pCi/g						
Promethium-146	U	-0.0166	+/-0.0554	0.0975	1.00	pCi/g						
Radium-226		0.981	+/-0.206	0.147	1.00	pCi/g						
Radium-228		1.14	+/-0.324	0.308	0.500	pCi/g						

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Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0811-A766-H/I-SS3
Sample ID: 125850015

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.398	+/-0.400	0.773	0.800	pCi/g						
Silver-110m	U	0.030	+/-0.0626	0.0792	0.080	pCi/g						
Sodium-22	U	0.0213	+/-0.0516	0.0992	0.080	pCi/g						
Thallium-208		0.447	+/-0.0912	0.0758	0.080	pCi/g						
Thorium-230		0.981	+/-0.206	0.147	1.00	pCi/g						
Thorium-232		0.930	+/-0.130	0.107	0.500	pCi/g						
Thorium-234		1.77	+/-1.81	1.54	2.00	pCi/g						
Tin-113	U	-0.000277	+/-0.054	0.0984	0.100	pCi/g						
Uranium-234		1.01	+/-0.307	0.262	1.00	pCi/g						
Uranium-235	U	0.149	+/-0.241	0.432	0.500	pCi/g						
Uranium-238		1.77	+/-1.81	1.54	1.00	pCi/g						
Yttrium-88	U	-0.00611	+/-0.0422	0.0833	0.100	pCi/g						
Zinc-65	U	-0.0538	+/-0.125	0.185	0.300	pCi/g						
Zirconium-95	U	-0.000979	+/-0.0977	0.183	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0811-F761-H/IJ-SS1
Sample ID: 125850016
Matrix: Soil
Collect Date: 16-NOV-04 15:40
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.919	+/-0.295	0.245	0.800	pCi/g		AKB	12/21/04	1025	383029	1
Americium-241	U	0.0674	+/-0.240	0.400	0.200	pCi/g						
Antimony-124	U	-0.00718	+/-0.0439	0.0768	0.100	pCi/g						
Antimony-125	U	-0.044	+/-0.0896	0.156	0.200	pCi/g						
Barium-133	U	0.000279	+/-0.0431	0.0692	0.100	pCi/g						
Barium-140	U	0.114	+/-0.624	1.13	0.500	pCi/g						
Beryllium-7	U	-0.213	+/-0.395	0.683	0.700	pCi/g						
Bismuth-212		0.541	+/-0.317	0.490	0.500	pCi/g						
Bismuth-214		3.42	+/-0.368	0.110	0.200	pCi/g						
Cerium-139	U	0.0108	+/-0.0328	0.0581	0.050	pCi/g						
Cerium-141	U	0.0784	+/-0.104	0.169	0.100	pCi/g						
Cerium-144	U	-0.00121	+/-0.213	0.377	0.500	pCi/g						
Cesium-134	U	0.0157	+/-0.038	0.0688	0.100	pCi/g						
Cesium-136	U	-0.0325	+/-0.282	0.507	0.300	pCi/g						
Cesium-137		0.401	+/-0.0661	0.0564	0.100	pCi/g						
Chromium-51	U	-0.296	+/-0.592	1.05	0.600	pCi/g						
Cobalt-56	U	0.0156	+/-0.0419	0.0759	0.100	pCi/g						
Cobalt-57	U	-0.00353	+/-0.0261	0.0462	0.050	pCi/g						
Cobalt-58	U	-0.0335	+/-0.0429	0.0693	0.100	pCi/g						
Cobalt-60	U	-0.0217	+/-0.0364	0.0615	0.100	pCi/g						
Europium-152	U	-0.000593	+/-0.0938	0.170	0.200	pCi/g						
Europium-154	U	-0.0431	+/-0.127	0.219	0.500	pCi/g						
Europium-155	U	0.0912	+/-0.102	0.187	0.500	pCi/g						
Iridium-192	U	0.00279	+/-0.0387	0.0708	0.100	pCi/g						
Iron-59	U	-0.0845	+/-0.120	0.203	0.300	pCi/g						
Lead-210	U	5.03	+/-8.53	14.6	4.00	pCi/g						
Lead-212		0.816	+/-0.118	0.111	0.100	pCi/g						
Lead-214		3.83	+/-0.396	0.117	0.100	pCi/g						
Manganese-54	U	-0.0342	+/-0.0377	0.0599	0.100	pCi/g						
Mercury-203	U	-0.0226	+/-0.0556	0.0927	0.100	pCi/g						
Neodymium-147	U	-2.3	+/-1.79	2.85	1000	pCi/g						
Neptunium-239	U	-0.018	+/-0.183	0.325	2.00	pCi/g						
Niobium-94	U	0.0153	+/-0.0312	0.0567	1.00	pCi/g						
Niobium-95	UUI	0.00	+/-0.0847	0.152	0.050	pCi/g						
Potassium-40		21.6	+/-2.31	0.572	1.00	pCi/g						
Promethium-144	U	0.00249	+/-0.0297	0.0529	0.080	pCi/g						
Promethium-146	U	0.00709	+/-0.0385	0.0701	1.00	pCi/g						
Radium-226		3.42	+/-0.368	0.110	1.00	pCi/g						
Radium-228		0.919	+/-0.295	0.245	0.500	pCi/g						

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Certificate of Analysis

Company : Parsons Engineering
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0811-F761-H/I/J-SS1
Sample ID: 125850016

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	-0.10	+/-0.332	0.498	0.800	pCi/g						
Silver-110m	U	-0.0373	+/-0.0372	0.0506	0.080	pCi/g						
Sodium-22	U	-0.0157	+/-0.0458	0.0793	0.080	pCi/g						
Thallium-208		0.274	+/-0.0646	0.0611	0.080	pCi/g						
Thorium-230		3.42	+/-0.368	0.110	1.00	pCi/g						
Thorium-232		0.788	+/-0.114	0.107	0.500	pCi/g						
Thorium-234	U	2.93	+/-2.82	2.99	2.00	pCi/g						
Tin-113	U	-0.0166	+/-0.0549	0.0852	0.100	pCi/g						
Uranium-234		3.76	+/-0.479	0.220	1.00	pCi/g						
Uranium-235	U	0.172	+/-0.231	0.374	0.500	pCi/g						
Uranium-238	U	2.93	+/-2.82	2.99	1.00	pCi/g						
Yttrium-88	U	0.0316	+/-0.0379	0.0816	0.100	pCi/g						
Zinc-65	U	0.0489	+/-0.0858	0.147	0.300	pCi/g						
Zirconium-95	U	0.0257	+/-0.0764	0.138	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Company : Parsons Engineering
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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0811-F761-H/I/J-SS4
Sample ID: 125850017
Matrix: Soil
Collect Date: 16-NOV-04 13:48
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.798	+/-0.413	0.487	0.800	pCi/g		AKB	12/21/04	1025	383029	1
Americium-241	U	0.0702	+/-0.119	0.199	0.200	pCi/g						
Antimony-124	U	-0.00654	+/-0.0847	0.142	0.100	pCi/g						
Antimony-125	U	0.123	+/-0.184	0.325	0.200	pCi/g						
Barium-133	U	0.00335	+/-0.0835	0.131	0.100	pCi/g						
Barium-140	U	0.293	+/-1.32	2.28	0.500	pCi/g						
Beryllium-7	U	-0.492	+/-0.830	1.22	0.700	pCi/g						
Bismuth-212	U	0.345	+/-0.491	0.910	0.500	pCi/g						
Bismuth-214		19.3	+/-1.86	0.200	0.200	pCi/g						
Cerium-139	U	0.021	+/-0.0612	0.103	0.050	pCi/g						
Cerium-141	UUI	0.00	+/-0.197	0.290	0.100	pCi/g						
Cerium-144	U	-0.38	+/-0.384	0.625	0.500	pCi/g						
Cesium-134	U	0.0126	+/-0.0704	0.127	0.100	pCi/g						
Cesium-136	U	-0.0536	+/-0.598	0.905	0.300	pCi/g						
Cesium-137	U	0.0729	+/-0.0697	0.104	0.100	pCi/g						
Chromium-51	U	0.541	+/-1.01	1.82	0.600	pCi/g						
Cobalt-56	U	0.0403	+/-0.120	0.143	0.100	pCi/g						
Cobalt-57	U	0.0158	+/-0.0451	0.0777	0.050	pCi/g						
Cobalt-58	U	-0.0228	+/-0.0977	0.150	0.100	pCi/g						
Cobalt-60	U	-0.0416	+/-0.0666	0.115	0.100	pCi/g						
Europium-152	U	0.0223	+/-0.174	0.308	0.200	pCi/g						
Europium-154	U	0.122	+/-0.220	0.390	0.500	pCi/g						
Europium-155	U	0.0711	+/-0.161	0.281	0.500	pCi/g						
Iridium-192	U	-0.048	+/-0.0688	0.119	0.100	pCi/g						
Iron-59	UUI	0.00	+/-0.355	0.400	0.300	pCi/g						
Lead-210		8.62	+/-1.84	1.52	4.00	pCi/g						
Lead-212		0.848	+/-0.160	0.173	0.100	pCi/g						
Lead-214		20.7	+/-1.89	0.217	0.100	pCi/g						
Manganese-54	U	-0.0151	+/-0.0803	0.123	0.100	pCi/g						
Mercury-203	U	-0.0188	+/-0.0884	0.157	0.100	pCi/g						
Neodymium-147	U	0.0322	+/-3.59	6.13	1000	pCi/g						
Neptunium-239	U	0.0913	+/-0.312	0.538	2.00	pCi/g						
Niobium-94	UUI	0.00	+/-0.0768	0.112	1.00	pCi/g						
Niobium-95	UUI	0.00	+/-0.145	0.267	0.050	pCi/g						
Potassium-40		17.5	+/-2.31	1.30	1.00	pCi/g						
Promethium-144	U	0.0115	+/-0.0563	0.102	0.080	pCi/g						
Promethium-146	U	0.0948	+/-0.0808	0.145	1.00	pCi/g						
Radium-226		19.3	+/-1.86	0.200	1.00	pCi/g						
Radium-228		0.798	+/-0.413	0.487	0.500	pCi/g						

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0811-F761-H/I/J-SS4
Sample ID: 125850017

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.199	+/-0.518	0.959	0.800	pCi/g						
Silver-110m	U	-0.0324	+/-0.0577	0.101	0.080	pCi/g						
Sodium-22	U	0.0435	+/-0.0793	0.141	0.080	pCi/g						
Thallium-208		0.226	+/-0.084	0.114	0.080	pCi/g						
Thorium-230		19.3	+/-1.86	0.200	1.00	pCi/g						
Thorium-232		0.819	+/-0.155	0.167	0.500	pCi/g						
Thorium-234		16.8	+/-3.68	1.87	2.00	pCi/g						
Tin-113	U	-0.177	+/-0.0929	0.149	0.100	pCi/g						
Uranium-234		20.5	+/-2.00	0.395	1.00	pCi/g						
Uranium-235		1.40	+/-0.629	0.735	0.500	pCi/g						
Uranium-238		16.8	+/-3.68	1.87	1.00	pCi/g						
Yttrium-88	UUI	0.00	+/-0.0792	0.132	0.100	pCi/g						
Zinc-65	U	0.0644	+/-0.179	0.280	0.300	pCi/g						
Zirconium-95	U	0.128	+/-0.151	0.281	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TCI	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: December 21, 2004

Client Sample ID: E0811-F766-I-SS1
Sample ID: 125850018
Matrix: Soil
Collect Date: 13-NOV-04 08:00
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		1.39	+/-0.584	0.567	0.800	pCi/g		AKB	12/21/04	1156	383029	1
Americium-241	U	-0.0143	+/-0.461	0.839	0.200	pCi/g						
Antimony-124	U	0.00673	+/-0.107	0.187	0.100	pCi/g						
Antimony-125	U	0.322	+/-0.262	0.447	0.200	pCi/g						
Barium-133	U	0.021	+/-0.121	0.182	0.100	pCi/g						
Barium-140	U	-0.147	+/-2.25	3.49	0.500	pCi/g						
Beryllium-7	U	-1.06	+/-1.12	1.68	0.700	pCi/g						
Bismuth-212	U	0.967	+/-0.644	1.17	0.500	pCi/g						
Bismuth-214		42.5	+/-3.63	0.254	0.200	pCi/g						
Cerium-139	U	0.0515	+/-0.103	0.162	0.050	pCi/g						
Cerium-141	UUI	0.00	+/-0.347	0.499	0.100	pCi/g						
Cerium-144	U	-0.364	+/-0.583	1.01	0.500	pCi/g						
Cesium-134	U	-0.0516	+/-0.0925	0.155	0.100	pCi/g						
Cesium-136	U	-0.914	+/-0.866	1.38	0.300	pCi/g						
Cesium-137		0.443	+/-0.144	0.136	0.100	pCi/g						
Chromium-51	U	0.782	+/-1.70	2.90	0.600	pCi/g						
Cobalt-56	U	0.0443	+/-0.113	0.196	0.100	pCi/g						
Cobalt-57	U	0.0666	+/-0.0722	0.129	0.050	pCi/g						
Cobalt-58	U	-0.0673	+/-0.133	0.194	0.100	pCi/g						
Cobalt-60	U	0.0259	+/-0.0978	0.174	0.100	pCi/g						
Europium-152	U	0.122	+/-0.257	0.436	0.200	pCi/g						
Europium-154	U	0.171	+/-0.354	0.503	0.500	pCi/g						
Europium-155	U	0.0891	+/-0.279	0.498	0.500	pCi/g						
Iridium-192	U	-0.0652	+/-0.110	0.183	0.100	pCi/g						
Iron-59	U	0.0579	+/-0.297	0.505	0.300	pCi/g						
Lead-210		39.5	+/-17.9	21.0	4.00	pCi/g						
Lead-212		0.813	+/-0.244	0.251	0.100	pCi/g						
Lead-214		51.8	+/-4.39	0.300	0.100	pCi/g						
Manganese-54	U	-0.0849	+/-0.108	0.154	0.100	pCi/g						
Mercury-203	U	0.0334	+/-0.147	0.250	0.100	pCi/g						
Neodymium-147	U	-0.326	+/-6.25	9.69	1000	pCi/g						
Neptunium-239	U	0.161	+/-0.507	0.901	2.00	pCi/g						
Niobium-94	UUI	0.00	+/-0.112	0.149	1.00	pCi/g						
Niobium-95	UUI	0.00	+/-0.239	0.407	0.050	pCi/g						
Potassium-40		22.2	+/-2.75	1.69	1.00	pCi/g						
Promethium-144	U	-0.0519	+/-0.0772	0.131	0.080	pCi/g						
Promethium-146	UUI	0.00	+/-0.166	0.194	1.00	pCi/g						
Radium-226		42.5	+/-3.63	0.254	1.00	pCi/g						
Radium-228		1.39	+/-0.584	0.567	0.500	pCi/g						

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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0811-F766-I-SS1
Sample ID: 125850018

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	-0.165	+/-0.695	1.20	0.800	pCi/g						
Silver-110m	U	-0.0263	+/-0.0883	0.133	0.080	pCi/g						
Sodium-22	U	0.062	+/-0.128	0.163	0.080	pCi/g						
Thallium-208		0.356	+/-0.135	0.136	0.080	pCi/g						
Thorium-230		42.5	+/-3.63	0.254	1.00	pCi/g						
Thorium-232		0.783	+/-0.235	0.241	0.500	pCi/g						
Thorium-234		39.9	+/-9.67	6.72	2.00	pCi/g						
Tin-113	U	-0.0541	+/-0.146	0.214	0.100	pCi/g						
Uranium-234		51.2	+/-4.58	0.581	1.00	pCi/g						
Uranium-235		3.14	+/-1.09	1.15	0.500	pCi/g						
Uranium-238		39.9	+/-9.67	6.72	1.00	pCi/g						
Yttrium-88	U	0.184	+/-0.169	0.186	0.100	pCi/g						
Zinc-65	U	0.0971	+/-0.226	0.343	0.300	pCi/g						
Zirconium-95	U	-0.188	+/-0.199	0.329	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TCI	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC
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Certificate of Analysis

Company : Parsons Engineering
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: December 21, 2004

Client Sample ID: E0811-F766-I-SS2
Sample ID: 125850019
Matrix: Soil
Collect Date: 13-NOV-04 08:10
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		1.16	+/-0.350	0.232	0.800	pCi/g		AKB	12/21/04	1208	383029	1
Americium-241	U	-0.0488	+/-0.293	0.465	0.200	pCi/g						
Antimony-124	U	-0.0198	+/-0.0522	0.0891	0.100	pCi/g						
Antimony-125	U	0.0636	+/-0.0962	0.180	0.200	pCi/g						
Barium-133	U	0.0132	+/-0.0522	0.084	0.100	pCi/g						
Barium-140	U	0.177	+/-0.959	1.72	0.500	pCi/g						
Beryllium-7	U	0.162	+/-0.461	0.840	0.700	pCi/g						
Bismuth-212		0.497	+/-0.428	0.449	0.500	pCi/g						
Bismuth-214		1.94	+/-0.277	0.118	0.200	pCi/g						
Cerium-139	U	-0.0297	+/-0.0397	0.0655	0.050	pCi/g						
Cerium-141	U	0.0769	+/-0.115	0.190	0.100	pCi/g						
Cerium-144	U	0.0296	+/-0.246	0.428	0.500	pCi/g						
Cesium-134	U	-0.00772	+/-0.0417	0.0716	0.100	pCi/g						
Cesium-136	U	0.173	+/-0.363	0.694	0.300	pCi/g						
Cesium-137		0.302	+/-0.0768	0.0581	0.100	pCi/g						
Chromium-51	U	0.128	+/-0.684	1.25	0.600	pCi/g						
Cobalt-56	U	0.0122	+/-0.0447	0.0851	0.100	pCi/g						
Cobalt-57	U	0.00823	+/-0.0309	0.0544	0.050	pCi/g						
Cobalt-58	U	-0.0244	+/-0.0516	0.0911	0.100	pCi/g						
Cobalt-60	U	0.030	+/-0.0366	0.0748	0.100	pCi/g						
Europium-152	U	-0.0162	+/-0.104	0.186	0.200	pCi/g						
Europium-154	U	-0.0202	+/-0.124	0.222	0.500	pCi/g						
Europium-155	U	0.0734	+/-0.141	0.230	0.500	pCi/g						
Iridium-192	U	0.00444	+/-0.0451	0.0818	0.100	pCi/g						
Iron-59	U	0.0691	+/-0.126	0.244	0.300	pCi/g						
Lead-210	U	2.16	+/-11.6	19.0	4.00	pCi/g						
Lead-212		1.11	+/-0.155	0.105	0.100	pCi/g						
Lead-214		2.49	+/-0.298	0.130	0.100	pCi/g						
Manganese-54	U	-0.0153	+/-0.0403	0.0717	0.100	pCi/g						
Mercury-203	U	0.0238	+/-0.0614	0.113	0.100	pCi/g						
Neodymium-147	U	0.856	+/-2.40	4.40	1000	pCi/g						
Neptunium-239	U	0.0196	+/-0.219	0.382	2.00	pCi/g						
Niobium-94	U	0.00292	+/-0.0347	0.0613	1.00	pCi/g						
Niobium-95	U	0.040	+/-0.0824	0.134	0.050	pCi/g						
Potassium-40		22.5	+/-2.29	0.647	1.00	pCi/g						
Promethium-144	U	0.00957	+/-0.0378	0.0676	0.080	pCi/g						
Promethium-146	U	0.00857	+/-0.0443	0.0803	1.00	pCi/g						
Radium-226		1.94	+/-0.277	0.118	1.00	pCi/g						
Radium-228		1.16	+/-0.350	0.232	0.500	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0811-F766-I-SS2
Sample ID: 125850019

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.025	+/-0.328	0.585	0.800	pCi/g						
Silver-110m	U	-0.0246	+/-0.0399	0.0563	0.080	pCi/g						
Sodium-22	U	-0.00721	+/-0.0451	0.0804	0.080	pCi/g						
Thallium-208		0.292	+/-0.0873	0.0667	0.080	pCi/g						
Thorium-230		1.94	+/-0.277	0.118	1.00	pCi/g						
Thorium-232		1.06	+/-0.150	0.101	0.500	pCi/g						
Thorium-234	U	1.92	+/-2.77	3.34	2.00	pCi/g						
Tin-113	U	-0.0208	+/-0.0594	0.0906	0.100	pCi/g						
Uranium-234		2.60	+/-0.391	0.261	1.00	pCi/g						
Uranium-235	U	0.252	+/-0.348	0.445	0.500	pCi/g						
Uranium-238	U	1.92	+/-2.77	3.34	1.00	pCi/g						
Yttrium-88	U	-0.00892	+/-0.0422	0.076	0.100	pCi/g						
Zinc-65	U	0.0153	+/-0.134	0.149	0.300	pCi/g						
Zirconium-95	U	0.0224	+/-0.0877	0.159	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gei.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0811-F766-I/J-SS3
Sample ID: 125850020
Matrix: Soil
Collect Date: 16-NOV-04 15:15
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228	UUI	0.00	+/-0.219	0.373	0.800	pCi/g		AKB	12/21/04	1200	383029	1
Americium-241	U	0.0772	+/-0.194	0.349	0.200	pCi/g						
Antimony-124	U	-0.003	+/-0.0368	0.0669	0.100	pCi/g						
Antimony-125	U	0.139	+/-0.0797	0.156	0.200	pCi/g						
Barium-133	U	-0.00768	+/-0.0388	0.0596	0.100	pCi/g						
Barium-140	U	0.187	+/-0.617	1.16	0.500	pCi/g						
Beryllium-7	U	-0.0336	+/-0.324	0.597	0.700	pCi/g						
Bismuth-212	U	0.374	+/-0.348	0.430	0.500	pCi/g						
Bismuth-214		2.35	+/-0.181	0.0914	0.200	pCi/g						
Cerium-139	U	-9.660E-05	+/-0.0284	0.0521	0.050	pCi/g						
Cerium-141	U	0.0721	+/-0.0876	0.152	0.100	pCi/g						
Cerium-144	U	-0.0233	+/-0.183	0.338	0.500	pCi/g						
Cesium-134	U	0.0126	+/-0.0352	0.0649	0.100	pCi/g						
Cesium-136	U	-0.167	+/-0.284	0.421	0.300	pCi/g						
Cesium-137		0.0543	+/-0.0357	0.0501	0.100	pCi/g						
Chromium-51	U	0.177	+/-0.504	0.912	0.600	pCi/g						
Cobalt-56	U	0.0116	+/-0.0342	0.0642	0.100	pCi/g						
Cobalt-57	U	-0.00213	+/-0.0226	0.0422	0.050	pCi/g						
Cobalt-58	UUI	0.00	+/-0.121	0.0671	0.100	pCi/g						
Cobalt-60	U	-0.00311	+/-0.034	0.0622	0.100	pCi/g						
Europium-152	U	0.00455	+/-0.0917	0.161	0.200	pCi/g						
Europium-154	U	-0.0394	+/-0.0999	0.176	0.500	pCi/g						
Europium-155	UUI	0.00	+/-0.145	0.170	0.500	pCi/g						
Iridium-192	U	-0.00945	+/-0.0359	0.0623	0.100	pCi/g						
Iron-59	U	-0.0668	+/-0.109	0.190	0.300	pCi/g						
Lead-210	U	1.30	+/-8.22	13.7	4.00	pCi/g						
Lead-212		0.739	+/-0.0862	0.095	0.100	pCi/g						
Lead-214		2.79	+/-0.196	0.107	0.100	pCi/g						
Manganese-54	U	0.00715	+/-0.0328	0.0597	0.100	pCi/g						
Mercury-203	U	0.0362	+/-0.0513	0.0858	0.100	pCi/g						
Neodymium-147	U	0.147	+/-1.54	2.87	1000	pCi/g						
Neptunium-239	U	0.151	+/-0.170	0.329	2.00	pCi/g						
Niobium-94	U	0.00674	+/-0.0273	0.0503	1.00	pCi/g						
Niobium-95	UUI	0.00	+/-0.131	0.139	0.050	pCi/g						
Potassium-40		17.4	+/-1.36	0.535	1.00	pCi/g						
Promethium-144	U	-0.0177	+/-0.0284	0.0487	0.080	pCi/g						
Promethium-146	U	0.0202	+/-0.0347	0.067	1.00	pCi/g						
Radium-226		2.35	+/-0.181	0.0914	1.00	pCi/g						
Radium-228	UUI	0.00	+/-0.219	0.373	0.500	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: E0811-F766-I/J-SS3
Sample ID: 125850020

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.0604	+/-0.279	0.516	0.800	pCi/g						
Silver-110m	U	-0.0192	+/-0.0316	0.0468	0.080	pCi/g						
Sodium-22	U	-0.0149	+/-0.0361	0.0634	0.080	pCi/g						
Thallium-208		0.240	+/-0.0548	0.0523	0.080	pCi/g						
Thorium-230		2.35	+/-0.181	0.0914	1.00	pCi/g						
Thorium-232		0.714	+/-0.0833	0.0918	0.500	pCi/g						
Thorium-234	UUI	0.00	+/-2.86	2.70	2.00	pCi/g						
Tin-113	U	-0.0359	+/-0.0436	0.0714	0.100	pCi/g						
Uranium-234		2.96	+/-0.298	0.203	1.00	pCi/g						
Uranium-235	U	0.236	+/-0.275	0.358	0.500	pCi/g						
Uranium-238	UUI	0.00	+/-2.86	2.70	1.00	pCi/g						
Yttrium-88	U	0.0338	+/-0.0282	0.0674	0.100	pCi/g						
Zinc-65	U	0.053	+/-0.0395	0.127	0.300	pCi/g						
Zirconium-95	U	0.0193	+/-0.0773	0.127	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: A1107-B3-SS1
Sample ID: 125850021
Matrix: Soil
Collect Date: 11-NOV-04 15:00
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.714	+/-0.242	0.185	0.800	pCi/g		AKB	12/21/04	0741	383030	1
Americium-241	U	-0.0662	+/-0.124	0.211	0.200	pCi/g						
Antimony-124	U	-0.004	+/-0.0338	0.0625	0.100	pCi/g						
Antimony-125	U	-0.0208	+/-0.0679	0.117	0.200	pCi/g						
Barium-133	U	0.0171	+/-0.034	0.0566	0.100	pCi/g						
Barium-140	U	-0.197	+/-0.697	1.27	0.500	pCi/g						
Beryllium-7	U	-0.229	+/-0.343	0.530	0.700	pCi/g						
Bismuth-212		0.777	+/-0.300	0.396	0.500	pCi/g						
Bismuth-214		0.873	+/-0.147	0.0791	0.200	pCi/g						
Cerium-139	U	0.00497	+/-0.0232	0.0432	0.050	pCi/g						
Cerium-141	U	0.0301	+/-0.0737	0.139	0.100	pCi/g						
Cerium-144	U	-0.0724	+/-0.144	0.262	0.500	pCi/g						
Cesium-134	U	0.0289	+/-0.0556	0.0635	0.100	pCi/g						
Cesium-136	U	-0.0415	+/-0.307	0.547	0.300	pCi/g						
Cesium-137		0.196	+/-0.055	0.0549	0.100	pCi/g						
Chromium-51	U	-0.0632	+/-0.482	0.855	0.600	pCi/g						
Cobalt-56	U	-0.0174	+/-0.0358	0.0621	0.100	pCi/g						
Cobalt-57	U	0.00823	+/-0.0179	0.0344	0.050	pCi/g						
Cobalt-58	U	-0.0225	+/-0.034	0.0582	0.100	pCi/g						
Cobalt-60	U	0.0272	+/-0.0316	0.0654	0.100	pCi/g						
Europium-152	U	0.045	+/-0.0661	0.124	0.200	pCi/g						
Europium-154	U	0.0414	+/-0.0896	0.185	0.500	pCi/g						
Europium-155	U	-0.00785	+/-0.0741	0.140	0.500	pCi/g						
Iridium-192	U	0.00722	+/-0.0293	0.0536	0.100	pCi/g						
Iron-59	U	0.0102	+/-0.110	0.199	0.300	pCi/g						
Lead-210	U	-1.52	+/-3.33	5.28	4.00	pCi/g						
Lead-212		0.994	+/-0.113	0.0695	0.100	pCi/g						
Lead-214		0.861	+/-0.132	0.0884	0.100	pCi/g						
Manganese-54	U	-0.00292	+/-0.0282	0.0512	0.100	pCi/g						
Mercury-203	U	0.0546	+/-0.055	0.0735	0.100	pCi/g						
Neodymium-147	U	-0.376	+/-1.77	3.27	1000	pCi/g						
Neptunium-239	U	0.0554	+/-0.129	0.247	2.00	pCi/g						
Niobium-94	U	-0.0106	+/-0.0228	0.0404	1.00	pCi/g						
Niobium-95	U	-0.0124	+/-0.0628	0.113	0.050	pCi/g						
Potassium-40		23.7	+/-2.19	0.450	1.00	pCi/g						
Promethium-144	U	0.0282	+/-0.0268	0.0535	0.080	pCi/g						
Promethium-146	U	-0.0114	+/-0.0292	0.0497	1.00	pCi/g						
Radium-226		0.873	+/-0.147	0.0791	1.00	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons Engineering
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: A1107-B3-SS1
Sample ID: 125850021

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Radium-228		0.714	+/-0.242	0.185	0.500	pCi/g						
Ruthenium-106	U	-0.20	+/-0.226	0.386	0.800	pCi/g						
Silver-110m	U	0.0229	+/-0.0301	0.0535	0.080	pCi/g						
Sodium-22	U	0.015	+/-0.0325	0.070	0.080	pCi/g						
Thallium-208		0.304	+/-0.0747	0.0466	0.080	pCi/g						
Thorium-230		0.873	+/-0.147	0.0791	1.00	pCi/g						
Thorium-232		0.955	+/-0.108	0.0668	0.500	pCi/g						
Thorium-234	U	0.471	+/-1.23	1.84	2.00	pCi/g						
Tin-113	U	0.0248	+/-0.035	0.0658	0.100	pCi/g						
Uranium-234		0.912	+/-0.232	0.169	1.00	pCi/g						
Uranium-235	U	-0.0126	+/-0.145	0.268	0.500	pCi/g						
Uranium-238	U	0.471	+/-1.23	1.84	1.00	pCi/g						
Yttrium-88	U	-0.00361	+/-0.024	0.0475	0.100	pCi/g						
Zinc-65	U	-0.0578	+/-0.0836	0.116	0.300	pCi/g						
Zirconium-95	U	-0.0254	+/-0.0716	0.127	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: B0806-B5-SS2
Sample ID: 125850022
Matrix: Soil
Collect Date: 11-NOV-04 15:50
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		1.03	+/-0.272	0.176	0.800	pCi/g		AKB	12/21/04	0741	383030	1
Americium-241	U	-0.0719	+/-0.169	0.291	0.200	pCi/g						
Antimony-124	U	-0.0188	+/-0.0368	0.0645	0.100	pCi/g						
Antimony-125	U	0.00961	+/-0.0763	0.134	0.200	pCi/g						
Barium-133	U	-0.00186	+/-0.0343	0.060	0.100	pCi/g						
Barium-140	U	-0.243	+/-0.731	1.32	0.500	pCi/g						
Beryllium-7	U	0.240	+/-0.342	0.666	0.700	pCi/g						
Bismuth-212		0.771	+/-0.366	0.395	0.500	pCi/g						
Bismuth-214		0.891	+/-0.142	0.0888	0.200	pCi/g						
Cerium-139	U	0.000654	+/-0.0267	0.0489	0.050	pCi/g						
Cerium-141	U	0.0837	+/-0.0936	0.133	0.100	pCi/g						
Cerium-144	U	0.124	+/-0.170	0.325	0.500	pCi/g						
Cesium-134	U	0.0615	+/-0.0495	0.0686	0.100	pCi/g						
Cesium-136	U	-0.103	+/-0.321	0.579	0.300	pCi/g						
Cesium-137		0.0978	+/-0.0448	0.0496	0.100	pCi/g						
Chromium-51	U	0.440	+/-0.520	0.978	0.600	pCi/g						
Cobalt-56	U	0.00832	+/-0.0399	0.073	0.100	pCi/g						
Cobalt-57	U	0.0111	+/-0.0203	0.0389	0.050	pCi/g						
Cobalt-58	U	0.00667	+/-0.038	0.0699	0.100	pCi/g						
Cobalt-60	U	0.011	+/-0.0352	0.0673	0.100	pCi/g						
Europium-152	U	0.0483	+/-0.0771	0.142	0.200	pCi/g						
Europium-154	U	-0.0538	+/-0.106	0.183	0.500	pCi/g						
Europium-155	U	0.0843	+/-0.0813	0.160	0.500	pCi/g						
Iridium-192	U	-0.0185	+/-0.032	0.0543	0.100	pCi/g						
Iron-59	U	-0.0566	+/-0.117	0.206	0.300	pCi/g						
Lead-210	U	1.55	+/-8.17	11.5	4.00	pCi/g						
Lead-212		1.18	+/-0.0977	0.082	0.100	pCi/g						
Lead-214		1.08	+/-0.121	0.0932	0.100	pCi/g						
Manganese-54	U	-0.00101	+/-0.0327	0.0582	0.100	pCi/g						
Mercury-203	U	-0.0209	+/-0.0499	0.0862	0.100	pCi/g						
Neodymium-147	U	0.300	+/-2.09	3.89	1000	pCi/g						
Neptunium-239	U	0.0265	+/-0.140	0.265	2.00	pCi/g						
Niobium-94	U	0.0166	+/-0.0269	0.0512	1.00	pCi/g						
Niobium-95	U	0.122	+/-0.0821	0.129	0.050	pCi/g						
Potassium-40		23.5	+/-1.56	0.471	1.00	pCi/g						
Promethium-144	U	-0.0116	+/-0.0271	0.0473	0.080	pCi/g						
Promethium-146	U	0.0124	+/-0.0344	0.0655	1.00	pCi/g						
Radium-226		0.891	+/-0.142	0.0888	1.00	pCi/g						
Radium-228		1.03	+/-0.272	0.176	0.500	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: B0806-B5-SS2
Sample ID: 125850022

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	-0.294	+/-0.234	0.376	0.800	pCi/g						
Silver-110m	U	-0.0155	+/-0.031	0.0463	0.080	pCi/g						
Sodium-22	U	-0.0195	+/-0.0384	0.0664	0.080	pCi/g						
Thallium-208		0.306	+/-0.0623	0.0539	0.080	pCi/g						
Thorium-230		0.891	+/-0.142	0.0888	1.00	pCi/g						
Thorium-232		1.13	+/-0.0939	0.0789	0.500	pCi/g						
Thorium-234	U	0.666	+/-1.69	2.51	2.00	pCi/g						
Tin-113	UUI	0.00	+/-0.0674	0.0695	0.100	pCi/g						
Uranium-234		1.22	+/-0.239	0.190	1.00	pCi/g						
Uranium-235	U	0.262	+/-0.220	0.331	0.500	pCi/g						
Uranium-238	U	0.666	+/-1.69	2.51	1.00	pCi/g						
Yttrium-88	U	-0.0067	+/-0.0318	0.0582	0.100	pCi/g						
Zinc-65	U	-0.0442	+/-0.143	0.140	0.300	pCi/g						
Zirconium-95	U	0.00674	+/-0.0702	0.128	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gei.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: CO912-A1-SS2
Sample ID: 125850023
Matrix: Soil
Collect Date: 15-NOV-04 14:20
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.823	+/-0.267	0.201	0.800	pCi/g		AKB	12/21/04	0742	383030	1
Americium-241	U	-0.0225	+/-0.127	0.228	0.200	pCi/g						
Antimony-124	U	-0.0262	+/-0.0417	0.0629	0.100	pCi/g						
Antimony-125	U	0.00119	+/-0.0721	0.128	0.200	pCi/g						
Barium-133	U	-0.00218	+/-0.0364	0.0577	0.100	pCi/g						
Barium-140	U	-0.185	+/-0.560	1.03	0.500	pCi/g						
Beryllium-7	U	-0.336	+/-0.318	0.550	0.700	pCi/g						
Bismuth-212	U	0.193	+/-0.392	0.443	0.500	pCi/g						
Bismuth-214		0.671	+/-0.138	0.0964	0.200	pCi/g						
Cerium-139	U	0.010	+/-0.025	0.0474	0.050	pCi/g						
Cerium-141	U	-0.0304	+/-0.0717	0.132	0.100	pCi/g						
Cerium-144	U	-0.0562	+/-0.159	0.296	0.500	pCi/g						
Cesium-134	U	0.0338	+/-0.0365	0.0717	0.100	pCi/g						
Cesium-136	UUI	0.00	+/-0.946	0.474	0.300	pCi/g						
Cesium-137		0.149	+/-0.0485	0.0554	0.100	pCi/g						
Chromium-51	U	0.146	+/-0.514	0.939	0.600	pCi/g						
Cobalt-56	U	0.021	+/-0.0326	0.065	0.100	pCi/g						
Cobalt-57	U	-0.0132	+/-0.0208	0.0343	0.050	pCi/g						
Cobalt-58	U	-0.0249	+/-0.0394	0.0671	0.100	pCi/g						
Cobalt-60	U	0.033	+/-0.0297	0.0644	0.100	pCi/g						
Europium-152	U	-0.00217	+/-0.0743	0.133	0.200	pCi/g						
Europium-154	U	-0.0411	+/-0.0957	0.170	0.500	pCi/g						
Europium-155	U	0.0589	+/-0.0758	0.151	0.500	pCi/g						
Iridium-192	U	-0.0269	+/-0.0328	0.0555	0.100	pCi/g						
Iron-59	U	-0.112	+/-0.102	0.169	0.300	pCi/g						
Lead-210	U	3.65	+/-5.47	6.05	4.00	pCi/g						
Lead-212		0.831	+/-0.0871	0.0847	0.100	pCi/g						
Lead-214		0.828	+/-0.132	0.0948	0.100	pCi/g						
Manganese-54	U	0.00438	+/-0.0331	0.0607	0.100	pCi/g						
Mercury-203	U	-0.000516	+/-0.0472	0.085	0.100	pCi/g						
Neodymium-147	U	0.649	+/-1.55	3.02	1000	pCi/g						
Neptunium-239	U	0.0131	+/-0.139	0.267	2.00	pCi/g						
Niobium-94	U	-0.00595	+/-0.0262	0.0471	1.00	pCi/g						
Niobium-95	U	-0.0846	+/-0.0598	0.0934	0.050	pCi/g						
Potassium-40		18.7	+/-1.40	0.512	1.00	pCi/g						
Promethium-144	U	-0.0137	+/-0.0286	0.0501	0.080	pCi/g						
Promethium-146	U	0.0157	+/-0.0322	0.0632	1.00	pCi/g						
Radium-226		0.671	+/-0.138	0.0964	1.00	pCi/g						
Radium-228		0.823	+/-0.267	0.201	0.500	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Parsons Engineering
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Cleveland, Ohio 44119
Contact : Ms. Katie Kadlubak
Project : SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: CO912-A1-SS2
Sample ID: 125850023

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	0.242	+/-0.263	0.526	0.800	pCi/g						
Silver-110m	U	-0.00615	+/-0.0327	0.0518	0.080	pCi/g						
Sodium-22	U	-0.0175	+/-0.0349	0.0613	0.080	pCi/g						
Thallium-208		0.280	+/-0.0612	0.0543	0.080	pCi/g						
Thorium-230		0.671	+/-0.138	0.0964	1.00	pCi/g						
Thorium-232		0.802	+/-0.084	0.0817	0.500	pCi/g						
Thorium-234	U	0.378	+/-1.03	1.89	2.00	pCi/g						
Tin-113	U	0.011	+/-0.0402	0.073	0.100	pCi/g						
Uranium-234		0.941	+/-0.217	0.177	1.00	pCi/g						
Uranium-235	U	0.0627	+/-0.156	0.299	0.500	pCi/g						
Uranium-238	U	0.378	+/-1.03	1.89	1.00	pCi/g						
Yttrium-88	U	-0.00919	+/-0.0273	0.0497	0.100	pCi/g						
Zinc-65	U	-0.00698	+/-0.0803	0.130	0.300	pCi/g						
Zirconium-95	U	-0.0571	+/-0.0665	0.111	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Certificate of Analysis

Company : Parsons Engineering
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: December 21, 2004

Client Sample ID: DO405-B2-SS1
Sample ID: 125850024
Matrix: Soil
Collect Date: 15-NOV-04 14:30
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.559	+/-0.177	0.193	0.800	pCi/g		AKB	12/21/04	0742	383030	1
Americium-241	U	0.0439	+/-0.0969	0.198	0.200	pCi/g						
Antimony-124	U	0.0225	+/-0.0301	0.0614	0.100	pCi/g						
Antimony-125	U	0.054	+/-0.0605	0.111	0.200	pCi/g						
Barium-133	U	0.0145	+/-0.0299	0.0525	0.100	pCi/g						
Barium-140	U	-0.282	+/-0.484	0.855	0.500	pCi/g						
Beryllium-7	U	0.104	+/-0.260	0.505	0.700	pCi/g						
Bismuth-212		0.496	+/-0.329	0.377	0.500	pCi/g						
Bismuth-214		0.679	+/-0.102	0.0771	0.200	pCi/g						
Cerium-139	U	0.0125	+/-0.0199	0.0356	0.050	pCi/g						
Cerium-141	U	0.0734	+/-0.0673	0.102	0.100	pCi/g						
Cerium-144	U	-0.0918	+/-0.128	0.234	0.500	pCi/g						
Cesium-134	UUI	0.00	+/-0.0437	0.0446	0.100	pCi/g						
Cesium-136	U	0.213	+/-0.205	0.427	0.300	pCi/g						
Cesium-137		0.0632	+/-0.0382	0.0464	0.100	pCi/g						
Chromium-51	U	-0.132	+/-0.374	0.704	0.600	pCi/g						
Cobalt-56	U	0.0179	+/-0.0298	0.0601	0.100	pCi/g						
Cobalt-57	U	-0.00223	+/-0.0158	0.030	0.050	pCi/g						
Cobalt-58	U	-0.02	+/-0.0308	0.0551	0.100	pCi/g						
Cobalt-60	U	0.00546	+/-0.0283	0.0535	0.100	pCi/g						
Europium-152	U	-0.0128	+/-0.0596	0.112	0.200	pCi/g						
Europium-154	U	0.0352	+/-0.0783	0.153	0.500	pCi/g						
Europium-155	U	0.0443	+/-0.0671	0.133	0.500	pCi/g						
Iridium-192	U	-0.0026	+/-0.0256	0.0488	0.100	pCi/g						
Iron-59	U	0.0357	+/-0.0877	0.169	0.300	pCi/g						
Lead-210	U	1.07	+/-3.02	4.59	4.00	pCi/g						
Lead-212		0.755	+/-0.0712	0.0604	0.100	pCi/g						
Lead-214		0.645	+/-0.0939	0.0861	0.100	pCi/g						
Manganese-54	U	0.00286	+/-0.0239	0.046	0.100	pCi/g						
Mercury-203	UUI	0.00	+/-0.0622	0.0531	0.100	pCi/g						
Neodymium-147	U	-0.917	+/-1.21	2.11	1000	pCi/g						
Neptunium-239	U	0.0756	+/-0.118	0.232	2.00	pCi/g						
Niobium-94	U	0.00794	+/-0.0207	0.0394	1.00	pCi/g						
Niobium-95	U	0.00291	+/-0.0542	0.0862	0.050	pCi/g						
Potassium-40		12.9	+/-1.16	0.340	1.00	pCi/g						
Promethium-144	U	0.0108	+/-0.0218	0.0419	0.080	pCi/g						
Promethium-146	U	-0.00265	+/-0.0302	0.0496	1.00	pCi/g						
Radium-226		0.679	+/-0.102	0.0771	1.00	pCi/g						
Radium-228		0.559	+/-0.177	0.193	0.500	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: December 21, 2004

Client Sample ID: DO405-B2-SS1
Sample ID: 125850024

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	-0.0695	+/-0.211	0.377	0.800	pCi/g						
Silver-110m	U	-0.00238	+/-0.0279	0.0442	0.080	pCi/g						
Sodium-22	U	0.0126	+/-0.0283	0.0553	0.080	pCi/g						
Thallium-208		0.242	+/-0.061	0.0409	0.080	pCi/g						
Thorium-230		0.679	+/-0.102	0.0771	1.00	pCi/g						
Thorium-232		0.728	+/-0.0687	0.0583	0.500	pCi/g						
Thorium-234	U	0.781	+/-1.18	1.58	2.00	pCi/g						
Tin-113	U	-0.0176	+/-0.0298	0.0541	0.100	pCi/g						
Uranium-234		0.701	+/-0.167	0.141	1.00	pCi/g						
Uranium-235	U	0.197	+/-0.164	0.250	0.500	pCi/g						
Uranium-238	U	0.781	+/-1.18	1.58	1.00	pCi/g						
Yttrium-88	U	0.0177	+/-0.0239	0.0549	0.100	pCi/g						
Zinc-65	U	0.0484	+/-0.0694	0.123	0.300	pCi/g						
Zirconium-95	U	-0.0176	+/-0.0513	0.0903	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: December 21, 2004

Client Sample ID: EO403-A2-SS2
Sample ID: 125850025
Matrix: Soil
Collect Date: 15-NOV-04 15:30
Receive Date: 18-NOV-04
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		1.09	+/-0.195	0.167	0.800	pCi/g		AKB	12/21/04	0743	383030	1
Americium-241	U	-0.0134	+/-0.130	0.208	0.200	pCi/g						
Antimony-124	U	-0.00806	+/-0.0382	0.0682	0.100	pCi/g						
Antimony-125	U	-0.00965	+/-0.0679	0.125	0.200	pCi/g						
Barium-133	U	-0.00669	+/-0.0364	0.0557	0.100	pCi/g						
Barium-140	U	0.497	+/-0.602	1.18	0.500	pCi/g						
Beryllium-7	U	-0.00867	+/-0.280	0.522	0.700	pCi/g						
Bismuth-212		0.721	+/-0.364	0.379	0.500	pCi/g						
Bismuth-214		0.667	+/-0.129	0.0971	0.200	pCi/g						
Cerium-139	UUI	0.00	+/-0.0469	0.0411	0.050	pCi/g						
Cerium-141	U	-0.0477	+/-0.0666	0.118	0.100	pCi/g						
Cerium-144	U	-0.0924	+/-0.154	0.277	0.500	pCi/g						
Cesium-134	U	0.0639	+/-0.0533	0.0674	0.100	pCi/g						
Cesium-136	U	0.258	+/-0.260	0.513	0.300	pCi/g						
Cesium-137	UUI	0.00	+/-0.0773	0.0556	0.100	pCi/g						
Chromium-51	U	0.302	+/-0.448	0.833	0.600	pCi/g						
Cobalt-56	U	-0.00971	+/-0.0366	0.0638	0.100	pCi/g						
Cobalt-57	U	0.00457	+/-0.0177	0.0334	0.050	pCi/g						
Cobalt-58	U	0.0378	+/-0.0336	0.0641	0.100	pCi/g						
Cobalt-60	U	0.00404	+/-0.0291	0.0555	0.100	pCi/g						
Europium-152	U	-0.0216	+/-0.0721	0.124	0.200	pCi/g						
Europium-154	U	0.0135	+/-0.0961	0.180	0.500	pCi/g						
Europium-155	U	0.0588	+/-0.0753	0.146	0.500	pCi/g						
Iridium-192	U	-0.0123	+/-0.0296	0.0507	0.100	pCi/g						
Iron-59	U	-0.0259	+/-0.0927	0.168	0.300	pCi/g						
Lead-210	U	2.21	+/-3.75	6.38	4.00	pCi/g						
Lead-212		0.896	+/-0.0763	0.0865	0.100	pCi/g						
Lead-214		0.917	+/-0.120	0.0882	0.100	pCi/g						
Manganese-54	U	-0.00637	+/-0.0305	0.0534	0.100	pCi/g						
Mercury-203	U	0.00565	+/-0.0409	0.0732	0.100	pCi/g						
Neodymium-147	U	-0.277	+/-1.45	2.64	1000	pCi/g						
Neptunium-239	U	-0.0397	+/-0.126	0.232	2.00	pCi/g						
Niobium-94	U	0.00359	+/-0.0271	0.0493	1.00	pCi/g						
Niobium-95	U	0.00506	+/-0.0582	0.0931	0.050	pCi/g						
Potassium-40		20.4	+/-1.44	0.474	1.00	pCi/g						
Promethium-144	U	0.0163	+/-0.029	0.0547	0.080	pCi/g						
Promethium-146	U	0.00678	+/-0.031	0.0588	1.00	pCi/g						
Radium-226		0.667	+/-0.129	0.0971	1.00	pCi/g						
Radium-228		1.09	+/-0.195	0.167	0.500	pCi/g						

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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: December 21, 2004

Client Sample ID: EO403-A2-SS2
Sample ID: 125850025

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Ruthenium-106	U	-0.195	+/-0.229	0.385	0.800	pCi/g						
Silver-110m	U	0.00856	+/-0.0315	0.052	0.080	pCi/g						
Sodium-22	U	0.00435	+/-0.0347	0.0648	0.080	pCi/g						
Thallium-208		0.296	+/-0.0674	0.0424	0.080	pCi/g						
Thorium-230		0.667	+/-0.129	0.0971	1.00	pCi/g						
Thorium-232		0.865	+/-0.0737	0.0825	0.500	pCi/g						
Thorium-234	U	1.45	+/-1.62	1.70	2.00	pCi/g						
Tin-113	U	-0.02	+/-0.0352	0.0633	0.100	pCi/g						
Uranium-234		1.01	+/-0.162	0.154	1.00	pCi/g						
Uranium-235	U	0.0194	+/-0.146	0.270	0.500	pCi/g						
Uranium-238	U	1.45	+/-1.62	1.70	1.00	pCi/g						
Yttrium-88	U	-0.0105	+/-0.0298	0.0556	0.100	pCi/g						
Zinc-65	U	-0.0381	+/-0.0809	0.121	0.300	pCi/g						
Zirconium-95	U	0.0213	+/-0.0721	0.133	0.200	pCi/g						

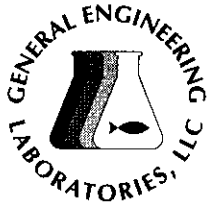
The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	11/22/04	1110	382653

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

**Interior Concrete Analysis
SEAD-48
Seneca Army Depot Activity**



GENERAL ENGINEERING LABORATORIES, LLC

a Member of THE GEL GROUP, INC.

Meeting Today's Needs with a Vision for Tomorrow

February 21, 2005

Ms. Katie Kadlubak
Parsons Engineering Science, Inc.
19101 Villaview Rd.
Suite 100
Cleveland, OH 44119

RE: Project # 740497

Dear Ms. Kadlubak:

Enclosed is the data package for SDG 129436, received on January 25, 2005, from the Seneca Army Depot, SEAD 48 Project. The samples were analyzed for Radiochemistry parameters.

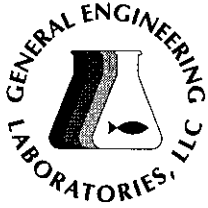
General Engineering Laboratories appreciates this opportunity to provide you with analytical results, and trusts that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171.

Sincerely,

Cheryl Jones
Project Manager

Enclosure

PARSONS ENGINEERING SCIENCE, INC.
SENECA ARMY DEPOT
SEAD 48
SDG 129436



GENERAL ENGINEERING LABORATORIES, LLC

a Member of THE GEL GROUP, INC.

Meeting Today's Needs with a Vision for Tomorrow

**CASE NARRATIVE
for
Parsons Engineering Science, Inc.
Seneca Army Depot
SEAD 48 Project
SDG 129436**

February 21, 2005

Laboratory Identification:

General Engineering Laboratories, LLC

Mailing Address:

P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29414

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The sample(s) arrived at General Engineering Laboratories, LLC (GEL) Charleston, South Carolina on January 25, 2005, for environmental analyses. All sample containers arrived without any visible signs of tampering or breakage. The samples were delivered with chain of custody documentation and signatures.

The laboratory received the following sample(s):

**Laboratory
Identification**
129436001

**Sample
Description**
C0912-CORE 1

Case Narrative

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Internal Chain of Custody:

Custody was maintained for all samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry Analysis.

This data package, to the best of my knowledge, is in compliance with technical and administrative requirements.



Cheryl Jones
Project Manager

**Radiochemistry Case Narrative
Parsons Engineering, Inc. (PARS)
Work Order 129436**

Method/Analysis Information

Product:	Gammasec, Gamma, Solid w/Ra226
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	397145
Prep Batch Number:	396831

Sample ID	Client ID
129436001	C0912-CORE 1
1200778270	Method Blank (MB)
1200778271	129436001(C0912-CORE 1) Sample Duplicate (DUP)
1200778272	Laboratory Control Sample (LCS)

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 129436001 (C0912-CORE 1).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to interference.	Manganese-54	129436001
UI	Data rejected due to low abundance.	Barium-140	1200778271
UI	Data rejected due to no valid peak.	Beryllium-7	1200778270
		Cerium-139	1200778270
		Lead-210	129436001

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Metelli G. C. 2/28/05

Reviewer: _____

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: February 28, 2005

Client Sample ID: C0912-CORE 1
Sample ID: 129436001
Matrix: Solid
Collect Date: 21-JAN-05 12:30
Receive Date: 25-JAN-05
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.307	+/-0.122	0.120	0.800	pCi/g		AKB	02/22/05	0703	397145	1
Americium-241	U	0.0183	+/-0.0221	0.0424	0.200	pCi/g						
Antimony-124	U	0.0205	+/-0.022	0.0417	0.100	pCi/g						
Antimony-125	U	-0.0179	+/-0.0428	0.0745	0.200	pCi/g						
Barium-133	U	-0.00798	+/-0.0186	0.0327	0.100	pCi/g						
Barium-140	U	-0.352	+/-0.324	0.477	0.500	pCi/g						
Beryllium-7	U	-0.00346	+/-0.186	0.331	0.700	pCi/g						
Bismuth-212	U	0.250	+/-0.257	0.275	0.500	pCi/g						
Bismuth-214		0.317	+/-0.0912	0.0602	0.200	pCi/g						
Cerium-139	U	0.000542	+/-0.0147	0.0215	0.050	pCi/g						
Cerium-141	U	0.0215	+/-0.0421	0.0556	0.100	pCi/g						
Cerium-144	U	0.00392	+/-0.0792	0.140	0.500	pCi/g						
Cesium-134	U	0.00526	+/-0.0303	0.039	0.100	pCi/g						
Cesium-136	U	-0.0617	+/-0.126	0.215	0.300	pCi/g						
Cesium-137	U	-0.0052	+/-0.0185	0.0337	0.100	pCi/g						
Chromium-51	U	0.165	+/-0.243	0.462	0.600	pCi/g						
Cobalt-56	U	0.0231	+/-0.0304	0.0434	0.100	pCi/g						
Cobalt-57	U	-0.00426	+/-0.0103	0.0178	0.050	pCi/g						
Cobalt-58	U	0.0187	+/-0.0232	0.0456	0.100	pCi/g						
Cobalt-60	U	-0.0135	+/-0.0195	0.0338	0.100	pCi/g						
Europium-152	U	0.0262	+/-0.0378	0.0726	0.200	pCi/g						
Europium-154	U	0.00888	+/-0.0652	0.117	0.500	pCi/g						
Europium-155	U	0.0392	+/-0.0614	0.0637	0.500	pCi/g						
Iridium-192	U	0.00459	+/-0.0169	0.0315	0.100	pCi/g						
Iron-59	U	0.0189	+/-0.0616	0.114	0.300	pCi/g						
Lead-210	UUU	0.00	+/-0.422	0.356	4.00	pCi/g						
Lead-212		0.336	+/-0.0503	0.0397	0.100	pCi/g						
Lead-214		0.365	+/-0.0801	0.0517	0.100	pCi/g						
Manganese-54	UUU	0.00	+/-0.0414	0.0324	0.100	pCi/g						
Mercury-203	U	-0.0115	+/-0.0194	0.0346	0.100	pCi/g						
Neodymium-147	U	0.407	+/-0.751	1.39	1000	pCi/g						
Neptunium-239	U	-0.041	+/-0.0674	0.115	2.00	pCi/g						
Niobium-94	U	-4.170E-06	+/-0.0168	0.0312	1.00	pCi/g						
Niobium-95	U	0.0254	+/-0.0584	0.0515	0.050	pCi/g						
Potassium-40		7.12	+/-0.866	0.343	1.00	pCi/g						
Promethium-144	U	-0.00666	+/-0.0182	0.0327	0.080	pCi/g						
Promethium-146	U	0.0109	+/-0.0209	0.0387	1.00	pCi/g						
Radium-226		0.317	+/-0.0912	0.0602	1.00	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: February 28, 2005

Client Sample ID: C0912-CORE 1
Sample ID: 129436001

Project: PESI00103
Client ID: PESI003

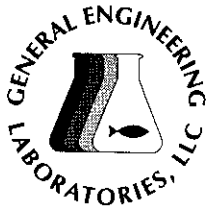
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Radium-228		0.307	+/-0.122	0.120	0.500	pCi/g						
Ruthenium-106	U	0.084	+/-0.169	0.295	0.800	pCi/g						
Silver-110m	U	-0.00177	+/-0.0162	0.0302	0.080	pCi/g						
Sodium-22	U	0.00315	+/-0.0235	0.0423	0.080	pCi/g						
Thallium-208		0.136	+/-0.0484	0.033	0.080	pCi/g						
Thorium-230		0.317	+/-0.0912	0.0602	1.00	pCi/g						
Thorium-232		0.326	+/-0.0487	0.0385	0.500	pCi/g						
Thorium-234	U	0.0685	+/-0.472	0.422	2.00	pCi/g						
Tin-113	U	0.00712	+/-0.0219	0.0405	0.100	pCi/g						
Uranium-234		0.288	+/-0.120	0.103	1.00	pCi/g						
Uranium-235	U	0.0722	+/-0.124	0.152	0.500	pCi/g						
Uranium-238	U	0.0685	+/-0.472	0.422	1.00	pCi/g						
Yttrium-88	U	0.00862	+/-0.0179	0.0383	0.100	pCi/g						
Zinc-65	U	0.0177	+/-0.0517	0.085	0.300	pCi/g						
Zirconium-95	U	-0.0237	+/-0.0401	0.0703	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	01/25/05	1523	396831

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	



GENERAL ENGINEERING LABORATORIES, LLC

a Member of THE GEL GROUP, INC.

Meeting Today's Needs with a Vision for Tomorrow

March 8, 2005

Ms. Katie Kadlubak
Parsons Engineering Science, Inc.
19101 Villaview Rd.
Suite 100
Cleveland, OH 44119

RE: Project # 740497

Dear Ms. Kadlubak:

Enclosed is the data package for SDG 130088, received on February 4, 2005, from the Seneca Army Depot, SEAD 48 Project. The samples were analyzed for Radiochemistry parameters.

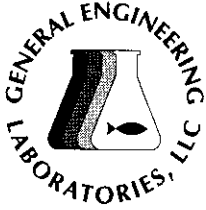
General Engineering Laboratories appreciates this opportunity to provide you with analytical results, and trusts that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171.

Sincerely,

Cheryl Jones
Project Manager

Enclosure

PARSONS ENGINEERING SCIENCE, INC.
SENECA ARMY DEPOT
SEAD 48
SDG 130088



GENERAL ENGINEERING LABORATORIES, LLC

a Member of THE GEL GROUP, INC.

Meeting Today's Needs with a Vision for Tomorrow

CASE NARRATIVE
for
Parsons Engineering Science, Inc.
Seneca Army Depot
SEAD 48 Project
SDG 130088

March 8, 2005

Laboratory Identification:

General Engineering Laboratories, LLC
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29414

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The sample(s) arrived at General Engineering Laboratories, LLC (GEL) Charleston, South Carolina on February 4, 2005, for environmental analyses. All sample containers arrived without any visible signs of tampering or breakage. The samples were delivered with chain of custody documentation and signatures.

The laboratory received the following sample(s):

Laboratory Sample

<u>Identification</u>	<u>Description</u>
130088001	E0806A10HS1
130088002	E0806A10HS2
130088003	E08062305

Case Narrative

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Internal Chain of Custody:

Custody was maintained for all samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry Analysis.

This data package, to the best of my knowledge, is in compliance with technical and administrative requirements.



Cheryl Jones
Project Manager

**Radiochemistry Case Narrative
Parsons Engineering, Inc. (PARS)
Work Order 130088**

Method/Analysis Information

Product:	Gammasec, Gamma, Solid w/Ra226
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	399806
Prep Batch Number:	399641

Sample ID	Client ID
130088001	E0806A10HS1
130088002	E0806A10HS2
1200784785	Method Blank (MB)
1200784786	130088001(E0806A10HS1) Sample Duplicate (DUP)
1200784787	Laboratory Control Sample (LCS)

SOP Reference

Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 130088001 (E0806A10HS1).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to no valid peak.	Lead-210	1200784785

Method/Analysis Information

Product: Gammaspec, Gamma, Liquid
Analytical Method: EPA 901.1
Analytical Batch Number: 399767

Sample ID	Client ID
130088003	E08062305
1200784724	Method Blank (MB)
1200784725	130088003(E08062305) Sample Duplicate (DUP)
1200784726	130088003(E08062305) Matrix Spike (MS)
1200784727	Laboratory Control Sample (LCS)

SOP Reference

Procedures for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 10.

Calibration Information:**Calibration Information**

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:**Blank Information**

The blank volume is representative of the sample volume in this batch.

Designated QC

The following sample was used for QC: 130088003 (E08062305).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:**Holding Time**

All sample procedures for this sample set were performed within the required holding time.

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An NCR was not generated for this SDG.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to no valid peak.	Cerium-141	1200784725

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Heather G. Cudow 3/15/05

Reviewer: _____

Page: _____ of _____

Project #: _____

GEL Quote #: _____

COC Number (U): _____

PO Number: _____

Client Name: **PARSONS**

Project/Site Name: **SEAD 48**

Address: **150 Federal Street Boston MA 02110**

Collected by: **McAllister**

Phone #: **617-449-1592**

Fax #: _____

Send Results To: **Katie Kodlowski**

General Engineering Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

GEL Chain of Custody and Analytical Request

Client Name: PARSONS		Phone #: 617-449-1592																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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Sample ID 1300881.	Date Collected (mm-dd-yy)	Time Collected (Military) (hh:mm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)												Preservative Type (6)	Comments Note: extra sample is required for sample specific QC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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TAT Requested: Normal: _____ Rush: _____ Specify: _____ (Subject to Surcharge) Fax Results: Yes / No

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Chain of Custody Signatures				Sample Shipping and Delivery Details			
Relinquished By (Signed)	Date	Time	Received by (Signed)	Date	Time	GEL PM:	
1 Ben McAllister	2/3/05	16:00	1 Phil	2/4/05	9:00		
2			2			Method of Shipment:	Date Shipped:
3			3			Airbill #:	

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: DW = Drinking Water, GW = Groundwater, SW = Surface Water, WW = Waste Water, W = Water, SO = Soil, SD = Sediment, SL = Sludge, SS = Solid Waste, O = Oil, F = Filter, P = Wipe, U = Urine, F = Fecal, N = Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooling Temp: 19.0 C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: March 10, 2005

Client Sample ID: E0806A10HS1
Sample ID: 130088001
Matrix: Solid
Collect Date: 03-FEB-05 15:00
Receive Date: 04-FEB-05
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.314	+/-0.132	0.134	0.800	pCi/g						
Americium-241	U	0.0662	+/-0.0976	0.181	0.200	pCi/g		MJH1	03/09/05	0657	399806	1
Antimony-124	U	0.0419	+/-0.0418	0.0569	0.100	pCi/g						
Antimony-125	U	0.0292	+/-0.0539	0.104	0.200	pCi/g						
Barium-133	U	0.0236	+/-0.0254	0.0466	0.100	pCi/g						
Barium-140	U	0.322	+/-0.361	0.739	0.500	pCi/g						
Beryllium-7	U	0.0932	+/-0.217	0.442	0.700	pCi/g						
Bismuth-212	U	0.132	+/-0.196	0.324	0.500	pCi/g						
Bismuth-214		0.521	+/-0.108	0.071	0.200	pCi/g						
Cerium-139	U	0.000696	+/-0.0169	0.0333	0.050	pCi/g						
Cerium-141	U	-0.0275	+/-0.0486	0.0935	0.100	pCi/g						
Cerium-144	U	0.0285	+/-0.110	0.222	0.500	pCi/g						
Cesium-134	U	-0.0146	+/-0.0265	0.0396	0.100	pCi/g						
Cesium-136	U	-0.00458	+/-0.146	0.273	0.300	pCi/g						
Cesium-137	U	-0.0138	+/-0.0215	0.0383	0.100	pCi/g						
Chromium-51	U	0.174	+/-0.323	0.632	0.600	pCi/g						
Cobalt-56	U	0.0343	+/-0.0339	0.0571	0.100	pCi/g						
Cobalt-57	U	0.00982	+/-0.014	0.0291	0.050	pCi/g						
Cobalt-58	U	-0.0205	+/-0.0255	0.0432	0.100	pCi/g						
Cobalt-60	U	-0.00823	+/-0.0201	0.0367	0.100	pCi/g						
Europium-152	U	0.0107	+/-0.0569	0.107	0.200	pCi/g						
Europium-154	U	-0.0487	+/-0.054	0.0899	0.500	pCi/g						
Europium-155	U	-0.0314	+/-0.0553	0.109	0.500	pCi/g						
Iridium-192	U	-0.0106	+/-0.0243	0.0439	0.100	pCi/g						
Iron-59	U	-0.0221	+/-0.0779	0.125	0.300	pCi/g						
Lead-210	U	1.21	+/-2.63	4.90	4.00	pCi/g						
Lead-212		0.270	+/-0.058	0.0628	0.100	pCi/g						
Lead-214		0.729	+/-0.112	0.0744	0.100	pCi/g						
Manganese-54	U	0.00124	+/-0.0235	0.0441	0.100	pCi/g						
Mercury-203	U	0.0194	+/-0.031	0.0607	0.100	pCi/g						
Neodymium-147	U	0.520	+/-1.01	1.87	1000	pCi/g						
Neptunium-239	U	0.145	+/-0.133	0.200	2.00	pCi/g						
Niobium-94	U	-0.000126	+/-0.019	0.0361	1.00	pCi/g						
Niobium-95	U	0.0487	+/-0.0372	0.0751	0.050	pCi/g						
Potassium-40		7.41	+/-0.971	0.350	1.00	pCi/g						
Promethium-144	U	-0.00606	+/-0.0217	0.0399	0.080	pCi/g						
Promethium-146	U	0.0194	+/-0.0253	0.0523	1.00	pCi/g						
Radium-226		0.521	+/-0.108	0.071	1.00	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: March 10, 2005

Client Sample ID:		E0806A10HS1				Project:		PESI00103				
Sample ID:		130088001				Client ID:		PESI003				
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
GammaSpec, Gamma, Solid w/Ra226												
Radium-228		0.314	+/-0.132	0.134	0.500	pCi/g						
Ruthenium-106	U	-0.0828	+/-0.190	0.348	0.800	pCi/g						
Silver-110m	U	-0.00308	+/-0.0187	0.0354	0.080	pCi/g						
Sodium-22	U	-0.0142	+/-0.0188	0.0324	0.080	pCi/g						
Thallium-208		0.106	+/-0.0437	0.0391	0.080	pCi/g						
Thorium-230		0.521	+/-0.108	0.071	1.00	pCi/g						
Thorium-232		0.261	+/-0.0561	0.0608	0.500	pCi/g						
Thorium-234	U	0.422	+/-1.03	1.20	2.00	pCi/g						
Tin-113	U	-0.00653	+/-0.0289	0.0523	0.100	pCi/g						
Uranium-234		0.529	+/-0.133	0.144	1.00	pCi/g						
Uranium-235	U	-0.031	+/-0.110	0.215	0.500	pCi/g						
Uranium-238	U	0.422	+/-1.03	1.20	1.00	pCi/g						
Yttrium-88	U	-0.00214	+/-0.0227	0.0441	0.100	pCi/g						
Zinc-65	U	0.0204	+/-0.0603	0.106	0.300	pCi/g						
Zirconium-95	U	-0.0234	+/-0.0499	0.0894	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	02/08/05	1714	399641

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Company : Parsons Engineering
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: March 10, 2005

Client Sample ID: E0806A10HS2
Sample ID: 130088002
Matrix: Solid
Collect Date: 03-FEB-05 15:05
Receive Date: 04-FEB-05
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.367	+/-0.172	0.141	0.800	pCi/g						
Americium-241	U	-0.0205	+/-0.114	0.162	0.200	pCi/g						
Antimony-124	U	-0.0374	+/-0.0325	0.0556	0.100	pCi/g						
Antimony-125	U	0.0137	+/-0.056	0.106	0.200	pCi/g						
Barium-133	U	0.00491	+/-0.0284	0.0477	0.100	pCi/g						
Barium-140	U	-0.0277	+/-0.429	0.777	0.500	pCi/g						
Beryllium-7	U	0.100	+/-0.251	0.477	0.700	pCi/g						
Bismuth-212		0.307	+/-0.297	0.283	0.500	pCi/g						
Bismuth-214		0.912	+/-0.147	0.0768	0.200	pCi/g						
Cerium-139	U	0.00968	+/-0.0192	0.0364	0.050	pCi/g						
Cerium-141	U	0.00539	+/-0.0548	0.103	0.100	pCi/g						
Cerium-144	U	0.0269	+/-0.122	0.233	0.500	pCi/g						
Cesium-134	U	0.0376	+/-0.0268	0.0474	0.100	pCi/g						
Cesium-136	U	-0.115	+/-0.170	0.283	0.300	pCi/g						
Cesium-137	U	-0.0142	+/-0.0225	0.040	0.100	pCi/g						
Chromium-51	U	0.0693	+/-0.385	0.653	0.600	pCi/g						
Cobalt-56	U	-0.00994	+/-0.0273	0.0489	0.100	pCi/g						
Cobalt-57	U	-0.00302	+/-0.0149	0.028	0.050	pCi/g						
Cobalt-58	U	0.0119	+/-0.033	0.0562	0.100	pCi/g						
Cobalt-60	U	-0.0139	+/-0.0267	0.0466	0.100	pCi/g						
Europium-152	U	-0.00697	+/-0.0594	0.111	0.200	pCi/g						
Europium-154	U	-0.0563	+/-0.0755	0.128	0.500	pCi/g						
Europium-155	U	0.00709	+/-0.0589	0.114	0.500	pCi/g						
Iridium-192	U	0.00482	+/-0.0298	0.0466	0.100	pCi/g						
Iron-59	U	0.0046	+/-0.0682	0.131	0.300	pCi/g						
Lead-210	U	1.64	+/-2.46	4.41	4.00	pCi/g						
Lead-212		0.312	+/-0.0633	0.0641	0.100	pCi/g						
Lead-214		0.964	+/-0.147	0.0797	0.100	pCi/g						
Manganese-54	U	0.0244	+/-0.0328	0.036	0.100	pCi/g						
Mercury-203	U	0.00204	+/-0.0354	0.0598	0.100	pCi/g						
Neodymium-147	U	-0.196	+/-1.06	1.90	1000	pCi/g						
Neptunium-239	U	-0.0146	+/-0.109	0.205	2.00	pCi/g						
Niobium-94	U	-0.00193	+/-0.021	0.039	1.00	pCi/g						
Niobium-95	U	0.0405	+/-0.0483	0.0865	0.050	pCi/g						
Potassium-40		9.11	+/-1.03	0.430	1.00	pCi/g						
Promethium-144	U	0.00957	+/-0.0216	0.0421	0.080	pCi/g						
Promethium-146	U	-0.0172	+/-0.0259	0.0449	1.00	pCi/g						
Radium-226		0.912	+/-0.147	0.0768	1.00	pCi/g						

MJH1 03/09/05 0658 399806 1

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: March 10, 2005

Client Sample ID:		E0806A10HS2				Project:		PESI00103				
Sample ID:		130088002				Client ID:		PESI003				
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammascpec, Gamma, Solid w/Ra226												
Radium-228		0.367	+/-0.172	0.141	0.500	pCi/g						
Ruthenium-106	U	-0.043	+/-0.187	0.349	0.800	pCi/g						
Silver-110m	U	0.000294	+/-0.020	0.0381	0.080	pCi/g						
Sodium-22	U	-0.0203	+/-0.0273	0.0463	0.080	pCi/g						
Thallium-208		0.122	+/-0.0357	0.0384	0.080	pCi/g						
Thorium-230		0.912	+/-0.147	0.0768	1.00	pCi/g						
Thorium-232		0.302	+/-0.0612	0.062	0.500	pCi/g						
Thorium-234	U	0.819	+/-1.42	1.49	2.00	pCi/g						
Tin-113	U	0.000487	+/-0.0314	0.0584	0.100	pCi/g						
Uranium-234		0.867	+/-0.206	0.160	1.00	pCi/g						
Uranium-235	U	0.0109	+/-0.127	0.238	0.500	pCi/g						
Uranium-238	U	0.819	+/-1.42	1.49	1.00	pCi/g						
Yttrium-88	U	0.012	+/-0.0184	0.0444	0.100	pCi/g						
Zinc-65	U	0.0589	+/-0.0592	0.112	0.300	pCi/g						
Zirconium-95	U	0.0594	+/-0.0541	0.111	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	02/08/05	1714	399641

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: March 10, 2005

Client Sample ID: E08062305
Sample ID: 130088003
Matrix: Water
Collect Date: 03-FEB-05 15:10
Receive Date: 04-FEB-05
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Liquid</i>												
Actinium-228	U	-2.39	+/-5.92	10.6	20.0	pCi/L		MJH1	02/08/05	1006	399767	1
Americium-241	U	3.60	+/-12.3	21.4	25.0	pCi/L						
Antimony-124	U	1.23	+/-1.89	3.55	5.00	pCi/L						
Antimony-125	U	0.523	+/-5.11	9.17	10.0	pCi/L						
Barium-133	U	-1.53	+/-3.10	4.57	5.00	pCi/L						
Barium-140	U	7.72	+/-8.29	15.4	30.0	pCi/L						
Beryllium-7	U	-5.59	+/-15.5	26.7	50.0	pCi/L						
Bismuth-212	U	-4.8	+/-15.4	26.2	50.0	pCi/L						
Bismuth-214		9.86	+/-7.22	6.68	10.0	pCi/L						
Cerium-139	U	-0.849	+/-1.95	3.15	5.00	pCi/L						
Cerium-141	U	0.324	+/-3.63	6.06	10.0	pCi/L						
Cerium-144	U	-0.15	+/-13.9	23.2	50.0	pCi/L						
Cesium-134	U	-0.226	+/-2.25	3.45	5.00	pCi/L						
Cesium-136	U	-2.69	+/-3.29	5.48	15.0	pCi/L						
Cesium-137	U	-0.435	+/-2.01	3.48	5.00	pCi/L						
Chromium-51	U	6.22	+/-17.2	31.2	50.0	pCi/L						
Cobalt-56	U	0.982	+/-1.89	3.58	5.00	pCi/L						
Cobalt-57	U	0.217	+/-1.84	3.10	5.00	pCi/L						
Cobalt-58	U	-0.705	+/-1.68	2.83	10.0	pCi/L						
Cobalt-60	U	1.71	+/-2.44	4.88	5.00	pCi/L						
Europium-152	U	-2.46	+/-5.63	9.69	20.0	pCi/L						
Europium-154	U	-1.34	+/-6.89	10.7	20.0	pCi/L						
Europium-155	U	-1.98	+/-7.90	13.1	20.0	pCi/L						
Iridium-192	U	-0.499	+/-1.88	3.28	10.0	pCi/L						
Iron-59	U	2.23	+/-4.17	8.18	10.0	pCi/L						
Lead-210	U	202	+/-359	575	750	pCi/L						
Lead-212	U	1.88	+/-5.18	6.89	15.0	pCi/L						
Lead-214		17.8	+/-8.56	7.08	10.0	pCi/L						
Manganese-54	U	-0.321	+/-2.00	3.46	5.00	pCi/L						
Mercury-203	U	1.02	+/-2.00	3.67	5.00	pCi/L						
Neodymium-147	U	18.1	+/-15.9	31.1	100	pCi/L						
Neptunium-239	U	-1.31	+/-14.0	23.3	25.0	pCi/L						
Niobium-94	U	-0.434	+/-1.81	3.11	5.00	pCi/L						
Niobium-95	U	-0.465	+/-2.30	3.94	5.00	pCi/L						
Potassium-40		74.1	+/-41.0	32.6	100	pCi/L						
Promethium-144	U	-0.486	+/-1.71	2.93	5.00	pCi/L						
Promethium-146	U	1.33	+/-2.33	4.36	5.00	pCi/L						
Radium-226		9.86	+/-7.22	6.68		pCi/L						

GENERAL ENGINEERING LABORATORIES, LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: March 10, 2005

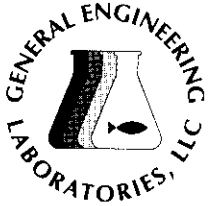
Client Sample ID: E08062305
Sample ID: 130088003

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Liquid</i>												
Radium-228	U	-2.39	+/-5.92	10.6	20.0	pCi/L						
Ruthenium-106	U	-5.94	+/-19.0	32.5	50.0	pCi/L						
Silver-110m	U	-1.05	+/-1.93	3.21	5.00	pCi/L						
Sodium-22	U	-0.456	+/-2.46	3.83	5.00	pCi/L						
Thallium-208	U	2.16	+/-3.28	4.38	10.0	pCi/L						
Thorium-230		9.86	+/-7.22	6.68	20.0	pCi/L						
Thorium-234	U	26.1	+/-170	183	250	pCi/L						
Tin-113	U	1.27	+/-2.30	4.27	10.0	pCi/L						
Uranium-235	U	10.5	+/-15.3	26.2	50.0	pCi/L						
Uranium-238	U	26.1	+/-170	183	250	pCi/L						
Yttrium-88	U	0.541	+/-2.01	4.05	10.0	pCi/L						
Zinc-65	U	-0.846	+/-4.43	6.96	10.0	pCi/L						
Zirconium-95	U	1.00	+/-3.49	6.38	10.0	pCi/L						

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 901.1	



GENERAL ENGINEERING LABORATORIES, LLC

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Meeting Today's Needs with a Vision for Tomorrow

March 21, 2005

Ms. Katie Kadlubak
Parsons Engineering Science, Inc.
19101 Villaview Rd.
Suite 100
Cleveland, OH 44119

RE: Project # 740497

Dear Ms. Kadlubak:

Enclosed is the data package for SDG 130982, received on February 18, 2005, from the Seneca Army Depot, SEAD 48 Project. The samples were analyzed for Radiochemistry parameters.

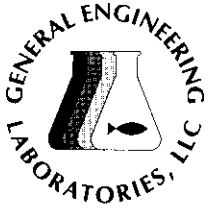
General Engineering Laboratories appreciates this opportunity to provide you with analytical results, and trusts that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171.

Sincerely,

Cheryl Jones
Project Manager

Enclosure

PARSONS ENGINEERING SCIENCE, INC.
SENECA ARMY DEPOT
SEAD 48
SDG 130982



GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

CASE NARRATIVE
for
Parsons Engineering Science, Inc.
Seneca Army Depot
SEAD 48 Project
SDG 130982

March 21, 2005

Laboratory Identification:

General Engineering Laboratories, LLC
P.O. Box 30712
Charleston, South Carolina 29417

Express Mail Delivery and Shipping Address:

2040 Savage Road
Charleston, South Carolina 29414

Telephone Number:

(843) 556-8171

Summary:

Sample receipt

The sample(s) arrived at General Engineering Laboratories, LLC (GEL) Charleston, South Carolina on February 18, 2005, for environmental analyses. All sample containers arrived without any visible signs of tampering or breakage. The samples were delivered with chain of custody documentation and signatures.

The laboratory received the following sample(s):

Laboratory Sample

<u>Identification</u>	<u>Description</u>
130982001	A10HS103
130982002	A10HS136
130982003	A10HS203
130982004	A10HS236

Case Narrative

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Internal Chain of Custody:

Custody was maintained for all samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry Analysis.

This data package, to the best of my knowledge, is in compliance with technical and administrative requirements.



Cheryl Jones
Project Manager

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: **SEAD-48 Final Status Survey**

Report Date: March 24, 2005

Client Sample ID: A10HS103
Sample ID: 130982001
Matrix: Solid
Collect Date: 16-FEB-05 12:00
Receive Date: 18-FEB-05
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.410	+/-0.187	0.161	0.800	pCi/g		JPH1	03/23/05	0701	404057	1
Americium-241	U	0.024	+/-0.140	0.256	0.200	pCi/g						
Antimony-124	U	0.0109	+/-0.0333	0.0612	0.100	pCi/g						
Antimony-125	U	-0.00839	+/-0.0744	0.129	0.200	pCi/g						
Barium-133	U	-0.00942	+/-0.0356	0.0553	0.100	pCi/g						
Barium-140	U	0.151	+/-0.502	0.930	0.500	pCi/g						
Beryllium-7	U	-0.174	+/-0.309	0.491	0.700	pCi/g						
Bismuth-212	U	0.313	+/-0.358	0.333	0.500	pCi/g						
Bismuth-214		6.18	+/-0.556	0.0835	0.200	pCi/g						
Cerium-139	U	0.00117	+/-0.0275	0.0463	0.050	pCi/g						
Cerium-141	UUI	0.00	+/-0.0885	0.134	0.100	pCi/g						
Cerium-144	U	-0.162	+/-0.159	0.292	0.500	pCi/g						
Cesium-134	U	0.020	+/-0.0277	0.0511	0.100	pCi/g						
Cesium-136	U	-0.00765	+/-0.223	0.336	0.300	pCi/g						
Cesium-137	U	-0.0117	+/-0.026	0.0401	0.100	pCi/g						
Chromium-51	U	0.278	+/-0.460	0.835	0.600	pCi/g						
Cobalt-56	U	0.0125	+/-0.0332	0.0598	0.100	pCi/g						
Cobalt-57	U	0.00891	+/-0.0195	0.0377	0.050	pCi/g						
Cobalt-58	U	1.850E-05	+/-0.0374	0.0582	0.100	pCi/g						
Cobalt-60	U	-0.00547	+/-0.0261	0.0463	0.100	pCi/g						
Europium-152	U	-0.0383	+/-0.0755	0.131	0.200	pCi/g						
Europium-154	U	0.0245	+/-0.076	0.140	0.500	pCi/g						
Europium-155	U	0.0924	+/-0.0767	0.152	0.500	pCi/g						
Iridium-192	U	-0.0219	+/-0.0322	0.056	0.100	pCi/g						
Iron-59	U	-0.00145	+/-0.0754	0.138	0.300	pCi/g						
Lead-210	U	2.15	+/-5.70	6.86	4.00	pCi/g						
Lead-212		0.299	+/-0.0633	0.083	0.100	pCi/g						
Lead-214		6.71	+/-0.590	0.0896	0.100	pCi/g						
Manganese-54	U	0.0118	+/-0.0297	0.0474	0.100	pCi/g						
Mercury-203	U	-0.0197	+/-0.0406	0.072	0.100	pCi/g						
Neodymium-147	U	-1.04	+/-1.32	2.33	1000	pCi/g						
Neptunium-239	U	-0.0539	+/-0.137	0.261	2.00	pCi/g						
Niobium-94	U	0.0218	+/-0.027	0.0416	1.00	pCi/g						
Niobium-95	UUI	0.00	+/-0.0549	0.109	0.050	pCi/g						
Potassium-40		8.59	+/-0.959	0.425	1.00	pCi/g						
Promethium-144	U	-0.00692	+/-0.0222	0.0394	0.080	pCi/g						
Promethium-146	U	0.0148	+/-0.0303	0.0572	1.00	pCi/g						
Radium-226		6.18	+/-0.556	0.0835	1.00	pCi/g						

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: March 24, 2005

Client Sample ID: A10HS103
Sample ID: 130982001

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Radium-228		0.410	+/-0.187	0.161	0.500	pCi/g						
Ruthenium-106	U	-0.0651	+/-0.199	0.357	0.800	pCi/g						
Silver-110m	U	0.0108	+/-0.0218	0.0406	0.080	pCi/g						
Sodium-22	U	0.000144	+/-0.0281	0.0506	0.080	pCi/g						
Thallium-208		0.0591	+/-0.0433	0.0496	0.080	pCi/g						
Thorium-230		6.17	+/-0.556	0.0835	1.00	pCi/g						
Thorium-232		0.289	+/-0.0611	0.0802	0.500	pCi/g						
Thorium-234		7.78	+/-2.50	2.01	2.00	pCi/g						
Tin-113	U	-0.0326	+/-0.0392	0.0662	0.100	pCi/g						
Uranium-234		6.71	+/-0.649	0.177	1.00	pCi/g						
Uranium-235		0.420	+/-0.276	0.325	0.500	pCi/g						
Uranium-238		7.78	+/-2.50	2.01	1.00	pCi/g						
Yttrium-88	U	-0.0204	+/-0.0263	0.0425	0.100	pCi/g						
Zinc-65	U	0.0426	+/-0.0661	0.110	0.300	pCi/g						
Zirconium-95	U	-0.0304	+/-0.0641	0.0966	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	02/22/05	1211	403633

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

GENERAL ENGINEERING LABORATORIES, LLC
2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

Certificate of Analysis

Company : Parsons Engineering
Address : 19101 Villaview Rd
Suite 100
Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: March 24, 2005

Client Sample ID: A10HS136
Sample ID: 130982002
Matrix: Solid
Collect Date: 16-FEB-05 12:00
Receive Date: 18-FEB-05
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.406	+/-0.125	0.0964	0.800	pCi/g		JPH1	03/23/05	0702	404057	1
Americium-241	U	0.0209	+/-0.0713	0.105	0.200	pCi/g						
Antimony-124	U	-0.0305	+/-0.0199	0.0333	0.100	pCi/g						
Antimony-125	U	-0.023	+/-0.0361	0.0631	0.200	pCi/g						
Barium-133	U	0.00345	+/-0.0175	0.0291	0.100	pCi/g						
Barium-140	U	0.0618	+/-0.313	0.567	0.500	pCi/g						
Beryllium-7	U	-0.108	+/-0.159	0.274	0.700	pCi/g						
Bismuth-212	UUI	0.00	+/-0.205	0.206	0.500	pCi/g						
Bismuth-214		0.557	+/-0.0853	0.051	0.200	pCi/g						
Cerium-139	U	-0.0111	+/-0.0122	0.0215	0.050	pCi/g						
Cerium-141	U	-0.00792	+/-0.0358	0.0656	0.100	pCi/g						
Cerium-144	U	0.0187	+/-0.0788	0.148	0.500	pCi/g						
Cesium-134	U	0.0104	+/-0.0186	0.0313	0.100	pCi/g						
Cesium-136	U	0.0153	+/-0.138	0.246	0.300	pCi/g						
Cesium-137	U	0.00416	+/-0.0148	0.028	0.100	pCi/g						
Chromium-51	U	-0.0683	+/-0.237	0.436	0.600	pCi/g						
Cobalt-56	U	0.00972	+/-0.018	0.0343	0.100	pCi/g						
Cobalt-57	U	0.00562	+/-0.00946	0.0183	0.050	pCi/g						
Cobalt-58	U	-0.00627	+/-0.0171	0.0303	0.100	pCi/g						
Cobalt-60	U	-0.00746	+/-0.0166	0.0291	0.100	pCi/g						
Europium-152	U	0.0118	+/-0.0432	0.0719	0.200	pCi/g						
Europium-154	U	-0.0553	+/-0.0515	0.0839	0.500	pCi/g						
Europium-155	U	-0.0121	+/-0.0372	0.0699	0.500	pCi/g						
Iridium-192	U	-0.000991	+/-0.0159	0.0296	0.100	pCi/g						
Iron-59	U	0.00227	+/-0.0496	0.0923	0.300	pCi/g						
Lead-210	U	0.893	+/-1.61	2.80	4.00	pCi/g						
Lead-212		0.310	+/-0.0478	0.0403	0.100	pCi/g						
Lead-214		0.586	+/-0.087	0.0491	0.100	pCi/g						
Manganese-54	U	0.000462	+/-0.0165	0.030	0.100	pCi/g						
Mercury-203	U	0.00793	+/-0.0205	0.0394	0.100	pCi/g						
Neodymium-147	U	0.641	+/-0.802	1.51	1000	pCi/g						
Neptunium-239	U	0.0331	+/-0.0677	0.131	2.00	pCi/g						
Niobium-94	U	0.0017	+/-0.0198	0.0279	1.00	pCi/g						
Niobium-95	U	0.00153	+/-0.0434	0.0459	0.050	pCi/g						
Potassium-40		8.12	+/-0.800	0.250	1.00	pCi/g						
Promethium-144	U	-0.00071	+/-0.0144	0.0264	0.080	pCi/g						
Promethium-146	U	-0.00439	+/-0.0173	0.0309	1.00	pCi/g						
Radium-226		0.557	+/-0.0853	0.051	1.00	pCi/g						

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Cleveland, Ohio 44119
Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: March 24, 2005

Client Sample ID: A10HS136
Sample ID: 130982002

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Radium-228		0.406	+/-0.125	0.0964	0.500	pCi/g						
Ruthenium-106	U	0.0984	+/-0.127	0.249	0.800	pCi/g						
Silver-110m	U	-0.0107	+/-0.0138	0.0241	0.080	pCi/g						
Sodium-22	U	-0.02	+/-0.0186	0.0303	0.080	pCi/g						
Thallium-208		0.0868	+/-0.0322	0.0264	0.080	pCi/g						
Thorium-230		0.557	+/-0.0853	0.051	1.00	pCi/g						
Thorium-232		0.299	+/-0.0462	0.0389	0.500	pCi/g						
Thorium-234	U	0.659	+/-0.758	0.895	2.00	pCi/g						
Tin-113	U	0.00822	+/-0.0196	0.0368	0.100	pCi/g						
Uranium-234		0.505	+/-0.106	0.0975	1.00	pCi/g						
Uranium-235	U	0.083	+/-0.0794	0.151	0.500	pCi/g						
Uranium-238	U	0.659	+/-0.758	0.895	1.00	pCi/g						
Yttrium-88	U	0.00219	+/-0.0161	0.0316	0.100	pCi/g						
Zinc-65	U	0.0683	+/-0.0428	0.080	0.300	pCi/g						
Zirconium-95	U	-0.014	+/-0.0368	0.0654	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	02/22/05	1212	403633

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: March 24, 2005

Client Sample ID: A10HS203
Sample ID: 130982003
Matrix: Solid
Collect Date: 16-FEB-05 12:00
Receive Date: 18-FEB-05
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid w/Ra226</i>												
Actinium-228	UUI	0.00	+/-0.116	0.165	0.800	pCi/g		JPH1	03/23/05	0718	404057	1
Americium-241	U	-0.00341	+/-0.115	0.194	0.200	pCi/g						
Antimony-124	U	-0.0159	+/-0.0218	0.0379	0.100	pCi/g						
Antimony-125	U	0.0194	+/-0.0423	0.0809	0.200	pCi/g						
Barium-133	U	-0.00104	+/-0.0232	0.0363	0.100	pCi/g						
Barium-140	U	0.0987	+/-0.331	0.554	0.500	pCi/g						
Beryllium-7	U	-0.0161	+/-0.204	0.332	0.700	pCi/g						
Bismuth-212		0.354	+/-0.234	0.212	0.500	pCi/g						
Bismuth-214		1.82	+/-0.190	0.0506	0.200	pCi/g						
Cerium-139	U	-0.00912	+/-0.0161	0.0296	0.050	pCi/g						
Cerium-141	UUI	0.00	+/-0.0746	0.0783	0.100	pCi/g						
Cerium-144	U	0.00504	+/-0.0979	0.187	0.500	pCi/g						
Cesium-134	U	0.0318	+/-0.0252	0.033	0.100	pCi/g						
Cesium-136	U	0.0607	+/-0.122	0.236	0.300	pCi/g						
Cesium-137	U	0.0107	+/-0.019	0.0316	0.100	pCi/g						
Chromium-51	U	-0.163	+/-0.289	0.500	0.600	pCi/g						
Cobalt-56	U	0.0104	+/-0.0201	0.0374	0.100	pCi/g						
Cobalt-57	U	-0.00155	+/-0.0127	0.0243	0.050	pCi/g						
Cobalt-58	U	-0.0134	+/-0.021	0.0355	0.100	pCi/g						
Cobalt-60	U	0.0177	+/-0.027	0.034	0.100	pCi/g						
Europium-152	U	-0.0188	+/-0.0488	0.0848	0.200	pCi/g						
Europium-154	U	-0.0422	+/-0.0545	0.0913	0.500	pCi/g						
Europium-155	U	0.027	+/-0.0506	0.0999	0.500	pCi/g						
Iridium-192	U	0.0139	+/-0.0199	0.0367	0.100	pCi/g						
Iron-59	U	-0.0445	+/-0.0573	0.098	0.300	pCi/g						
Lead-210	U	1.24	+/-4.10	7.19	4.00	pCi/g						
Lead-212		0.284	+/-0.0518	0.0491	0.100	pCi/g						
Lead-214		2.05	+/-0.208	0.0574	0.100	pCi/g						
Manganese-54	U	-0.00122	+/-0.0191	0.0335	0.100	pCi/g						
Mercury-203	U	-0.00347	+/-0.0256	0.0459	0.100	pCi/g						
Neodymium-147	U	0.326	+/-0.867	1.47	1000	pCi/g						
Neptunium-239	U	-0.0564	+/-0.0885	0.168	2.00	pCi/g						
Niobium-94	U	0.0115	+/-0.0154	0.029	1.00	pCi/g						
Niobium-95	UUI	0.00	+/-0.0393	0.0723	0.050	pCi/g						
Potassium-40		8.14	+/-0.877	0.317	1.00	pCi/g						
Promethium-144	U	0.00381	+/-0.0154	0.0282	0.080	pCi/g						
Promethium-146	U	0.0315	+/-0.0247	0.0392	1.00	pCi/g						
Radium-226		1.82	+/-0.190	0.0506	1.00	pCi/g						

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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: March 24, 2005

Client Sample ID:		A10HS203		Project:		PESI00103						
Sample ID:		130982003		Client ID:		PESI003						
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
Gammascpec, Gamma, Solid w/Ra226												
Radium-228	UUI	0.00	+/-0.116	0.165	0.500	pCi/g						
Ruthenium-106	U	0.006	+/-0.129	0.237	0.800	pCi/g						
Silver-110m	U	-0.0122	+/-0.0158	0.0271	0.080	pCi/g						
Sodium-22	U	-0.0152	+/-0.0197	0.0331	0.080	pCi/g						
Thallium-208		0.0682	+/-0.0311	0.0306	0.080	pCi/g						
Thorium-230		1.82	+/-0.190	0.0506	1.00	pCi/g						
Thorium-232		0.274	+/-0.0501	0.0475	0.500	pCi/g						
Thorium-234		2.13	+/-1.36	1.47	2.00	pCi/g						
Tin-113	U	0.00796	+/-0.026	0.0415	0.100	pCi/g						
Uranium-234		1.94	+/-0.247	0.118	1.00	pCi/g						
Uranium-235		0.434	+/-0.212	0.206	0.500	pCi/g						
Uranium-238		2.13	+/-1.36	1.47	1.00	pCi/g						
Yttrium-88	U	0.015	+/-0.00653	0.0384	0.100	pCi/g						
Zinc-65	U	0.00767	+/-0.0473	0.0762	0.300	pCi/g						
Zirconium-95	U	0.0367	+/-0.0432	0.0705	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	02/22/05	1212	403633

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: March 24, 2005

Client Sample ID: A10HS236
Sample ID: 130982004
Matrix: Solid
Collect Date: 16-FEB-05 12:00
Receive Date: 18-FEB-05
Collector: Client

Project: PESI00103
Client ID: PESI003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>Gammascpec, Gamma, Solid w/Ra226</i>												
Actinium-228		0.382	+/-0.115	0.0842	0.800	pCi/g		JPH1	03/23/05	0719	404057	1
Americium-241	U	0.0528	+/-0.0601	0.105	0.200	pCi/g						
Antimony-124	U	-0.0118	+/-0.0186	0.0326	0.100	pCi/g						
Antimony-125	U	-0.00348	+/-0.0316	0.0595	0.200	pCi/g						
Barium-133	U	0.00875	+/-0.0169	0.0281	0.100	pCi/g						
Barium-140	U	0.0566	+/-0.257	0.487	0.500	pCi/g						
Beryllium-7	U	-0.0816	+/-0.149	0.268	0.700	pCi/g						
Bismuth-212	UUI	0.00	+/-0.195	0.190	0.500	pCi/g						
Bismuth-214		0.517	+/-0.0808	0.048	0.200	pCi/g						
Cerium-139	U	-0.00673	+/-0.0117	0.0212	0.050	pCi/g						
Cerium-141	U	0.00493	+/-0.0294	0.0644	0.100	pCi/g						
Cerium-144	U	0.0474	+/-0.088	0.141	0.500	pCi/g						
Cesium-134	U	0.0205	+/-0.0192	0.0304	0.100	pCi/g						
Cesium-136	U	0.0162	+/-0.113	0.214	0.300	pCi/g						
Cesium-137	U	0.00458	+/-0.0146	0.0244	0.100	pCi/g						
Chromium-51	U	0.0137	+/-0.266	0.426	0.600	pCi/g						
Cobalt-56	U	-0.00646	+/-0.0202	0.0304	0.100	pCi/g						
Cobalt-57	U	0.0044	+/-0.00945	0.0184	0.050	pCi/g						
Cobalt-58	U	0.00634	+/-0.0176	0.033	0.100	pCi/g						
Cobalt-60	U	0.0091	+/-0.0166	0.0288	0.100	pCi/g						
Europium-152	U	-0.00433	+/-0.0368	0.0652	0.200	pCi/g						
Europium-154	U	-0.0237	+/-0.0511	0.0757	0.500	pCi/g						
Europium-155	U	0.0172	+/-0.0369	0.0725	0.500	pCi/g						
Iridium-192	U	-0.0143	+/-0.0162	0.0273	0.100	pCi/g						
Iron-59	U	0.00868	+/-0.0464	0.0875	0.300	pCi/g						
Lead-210	U	1.20	+/-1.80	3.18	4.00	pCi/g						
Lead-212		0.328	+/-0.0463	0.0371	0.100	pCi/g						
Lead-214		0.543	+/-0.0738	0.0454	0.100	pCi/g						
Manganese-54	U	0.0018	+/-0.0153	0.0276	0.100	pCi/g						
Mercury-203	U	0.0107	+/-0.0203	0.0377	0.100	pCi/g						
Neodymium-147	U	0.138	+/-0.719	1.21	1000	pCi/g						
Neptunium-239	U	0.058	+/-0.0637	0.127	2.00	pCi/g						
Niobium-94	U	0.00907	+/-0.0132	0.0252	1.00	pCi/g						
Niobium-95	U	0.0153	+/-0.0296	0.0496	0.050	pCi/g						
Potassium-40		8.21	+/-0.822	0.283	1.00	pCi/g						
Promethium-144	U	0.00383	+/-0.0139	0.0257	0.080	pCi/g						
Promethium-146	U	-0.00407	+/-0.016	0.0296	1.00	pCi/g						
Radium-226		0.517	+/-0.0808	0.048	1.00	pCi/g						

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Contact: Ms. Katie Kadlubak
Project: SEAD-48 Final Status Survey

Report Date: March 24, 2005

Client Sample ID:		A10HS236		Project:		PESI00103						
Sample ID:		130982004		Client ID:		PESI003						
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
GammaSpec, Gamma, Solid w/Ra226												
Radium-228		0.382	+/-0.115	0.0842	0.500	pCi/g						
Ruthenium-106	U	0.0419	+/-0.111	0.212	0.800	pCi/g						
Silver-110m	U	-0.01	+/-0.0128	0.0219	0.080	pCi/g						
Sodium-22	U	-0.00869	+/-0.0185	0.0273	0.080	pCi/g						
Thallium-208		0.102	+/-0.032	0.0257	0.080	pCi/g						
Thorium-230		0.517	+/-0.0808	0.048	1.00	pCi/g						
Thorium-232		0.317	+/-0.0448	0.0359	0.500	pCi/g						
Thorium-234	U	0.673	+/-0.908	0.848	2.00	pCi/g						
Tin-113	U	0.0105	+/-0.0185	0.0362	0.100	pCi/g						
Uranium-234		0.552	+/-0.124	0.0932	1.00	pCi/g						
Uranium-235	U	0.0151	+/-0.0896	0.146	0.500	pCi/g						
Uranium-238	U	0.673	+/-0.908	0.848	1.00	pCi/g						
Yttrium-88	U	0.0218	+/-0.0224	0.0349	0.100	pCi/g						
Zinc-65	U	0.0285	+/-0.0352	0.0633	0.300	pCi/g						
Zirconium-95	UUI	0.00	+/-0.0587	0.0636	0.200	pCi/g						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TC1	02/22/05	1212	403633

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EML HASL 300, 4.5.2.3	

Wipe Test (Smear) Results
SEAD-48
Seneca Army Depot Activity



DEPARTMENT OF THE ARMY
UNITED STATES ARMY AVIATION AND MISSILE COMMAND
REDSTONE ARSENAL, ALABAMA 35898-5000

REPLY TO
ATTENTION OF

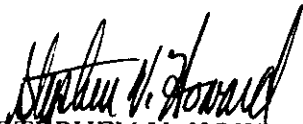
AMSAM-TMD-SR(C)

3 December 2003

MEMORANDUM FOR Commander, Seneca Army Depot Activity, ATTN: SIOSE-S, 5786
State Route 96, Romulus, NY 14541-5001

SUBJECT: Decommissioning Wipe Test Results

1. The results of area wipe tests made at your facility from 7 May to 10 July 2003, which this laboratory received on 9, 23, 27 June, and 4 August 2003, are indicated at Enclosure 1. Limit of Detection (LD) is also included in Enclosure 1. Results exceeding the limit of decision are reported as defined by NCRP 58.
2. Traceability to NIST is provided by an Am-241 source, SN: SS-805, last calibrated date: 29 May 2002, a Sr-90 source, SN SS-810, last calibrated date: 30 May 2002, and a Cs-137 source, SN: SS-799, last calibrated date: 30 May 2002. These sources were calibrated at NIST and were used to calibrate the counters used to evaluate your leak tests. The NIST calibration documents are maintained on file at this facility. ***This laboratory is ISO-9002 registered.***
3. The POC is the undersigned, COM 256-876-0472/3340/7666 or DSN 746-0472/3340/7666.



STEPHEN V. HOWARD

Lead Health Physicist, Nuclear Counting
and Special Projects



SUBJECT: Decommissioning Wipe Results

Sample Identification		DPM			Limit of Detection			Date Rec'd	Notes
		Alpha	Beta	Gamma	Alpha	Beta	Gamma		
803	1	0.7	0.0	0.0	2	9	83	08/04/03	
803	2	0.0	4.0	0.0	2	9	83	08/04/03	
803	3	0.7	0.0	0.0	2	9	83	08/04/03	
803	4	0.0	0.0	0.0	2	9	83	08/04/03	
803	5	1.5	7.9	0.0	2	9	83	08/04/03	
803	6	0.7	4.0	0.0	2	9	83	08/04/03	
803	7	0.0	0.0	0.0	2	9	83	08/04/03	
803	8	1.1	0.0	0.0	2	9	83	08/04/03	
803	9	0.7	4.8	0.0	2	9	83	08/04/03	
803	10	1.5	11.1	0.0	2	9	83	08/04/03	
803	11	1.1	5.6	0.0	2	9	83	08/04/03	
803	12	0.0	9.1	0.0	2	9	83	08/04/03	
803	13	2.0	0.0	43.6	2	9	83	08/04/03	
803	14	2.0	11.5	0.0	2	9	83	08/04/03	
803	15	0.0	0.0	0.0	2	9	83	08/04/03	
803	16	2.0	18.2	0.0	2	9	83	08/04/03	
803	17	0.7	0.0	0.0	2	9	83	08/04/03	
803	18	0.0	8.3	0.0	2	9	83	08/04/03	
803	19	2.0	6.0	46.9	2	9	83	08/04/03	
803	20	1.1	0.0	0.0	2	9	83	08/04/03	
803	21	1.5	4.8	0.0	2	9	83	08/04/03	
803	22	0.0	4.4	0.0	2	9	83	08/04/03	
803	23	1.1	4.4	0.0	2	9	83	08/04/03	
803	24	2.4	6.4	0.0	2	9	83	08/04/03	
803	25	0.7	0.0	0.0	2	9	83	08/04/03	
803	26	0.0	0.0	0.0	2	9	83	08/04/03	
803	27	0.0	0.0	0.0	2	9	83	08/04/03	
803	28	0.0	0.0	0.0	2	9	83	08/04/03	
803	29	0.7	0.0	0.0	2	9	83	08/04/03	
803	30	0.0	0.0	0.0	2	9	83	08/04/03	
804	A 1	11.9	32.2	0.0	3	10	91	06/23/03	
804	A 2	14.8	36.0	0.0	3	10	91	06/23/03	
804	A 3	10.7	27.2	0.0	3	10	91	06/23/03	
804	A 4	14.1	32.9	0.0	3	10	91	06/23/03	
804	A 5	6.7	19.6	0.0	3	10	91	06/23/03	
804	A 6	10.7	21.9	0.0	3	10	91	06/23/03	
804	A 7	21.6	28.4	0.0	3	10	91	06/23/03	
804	A 8	10.7	23.1	0.0	3	10	91	06/23/03	
804	A 9	11.9	24.6	0.0	3	10	91	06/23/03	
804	A 10	11.5	24.6	0.0	3	10	91	06/23/03	
804	A 11	36.8	82.0	0.0	3	10	91	06/23/03	
804	A 12	21.9	43.6	0.0	3	10	91	06/23/03	
804	A 13	8.9	13.2	0.0	3	10	91	06/23/03	
804	A 6HS1	35.0	96.8	0.0	3	10	91	06/23/03	
804	A 5HS2	89.0	202.9	65.6	3	10	91	06/23/03	
804	A 5HS1	35.3	92.3	0.0	3	10	91	06/23/03	
804	A 5HS3	35.3	128.0	0.0	3	10	91	06/23/03	
804	A 3HS1	39.4	89.2	0.0	3	10	91	06/23/03	
804	A 4HS1	32.4	63.8	0.0	3	10	91	06/23/03	
804	A 4HS2	106.5	254.3	87.7	3	10	91	06/23/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
804	C	9HS1	36.8	86.9	0.0	3	10	91	06/23/03	
804	C	7HS1	32.0	64.9	0.0	3	10	91	06/23/03	
804	C	6HS1	23.8	52.7	0.0	3	10	91	06/23/03	
804	C	13HS1	12.2	40.6	0.0	3	10	91	06/23/03	
804	C	8HS1	46.9	94.9	0.0	3	10	91	06/23/03	
804	C	10HS1	42.0	97.6	0.0	3	10	91	06/23/03	
804	C	4HS1	25.6	64.1	0.0	3	10	91	06/23/03	
804	C	5HS1	18.2	33.7	0.0	3	10	91	06/23/03	
804	C	3HS1	19.3	44.4	0.0	3	10	91	06/23/03	
804	C	1HS1	14.5	26.5	0.0	3	10	91	06/23/03	
804	C	3HS2	43.9	101.4	0.0	3	10	91	06/23/03	
804	C	2HS1	19.7	37.1	0.0	3	10	91	06/23/03	
804	C	11HS2	32.7	80.1	0.0	3	10	91	06/23/03	
804	C	11HS1	40.5	66.4	0.0	3	10	91	06/23/03	
804	C	12HS2	51.4	91.1	0.0	3	10	91	06/23/03	
804	C	12HS1	52.1	105.2	0.0	3	10	91	06/23/03	
804	D	1	21.5	45.8	50.0	3	9	84	06/23/03	
804	D	2	12.0	38.1	44.2	3	9	84	06/23/03	
804	D	3	9.1	17.0	51.4	3	9	84	06/23/03	
804	D	4	11.6	14.5	0.0	3	9	84	06/23/03	
804	D	5	9.1	15.7	0.0	3	9	84	06/23/03	
804	D	6	5.4	18.8	41.8	3	9	84	06/23/03	
804	D	7	8.7	11.5	0.0	3	9	84	06/23/03	
804	D	8	15.7	31.6	0.0	3	9	84	06/23/03	
804	D	9	26.4	44.5	0.0	3	9	84	06/23/03	
804	D	10	27.7	52.2	58.2	3	9	84	06/23/03	
804	D	11	8.3	14.5	0.0	3	9	84	06/23/03	
804	D	12	40.5	99.9	57.7	3	9	84	06/23/03	
804	D	13	10.3	22.2	22.2	3	9	84	06/23/03	
804	D	10HS1	48.3	133.8	63.5	3	9	84	06/23/03	
804	D	9HS1	120.2	317.2	172.4	3	9	84	06/23/03	
804	D	8HS1	117.3	272.9	130.5	3	9	84	06/23/03	
804	D	7HS1	53.7	126.5	68.3	3	9	84	06/23/03	
804	D	12HS2	54.9	117.9	71.2	3	9	84	06/23/03	
804	D	12HS1	16.9	48.8	64.0	3	9	84	06/23/03	
804	D	13HS1	70.6	290.1	146.4	3	9	84	06/23/03	
804	D	11HS1	34.7	103.8	87.1	3	9	84	06/23/03	
804	D	11HS2	54.5	146.3	108.8	3	9	84	06/23/03	
804	D	4HS1	120.2	287.5	155.6	3	9	84	06/23/03	
804	D	5HS1	84.2	232.6	84.7	3	9	84	06/23/03	
804	D	1HS1	30.1	105.1	99.2	3	9	84	06/23/03	
804	D	2HS1	104.9	307.7	120.9	3	9	84	06/23/03	
804	D	6HS1	81.3	202.1	83.2	3	9	84	06/23/03	
804	D	3HS1	117.3	380.3	174.4	3	9	84	06/23/03	
804	E	1	5.8	5.9	0.0	3	9	84	06/23/03	
804	E	2	3.3	11.5	0.0	3	9	84	06/23/03	
804	E	3	1.2	5.0	0.0	3	9	84	06/23/03	
804	E	4	1.7	8.4	0.0	3	9	84	06/23/03	
804	E	5	1.7	0.0	0.0	3	9	84	06/23/03	
804	E	6	2.1	5.9	0.0	3	9	84	06/23/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
804	E	7	1.2	4.2	0.0	3	9	84	06/23/03	
804	E	8	0.0	0.0	0.0	3	9	84	06/23/03	
804	E	9	1.2	5.9	0.0	3	9	84	06/23/03	
804	E	10	0.0	0.0	0.0	3	9	84	06/23/03	
804	E	11	2.9	4.2	0.0	3	9	84	06/23/03	
804	E	12	0.0	4.2	45.6	3	9	84	06/23/03	
804	E	13	0.0	5.4	0.0	3	9	84	06/23/03	
804	E	2HS1	29.7	62.6	0.0	3	9	84	06/23/03	
804	E	3HS1	71.8	175.0	66.8	3	9	84	06/23/03	
804	E	4HS1	151.5	448.6	171.5	3	9	84	06/23/03	
804	E	5HS1	93.3	215.0	0.0	3	9	84	06/23/03	
804	E	6HS1	153.6	371.3	133.4	3	9	84	06/23/03	
804	E	7HS1	646.6	1378.6	556.8	3	9	84	06/23/03	
804	E	8HS1	653.7	1591.6	663.8	3	9	84	06/23/03	
804	E	9HS1	526.1	1293.6	479.1	3	9	84	06/23/03	
804	F	1	10.7	18.3	0.0	3	9	84	06/23/03	
804	F	2	7.8	17.5	0.0	3	9	84	06/23/03	
804	F	3	3.3	17.9	0.0	3	9	84	06/23/03	
804	F	4	1.7	8.4	0.0	3	9	84	06/23/03	
804	F	5	3.3	8.0	0.0	3	9	84	06/23/03	
804	F	6	8.3	15.3	0.0	3	9	84	06/23/03	
804	F	7	7.0	13.2	0.0	3	9	84	06/23/03	
804	F	8	2.5	0.0	0.0	3	9	84	06/23/03	
804	F	9	4.1	8.9	0.0	3	9	84	06/23/03	
804	F	10	2.9	14.9	0.0	3	9	84	06/23/03	
804	F	11	5.0	11.0	0.0	3	9	84	06/23/03	
804	F	12	3.3	7.2	0.0	3	9	84	06/23/03	
804	F	13	0.0	5.9	0.0	3	9	84	06/23/03	
804	G	1	0.0	0.0	0.0	3	9	84	06/23/03	
804	G	2	3.3	5.9	0.0	3	9	84	06/23/03	
804	G	3	2.9	7.6	0.0	3	9	84	06/23/03	
804	G	4	3.3	6.3	0.0	3	9	84	06/23/03	
804	G	5	0.0	0.0	0.0	3	9	84	06/23/03	
804	G	6	0.0	4.2	0.0	3	9	84	06/23/03	
804	G	7	1.7	9.3	47.1	3	9	84	06/23/03	
804	G	8	1.2	0.0	0.0	3	9	84	06/23/03	
804	G	9	0.0	0.0	0.0	3	9	84	06/23/03	
804	G	10	0.0	0.0	0.0	3	9	84	06/23/03	
804	G	11	1.2	0.0	0.0	3	9	84	06/23/03	
804	G	12	0.0	0.0	0.0	3	9	84	06/23/03	
804	G	13	2.9	7.2	0.0	3	9	84	06/23/03	
804	G	7HS1	1.7	8.4	0.0	3	9	84	06/23/03	
804	G	5HS1	1.2	0.0	0.0	3	9	84	06/23/03	
804	G	6HS1	3.7	0.0	0.0	3	9	84	06/23/03	
804	G	8HS1	2.1	9.3	0.0	3	9	84	06/23/03	
804	H	1	5.8	9.3	0.0	3	9	84	06/23/03	
804	H	2	2.5	8.9	0.0	3	9	84	06/23/03	
804	H	3	6.6	13.6	0.0	3	9	84	06/23/03	
804	H	4	2.9	6.7	0.0	3	9	84	06/23/03	
804	H	5	3.7	11.9	0.0	3	9	84	06/23/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
804	H	6	5.8	11.5	0.0	3	9	84	06/23/03	
804	H	7	0.0	6.7	48.5	3	9	84	06/23/03	
804	H	8	1.2	0.0	0.0	3	9	84	06/23/03	
804	H	9	2.5	6.7	0.0	3	9	84	06/23/03	
804	H	10	0.0	0.0	0.0	3	9	84	06/23/03	
804	H	11	1.7	5.9	0.0	3	9	84	06/23/03	
804	H	12	1.7	7.2	0.0	3	9	84	06/23/03	
804	H	13	4.1	15.7	0.0	3	9	84	06/23/03	
804	H	7HS1	3.3	14.0	0.0	3	9	84	06/23/03	
804	I	1	4.4	12.1	0.0	3	10	90	06/23/03	
804	I	2	3.7	6.7	0.0	3	10	90	06/23/03	
804	I	3	5.2	19.1	0.0	3	10	90	06/23/03	
804	I	4	1.8	6.7	0.0	3	10	90	06/23/03	
804	I	5	0.0	0.0	0.0	3	10	90	06/23/03	
804	I	6	2.2	5.5	0.0	3	10	90	06/23/03	
804	I	7	4.8	11.0	0.0	3	10	90	06/23/03	
804	I	8	3.3	6.3	0.0	3	10	90	06/23/03	
804	I	9	1.8	0.0	0.0	3	10	90	06/23/03	
804	I	10	3.7	14.5	0.0	3	10	90	06/23/03	
804	I	11	1.4	5.2	0.0	3	10	90	06/23/03	
804	I	12	5.9	12.1	0.0	3	10	90	06/23/03	
804	I	13	1.4	0.0	0.0	3	10	90	06/23/03	
804	J	1	6.3	12.9	0.0	3	10	90	06/23/03	
804	J	2	1.1	0.0	0.0	3	10	90	06/23/03	
804	J	3	0.0	4.4	0.0	3	10	90	06/23/03	
804	J	4	1.4	0.0	0.0	3	10	90	06/23/03	
804	J	5	0.0	0.0	0.0	3	10	90	06/23/03	
804	J	6	1.4	7.9	0.0	3	10	90	06/23/03	
804	J	7	1.1	7.1	0.0	3	10	90	06/23/03	
804	J	8	1.8	0.0	0.0	3	10	90	06/23/03	
804	J	9	1.8	0.0	0.0	3	10	90	06/23/03	
804	J	10	2.9	0.0	0.0	3	10	90	06/23/03	
804	J	11	2.6	0.0	0.0	3	10	90	06/23/03	
804	J	12	1.8	0.0	0.0	3	10	90	06/23/03	
804	J	13	0.0	0.0	0.0	3	10	90	06/23/03	
804	K	1	2.2	7.9	0.0	3	10	90	06/23/03	
804	K	2	2.2	7.5	0.0	3	10	90	06/23/03	
804	K	3	2.9	9.8	0.0	3	10	90	06/23/03	
804	K	4	1.4	7.9	0.0	3	10	90	06/23/03	
804	K	5	4.4	17.6	0.0	3	10	90	06/23/03	
804	K	6	0.0	12.9	0.0	3	10	90	06/23/03	
804	K	7	6.7	12.9	0.0	3	10	90	06/23/03	
804	K	8	4.1	9.8	0.0	3	10	90	06/23/03	
804	K	9	2.2	4.8	0.0	3	10	90	06/23/03	
804	K	9HS1	56.1	97.5	55.5	3	10	90	06/23/03	
804	K	3HS1	2.6	9.8	0.0	3	10	90	06/23/03	
804	L	1	0.0	0.0	0.0	3	10	90	06/23/03	
804	L	2	0.0	0.0	0.0	3	10	90	06/23/03	
804	L	3	0.0	4.8	0.0	3	10	90	06/23/03	
804	L	4	0.0	0.0	0.0	3	10	90	06/23/03	

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Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
804	L	5	8.5	15.6	0.0	3	10	90	06/23/03	
804	L	6	6.3	13.7	0.0	3	10	90	06/23/03	
804	L	7	12.3	15.2	0.0	3	10	90	06/23/03	
804	L	8	7.4	18.3	0.0	3	10	90	06/23/03	
804	L	9	1.1	0.0	0.0	3	10	90	06/23/03	
805	A	1	3.3	5.4	0.0	3	10	90	06/09/03	
805	A	2	2.9	7.3	0.0	3	10	90	06/09/03	
805	A	3	4.8	0.0	0.0	3	10	90	06/09/03	
805	A	4	2.6	9.3	0.0	3	10	90	06/09/03	
805	A	5	2.9	0.0	0.0	3	10	90	06/09/03	
805	A	6	0.0	0.0	0.0	3	10	90	06/09/03	
805	A	7	1.4	6.9	0.0	3	10	90	06/09/03	
805	A	8	2.6	6.5	0.0	3	10	90	06/09/03	
805	A	9	3.3	8.1	0.0	3	10	90	06/09/03	
805	A	10	2.2	7.7	0.0	3	10	90	06/09/03	
805	A	11	2.2	0.0	0.0	3	10	90	06/09/03	
805	A	12	2.9	6.2	0.0	3	10	90	06/09/03	
805	A	13	10.0	22.5	0.0	3	10	90	06/09/03	
805	A	1HS1	2.9	5.0	0.0	3	10	90	06/09/03	
805	A	10HS1	19.4	52.4	0.0	3	10	90	06/09/03	
805	A	8HS1	15.6	43.0	0.0	3	10	90	06/09/03	
805	B	1	3.3	0.0	0.0	3	10	90	06/09/03	
805	B	2	2.9	12.4	0.0	3	10	90	06/09/03	
805	B	3	2.6	5.0	0.0	3	10	90	06/09/03	
805	B	4	2.2	0.0	0.0	3	10	90	06/09/03	
805	B	5	2.6	5.4	0.0	3	10	90	06/09/03	
805	B	6	1.4	7.7	0.0	3	10	90	06/09/03	
805	B	7	1.4	0.0	0.0	3	10	90	06/09/03	
805	B	8	0.0	0.0	0.0	3	10	90	06/09/03	
805	B	9	1.1	0.0	0.0	3	10	90	06/09/03	
805	B	10	2.2	0.0	0.0	3	10	90	06/09/03	
805	B	11	2.2	0.0	0.0	3	10	90	06/09/03	
805	B	12	2.6	6.5	0.0	3	10	90	06/09/03	
805	B	13	1.4	0.0	0.0	3	10	90	06/09/03	
805	B	13HS1	1.8	6.5	0.0	3	10	90	06/09/03	
805	B	7HS1	4.4	0.0	0.0	3	10	90	06/09/03	
805	C	1	4.1	0.0	0.0	3	10	90	06/09/03	
805	C	2	2.9	9.7	0.0	3	10	90	06/09/03	
805	C	3	2.2	0.0	0.0	3	10	90	06/09/03	
805	C	4	4.4	5.0	0.0	3	10	90	06/09/03	
805	C	5	2.9	8.5	0.0	3	10	90	06/09/03	
805	C	6	2.2	6.9	0.0	3	10	90	06/09/03	
805	C	7	3.3	0.0	0.0	3	10	90	06/09/03	
805	C	8	0.0	0.0	0.0	3	10	90	06/09/03	
805	C	9	0.0	0.0	0.0	3	10	90	06/09/03	
805	C	10	1.1	0.0	0.0	3	10	90	06/09/03	
805	C	11	0.0	0.0	0.0	3	10	90	06/09/03	
805	C	12	2.9	0.0	0.0	3	10	90	06/09/03	
805	C	13	5.2	0.0	0.0	3	10	90	06/09/03	
805	C	11HS1	2.2	8.9	0.0	3	10	90	06/09/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
805 C 1HS1			11.2	15.9	0.0	3	10	90	06/09/03	
805 D 1			1.8	0.0	0.0	3	10	90	06/09/03	
805 D 2			4.8	8.9	0.0	3	10	90	06/09/03	
805 D 3			4.1	13.5	0.0	3	10	90	06/09/03	
805 D 4			5.5	15.9	0.0	3	10	90	06/09/03	
805 D 5			10.4	19.7	0.0	3	10	90	06/09/03	
805 D 6			5.9	8.5	0.0	3	10	90	06/09/03	
805 D 7			2.2	0.0	0.0	3	10	90	06/09/03	
805 D 8			5.2	11.6	0.0	3	10	90	06/09/03	
805 D 9			1.8	0.0	0.0	3	10	90	06/09/03	
805 D 10			1.4	5.8	0.0	3	10	90	06/09/03	
805 D 11			3.3	0.0	0.0	3	10	90	06/09/03	
805 D 12			5.2	6.2	0.0	3	10	90	06/09/03	
805 D 13			18.3	33.7	0.0	3	10	90	06/09/03	
805 D 1HS1			6.3	8.1	0.0	3	10	90	06/09/03	
805 D 11HS1			12.6	28.7	53.3	3	10	90	06/09/03	
805 D 13HS1			13.8	24.4	0.0	3	10	90	06/09/03	
805 E 1			0.0	5.8	0.0	3	10	90	06/09/03	
805 E 2			0.0	0.0	0.0	3	10	90	06/09/03	
805 E 3			1.1	0.0	0.0	3	10	90	06/09/03	
805 E 4			0.0	0.0	0.0	3	10	90	06/09/03	
805 E 5			1.1	0.0	0.0	3	10	90	06/09/03	
805 E 6			0.0	0.0	0.0	3	10	90	06/09/03	
805 E 7			0.0	0.0	0.0	3	10	90	06/09/03	
805 E 8			1.1	0.0	0.0	3	10	90	06/09/03	
805 E 9			0.0	0.0	0.0	3	10	90	06/09/03	
805 E 10			0.0	0.0	0.0	3	10	90	06/09/03	
805 E 11			0.0	0.0	0.0	3	10	90	06/09/03	
805 E 12			0.0	0.0	0.0	3	10	90	06/09/03	
805 E 13			1.1	0.0	0.0	3	10	90	06/09/03	
805 F 2			2.9	0.0	0.0	3	10	90	06/09/03	
805 F 4			1.8	0.0	0.0	3	10	90	06/09/03	
805 F 6			1.4	0.0	0.0	3	10	90	06/09/03	
805 F 8			2.6	0.0	0.0	3	10	90	06/09/03	
805 F 10			1.8	0.0	0.0	3	10	90	06/09/03	
805 F 12			0.0	0.0	0.0	3	10	90	06/09/03	
805 G 1			2.2	5.8	46.5	3	10	90	06/09/03	
805 G 3			7.0	9.7	0.0	3	10	90	06/09/03	
805 G 5			5.5	12.4	0.0	3	10	90	06/09/03	
805 G 7			7.0	12.4	0.0	3	10	90	06/09/03	
805 G 9			1.8	0.0	0.0	3	10	90	06/09/03	
805 G 11			2.2	10.4	0.0	3	10	90	06/09/03	
805 G 13			5.9	14.7	0.0	3	10	90	06/09/03	
805 H 2			1.4	5.8	0.0	3	10	90	06/09/03	
805 H 4			4.1	13.5	0.0	3	10	90	06/09/03	
805 H 6			3.3	5.0	0.0	3	10	90	06/09/03	
805 H 8			1.8	9.3	0.0	3	10	90	06/09/03	
805 H 10			2.9	5.4	0.0	3	10	90	06/09/03	
805 H 12			2.6	6.9	0.0	3	10	90	06/09/03	
805 I 1			1.4	8.2	0.0	3	10	90	06/09/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
805	I	3	5.2	0.0	0.0	3	10	90	06/09/03	
805	I	5	0.0	0.0	0.0	3	10	90	06/09/03	
805	I	7	1.1	6.7	0.0	3	10	90	06/09/03	
805	I	9	2.5	0.0	0.0	3	10	90	06/09/03	
805	I	11	3.7	8.9	0.0	3	10	90	06/09/03	
805	I	13	2.9	4.8	0.0	3	10	90	06/09/03	
805	J	1	2.2	0.0	0.0	3	10	90	06/09/03	
805	J	2	1.1	0.0	0.0	3	10	90	06/09/03	
805	J	3	0.0	0.0	0.0	3	10	90	06/09/03	
805	J	4	0.0	0.0	0.0	3	10	90	06/09/03	
805	J	5	0.0	0.0	0.0	3	10	90	06/09/03	
805	J	6	0.0	0.0	0.0	3	10	90	06/09/03	
805	J	7	0.0	0.0	0.0	3	10	90	06/09/03	
805	J	8	0.0	0.0	0.0	3	10	90	06/09/03	
805	J	9	0.0	0.0	0.0	3	10	90	06/09/03	
805	J	10	1.1	0.0	0.0	3	10	90	06/09/03	
805	J	11	0.0	0.0	0.0	3	10	90	06/09/03	
805	J	12	0.0	0.0	0.0	3	10	90	06/09/03	
805	J	13	1.4	0.0	0.0	3	10	90	06/09/03	
805	K	1	2.2	5.5	0.0	3	10	90	06/09/03	
805	K	2	1.4	0.0	0.0	3	10	90	06/09/03	
805	K	3	1.1	4.8	0.0	3	10	90	06/09/03	
805	K	4	2.2	0.0	0.0	3	10	90	06/09/03	
805	K	6	1.8	0.0	0.0	3	10	90	06/09/03	
805	K	8	1.4	0.0	0.0	3	10	90	06/09/03	
805	K	9	5.5	13.4	0.0	3	10	90	06/09/03	
805	L	1	0.0	0.0	0.0	3	10	90	06/09/03	
805	L	2	1.4	0.0	0.0	3	10	90	06/09/03	
805	L	3	1.4	0.0	0.0	3	10	90	06/09/03	
805	L	4	1.8	0.0	0.0	3	10	90	06/09/03	
805	L	5	1.8	0.0	0.0	3	10	90	06/09/03	
805	L	7	2.9	12.3	0.0	3	10	90	06/09/03	
805	L	9	5.5	15.3	0.0	3	10	90	06/09/03	
806	A	1	6.2	14.7	0.0	3	9	85	08/04/03	
806	A	2	2.2	5.6	0.0	3	9	85	08/04/03	
806	A	3	6.2	12.7	0.0	3	9	85	08/04/03	
806	A	4	9.4	19.0	0.0	3	9	85	08/04/03	
806	A	5	33.8	56.9	0.0	3	9	85	08/04/03	
806	A	6	10.6	13.9	0.0	3	9	85	08/04/03	
806	A	7	7.4	17.1	0.0	3	9	85	08/04/03	
806	A	8	8.2	10.4	0.0	3	9	85	08/04/03	
806	A	9	23.4	54.5	0.0	3	9	85	08/04/03	
806	A	10	13.0	19.8	0.0	3	9	85	08/04/03	
806	A	11	11.0	22.6	0.0	3	9	85	08/04/03	
806	A	12	11.0	32.0	0.0	3	9	85	08/04/03	
806	A	13	8.6	18.3	0.0	3	9	85	08/04/03	
806	B	1	5.0	8.4	0.0	3	9	85	08/04/03	
806	B	2	4.6	4.5	0.0	3	9	85	08/04/03	
806	B	3	2.2	9.2	0.0	3	9	85	08/04/03	
806	B	4	6.2	14.3	0.0	3	9	85	08/04/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
806	B	5	2.2	10.4	0.0	3	9	85	08/04/03	
806	B	6	3.8	6.4	0.0	3	9	85	08/04/03	
806	B	7	4.2	6.0	0.0	3	9	85	08/04/03	
806	B	8	3.8	9.2	0.0	3	9	85	08/04/03	
806	B	9	3.8	9.6	0.0	3	9	85	08/04/03	
806	B	10	3.8	8.8	0.0	3	9	85	08/04/03	
806	B	11	3.0	9.6	0.0	3	9	85	08/04/03	
806	B	12	5.0	13.5	0.0	3	9	85	08/04/03	
806	B	13	11.4	19.0	0.0	3	9	85	08/04/03	
806	C	1	2.2	9.2	0.0	3	9	85	08/04/03	
806	C	2	4.6	0.0	0.0	3	9	85	08/04/03	
806	C	3	3.4	4.5	0.0	3	9	85	08/04/03	
806	C	4	3.0	6.0	0.0	3	9	85	08/04/03	
806	C	5	4.2	0.0	0.0	3	9	85	08/04/03	
806	C	6	1.4	0.0	0.0	3	9	85	08/04/03	
806	C	7	6.2	8.0	0.0	3	9	85	08/04/03	
806	C	8	3.8	11.2	0.0	3	9	85	08/04/03	
806	C	9	5.4	0.0	0.0	3	9	85	08/04/03	
806	C	10	3.8	0.0	0.0	3	9	85	08/04/03	
806	C	11	5.4	10.0	0.0	3	9	85	08/04/03	
806	C	12	4.2	6.8	0.0	3	9	85	08/04/03	
806	C	13	5.8	29.7	0.0	3	9	85	08/04/03	
806	D	1	5.4	8.4	0.0	3	9	85	08/04/03	
806	D	2	6.6	9.2	0.0	3	9	85	08/04/03	
806	D	3	1.8	12.7	0.0	3	9	85	08/04/03	
806	D	4	7.8	15.5	0.0	3	9	85	08/04/03	
806	D	5	6.2	11.2	0.0	3	9	85	08/04/03	
806	D	6	7.4	17.9	0.0	3	9	85	08/04/03	
806	D	7	2.2	5.6	0.0	3	9	85	08/04/03	
806	D	8	7.4	13.1	0.0	3	9	85	08/04/03	
806	D	9	4.6	15.5	0.0	3	9	85	08/04/03	
806	D	10	6.6	8.4	0.0	3	9	85	08/04/03	
806	D	11	6.6	15.9	0.0	3	9	85	08/04/03	
806	D	12	19.4	70.2	0.0	3	9	85	08/04/03	
806	D	13	19.4	37.9	0.0	3	9	85	08/04/03	
806	E	1	0.0	0.0	0.0	3	9	85	08/04/03	
806	E	2	0.0	0.0	0.0	3	9	85	08/04/03	
806	E	3	0.0	0.0	0.0	3	9	85	08/04/03	
806	E	4	0.0	0.0	0.0	3	9	85	08/04/03	
806	E	5	0.0	0.0	0.0	3	9	85	08/04/03	
806	E	6	0.0	0.0	0.0	3	9	85	08/04/03	
806	E	7	0.0	0.0	0.0	3	9	85	08/04/03	
806	E	8	0.0	0.0	0.0	3	9	85	08/04/03	
806	E	9	0.0	0.0	0.0	3	9	85	08/04/03	
806	E	10	0.0	0.0	0.0	3	9	85	08/04/03	
806	E	11	1.4	0.0	0.0	3	9	85	08/04/03	
806	E	12	0.0	0.0	0.0	3	9	85	08/04/03	
806	E	13	0.0	0.0	0.0	3	9	85	08/04/03	
806	F	1	0.0	0.0	0.0	3	9	85	08/04/03	
806	F	2	2.2	4.5	0.0	3	9	85	08/04/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
806	F	3	0.0	4.9	0.0	3	9	85	08/04/03	
806	F	4	0.0	0.0	0.0	3	9	85	08/04/03	
806	F	5	0.0	5.3	0.0	3	9	85	08/04/03	
806	F	6	2.2	6.0	0.0	3	9	85	08/04/03	
806	F	7	3.0	6.4	0.0	3	9	85	08/04/03	
806	F	8	3.0	0.0	0.0	3	9	85	08/04/03	
806	F	9	1.8	11.6	0.0	3	9	85	08/04/03	
806	F	10	3.4	0.0	0.0	3	9	85	08/04/03	
806	F	11	0.0	0.0	0.0	3	9	85	08/04/03	
806	F	12	0.0	4.5	0.0	3	9	85	08/04/03	
806	F	13	3.8	0.0	0.0	3	9	85	08/04/03	
806	G	1	3.0	0.0	0.0	3	9	85	08/04/03	
806	G	2	1.8	6.8	0.0	3	9	85	08/04/03	
806	G	3	0.0	0.0	0.0	3	9	85	08/04/03	
806	G	4	1.4	4.5	0.0	3	9	85	08/04/03	
806	G	5	5.8	8.0	0.0	3	9	85	08/04/03	
806	G	6	2.6	4.9	0.0	3	9	85	08/04/03	
806	G	7	2.6	8.8	0.0	3	9	85	08/04/03	
806	G	8	0.0	5.3	0.0	3	9	85	08/04/03	
806	G	9	3.0	0.0	0.0	3	9	85	08/04/03	
806	G	10	1.8	4.9	0.0	3	9	85	08/04/03	
806	G	11	1.4	0.0	0.0	3	9	85	08/04/03	
806	G	12	1.8	0.0	0.0	3	9	85	08/04/03	
806	G	13	3.8	0.0	0.0	3	9	85	08/04/03	
806	H	1	3.3	11.5	0.0	3	8	84	08/04/03	
806	H	2	3.3	11.9	0.0	3	8	84	08/04/03	
806	H	3	2.5	8.8	0.0	3	8	84	08/04/03	
806	H	4	2.9	8.8	0.0	3	8	84	08/04/03	
806	H	5	0.9	0.0	0.0	3	8	84	08/04/03	
806	H	6	3.7	8.1	0.0	3	8	84	08/04/03	
806	H	7	2.9	11.1	0.0	3	8	84	08/04/03	
806	H	8	1.7	3.9	0.0	3	8	84	08/04/03	
806	H	9	1.3	5.8	0.0	3	8	84	08/04/03	
806	H	10	0.0	0.0	0.0	3	8	84	08/04/03	
806	H	11	0.0	0.0	0.0	3	8	84	08/04/03	
806	H	12	0.0	0.0	0.0	3	8	84	08/04/03	
806	H	13	2.1	5.4	0.0	3	8	84	08/04/03	
806	I	1	3.7	3.9	0.0	3	8	84	08/04/03	
806	I	2	0.0	0.0	0.0	3	8	84	08/04/03	
806	I	3	1.7	10.7	0.0	3	8	84	08/04/03	
806	I	4	3.7	5.8	0.0	3	8	84	08/04/03	
806	I	5	2.1	5.4	0.0	3	8	84	08/04/03	
806	I	6	2.9	6.5	0.0	3	8	84	08/04/03	
806	I	7	2.1	10.7	0.0	3	8	84	08/04/03	
806	I	8	2.1	0.0	0.0	3	8	84	08/04/03	
806	I	9	0.9	3.9	0.0	3	8	84	08/04/03	
806	I	10	2.1	0.0	0.0	3	8	84	08/04/03	
806	I	11	0.0	0.0	0.0	3	8	84	08/04/03	
806	I	12	2.9	8.4	0.0	3	8	84	08/04/03	
806	I	13	3.3	4.6	0.0	3	8	84	08/04/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
806 J 1			2.9	8.1	0.0	3	8	84	08/04/03	
806 J 2			0.0	0.0	0.0	3	8	84	08/04/03	
806 J 3			0.9	0.0	0.0	3	8	84	08/04/03	
806 J 4			0.0	4.6	0.0	3	8	84	08/04/03	
806 J 5			1.7	5.4	0.0	3	8	84	08/04/03	
806 J 6			0.9	0.0	0.0	3	8	84	08/04/03	
806 J 7			0.0	0.0	0.0	3	8	84	08/04/03	
806 J 8			0.0	0.0	0.0	3	8	84	08/04/03	
806 J 9			0.0	0.0	0.0	3	8	84	08/04/03	
806 J 10			0.9	0.0	0.0	3	8	84	08/04/03	
806 J 11			1.3	0.0	0.0	3	8	84	08/04/03	
806 J 12			0.0	4.2	0.0	3	8	84	08/04/03	
806 J 13			1.7	0.0	0.0	3	8	84	08/04/03	
806 K 1			3.7	4.6	0.0	3	8	84	08/04/03	
806 K 2			2.9	5.0	0.0	3	8	84	08/04/03	
806 K 3			2.1	3.9	0.0	3	8	84	08/04/03	
806 K 4			1.7	9.2	0.0	3	8	84	08/04/03	
806 K 5			4.9	11.9	0.0	3	8	84	08/04/03	
806 K 6			4.1	8.8	0.0	3	8	84	08/04/03	
806 K 7			2.1	5.8	0.0	3	8	84	08/04/03	
806 K 8			2.1	0.0	0.0	3	8	84	08/04/03	
806 K 9			1.3	8.1	0.0	3	8	84	08/04/03	
806 L 1			0.0	0.0	0.0	3	8	84	08/04/03	
806 L 2			0.0	0.0	0.0	3	8	84	08/04/03	
806 L 3			0.0	0.0	0.0	3	8	84	08/04/03	
806 L 4			2.5	3.9	0.0	3	8	84	08/04/03	
806 L 5			0.9	0.0	0.0	3	8	84	08/04/03	
806 L 6			1.7	0.0	0.0	3	8	84	08/04/03	
806 L 7			2.1	0.0	0.0	3	8	84	08/04/03	
806 L 8			0.0	0.0	0.0	3	8	84	08/04/03	
806 L 9			3.3	6.9	0.0	3	8	84	08/04/03	
806 A 1HS1			3.2	6.4	0.0	2	9	83	08/04/03	
806 A 2HS1			2.8	0.0	0.0	2	9	83	08/04/03	
806 A 2HS2			26.4	74.9	43.1	2	9	83	08/04/03	
806 A 3HS1			30.4	92.3	46.9	2	9	83	08/04/03	
806 A 4HS1			40.2	112.1	0.0	2	9	83	08/04/03	
806 A 5HS1			60.6	137.4	77.1	2	9	83	08/04/03	
806 A 6HS1			162.3	464.6	210.5	2	9	83	08/04/03	
806 A 6HS2			7.7	8.7	0.0	2	9	83	08/04/03	
806 A 7HS1			96.4	281.2	143.5	2	9	83	08/04/03	
806 A 8HS1			39.4	79.6	41.2	2	9	83	08/04/03	
806 A 9HS1			51.6	74.5	52.2	2	9	83	08/04/03	
806 A 10HS1			146.0	244.0	123.4	2	9	83	08/04/03	
806 A 11HS1			33.7	86.4	83.7	2	9	83	08/04/03	
806 A 12HS1			14.6	80.8	0.0	2	9	83	08/04/03	
806 A 13HS1			30.4	102.6	102.6	2	9	83	08/04/03	
806 A 13HS2			13.4	27.7	0.0	2	9	83	08/04/03	
806 B 1HS1			4.4	5.2	0.0	2	9	83	08/04/03	
806 B 1HS2			2.4	5.6	0.0	2	9	83	08/04/03	
806 B 4HS1			6.8	18.6	0.0	2	9	83	08/04/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
806	B	6HS1	3.6	0.0	0.0	2	9	83	08/04/03	
806	B	6HS2	5.6	5.6	0.0	2	9	83	08/04/03	
806	B	6HS3	2.4	8.3	0.0	2	9	83	08/04/03	
806	B	7HS2	3.6	8.7	0.0	2	9	83	08/04/03	
806	B	7HS3	6.4	7.2	0.0	2	9	83	08/04/03	
806	B	7HS4	3.6	7.2	0.0	2	9	83	08/04/03	
806	B	8HS1	5.6	6.8	0.0	2	9	83	08/04/03	
806	B	9HS1	3.2	4.0	0.0	2	9	83	08/04/03	
806	B	10HS1	7.7	13.9	0.0	2	9	83	08/04/03	
806	C	2HS1	3.6	0.0	0.0	2	9	83	08/04/03	
806	C	5HS1	4.4	8.7	0.0	2	9	83	08/04/03	
806	C	6HS1	4.8	6.4	0.0	2	9	83	08/04/03	
806	C	6HS2	4.8	9.1	0.0	2	9	83	08/04/03	
806	C	8HS1	4.4	7.9	0.0	2	9	83	08/04/03	
806	C	11HS1	5.2	16.7	0.0	2	9	83	08/04/03	
806	C	11HS2	4.0	6.0	0.0	2	9	83	08/04/03	
806	C	11HS3	12.1	30.5	0.0	2	9	83	08/04/03	
806	C	12HS1	4.4	6.4	0.0	2	9	83	08/04/03	
806	C	12HS2	4.0	8.3	0.0	2	9	83	08/04/03	
806	C	13HS1	56.9	248.7	103.4	2	9	83	08/04/03	
806	D	1HS1	6.0	17.4	0.0	2	9	83	08/04/03	
806	D	2HS1	18.2	69.3	0.0	2	9	83	08/04/03	
806	D	2HS2	4.4	6.8	0.0	2	9	83	08/04/03	
806	D	3HS1	22.7	62.2	46.0	2	9	83	08/04/03	
806	D	3HS2	15.8	57.8	0.0	2	9	83	08/04/03	
806	D	4HS1	10.1	21.0	45.0	2	9	83	08/04/03	
806	D	4HS2	41.8	136.7	68.4	2	9	83	08/04/03	
806	D	5HS1	8.5	12.7	0.0	2	9	83	08/04/03	
806	D	5HS2	110.2	310.1	148.8	2	9	83	08/04/03	
806	D	6HS1	74.0	203.2	71.8	2	9	83	08/04/03	
806	D	7HS1	43.1	111.3	81.8	2	9	83	08/04/03	
806	D	8HS1	26.0	64.2	0.0	2	9	83	08/04/03	
806	D	9HS1	180.2	803.2	438.7	2	9	83	08/04/03	
806	D	10HS1	55.7	133.1	62.2	2	9	83	08/04/03	
806	D	11HS1	96.0	304.2	162.7	2	9	83	08/04/03	
806	D	12HS1	16.2	39.2	0.0	2	9	83	08/04/03	
806	D	12HS2	17.0	43.6	0.0	2	9	83	08/04/03	
806	D	13HS1	244.1	1039.2	479.3	2	9	83	08/04/03	
806	J	3HS1	19.0	64.6	44.5	2	9	83	08/04/03	
806	J	4HS1	26.4	82.4	0.0	2	9	83	08/04/03	
806	J	5HS1	15.4	36.5	0.0	2	9	83	08/04/03	
806	J	6HS1	21.9	78.0	72.3	2	9	83	08/04/03	
806	J	7HS1	16.6	35.3	0.0	2	9	83	08/04/03	
806	J	8HS1	10.5	36.1	0.0	2	9	83	08/04/03	
806	J	9HS1	38.2	223.0	184.7	2	9	83	08/04/03	
806	J	10HS1	51.2	114.5	69.9	2	9	83	08/04/03	
807	A	1	0.0	0.0	0.0	3	10	90	06/23/03	
807	A	2	1.6	5.2	0.0	3	10	90	06/23/03	
807	A	3	1.2	0.0	0.0	3	10	90	06/23/03	
807	A	4	1.2	0.0	0.0	3	10	90	06/23/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
807	A	5	1.6	0.0	0.0	3	10	90	06/23/03	
807	A	6	1.6	9.4	0.0	3	10	90	06/23/03	
807	A	7	5.4	4.8	0.0	3	10	90	06/23/03	
807	A	8	1.2	0.0	0.0	3	10	90	06/23/03	
807	A	9	2.7	0.0	0.0	3	10	90	06/23/03	
807	A	10	1.2	0.0	0.0	3	10	90	06/23/03	
807	A	11	2.4	0.0	0.0	3	10	90	06/23/03	
807	A	12	3.9	7.5	0.0	3	10	90	06/23/03	
807	A	13	8.7	19.5	0.0	3	10	90	06/23/03	
807	A	6HS1	19.2	45.1	0.0	3	10	90	06/23/03	
807	A	12HS1	60.1	154.0	48.8	3	10	90	06/23/03	
807	A	13HS1	24.5	47.4	0.0	3	10	90	06/23/03	
807	B	1	3.5	4.8	0.0	3	10	90	06/23/03	
807	B	2	1.6	0.0	0.0	3	10	90	06/23/03	
807	B	3	2.0	0.0	0.0	3	10	90	06/23/03	
807	B	4	0.0	0.0	0.0	3	10	90	06/23/03	
807	B	5	0.0	5.6	0.0	3	10	90	06/23/03	
807	B	6	1.2	9.4	0.0	3	10	90	06/23/03	
807	B	7	2.0	6.3	0.0	3	10	90	06/23/03	
807	B	8	2.4	0.0	0.0	3	10	90	06/23/03	
807	B	9	1.2	0.0	0.0	3	10	90	06/23/03	
807	B	10	1.2	5.6	0.0	3	10	90	06/23/03	
807	B	11	4.6	8.2	0.0	3	10	90	06/23/03	
807	B	12	2.0	6.7	0.0	3	10	90	06/23/03	
807	B	13	6.9	15.0	0.0	3	10	90	06/23/03	
807	B	11HS1	19.6	37.6	0.0	3	10	90	06/23/03	
807	B	13HS1	20.7	52.7	0.0	3	10	90	06/23/03	
807	C	1	1.6	7.1	0.0	3	10	90	06/23/03	
807	C	2	1.2	0.0	0.0	3	10	90	06/23/03	
807	C	3	3.1	9.0	0.0	3	10	90	06/23/03	
807	C	4	0.0	0.0	0.0	3	10	90	06/23/03	
807	C	5	1.2	9.0	0.0	3	10	90	06/23/03	
807	C	6	2.4	12.4	0.0	3	10	90	06/23/03	
807	C	7	4.6	10.5	0.0	3	10	90	06/23/03	
807	C	8	1.6	0.0	0.0	3	10	90	06/23/03	
807	C	9	3.1	6.0	0.0	3	10	90	06/23/03	
807	C	10	2.7	6.0	0.0	3	10	90	06/23/03	
807	C	11	4.6	0.0	0.0	3	10	90	06/23/03	
807	C	12	0.0	0.0	0.0	3	10	90	06/23/03	
807	C	13	5.4	10.9	0.0	3	10	90	06/23/03	
807	D	1	2.7	6.3	0.0	3	10	90	06/23/03	
807	D	2	3.5	12.4	0.0	3	10	90	06/23/03	
807	D	3	2.7	0.0	0.0	3	10	90	06/23/03	
807	D	4	0.0	0.0	0.0	3	10	90	06/23/03	
807	D	5	0.0	0.0	0.0	3	10	90	06/23/03	
807	D	6	0.0	5.2	0.0	3	10	90	06/23/03	
807	D	7	1.2	0.0	0.0	3	10	90	06/23/03	
807	D	8	0.0	0.0	0.0	3	10	90	06/23/03	
807	D	9	0.0	0.0	0.0	3	10	90	06/23/03	
807	D	10	1.6	0.0	0.0	3	10	90	06/23/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
807	D	11	0.0	8.6	0.0	3	10	90	06/23/03	
807	D	12	12.5	23.3	0.0	3	10	90	06/23/03	
807	D	13	3.1	9.7	0.0	3	10	90	06/23/03	
807	E	1	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	2	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	3	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	4	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	5	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	6	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	7	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	8	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	9	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	10	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	11	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	12	0.0	0.0	0.0	3	10	90	06/23/03	
807	E	13	0.0	5.2	0.0	3	10	90	06/23/03	
807	F	2	0.0	5.6	0.0	3	10	90	06/23/03	
807	F	4	1.6	0.0	0.0	3	10	90	06/23/03	
807	F	6	0.0	0.0	0.0	3	10	90	06/23/03	
807	F	8	0.0	6.0	0.0	3	10	90	06/23/03	
807	F	10	2.0	0.0	0.0	3	10	90	06/23/03	
807	F	12	1.2	0.0	0.0	3	10	90	06/23/03	
807	G	1	0.0	0.0	0.0	3	10	90	06/23/03	
807	G	3	0.0	4.8	0.0	3	10	90	06/23/03	
807	G	5	0.0	0.0	0.0	3	10	90	06/23/03	
807	G	7	2.4	6.3	0.0	3	10	90	06/23/03	
807	G	9	0.0	0.0	0.0	3	10	90	06/23/03	
807	G	11	0.0	0.0	0.0	3	10	90	06/23/03	
807	G	13	0.0	0.0	0.0	3	10	90	06/23/03	
807	H	2	2.0	6.0	0.0	3	10	90	06/23/03	
807	H	4	0.0	0.0	0.0	3	10	90	06/23/03	
807	H	6	1.2	0.0	0.0	3	10	90	06/23/03	
807	H	8	0.0	0.0	0.0	3	10	90	06/23/03	
807	H	10	0.0	6.3	0.0	3	10	90	06/23/03	
807	H	12	0.0	0.0	0.0	3	10	90	06/23/03	
807	I	1	2.7	4.8	0.0	3	10	90	06/23/03	
807	I	3	0.0	0.0	0.0	3	10	90	06/23/03	
807	I	5	2.4	5.6	0.0	3	10	90	06/23/03	
807	I	7	0.0	5.6	0.0	3	10	90	06/23/03	
807	I	9	2.0	0.0	0.0	3	10	90	06/23/03	
807	I	11	1.6	0.0	0.0	3	10	90	06/23/03	
807	I	13	0.0	8.6	0.0	3	10	90	06/23/03	
807	J	1	1.2	6.4	0.0	3	9	83	06/23/03	
807	J	2	1.2	4.3	0.0	3	9	83	06/23/03	
807	J	3	0.0	0.0	0.0	3	9	83	06/23/03	
807	J	4	1.2	3.9	0.0	3	9	83	06/23/03	
807	J	5	0.0	0.0	0.0	3	9	83	06/23/03	
807	J	6	0.0	6.0	0.0	3	9	83	06/23/03	
807	J	7	0.0	0.0	0.0	3	9	83	06/23/03	
807	J	8	0.0	0.0	0.0	3	9	83	06/23/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
807	J	9	0.0	0.0	0.0	3	9	83	06/23/03	
807	J	10	0.0	0.0	0.0	3	9	83	06/23/03	
807	J	11	0.0	0.0	0.0	3	9	83	06/23/03	
807	J	12	0.0	0.0	0.0	3	9	83	06/23/03	
807	J	13	0.0	0.0	0.0	3	9	83	06/23/03	
807	K	1	0.0	0.0	0.0	3	9	83	06/23/03	
807	K	2	0.0	0.0	0.0	3	9	83	06/23/03	
807	K	3	0.0	6.0	0.0	3	9	83	06/23/03	
807	K	4	0.0	0.0	0.0	3	9	83	06/23/03	
807	K	5	2.4	25.1	0.0	3	9	83	06/23/03	
807	K	7	1.6	0.0	0.0	3	9	83	06/23/03	
807	K	9	0.0	0.0	0.0	3	9	83	06/23/03	
807	L	1	0.0	0.0	0.0	3	9	83	06/23/03	
807	L	2	0.0	0.0	0.0	3	9	83	06/23/03	
807	L	3	0.0	0.0	0.0	3	9	83	06/23/03	
807	L	4	0.0	0.0	0.0	3	9	83	06/23/03	
807	L	6	1.6	6.0	0.0	3	9	83	06/23/03	
807	L	8	0.0	6.4	0.0	3	9	83	06/23/03	
807	L	9	1.6	14.3	0.0	3	9	83	06/23/03	
808	A	1	3.3	36.2	0.0	3	9	90	06/27/03	
808	A	2	3.3	25.5	0.0	3	9	90	06/27/03	
808	A	3	2.2	22.8	0.0	3	9	90	06/27/03	
808	A	4	3.6	19.8	0.0	3	9	90	06/27/03	
808	A	5	3.6	14.8	0.0	3	9	90	06/27/03	
808	A	6	6.2	24.4	0.0	3	9	90	06/27/03	
808	A	7	5.1	25.5	0.0	3	9	90	06/27/03	
808	A	8	2.5	23.2	0.0	3	9	90	06/27/03	
808	A	9	1.0	12.9	0.0	3	9	90	06/27/03	
808	A	10	1.0	15.6	0.0	3	9	90	06/27/03	
808	A	11	2.5	14.8	0.0	3	9	90	06/27/03	
808	A	12	7.3	21.7	0.0	3	9	90	06/27/03	
808	A	13	10.7	44.6	0.0	3	9	90	06/27/03	
808	B	1	0.0	11.0	0.0	3	9	90	06/27/03	
808	B	2	2.5	7.2	0.0	3	9	90	06/27/03	
808	B	3	1.4	6.4	0.0	3	9	90	06/27/03	
808	B	4	3.6	8.7	0.0	3	9	90	06/27/03	
808	B	5	1.8	8.3	0.0	3	9	90	06/27/03	
808	B	6	5.9	14.8	0.0	3	9	90	06/27/03	
808	B	7	4.0	14.8	0.0	3	9	90	06/27/03	
808	B	8	1.4	8.3	0.0	3	9	90	06/27/03	
808	B	9	5.1	21.7	0.0	3	9	90	06/27/03	
808	B	10	4.0	14.8	0.0	3	9	90	06/27/03	
808	B	11	9.9	62.2	0.0	3	9	90	06/27/03	
808	B	12	1.8	27.4	0.0	3	9	90	06/27/03	
808	B	13	19.2	72.5	0.0	3	9	90	06/27/03	
808	C	1	0.0	17.5	0.0	3	9	90	06/27/03	
808	C	2	1.0	8.7	0.0	3	9	90	06/27/03	
808	C	3	4.0	15.2	0.0	3	9	90	06/27/03	
808	C	4	1.0	9.8	0.0	3	9	90	06/27/03	
808	C	5	3.3	13.7	0.0	3	9	90	06/27/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
808	C	6	2.9	0.0	0.0	3	9	90	06/27/03	
808	C	7	2.5	11.0	0.0	3	9	90	06/27/03	
808	C	8	3.6	13.7	0.0	3	9	90	06/27/03	
808	C	9	5.5	33.5	0.0	3	9	90	06/27/03	
808	C	10	4.8	27.8	0.0	3	9	90	06/27/03	
808	C	11	16.2	45.6	0.0	3	9	90	06/27/03	
808	C	12	4.0	25.5	0.0	3	9	90	06/27/03	
808	C	13	5.5	33.5	0.0	3	9	90	06/27/03	
808	D	1	5.9	40.4	0.0	3	9	90	06/27/03	
808	D	2	3.6	17.5	0.0	3	9	90	06/27/03	
808	D	3	4.4	15.2	0.0	3	9	90	06/27/03	
808	D	4	1.0	11.4	0.0	3	9	90	06/27/03	
808	D	5	2.9	11.7	0.0	3	9	90	06/27/03	
808	D	6	2.2	6.0	0.0	3	9	90	06/27/03	
808	D	7	5.1	14.4	0.0	3	9	90	06/27/03	
808	D	8	2.5	10.2	0.0	3	9	90	06/27/03	
808	D	9	6.2	30.8	0.0	3	9	90	06/27/03	
808	D	10	5.1	23.6	0.0	3	9	90	06/27/03	
808	D	11	1.8	6.8	0.0	3	9	90	06/27/03	
808	D	12	10.7	69.8	0.0	3	9	90	06/27/03	
808	D	13	5.5	31.2	0.0	3	9	90	06/27/03	
808	E	1	3.6	10.6	0.0	3	9	90	06/27/03	
808	E	2	0.0	5.3	0.0	3	9	90	06/27/03	
808	E	3	1.8	0.0	0.0	3	9	90	06/27/03	
808	E	4	0.0	4.9	0.0	3	9	90	06/27/03	
808	E	5	1.8	6.0	0.0	3	9	90	06/27/03	
808	E	6	0.0	0.0	0.0	3	9	90	06/27/03	
808	E	7	0.0	0.0	0.0	3	9	90	06/27/03	
808	E	8	0.0	5.3	0.0	3	9	90	06/27/03	
808	E	9	1.0	0.0	0.0	3	9	90	06/27/03	
808	E	10	0.0	0.0	0.0	3	9	90	06/27/03	
808	E	11	0.0	0.0	0.0	3	9	90	06/27/03	
808	E	12	0.0	5.3	0.0	3	9	90	06/27/03	
808	E	13	0.0	7.9	0.0	3	9	90	06/27/03	
808	F	1	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	2	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	3	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	4	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	5	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	6	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	7	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	8	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	9	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	10	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	11	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	12	0.0	0.0	0.0	4	11	91	08/04/03	
808	F	13	0.0	7.4	0.0	4	11	91	08/04/03	
808	G	1	0.0	5.9	0.0	4	11	91	08/04/03	
808	G	2	0.0	5.5	0.0	4	11	91	08/04/03	
808	G	3	0.0	5.9	0.0	4	11	91	08/04/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
808	G	4	0.0	0.0	0.0	4	11	91	08/04/03	
808	G	5	0.0	5.5	0.0	4	11	91	08/04/03	
808	G	6	0.0	0.0	0.0	4	11	91	08/04/03	
808	G	7	0.0	0.0	0.0	4	11	91	08/04/03	
808	G	8	0.0	0.0	0.0	4	11	91	08/04/03	
808	G	9	0.0	0.0	0.0	4	11	91	08/04/03	
808	G	10	0.0	0.0	0.0	4	11	91	08/04/03	
808	G	11	0.0	0.0	0.0	4	11	91	08/04/03	
808	G	12	0.0	0.0	0.0	4	11	91	08/04/03	
808	G	13	0.0	0.0	0.0	4	11	91	08/04/03	
808	H	1	2.5	29.0	0.0	4	11	91	08/04/03	
808	H	2	2.1	19.9	0.0	4	11	91	08/04/03	
808	H	3	0.0	0.0	0.0	4	11	91	08/04/03	
808	H	4	0.0	6.6	0.0	4	11	91	08/04/03	
808	H	5	0.0	0.0	0.0	4	11	91	08/04/03	
808	H	6	0.0	5.5	0.0	4	11	91	08/04/03	
808	H	7	0.0	0.0	0.0	4	11	91	08/04/03	
808	H	8	0.0	0.0	0.0	4	11	91	08/04/03	
808	H	9	0.0	0.0	0.0	4	11	91	08/04/03	
808	H	10	0.0	0.0	0.0	4	11	91	08/04/03	
808	H	11	0.0	0.0	0.0	4	11	91	08/04/03	
808	H	12	0.0	0.0	0.0	4	11	91	08/04/03	
808	H	13	2.5	19.1	0.0	4	11	91	08/04/03	
808	I	1	0.0	0.0	0.0	4	11	91	08/04/03	
808	I	2	0.0	0.0	0.0	4	11	91	08/04/03	
808	I	3	0.0	7.8	0.0	4	11	91	08/04/03	
808	I	4	0.0	0.0	0.0	4	11	91	08/04/03	
808	I	5	0.0	0.0	0.0	4	11	91	08/04/03	
808	I	6	0.0	7.4	0.0	4	11	91	08/04/03	
808	I	7	0.0	5.5	0.0	4	11	91	08/04/03	
808	I	8	0.0	0.0	0.0	4	11	91	08/04/03	
808	I	9	0.0	0.0	0.0	4	11	91	08/04/03	
808	I	10	0.0	0.0	0.0	4	11	91	08/04/03	
808	I	11	0.0	0.0	0.0	4	11	91	08/04/03	
808	I	12	0.0	0.0	0.0	4	11	91	08/04/03	
808	I	13	0.0	5.1	0.0	4	11	91	08/04/03	
808	J	1	3.3	8.3	0.0	3	9	90	06/27/03	
808	J	2	2.2	17.9	0.0	3	9	90	06/27/03	
808	J	3	0.0	8.7	0.0	3	9	90	06/27/03	
808	J	4	0.0	0.0	0.0	3	9	90	06/27/03	
808	J	5	2.2	0.0	0.0	3	9	90	06/27/03	
808	J	6	0.0	6.8	0.0	3	9	90	06/27/03	
808	J	7	2.9	8.3	0.0	3	9	90	06/27/03	
808	J	8	0.0	7.9	0.0	3	9	90	06/27/03	
808	J	9	1.0	9.1	0.0	3	9	90	06/27/03	
808	J	10	0.0	4.9	0.0	3	9	90	06/27/03	
808	J	11	1.8	8.3	0.0	3	9	90	06/27/03	
808	J	12	1.8	0.0	0.0	3	9	90	06/27/03	
808	J	13	2.5	18.6	0.0	3	9	90	06/27/03	
808	K	1	0.0	21.4	0.0	4	11	91	08/04/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
808	K	2	0.0	0.0	0.0	4	11	91	08/04/03	
808	K	3	1.7	16.5	0.0	4	11	91	08/04/03	
808	K	4	0.0	0.0	0.0	4	11	91	08/04/03	
808	K	5	0.0	0.0	0.0	4	11	91	08/04/03	
808	K	6	0.0	11.6	0.0	4	11	91	08/04/03	
808	K	7	0.0	5.5	0.0	4	11	91	08/04/03	
808	K	8	0.0	16.9	0.0	4	11	91	08/04/03	
808	K	9	0.0	5.1	0.0	4	11	91	08/04/03	
808	L	1	0.0	0.0	0.0	4	11	91	08/04/03	
808	L	2	0.0	0.0	0.0	4	11	91	08/04/03	
808	L	3	0.0	0.0	0.0	4	11	91	08/04/03	
808	L	4	0.0	0.0	0.0	4	11	91	08/04/03	
808	L	5	0.0	0.0	0.0	4	11	91	08/04/03	
808	L	6	0.0	0.0	0.0	4	11	91	08/04/03	
808	L	7	0.0	0.0	0.0	4	11	91	08/04/03	
808	L	8	0.0	0.0	0.0	4	11	91	08/04/03	
808	L	9	6.9	20.3	0.0	4	11	91	08/04/03	
808	A	7HS1	122.5	421.0	159.1	4	11	91	08/04/03	
808	B	5HS1	11.8	40.0	0.0	4	11	91	08/04/03	
808	B	6HS1	12.1	59.8	0.0	4	11	91	08/04/03	
808	B	7HS1	27.0	170.7	53.0	4	11	91	08/04/03	
808	C	3HS1	8.4	24.1	0.0	4	11	91	08/04/03	
808	C	5HS1	16.6	83.3	0.0	4	11	91	08/04/03	
808	C	11HS1	27.4	136.9	0.0	4	11	91	08/04/03	
808	J	7HS1	121.0	775.7	320.2	4	11	91	08/04/03	
809	A	1	0.0	0.0	0.0	3	10	90	06/09/03	
809	A	2	0.0	0.0	0.0	3	10	90	06/09/03	
809	A	3	3.3	9.3	0.0	3	10	90	06/09/03	
809	A	4	1.4	0.0	0.0	3	10	90	06/09/03	
809	A	5	0.0	0.0	0.0	3	10	90	06/09/03	
809	A	6	1.1	0.0	0.0	3	10	90	06/09/03	
809	A	7	1.8	0.0	0.0	3	10	90	06/09/03	
809	A	8	2.2	0.0	0.0	3	10	90	06/09/03	
809	A	9	1.4	0.0	0.0	3	10	90	06/09/03	
809	A	10	2.2	0.0	0.0	3	10	90	06/09/03	
809	A	11	1.4	0.0	0.0	3	10	90	06/09/03	
809	A	12	2.9	5.1	0.0	3	10	90	06/09/03	
809	A	13	3.3	0.0	0.0	3	10	90	06/09/03	
809	A	1HS1	2.2	0.0	0.0	3	10	90	06/09/03	
809	A	3HS1	1.1	5.5	0.0	3	10	90	06/09/03	
809	A	4HS1	3.3	4.8	0.0	3	10	90	06/09/03	
809	A	6HS1	8.1	15.7	0.0	3	10	90	06/09/03	
809	A	9HS1	9.3	11.6	0.0	3	10	90	06/09/03	
809	A	10HS1	4.8	5.1	0.0	3	10	90	06/09/03	
809	A	11HS1	7.0	10.8	0.0	3	10	90	06/09/03	
809	A	13HS1	1.8	7.0	0.0	3	10	90	06/09/03	
809	B	1	2.9	7.0	0.0	3	10	90	06/09/03	
809	B	2	0.0	0.0	0.0	3	10	90	06/09/03	
809	B	3	0.0	0.0	0.0	3	10	90	06/09/03	
809	B	4	0.0	0.0	0.0	3	10	90	06/09/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
809	B	5	1.8	0.0	0.0	3	10	90	06/09/03	
809	B	6	3.3	7.0	0.0	3	10	90	06/09/03	
809	B	7	0.0	0.0	0.0	3	10	90	06/09/03	
809	B	8	1.1	0.0	0.0	3	10	90	06/09/03	
809	B	9	1.8	0.0	0.0	3	10	90	06/09/03	
809	B	10	1.1	0.0	0.0	3	10	90	06/09/03	
809	B	11	3.3	7.4	0.0	3	10	90	06/09/03	
809	B	12	2.5	8.5	0.0	3	10	90	06/09/03	
809	B	13	1.4	8.2	0.0	3	10	90	06/09/03	
809	B	13HS1	1.8	4.8	0.0	3	10	90	06/09/03	
809	B	8HS1	4.0	6.7	0.0	3	10	90	06/09/03	
809	C	1	0.0	0.0	0.0	3	10	90	06/09/03	
809	C	2	0.0	0.0	0.0	3	10	90	06/09/03	
809	C	3	0.0	0.0	0.0	3	10	90	06/09/03	
809	C	4	1.4	0.0	0.0	3	10	90	06/09/03	
809	C	5	0.0	0.0	0.0	3	10	90	06/09/03	
809	C	6	0.0	0.0	0.0	3	10	90	06/09/03	
809	C	7	0.0	0.0	0.0	3	10	90	06/09/03	
809	C	8	1.4	5.5	0.0	3	10	90	06/09/03	
809	C	9	2.5	0.0	0.0	3	10	90	06/09/03	
809	C	10	4.0	0.0	0.0	3	10	90	06/09/03	
809	C	11	3.7	11.9	0.0	3	10	90	06/09/03	
809	C	12	2.9	0.0	0.0	3	10	90	06/09/03	
809	C	13	1.4	5.9	0.0	3	10	90	06/09/03	
809	C	1HS1	4.8	14.2	0.0	3	10	90	06/09/03	
809	D	1	1.6	3.7	0.0	3	8	84	06/09/03	
809	D	2	3.3	5.4	0.0	3	8	84	06/09/03	
809	D	3	0.0	0.0	0.0	3	8	84	06/09/03	
809	D	4	1.2	3.7	0.0	3	8	84	06/09/03	
809	D	5	1.2	0.0	0.0	3	8	84	06/09/03	
809	D	6	2.5	8.8	0.0	3	8	84	06/09/03	
809	D	7	0.0	0.0	0.0	3	8	84	06/09/03	
809	D	8	2.9	5.8	0.0	3	8	84	06/09/03	
809	D	9	1.6	6.2	0.0	3	8	84	06/09/03	
809	D	10	1.6	0.0	0.0	3	8	84	06/09/03	
809	D	11	2.9	7.1	0.0	3	8	84	06/09/03	
809	D	12	0.0	5.8	0.0	3	8	84	06/09/03	
809	D	13	0.0	0.0	0.0	3	8	84	06/09/03	
809	E	1	1.2	5.8	0.0	3	8	84	06/09/03	
809	E	2	2.9	6.2	0.0	3	8	84	06/09/03	
809	E	3	3.7	7.5	0.0	3	8	84	06/09/03	
809	E	4	0.0	5.0	0.0	3	8	84	06/09/03	
809	E	5	0.0	4.1	0.0	3	8	84	06/09/03	
809	E	6	0.0	6.7	0.0	3	8	84	06/09/03	
809	E	7	0.0	0.0	0.0	3	8	84	06/09/03	
809	E	8	1.2	6.7	0.0	3	8	84	06/09/03	
809	E	9	0.0	4.5	0.0	3	8	84	06/09/03	
809	E	10	2.0	3.7	0.0	3	8	84	06/09/03	
809	E	11	1.2	6.2	0.0	3	8	84	06/09/03	
809	E	12	0.0	0.0	0.0	3	8	84	06/09/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
809 E 13			1.6	9.6	0.0	3	8	84	06/09/03	
809 F 1			1.2	5.4	0.0	3	8	84	06/09/03	
809 F 3			0.0	7.5	0.0	3	8	84	06/09/03	
809 F 5			0.0	3.7	0.0	3	8	84	06/09/03	
809 F 7			0.0	6.7	0.0	3	8	84	06/09/03	
809 F 9			0.0	0.0	0.0	3	8	84	06/09/03	
809 F 11			3.3	9.2	0.0	3	8	84	06/09/03	
809 F 13			3.3	5.8	0.0	3	8	84	06/09/03	
809 G 2			1.2	6.7	0.0	3	8	84	06/09/03	
809 G 4			0.0	4.5	0.0	3	8	84	06/09/03	
809 G 6			1.2	0.0	0.0	3	8	84	06/09/03	
809 G 8			1.2	4.5	0.0	3	8	84	06/09/03	
809 G 10			0.0	10.9	0.0	3	8	84	06/09/03	
809 G 12			0.0	9.2	0.0	3	8	84	06/09/03	
809 H 1			0.0	6.2	0.0	3	8	84	06/09/03	
809 H 3			1.2	9.2	0.0	3	8	84	06/09/03	
809 H 5			0.0	5.4	0.0	3	8	84	06/09/03	
809 H 7			0.0	10.1	0.0	3	8	84	06/09/03	
809 H 9			2.5	5.0	0.0	3	8	84	06/09/03	
809 H 11			2.0	7.5	0.0	3	8	84	06/09/03	
809 H 13			1.2	7.5	0.0	3	8	84	06/09/03	
809 I 2			0.0	5.0	0.0	3	8	84	06/09/03	
809 I 4			2.5	5.4	0.0	3	8	84	06/09/03	
809 I 6			1.6	0.0	0.0	3	8	84	06/09/03	
809 I 8			0.0	0.0	0.0	3	8	84	06/09/03	
809 I 10			0.0	0.0	0.0	3	8	84	06/09/03	
809 I 12			0.0	8.8	0.0	3	8	84	06/09/03	
809 J 1			0.0	5.0	0.0	3	8	84	06/09/03	
809 J 2			0.0	7.5	0.0	3	8	84	06/09/03	
809 J 3			0.0	0.0	0.0	3	8	84	06/09/03	
809 J 4			0.0	0.0	0.0	3	8	84	06/09/03	
809 J 5			0.0	0.0	0.0	3	8	84	06/09/03	
809 J 6			0.0	6.7	0.0	3	8	84	06/09/03	
809 J 7			1.2	0.0	0.0	3	8	84	06/09/03	
809 J 8			0.0	0.0	0.0	3	8	84	06/09/03	
809 J 9			0.0	6.7	0.0	3	8	84	06/09/03	
809 J 10			0.0	0.0	0.0	3	8	84	06/09/03	
809 J 11			2.0	0.0	0.0	3	8	84	06/09/03	
809 J 12			0.0	3.7	0.0	3	8	84	06/09/03	
809 J 13			1.2	0.0	0.0	3	8	84	06/09/03	
809 K 1			2.0	14.3	0.0	3	8	84	06/09/03	
809 K 2			2.9	7.1	0.0	3	8	84	06/09/03	
809 K 3			1.2	9.2	0.0	3	8	84	06/09/03	
809 K 4			2.9	7.9	0.0	3	8	84	06/09/03	
809 K 6			1.2	6.7	0.0	3	8	84	06/09/03	
809 K 8			3.3	17.3	0.0	3	8	84	06/09/03	
809 K 9			3.7	7.9	0.0	3	8	84	06/09/03	
809 L 1			1.6	0.0	0.0	3	8	84	06/09/03	
809 L 2			1.6	0.0	0.0	3	8	84	06/09/03	
809 L 3			3.7	0.0	0.0	3	8	84	06/09/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
809	L	4	1.2	6.2	0.0	3	8	84	06/09/03	
809	L	5	20.9	72.5	0.0	3	8	84	06/09/03	
809	L	7	12.3	49.1	0.0	3	8	84	06/09/03	
809	L	9	3.3	11.8	0.0	3	8	84	06/09/03	
809	L	7HS1	4.5	10.1	0.0	3	8	84	06/09/03	
810	A	1	1.4	0.0	0.0	3	11	90	06/09/03	
810	A	2	4.7	5.7	0.0	3	11	90	06/09/03	
810	A	3	2.9	0.0	0.0	3	11	90	06/09/03	
810	A	4	2.5	0.0	0.0	3	11	90	06/09/03	
810	A	5	1.4	0.0	0.0	3	11	90	06/09/03	
810	A	6	1.0	0.0	0.0	3	11	90	06/09/03	
810	A	7	1.4	0.0	0.0	3	11	90	06/09/03	
810	A	8	2.5	0.0	0.0	3	11	90	06/09/03	
810	A	9	0.0	0.0	0.0	3	11	90	06/09/03	
810	A	10	3.2	8.3	0.0	3	11	90	06/09/03	
810	A	11	1.4	0.0	0.0	3	11	90	06/09/03	
810	A	12	1.8	5.3	0.0	3	11	90	06/09/03	
810	A	13	0.0	0.0	0.0	3	11	90	06/09/03	
810	A	3HS1	5.1	4.9	0.0	3	11	90	06/09/03	
810	A	4HS1	7.7	0.0	0.0	3	11	90	06/09/03	
810	A	6HS1	2.9	6.4	0.0	3	11	90	06/09/03	
810	A	8HS1	10.3	23.2	0.0	3	11	90	06/09/03	
810	A	8HS2	2.5	0.0	0.0	3	11	90	06/09/03	
810	A	9HS1	7.7	19.0	0.0	3	11	90	06/09/03	
810	A	10HS1	5.5	7.9	0.0	3	11	90	06/09/03	
810	A	11HS1	5.1	7.9	0.0	3	11	90	06/09/03	
810	A	12HS1	13.7	30.8	0.0	3	11	90	06/09/03	
810	A	12HS2	3.6	11.0	0.0	3	11	90	06/09/03	
810	A	12HS3	3.6	6.8	0.0	3	11	90	06/09/03	
810	B	1	0.0	0.0	0.0	3	11	90	06/09/03	
810	B	2	12.9	21.3	0.0	3	11	90	06/09/03	
810	B	3	4.7	11.7	0.0	3	11	90	06/09/03	
810	B	4	8.5	15.6	0.0	3	11	90	06/09/03	
810	B	5	6.2	8.3	0.0	3	11	90	06/09/03	
810	B	6	4.4	9.5	0.0	3	11	90	06/09/03	
810	B	7	9.2	9.5	0.0	3	11	90	06/09/03	
810	B	8	5.1	12.9	0.0	3	11	90	06/09/03	
810	B	9	2.9	6.0	0.0	3	11	90	06/09/03	
810	B	10	7.7	16.3	0.0	3	11	90	06/09/03	
810	B	11	7.3	18.6	0.0	3	11	90	06/09/03	
810	B	12	5.5	11.4	0.0	3	11	90	06/09/03	
810	B	13	2.1	4.9	0.0	3	11	90	06/09/03	
810	B	4HS1	8.8	32.3	0.0	3	11	90	06/09/03	
810	B	4HS2	13.3	25.4	0.0	3	11	90	06/09/03	
810	B	5HS1	5.5	14.4	0.0	3	11	90	06/09/03	
810	B	6HS1	2.5	7.9	0.0	3	11	90	06/09/03	
810	B	6HS3	10.3	13.7	0.0	3	11	90	06/09/03	
810	B	8HS1	16.3	34.9	0.0	3	11	90	06/09/03	
810	B	10HS1	20.8	40.6	0.0	3	11	90	06/09/03	
810	B	11HS1	14.1	23.9	0.0	3	11	90	06/09/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
810	B	12HS1	28.2	80.9	0.0	3	11	90	06/09/03	
810	C	1	1.8	0.0	0.0	3	11	90	06/09/03	
810	C	2	14.8	33.8	0.0	3	11	90	06/09/03	
810	C	3	5.5	8.3	0.0	3	11	90	06/09/03	
810	C	4	4.7	6.8	0.0	3	11	90	06/09/03	
810	C	5	2.9	0.0	0.0	3	11	90	06/09/03	
810	C	6	5.5	10.6	0.0	3	11	90	06/09/03	
810	C	7	6.2	5.7	0.0	3	11	90	06/09/03	
810	C	8	2.5	0.0	0.0	3	11	90	06/09/03	
810	C	9	6.2	7.9	0.0	3	11	90	06/09/03	
810	C	10	5.5	10.2	0.0	3	11	90	06/09/03	
810	C	11	0.0	0.0	0.0	3	11	90	06/09/03	
810	C	12	4.0	0.0	0.0	3	11	90	06/09/03	
810	C	13	1.4	6.0	0.0	3	11	90	06/09/03	
810	C	2HS1	13.3	38.7	0.0	3	11	90	06/09/03	
810	C	2HS2	8.1	29.2	0.0	3	11	90	06/09/03	
810	C	3HS1	11.8	33.0	0.0	3	11	90	06/09/03	
810	C	3HS2	8.5	24.7	0.0	3	11	90	06/09/03	
810	C	4HS1	13.7	39.1	0.0	3	11	90	06/09/03	
810	C	4HS2	11.8	23.5	0.0	3	11	90	06/09/03	
810	C	5HS1	7.7	15.9	0.0	3	11	90	06/09/03	
810	C	5HS2	7.0	0.0	0.0	3	11	90	06/09/03	
810	C	6HS1	8.1	16.7	0.0	3	11	90	06/09/03	
810	C	6HS2	5.1	11.7	0.0	3	11	90	06/09/03	
810	C	7HS1	11.8	23.5	0.0	3	11	90	06/09/03	
810	C	7HS2	10.3	15.9	0.0	3	11	90	06/09/03	
810	C	8HS1	8.8	9.1	0.0	3	11	90	06/09/03	
810	C	8HS2	6.2	15.2	0.0	3	11	90	06/09/03	
810	C	9HS1	4.7	12.9	0.0	3	11	90	06/09/03	
810	C	10HS1	15.5	41.8	0.0	3	11	90	06/09/03	
810	C	11HS1	27.1	74.1	0.0	3	11	90	06/09/03	
810	D	1	4.4	12.1	0.0	3	11	90	06/09/03	
810	D	2	9.6	21.3	0.0	3	11	90	06/09/03	
810	D	3	1.4	0.0	0.0	3	11	90	06/09/03	
810	D	4	3.6	4.9	0.0	3	11	90	06/09/03	
810	D	5	2.5	0.0	0.0	3	11	90	06/09/03	
810	D	6	1.8	0.0	0.0	3	11	90	06/09/03	
810	D	7	4.0	7.9	0.0	3	11	90	06/09/03	
810	D	8	2.9	6.4	0.0	3	11	90	06/09/03	
810	D	9	3.2	6.0	0.0	3	11	90	06/09/03	
810	D	10	0.0	4.9	0.0	3	11	90	06/09/03	
810	D	11	1.4	0.0	0.0	3	11	90	06/09/03	
810	D	12	3.6	0.0	0.0	3	11	90	06/09/03	
810	D	13	4.0	5.7	0.0	3	11	90	06/09/03	
810	D	2HS1	10.7	25.4	0.0	3	11	90	06/09/03	
810	D	3HS1	13.3	31.9	0.0	3	11	90	06/09/03	
810	D	3HS2	8.5	10.2	0.0	3	11	90	06/09/03	
810	D	4HS1	30.8	67.3	0.0	3	11	90	06/09/03	
810	D	5HS1	2.1	0.0	0.0	3	11	90	06/09/03	
810	D	7HS1	39.0	97.7	0.0	3	11	90	06/09/03	

SUBJECT: Decommissioning Wipe Results

Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
810	D	11HS1	1.4	0.0	0.0	3	11	90	06/09/03	
810	D	12HS1	8.5	12.5	0.0	3	10	90	06/09/03	
810	E	1	0.0	0.0	0.0	3	10	90	06/09/03	
810	E	2	0.0	6.0	0.0	3	10	90	06/09/03	
810	E	3	0.0	0.0	0.0	3	10	90	06/09/03	
810	E	4	0.0	0.0	0.0	3	10	90	06/09/03	
810	E	5	0.0	0.0	0.0	3	10	90	06/09/03	
810	E	6	0.0	0.0	0.0	3	10	90	06/09/03	
810	E	7	0.0	0.0	0.0	3	10	90	06/09/03	
810	E	8	0.0	0.0	0.0	3	10	90	06/09/03	
810	E	9	0.0	0.0	0.0	3	10	90	06/09/03	
810	E	10	0.0	0.0	0.0	3	10	90	06/09/03	
810	E	11	1.1	0.0	0.0	3	10	90	06/09/03	
810	E	12	0.0	0.0	0.0	3	10	90	06/09/03	
810	E	13	0.0	0.0	0.0	3	10	90	06/09/03	
810	F	2	0.0	5.6	0.0	3	10	90	06/09/03	
810	F	4	1.1	0.0	0.0	3	10	90	06/09/03	
810	F	6	0.0	6.0	0.0	3	10	90	06/09/03	
810	F	8	1.4	0.0	0.0	3	10	90	06/09/03	
810	F	10	1.4	0.0	0.0	3	10	90	06/09/03	
810	F	12	0.0	4.8	0.0	3	10	90	06/09/03	
810	G	1	3.3	8.3	0.0	3	10	90	06/09/03	
810	G	3	0.0	4.4	0.0	3	10	90	06/09/03	
810	G	5	0.0	0.0	0.0	3	10	90	06/09/03	
810	G	7	1.4	0.0	0.0	3	10	90	06/09/03	
810	G	9	2.9	0.0	0.0	3	10	90	06/09/03	
810	G	11	1.4	6.7	0.0	3	10	90	06/09/03	
810	G	13	0.0	8.3	0.0	3	10	90	06/09/03	
810	H	2	2.2	6.7	0.0	3	10	90	06/09/03	
810	H	4	0.0	0.0	0.0	3	10	90	06/09/03	
810	H	6	1.8	6.0	0.0	3	10	90	06/09/03	
810	H	8	1.1	6.3	0.0	3	10	90	06/09/03	
810	H	10	1.1	0.0	0.0	3	10	90	06/09/03	
810	H	12	0.0	0.0	0.0	3	10	90	06/09/03	
810	I	1	2.6	12.9	0.0	3	10	90	06/09/03	
810	I	3	3.3	10.2	0.0	3	10	90	06/09/03	
810	I	5	2.6	4.8	0.0	3	10	90	06/09/03	
810	I	7	1.1	5.2	0.0	3	10	90	06/09/03	
810	I	9	1.1	6.0	0.0	3	10	90	06/09/03	
810	I	11	1.4	0.0	0.0	3	10	90	06/09/03	
810	I	13	1.8	8.3	0.0	3	10	90	06/09/03	
810	J	1	0.0	0.0	0.0	3	10	90	06/09/03	
810	J	2	0.0	0.0	0.0	3	10	90	06/09/03	
810	J	3	0.0	0.0	0.0	3	10	90	06/09/03	
810	J	4	0.0	0.0	0.0	3	10	90	06/09/03	
810	J	5	0.0	0.0	0.0	3	10	90	06/09/03	
810	J	6	0.0	0.0	0.0	3	10	90	06/09/03	
810	J	7	0.0	4.4	0.0	3	10	90	06/09/03	
810	J	8	1.1	0.0	0.0	3	10	90	06/09/03	
810	J	9	0.0	4.8	0.0	3	10	90	06/09/03	

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Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
810	J	10	0.0	0.0	0.0	3	10	90	06/09/03	
810	J	11	1.1	0.0	0.0	3	10	90	06/09/03	
810	J	12	0.0	0.0	0.0	3	10	90	06/09/03	
810	J	13	0.0	5.2	0.0	3	10	90	06/09/03	
810	K	1	1.4	0.0	0.0	3	10	90	06/09/03	
810	K	2	0.0	5.6	0.0	3	10	90	06/09/03	
810	K	3	1.1	4.4	0.0	3	10	90	06/09/03	
810	K	4	5.5	5.6	0.0	3	10	90	06/09/03	
810	K	5	0.0	4.8	0.0	3	10	90	06/09/03	
810	K	7	4.0	7.1	0.0	3	10	90	06/09/03	
810	K	9	2.9	0.0	0.0	3	10	90	06/09/03	
810	L	1	0.0	6.0	0.0	3	10	90	06/09/03	
810	L	2	0.0	0.0	0.0	3	10	90	06/09/03	
810	L	3	0.0	0.0	0.0	3	10	90	06/09/03	
810	L	4	0.0	0.0	0.0	3	10	90	06/09/03	
810	L	5	1.4	5.2	0.0	3	10	90	06/09/03	
810	L	7	0.0	0.0	0.0	3	10	90	06/09/03	
810	L	9	2.9	11.4	0.0	3	10	90	06/09/03	
811	A	1	4.6	0.0	0.0	3	9	85	06/09/03	
811	A	2	1.9	0.0	0.0	3	9	85	06/09/03	
811	A	3	0.0	0.0	0.0	3	9	85	06/09/03	
811	A	4	1.1	0.0	0.0	3	9	85	06/09/03	
811	A	5	1.1	0.0	0.0	3	9	85	06/09/03	
811	A	6	1.5	0.0	0.0	3	9	85	06/09/03	
811	A	7	1.5	0.0	0.0	3	9	85	06/09/03	
811	A	8	0.0	0.0	0.0	3	9	85	06/09/03	
811	A	9	0.0	0.0	0.0	3	9	85	06/09/03	
811	A	10	0.0	0.0	0.0	3	9	85	06/09/03	
811	A	11	1.9	0.0	0.0	3	9	85	06/09/03	
811	A	12	0.0	0.0	0.0	3	9	85	06/09/03	
811	A	13	1.5	0.0	0.0	3	9	85	06/09/03	
811	A	4HS1	2.6	0.0	0.0	3	9	85	06/09/03	
811	A	8HS1	5.4	4.4	0.0	3	9	85	06/09/03	
811	A	11HS1	4.2	0.0	0.0	3	9	85	06/09/03	
811	A	11HS2	39.8	66.3	0.0	3	9	85	06/09/03	
811	A	12HS1	17.4	20.5	43.5	3	9	85	06/09/03	
811	B	1	1.1	0.0	0.0	3	9	85	06/09/03	
811	B	2	3.0	4.8	0.0	3	9	85	06/09/03	
811	B	3	3.4	4.8	0.0	3	9	85	06/09/03	
811	B	4	5.4	16.1	0.0	3	9	85	06/09/03	
811	B	5	3.4	11.0	0.0	3	9	85	06/09/03	
811	B	6	3.0	9.2	0.0	3	9	85	06/09/03	
811	B	7	3.8	0.0	0.0	3	9	85	06/09/03	
811	B	8	6.1	6.6	0.0	3	9	85	06/09/03	
811	B	9	5.0	5.1	0.0	3	9	85	06/09/03	
811	B	10	2.3	0.0	0.0	3	9	85	06/09/03	
811	B	11	0.0	0.0	0.0	3	9	85	06/09/03	
811	B	12	1.5	0.0	0.0	3	9	85	06/09/03	
811	B	13	0.0	0.0	0.0	3	9	85	06/09/03	
811	B	11HS1	1.9	0.0	0.0	3	9	85	06/09/03	

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Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
811	C	1	2.6	0.0	0.0	3	9	85	06/09/03	
811	C	2	1.1	5.9	46.7	3	9	85	06/09/03	
811	C	3	3.0	12.5	0.0	3	9	85	06/09/03	
811	C	4	6.1	20.1	0.0	3	9	85	06/09/03	
811	C	5	7.7	16.1	0.0	3	9	85	06/09/03	
811	C	6	3.8	0.0	0.0	3	9	85	06/09/03	
811	C	7	3.0	0.0	0.0	3	9	85	06/09/03	
811	C	8	0.0	0.0	0.0	3	9	85	06/09/03	
811	C	9	6.9	0.0	0.0	3	9	85	06/09/03	
811	C	10	1.5	4.0	0.0	3	9	85	06/09/03	
811	C	11	0.0	0.0	0.0	3	9	85	06/09/03	
811	C	12	0.0	0.0	0.0	3	9	85	06/09/03	
811	C	13	0.0	0.0	45.1	3	9	85	06/09/03	
811	D	1	5.7	4.8	48.8	3	9	85	06/09/03	
811	D	2	1.5	4.4	0.0	3	9	85	06/09/03	
811	D	3	2.3	0.0	0.0	3	9	85	06/09/03	
811	D	4	0.0	0.0	0.0	3	9	85	06/09/03	
811	D	5	1.9	0.0	0.0	3	9	85	06/09/03	
811	D	6	1.9	0.0	0.0	3	9	85	06/09/03	
811	D	7	1.9	0.0	0.0	3	9	85	06/09/03	
811	D	8	0.0	0.0	0.0	3	9	85	06/09/03	
811	D	9	0.0	0.0	0.0	3	9	85	06/09/03	
811	D	10	2.3	0.0	0.0	3	9	85	06/09/03	
811	D	11	1.9	0.0	0.0	3	9	85	06/09/03	
811	D	12	3.0	0.0	0.0	3	9	85	06/09/03	
811	D	13	0.0	0.0	0.0	3	9	85	06/09/03	
811	D	3HS1	17.0	20.9	0.0	3	9	85	06/09/03	
811	E	1	4.2	8.1	0.0	3	9	85	06/09/03	
811	E	2	3.4	0.0	0.0	3	9	85	06/09/03	
811	E	3	0.0	0.0	0.0	3	9	85	06/09/03	
811	E	4	0.0	0.0	0.0	3	9	85	06/09/03	
811	E	5	0.0	0.0	0.0	3	9	85	06/09/03	
811	E	6	10.8	15.4	0.0	3	9	85	06/09/03	
811	E	7	0.0	0.0	0.0	3	9	85	06/09/03	
811	E	8	0.0	0.0	0.0	3	9	85	06/09/03	
811	E	9	1.5	0.0	0.0	3	9	85	06/09/03	
811	E	10	1.1	0.0	0.0	3	9	85	06/09/03	
811	E	11	0.0	0.0	0.0	3	9	85	06/09/03	
811	E	12	0.0	0.0	0.0	3	9	85	06/09/03	
811	E	13	5.0	5.5	0.0	3	9	85	06/09/03	
811	F	2	3.8	9.5	0.0	3	9	85	06/09/03	
811	F	4	2.6	4.4	0.0	3	9	85	06/09/03	
811	F	6	2.3	0.0	0.0	3	9	85	06/09/03	
811	F	8	1.5	8.8	0.0	3	9	85	06/09/03	
811	F	10	4.6	7.3	0.0	3	9	85	06/09/03	
811	F	12	3.0	4.4	0.0	3	9	85	06/09/03	
811	G	1	3.4	15.0	0.0	3	9	85	06/09/03	
811	G	3	3.0	5.9	0.0	3	9	85	06/09/03	
811	G	5	4.6	10.6	0.0	3	9	85	06/09/03	
811	G	7	5.0	16.1	0.0	3	9	85	06/09/03	

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Sample Identification			DPM			Limit of Detection			Date Rec'd	Notes
			Alpha	Beta	Gamma	Alpha	Beta	Gamma		
811	G	9	3.0	7.7	0.0	3	9	85	06/09/03	
811	G	11	0.0	4.8	0.0	3	9	85	06/09/03	
811	G	13	0.0	0.0	45.1	3	9	85	06/09/03	
811	H	2	3.8	8.1	0.0	3	9	85	06/09/03	
811	H	4	1.5	7.3	0.0	3	9	85	06/09/03	
811	H	6	10.8	9.5	0.0	3	9	85	06/09/03	
811	H	8	3.0	9.2	0.0	3	9	85	06/09/03	
811	H	10	5.4	15.8	0.0	3	9	85	06/09/03	
811	H	12	4.2	0.0	0.0	3	9	85	06/09/03	
811	I	1	15.8	32.2	0.0	3	9	86	06/09/03	
811	I	3	1.3	5.2	0.0	3	9	86	06/09/03	
811	I	5	8.4	12.5	0.0	3	9	86	06/09/03	
811	I	7	4.5	11.0	0.0	3	9	86	06/09/03	
811	I	9	8.4	15.8	0.0	3	9	86	06/09/03	
811	I	11	2.1	7.0	0.0	3	9	86	06/09/03	
811	I	13	6.0	14.0	0.0	3	9	86	06/09/03	
811	J	1	2.1	0.0	0.0	3	9	86	06/09/03	
811	J	2	0.0	0.0	0.0	3	9	86	06/09/03	
811	J	3	0.0	0.0	0.0	3	9	86	06/09/03	
811	J	4	0.0	0.0	0.0	3	9	86	06/09/03	
811	J	5	0.0	0.0	0.0	3	9	86	06/09/03	
811	J	6	0.0	0.0	0.0	3	9	86	06/09/03	
811	J	7	0.0	0.0	0.0	3	9	86	06/09/03	
811	J	8	1.3	0.0	0.0	3	9	86	06/09/03	
811	J	9	0.0	0.0	0.0	3	9	86	06/09/03	
811	J	10	1.7	0.0	0.0	3	9	86	06/09/03	
811	J	10x	1.7	5.6	0.0	3	9	86	06/09/03	Enclosed with 811-J 11
811	J	11	0.0	0.0	0.0	3	9	86	06/09/03	
811	J	12	0.0	0.0	0.0	3	9	86	06/09/03	
811	J	13	0.0	4.1	0.0	3	9	86	06/09/03	
811	K	1	1.3	4.1	0.0	3	9	86	06/09/03	
811	K	2	1.3	0.0	0.0	3	9	86	06/09/03	
811	K	3	0.0	0.0	0.0	3	9	86	06/09/03	
811	K	4	4.8	11.8	0.0	3	9	86	06/09/03	
811	K	5	5.6	8.5	0.0	3	9	86	06/09/03	
811	K	7	6.4	8.1	0.0	3	9	86	06/09/03	
811	K	9	4.1	17.2	0.0	3	9	86	06/09/03	
811	L	1	2.1	7.8	0.0	3	9	86	06/09/03	
811	L	2	2.1	5.2	0.0	3	9	86	06/09/03	
811	L	3	1.3	0.0	0.0	3	9	86	06/09/03	
811	L	4	1.7	0.0	0.0	3	9	86	06/09/03	
811	L	6	16.2	27.8	0.0	3	9	86	06/09/03	
811	L	8	4.8	8.5	0.0	3	9	86	06/09/03	
811	L	9	1.3	0.0	0.0	3	9	86	06/09/03	

Job No. 740497-03400
Project: Seneca SEAD-48
Contact: Katie Kadlubak (617) 457-7869

IGLOO E0803

page 1 of 1
Bldg. 5417
Redstone Arsenal, AL 35898-5400
MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
803 - 1	7/10/2003	X
803 - 2	7/10/2003	X
803 - 3	7/10/2003	X
803 - 4	7/10/2003	X
803 - 5	7/10/2003	X
803 - 6	7/10/2003	X
803 - 7	7/10/2003	X
803 - 8	7/10/2003	X
803 - 9	7/10/2003	X
803 - 10	7/10/2003	X
803 - 11	7/10/2003	X
803 - 12	7/10/2003	X
803 - 13	7/10/2003	X
803 - 14	7/10/2003	X
803 - 15	7/10/2003	X
803 - 16	7/10/2003	X
803 - 17	7/10/2003	X
803 - 18	7/10/2003	X
803 - 19	7/10/2003	X
803 - 20	7/10/2003	X
803 - 21	7/10/2003	X
803 - 22	7/10/2003	X
803 - 23	7/10/2003	X
803 - 24	7/10/2003	X
803 - 25	7/10/2003	X
803 - 26	7/10/2003	X
803 - 27	7/10/2003	X
803 - 28	7/10/2003	X
803 - 29	7/10/2003	X
803 - 30	7/10/2003	X
total smears		30

Sampled and relinquished by

Sign: *Kathleen J. Kadlubak*
Print: *K. Kadlubak*
Firm: *ARSENALS*
Date: *7-29-03* Time: *1300*

Received By

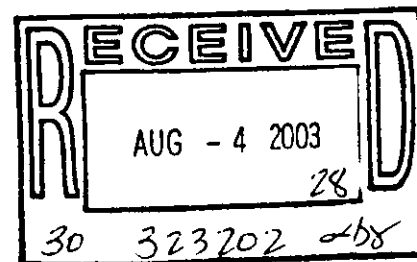
Sign:

Print:

Firm:

Date:

Time:



Job No. 740497-03400

IGLOO E0804

Bldg. 5417

Project: Seneca SEAD-48

Redstone Arsenal, AL 35898-5400

Contact: Katie Kadlubak (617) 457-7869

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
804 - A 1	6/4/2003	X
804 - A 2	6/4/2003	X
804 - A 3	6/4/2003	X
804 - A 4	6/4/2003	X
804 - A 5	6/4/2003	X
804 - A 6	6/4/2003	X
804 - A 7	6/4/2003	X
804 - A 8	6/4/2003	X
804 - A 9	6/4/2003	X
804 - A 10	6/4/2003	X
804 - A 11	6/4/2003	X
804 - A 12	6/4/2003	X
804 - A 13	6/4/2003	X
804 - A 6HS1	6/11/2003	X
804 - A 5HS2	6/11/2003	X
804 - A 5HS1	6/11/2003	X
804 - A 5HS3	6/11/2003	X
804 - A 3HS1	6/11/2003	X
804 - A 4HS1	6/11/2003	X
804 - A 4HS2	6/11/2003	X
804 - A 13HS1	6/11/2003	X
804 - A 12HS1	6/11/2003	X
804 - A 8HS1	6/11/2003	X
804 - A 2HS1	6/10/2003	X
804 - A 7HS1	6/11/2003	X
804 - A 1HS1	6/10/2003	X
804 - A 2HS2	6/10/2003	X
804 - B 1	6/4/2003	X
804 - B 2	6/4/2003	X
804 - B 3	6/4/2003	X
804 - B 4	6/4/2003	X
804 - B 5	6/4/2003	X
804 - B 6	6/4/2003	X
804 - B 7	6/4/2003	X
804 - B 8	6/4/2003	X
804 - B 9	6/4/2003	X
804 - B 10	6/4/2003	X
804 - B 11	6/4/2003	X
804 - B 12	6/4/2003	X
804 - B 13	6/4/2003	X
804 - B 6HS1	6/11/2003	X
804 - B 3HS1	6/11/2003	X

Sampled and relinquished by

Sign: *Ed Ashton*Print: *Ed Ashton*Firm: *Parsons*Date: *6/19/03* Time: *1600*

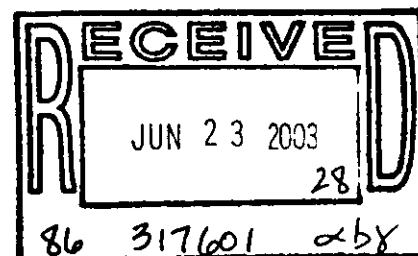
Received By

Sign:

Print:

Firm:

Date: Time:



86 317601 *abx*
 93 317602 *abx*
 46 317603 *abx*

Copy (A) B C

Job No. 740497-03400

IGLOO E0804

Bldg. 5417

Project: Seneca SEAD-48

Redstone Arsenal, AL 35898-5400

Contact: Katie Kadlubak (617) 457-7869

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
804 - B 4HS1	6/11/2003	X
804 - B 5HS1	6/11/2003	X
804 - B 12HS2	6/11/2003	X
804 - B 1HS1	6/11/2003	X
804 - B 2HS1	6/11/2003	X
804 - B 12HS3	6/11/2003	X
804 - B 12HS1	6/11/2003	X
804 - B 11HS2	6/11/2003	X
804 - B 13HS1	6/11/2003	X
804 - B 11HS1	6/11/2003	X
804 - B 10HS1	6/11/2003	X
804 - B 8HS2	6/11/2003	X
804 - B 8HS1	6/11/2003	X
804 - B 12HS4	6/11/2003	X
804 - B 7HS1	6/11/2003	X
804 - C 1	6/4/2003	X
804 - C 2	6/4/2003	X
804 - C 3	6/4/2003	X
804 - C 4	6/4/2003	X
804 - C 5	6/4/2003	X
804 - C 6	6/4/2003	X
804 - C 7	6/4/2003	X
804 - C 8	6/4/2003	X
804 - C 9	6/4/2003	X
804 - C 10	6/4/2003	X
804 - C 11	6/4/2003	X
804 - C 12	6/4/2003	X
804 - C 13	6/4/2003	X
804 - C 9HS1	6/11/2003	X
804 - C 7HS1	6/11/2003	X
804 - C 6HS1	6/11/2003	X
804 - C 13HS1	6/11/2003	X
804 - C 8HS1	6/11/2003	X
804 - C 10HS1	6/11/2003	X
804 - C 4HS1	6/11/2003	X
804 - C 5HS1	6/11/2003	X
804 - C 3HS1	6/11/2003	X
804 - C 1HS1	6/11/2003	X
804 - C 3HS2	6/11/2003	X
804 - C 2HS1	6/11/2003	X
804 - C 11HS2	6/11/2003	X
804 - C 11HS1	6/11/2003	X

Sampled and relinquished by

Sign: *Ed Ashton*

Print: *Ed Ashton*

Firm: *Parsons*

Date: *6/19/03* Time: *1600*

Received By

Sign:

Print:

Firm:

Date: Time:

Copy *(A)* B C

Job No. 740497-03400
 Project: Seneca SEAD-48
 Contact: Katie Kadlubak (617) 457-7869

IGLOO E0804

Bldg. 5417
 Redstone Arsenal, AL 35898-5400
 MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
804 - C 12HS2	6/11/2003	X
804 - C 12HS1	6/11/2003	X
804 - D 1	6/4/2003	X
804 - D 2	6/4/2003	X
804 - D 3	6/4/2003	X
804 - D 4	6/4/2003	X
804 - D 5	6/4/2003	X
804 - D 6	6/4/2003	X
804 - D 7	6/4/2003	X
804 - D 8	6/4/2003	X
804 - D 9	6/4/2003	X
804 - D 10	6/4/2003	X
804 - D 11	6/4/2003	X
804 - D 12	6/4/2003	X
804 - D 13	6/4/2003	X
804 - D 10HS1	6/11/2003	X
804 - D 9HS1	6/11/2003	X
804 - D 8HS1	6/11/2003	X
804 - D 7HS1	6/11/2003	X
804 - D 12HS2	6/11/2003	X
804 - D 12HS1	6/11/2003	X
804 - D 13HS1	6/11/2003	X
804 - D 11HS1	6/11/2003	X
804 - D 11HS2	6/11/2003	X
804 - D 4HS1	6/11/2003	X
804 - D 5HS1	6/11/2003	X
804 - D 1HS1	6/11/2003	X
804 - D 2HS1	6/11/2003	X
804 - D 6HS1	6/11/2003	X
804 - D 3HS1	6/11/2003	X
804 - E 1	6/10/2003	X
804 - E 2	6/10/2003	X
804 - E 3	6/10/2003	X
804 - E 4	6/10/2003	X
804 - E 5	6/10/2003	X
804 - E 6	6/10/2003	X
804 - E 7	6/10/2003	X
804 - E 8	6/10/2003	X
804 - E 9	6/10/2003	X
804 - E 10	6/10/2003	X
804 - E 11	6/10/2003	X
804 - E 12	6/5/2003	X

Sampled and relinquished by
 Sign: *CJ R. R. R.*
 Print: *Ed Ashton*
 Firm: *Parsons*
 Date: *6/11/03* Time: *1640*

Received By
 Sign:
 Print:
 Firm:
 Date: Time:

Copy *(A)* B C

Job No. 740497-03400

Project: Seneca SEAD-48

Contact: Katie Kadlubak (617) 457-7869

IGLOO E0804

Bldg. 5417

Redstone Arsenal, AL 35898-5400

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
804 - E 13	6/5/2003	X
804 - E 2HS1	6/11/2003	X
804 - E 3HS1	6/11/2003	X
804 - E 4HS1	6/11/2003	X
804 - E 5HS1	6/11/2003	X
804 - E 6HS1	6/11/2003	X
804 - E 7HS1	6/11/2003	X
804 - E 8HS1	6/11/2003	X
804 - E 9HS1	6/11/2003	X
804 - F 1	6/5/2003	X
804 - F 2	6/5/2003	X
804 - F 3	6/5/2003	X
804 - F 4	6/5/2003	X
804 - F 5	6/5/2003	X
804 - F 6	6/5/2003	X
804 - F 7	6/5/2003	X
804 - F 8	6/5/2003	X
804 - F 9	6/5/2003	X
804 - F 10	6/5/2003	X
804 - F 11	6/5/2003	X
804 - F 12	6/9/2003	X
804 - F 13	6/9/2003	X
804 - G 1	6/8/2003	X
804 - G 2	6/8/2003	X
804 - G 3	6/8/2003	X
804 - G 4	6/8/2003	X
804 - G 5	6/9/2003	X
804 - G 6	6/9/2003	X
804 - G 7	6/9/2003	X
804 - G 8	6/9/2003	X
804 - G 9	6/9/2003	X
804 - G 10	6/9/2003	X
804 - G 11	6/5/2003	X
804 - G 12	6/5/2003	X
804 - G 13	6/5/2003	X
804 - G 7HS1	6/9/2003	X
804 - G 5HS1	6/9/2003	X
804 - G 6HS1	6/9/2003	X
804 - G 8HS1	6/9/2003	X
804 - H 1	6/8/2003	X
804 - H 2	6/8/2003	X
804 - H 3	6/7/2003	X

Sampled and relinquished by

Sign: *Cel. O'Brien*

Print: *Ed Ashton*

Firm: *Parsons*

Date: *6/14/03* Time: *1600*

Received By

Sign:

Print:

Firm:

Date: Time:

Copy *A* B C

Job No. 740497-03400

Project: Seneca SEAD-48

Contact: Katie Kadlubak (617) 457-7869

IGLOO E0804

Bldg. 5417

Redstone Arsenal, AL 35898-5400

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
804 - H 4	6/7/2003	X
804 - H 5	6/7/2003	X
804 - H 6	6/7/2003	X
804 - H 7	6/6/2003	X
804 - H 8	6/6/2003	X
804 - H 9	6/6/2003	X
804 - H 10	6/6/2003	X
804 - H 11	6/6/2003	X
804 - H 12	6/6/2003	X
804 - H 13	6/5/2003	X
9b 804 - H 7HS1	6/7/2003	X
804 - I 1	6/9/2003	X
804 - I 2	6/10/2003	X
804 - I 3	6/10/2003	X
804 - I 4	6/10/2003	X
804 - I 5	6/10/2003	X
804 - I 6	6/10/2003	X
804 - I 7	6/10/2003	X
804 - I 8	6/10/2003	X
804 - I 9	6/10/2003	X
804 - I 10	6/10/2003	X
804 - I 11	6/11/2003	X
804 - I 12	6/11/2003	X
804 - I 13	6/10/2003	X
804 - J 1	6/6/2003	X
804 - J 2	6/6/2003	X
804 - J 3	6/6/2003	X
804 - J 4	6/6/2003	X
804 - J 5	6/6/2003	X
804 - J 6	6/6/2003	X
804 - J 7	6/11/2003	X
804 - J 8	6/11/2003	X
804 - J 9	6/11/2003	X
804 - J 10	6/11/2003	X
804 - J 11	6/11/2003	X
804 - J 12	6/11/2003	X
804 - J 13	6/11/2003	X
804 - K 1	6/6/2003	X
804 - K 2	6/6/2003	X
804 - K 3	6/6/2003	X
804 - K 4	6/6/2003	X
804 - K 5	6/11/2003	X

Sampled and relinquished by

Sign: *Col. Ashita*

Print: *Ed Ashita*

Firm: *Parsons*

Date: *6/19/03* Time: *0600*

Received By

Sign:

Print:

Firm:

Date:

Time:

Copy *A* B C

Job No. 740497-03400

Project: Seneca SEAD-48

Contact: Katie Kadlubak (617) 457-7869

IGLOO E0804

Bldg. 5417

Redstone Arsenal, AL 35898-5400

MR. Steve Howard/David Walsh

Sample_ID	Dry smear date	Dry Smear
804 - K 6	6/11/2003	X
804 - K 7	6/11/2003	X
804 - K 8	6/9/2003	X
804 - K 9	6/11/2003	X
804 - K 9HS1	6/11/2003	X
804 - K 3HS1	6/10/2003	X
804 - L 1	6/6/2003	X
804 - L 2	6/6/2003	X
804 - L 3	6/6/2003	X
804 - L 4	6/6/2003	X
804 - L 5	6/9/2003	X
804 - L 6	6/5/2003	X
804 - L 7	6/5/2003	X
804 - L 8	6/9/2003	X
46 804 - L 9	6/5/2003	X
total smears		139

Sampled and relinquished by

Sign: *CD Babin*

Print: *Ed Ashten*

Firm: *Persaw*

Date: *6/19/03* Time: *1600*

Received By

Sign:

Print:

Firm:

Date: Time:

Copy A B C

Job No. 740497-03400

Project: Seneca SEAD-48

Contact: Katie Kadlubak (617) 457-7869

IGLOO E0805

Bldg. 5417

Redstone Arsenal, AL 35898-5400

Mr. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
805 - A 1	5/7/2003	X
805 - A 2	5/7/2003	X
805 - A 3	5/7/2003	X
805 - A 4	5/7/2003	X
805 - A 5	5/7/2003	X
805 - A 6	5/7/2003	X
805 - A 7	5/7/2003	X
805 - A 8	5/7/2003	X
805 - A 9	5/7/2003	X
805 - A 10	5/7/2003	X
805 - A 11	5/7/2003	X
805 - A 12	5/7/2003	X
805 - A 13	5/7/2003	X
805 - A 1HS1	5/10/2003	X
805 - A 10HS1	5/10/2003	X
805 - A 8HS1	5/10/2003	X
805 - B 1	5/7/2003	X
805 - B 2	5/7/2003	X
805 - B 3	5/7/2003	X
805 - B 4	5/7/2003	X
805 - B 5	5/7/2003	X
805 - B 6	5/7/2003	X
805 - B 7	5/7/2003	X
805 - B 8	5/7/2003	X
805 - B 9	5/7/2003	X
805 - B 10	5/7/2003	X
805 - B 11	5/7/2003	X
805 - B 12	5/7/2003	X
805 - B 13	5/7/2003	X
805 - B 13HS1	5/10/2003	X
805 - B 7HS1	5/10/2003	X
805 - C 1	5/7/2003	X
805 - C 2	5/7/2003	X
805 - C 3	5/7/2003	X
805 - C 4	5/7/2003	X
805 - C 5	5/7/2003	X
805 - C 6	5/7/2003	X
805 - C 7	5/7/2003	X
805 - C 8	5/7/2003	X
805 - C 9	5/7/2003	X
805 - C 10	5/7/2003	X
805 - C 11	5/7/2003	X

Sampled and relinquished by

Sign: *Scott B. Oillman*

Print: Scott B. Oillman

Firm: Parsons

Date: 6/6/03 Time: 1812

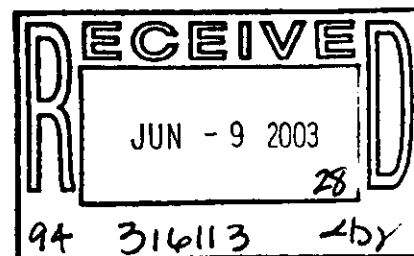
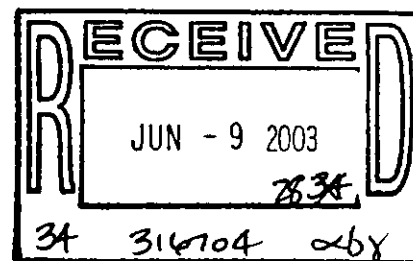
Received By

Sign:

Print:

Firm:

Date: Time:



Copy: (A) B C

Job No. 740497-03400

Project: Seneca SEAD-48

Contact: Katie Kadlubak (617) 457-7869

IGLOO E0805

Bldg. 5417

Redstone Arsenal, AL 35898-5400

Mr. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
805 - C 12	5/7/2003	X
805 - C 13	5/7/2003	X
805 - C 11HS1	5/10/2003	X
805 - C 1HS1	5/10/2003	X
805 - D 1	5/7/2003	X
805 - D 2	5/7/2003	X
805 - D 3	5/7/2003	X
805 - D 4	5/7/2003	X
805 - D 5	5/7/2003	X
805 - D 6	5/7/2003	X
805 - D 7	5/7/2003	X
805 - D 8	5/7/2003	X
805 - D 9	5/7/2003	X
805 - D 10	5/7/2003	X
805 - D 11	5/7/2003	X
805 - D 12	5/7/2003	X
805 - D 13	5/7/2003	X
805 - D 1HS1	5/10/2003	X
805 - D 11HS1	5/10/2003	X
805 - D 13HS1	5/10/2003	X
805 - E 1	5/8/2003	X
805 - E 2	5/8/2003	X
805 - E 3	5/8/2003	X
805 - E 4	5/8/2003	X
805 - E 5	5/8/2003	X
805 - E 6	5/8/2003	X
805 - E 7	5/8/2003	X
805 - E 8	5/8/2003	X
805 - E 9	5/8/2003	X
805 - E 10	5/8/2003	X
805 - E 11	5/8/2003	X
805 - E 12	5/8/2003	X
805 - E 13	5/8/2003	X
805 - F 2	5/9/2003	X
805 - F 4	5/9/2003	X
805 - F 6	5/9/2003	X
805 - F 8	5/9/2003	X
805 - F 10	5/9/2003	X
805 - F 12	5/9/2003	X
805 - G 1	5/9/2003	X
805 - G 3	5/9/2003	X
805 - G 5	5/9/2003	X

Sampled and relinquished by

Sign: *Scott B. Dillman*

Print: Scott B. Dillman

Firm: *Arsens*

Date: *6/6/03* Time: *1812*

Received By

Sign:

Print:

Firm:

Date: Time:

Copy: *(A)* B C

Job No. 740497-03400

Project: Seneca SEAD-48

Contact: Katie Kadlubak (617) 457-7869

IGLOO E0805

Bldg. 5417

Redstone Arsenal, AL 35898-5400

Mr. Steve Howard/David Walsh

94

Sample ID	Dry smear date	Dry Smear
805 - G 7	5/9/2003	X
805 - G 9	5/9/2003	X
805 - G 11	5/9/2003	X
805 - G 13	5/9/2003	X
805 - H 2	5/8/2003	X
805 - H 4	5/8/2003	X
805 - H 6	5/8/2003	X
805 - H 8	5/8/2003	X
805 - H 10	5/8/2003	X
805 - H 12	5/8/2003	X
805 - I 1	5/8/2003	X
805 - I 3	5/8/2003	X
805 - I 5	5/8/2003	X
805 - I 7	5/8/2003	X
805 - I 9	5/8/2003	X
805 - I 11	5/8/2003	X
805 - I 13	5/8/2003	X
805 - J 1	5/8/2003	X
805 - J 2	5/8/2003	X
805 - J 3	5/8/2003	X
805 - J 4	5/8/2003	X
805 - J 5	5/8/2003	X
805 - J 6	5/8/2003	X
805 - J 7	5/8/2003	X
805 - J 8	5/8/2003	X
805 - J 9	5/8/2003	X
805 - J 10	5/8/2003	X
805 - J 11	5/8/2003	X
805 - J 12	5/8/2003	X
805 - J 13	5/8/2003	X
805 - K 1	5/8/2003	X
805 - K 2	6/6/2003	X
805 - K 3	6/6/2003	X
805 - K 4	6/6/2003	X
805 - K 6	5/9/2003	X
805 - K 8	5/9/2003	X
805 - K 9	5/9/2003	X
805 - L 1	5/8/2003	X
805 - L 2	5/8/2003	X
805 - L 3	5/8/2003	X
805 - L 4	5/8/2003	X
805 - L 5	5/9/2003	X

Sampled and relinquished by

Sign: *Scott B. Dillman*

Print: *Scott B. Dillman*

Firm: *Parsaus*

Date: *6/6/03* Time: *1812*

Received By

Sign:

Print:

Firm:

Date: Time:

Copy: *(A)* B C

Job No. 740497-03400
Project: Seneca SEAD-48
Contact: Katie Kadlubak (617) 457-7869

IGLOO E0805

Bldg. 5417
Redstone Arsenal, AL 35898-5400
Mr. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
805 - L 7	5/9/2003	X
805 - L 9	6/6/2003	X
total smears		128

34

Sampled and relinquished by
Sign: *[Signature]*
Print: Scott B. Dillman
Firm: Parsons
Date: 6/6/03 Time: 1812

Received By
Sign:
Print:
Firm:
Date: Time:

Copy: (A) B C

Job No. 740497-03400

Project: Seneca SEAD-48

Contact: Katie Kadlubak (617) 457-7869

IGLOO E0806

Bldg. 5417

Redstone Arsenal, AL 35898-5400

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
806 - A 1	6/16/2003	X
806 - A 2	6/16/2003	X
806 - A 3	6/16/2003	X
806 - A 4	6/16/2003	X
806 - A 5	6/18/2003	X
806 - A 6	6/18/2003	X
806 - A 7	6/18/2003	X
806 - A 8	6/18/2003	X
806 - A 9	6/18/2003	X
806 - A 10	6/18/2003	X
806 - A 11	6/18/2003	X
806 - A 12	6/18/2003	X
806 - A 13	6/18/2003	X
806 - B 1	6/18/2003	X
806 - B 2	6/18/2003	X
806 - B 3	6/18/2003	X
806 - B 4	6/18/2003	X
806 - B 5	6/18/2003	X
806 - B 6	6/17/2003	X
806 - B 7	6/17/2003	X
806 - B 8	6/18/2003	X
806 - B 9	6/18/2003	X
806 - B 10	6/18/2003	X
806 - B 11	6/18/2003	X
806 - B 12	6/18/2003	X
806 - B 13	6/18/2003	X
806 - C 1	6/18/2003	X
806 - C 2	6/18/2003	X
806 - C 3	6/18/2003	X
806 - C 4	6/18/2003	X
806 - C 5	6/18/2003	X
806 - C 6	6/18/2003	X
806 - C 7	6/18/2003	X
806 - C 8	6/18/2003	X
806 - C 9	6/18/2003	X
806 - C 10	6/18/2003	X
806 - C 11	6/18/2003	X
806 - C 12	6/18/2003	X
806 - C 13	6/23/2003	X
806 - D 1	6/23/2003	X
806 - D 2	6/23/2003	X
806 - D 3	6/23/2003	X

Sampled and relinquished by

Sign: *Kathleen J. Kadlubak*

Print: *K. Kadlubak*

Firm: *ARIS*

Date: *7/24/03* Time: *1300*

Received By

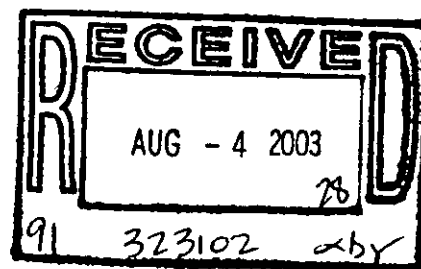
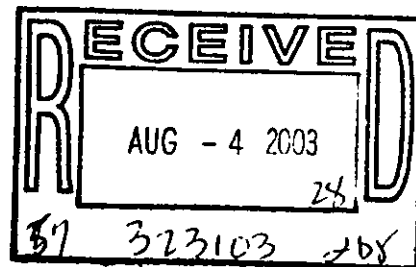
Sign:

Print:

Firm:

Date:

Time:



Job No. 740497-03400

IGLOO E0806

Project: Seneca SEAD-48

Bldg. 5417

Contact: Katie Kadlubak (617) 457-7869

Redstone Arsenal, AL 35898-5400

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
806 - D 4	6/23/2003	X
806 - D 5	6/23/2003	X
806 - D 6	6/23/2003	X
806 - D 7	6/23/2003	X
806 - D 8	6/23/2003	X
806 - D 9	6/23/2003	X
806 - D 10	6/23/2003	X
806 - D 11	6/23/2003	X
806 - D 12	6/23/2003	X
806 - D 13	6/23/2003	X
806 - E 1	6/18/2003	X
806 - E 2	6/18/2003	X
806 - E 3	6/18/2003	X
806 - E 4	6/18/2003	X
806 - E 5	6/23/2003	X
806 - E 6	6/16/2003	X
806 - E 7	6/16/2003	X
806 - E 8	6/16/2003	X
806 - E 9	6/16/2003	X
806 - E 10	6/16/2003	X
806 - E 11	6/16/2003	X
806 - E 12	6/16/2003	X
806 - E 13	6/16/2003	X
806 - F 1	6/16/2003	X
806 - F 2	6/16/2003	X
806 - F 3	6/16/2003	X
806 - F 4	6/17/2003	X
806 - F 5	6/17/2003	X
806 - F 6	6/17/2003	X
806 - F 7	6/17/2003	X
806 - F 8	6/17/2003	X
806 - F 9	6/17/2003	X
806 - F 10	6/17/2003	X
806 - F 11	6/17/2003	X
806 - F 12	6/17/2003	X
806 - F 13	6/17/2003	X
806 - G 1	6/18/2003	X
806 - G 2	6/18/2003	X
806 - G 3	6/23/2003	X
806 - G 4	6/23/2003	X
806 - G 5	6/23/2003	X
806 - G 6	6/23/2003	X

Sampled and relinquished by

Sign: *Katie Kadlubak*Print: *K. Kadlubak*Firm: *Parsons*

Date: 7-29-03 Time: 1300

Received By

Sign:

Print:

Firm:

Date:

Time:

Job No. 740497-03400

IGLOO E0806

Project: Seneca SEAD-48

Bldg. 5417

Contact: Katie Kadlubak (617) 457-7869

Redstone Arsenal, AL 35898-5400

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
806 - G 7	6/23/2003	X
806 - G 8	6/23/2003	X
806 - G 9	6/23/2003	X
806 - G 10	6/23/2003	X
806 - G 11	6/18/2003	X
806 - G 12	6/18/2003	X
806 - G 13	6/18/2003	X
806 - H 1	6/26/2003	X
806 - H 2	6/26/2003	X
806 - H 3	6/26/2003	X
806 - H 4	6/26/2003	X
806 - H 5	6/26/2003	X
806 - H 6	6/26/2003	X
806 - H 7	6/27/2003	X
806 - H 8	6/27/2003	X
806 - H 9	6/27/2003	X
806 - H 10	6/27/2003	X
806 - H 11	6/24/2003	X
806 - H 12	6/23/2003	X
806 - H 13	6/23/2003	X
806 - I 1	6/17/2003	X
806 - I 2	6/17/2003	X
806 - I 3	6/17/2003	X
806 - I 4	6/17/2003	X
806 - I 5	6/17/2003	X
806 - I 6	6/17/2003	X
806 - I 7	6/17/2003	X
806 - I 8	6/18/2003	X
806 - I 9	6/18/2003	X
806 - I 10	6/18/2003	X
806 - I 11	6/18/2003	X
806 - I 12	6/18/2003	X
806 - I 13	6/18/2003	X
806 - J 1	6/23/2003	X
806 - J 2	6/23/2003	X
806 - J 3	6/23/2003	X
806 - J 4	6/23/2003	X
806 - J 5	6/23/2003	X
806 - J 6	6/23/2003	X
806 - J 7	6/23/2003	X
806 - J 8	6/23/2003	X
806 - J 9	6/23/2003	X

Sampled and relinquished by

Sign: *Kathleen A. Kadlubak*Print: *K. Kadlubak*Firm: *Parsons*Date: *7/29/08* Time: *1300*

Received By

Sign:

Print:

Firm:

Date: Time:

Job No. 740497-03400

IGLOO E0806

Bldg. 5417

Project: Seneca SEAD-48

Redstone Arsenal, AL 35898-5400

Contact: Katie Kadlubak (617) 457-7869

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
806 - J 10	6/23/2003	X
806 - J 11	6/23/2003	X
806 - J 12	6/23/2003	X
806 - J 13	6/23/2003	X
806 - K 1	6/23/2003	X
806 - K 2	6/23/2003	X
806 - K 3	6/23/2003	X
806 - K 4	6/24/2003	X
806 - K 5	6/27/2003	X
806 - K 6	6/27/2003	X
806 - K 7	6/24/2003	X
806 - K 8	6/24/2003	X
806 - K 9	6/24/2003	X
806 - L 1	6/24/2003	X
806 L 2	6/24/2003	X
806 L 3	6/24/2003	X
806 L 4	6/24/2003	X
806 L 5	6/24/2003	X
806 L 6	6/24/2003	X
806 L 7	6/24/2003	X
806 L 8	6/24/2003	X
806 L 9	6/24/2003	X
total smears		148

Sampled and relinquished by

Sign: *Katie Kadlubak*Print: *K. Kadlubak*Firm: *PARSON*Date: *7/29/03* Time: *1300*

Received By

Sign:

Print:

Firm:

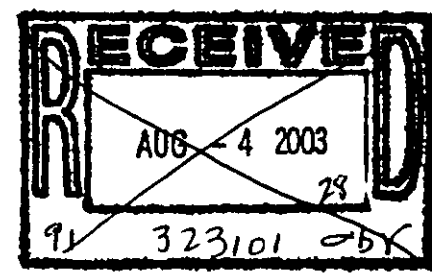
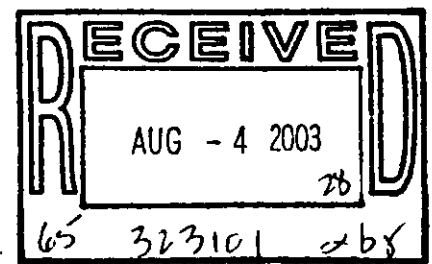
Date: Time:

Job No. 740497-03400
Project: Seneca SEAD-48
Contact: Katie Kadlubak (617) 457-7869

IGLOO E0806-hotspots

Bldg. 5417
Redstone Arsenal, AL 35898-5400
MR. Steve Howard/David Walsh

Sample ID		Dry smear date	Dry Smear
806 - A 1	HS1	6/16/2003	X
806 - A 2	HS1	6/16/2003	X
806 - A 2	HS2	6/16/2003	X
806 - A 3	HS1	6/16/2003	X
806 - A 4	HS1	6/18/2003	X
806 - A 5	HS1	6/18/2003	X
806 - A 6	HS1	6/18/2003	X
806 - A 6	HS2	6/18/2003	X
806 - A 7	HS1	6/18/2003	X
806 - A 8	HS1	6/18/2003	X
806 - A 9	HS1	6/18/2003	X
806 - A 10	HS1	6/18/2003	X
806 - A 11	HS1	6/18/2003	X
806 - A 12	HS1	6/18/2003	X
806 - A 13	HS1	6/18/2003	X
806 - A 13	HS2	6/18/2003	X
806 - B 1	HS1	6/18/2003	X
806 - B 1	HS2	6/18/2003	X
806 - B 4	HS1	6/18/2003	X
806 - B 6	HS1	6/18/2003	X
806 - B 6	HS2	6/18/2003	X
806 - B 6	HS3	6/18/2003	X
806 - B 7	HS2	6/18/2003	X
806 - B 7	HS3	6/17/2003	X
806 - B 7	HS4	6/17/2003	X
806 - B 8	HS1	6/17/2003	X
806 - B 9	HS1	6/17/2003	X
806 - B 10	HS1	6/17/2003	X
806 - C 2	HS1	6/18/2003	X
806 - C 5	HS1	6/18/2003	X
806 - C 6	HS1	6/18/2003	X
806 - C 6	HS2	6/18/2003	X
806 - C 8	HS1	6/18/2003	X
806 - C 11	HS1	6/18/2003	X
806 - C 11	HS2	6/18/2003	X
806 - C 11	HS3	6/18/2003	X
806 - C 12	HS1	6/18/2003	X
806 - C 12	HS2	6/18/2003	X
806 - C 13	HS1	6/24/2003	X
806 - D 1	HS1	6/23/2003	X
806 - D 2	HS1	6/23/2003	X
806 - D 2	HS2	6/23/2003	X



Sampled and relinquished by
Sign: *K. Kadlubak*
Print: *7-29-03 K. Kadlubak*
Firm: *PA 10017*
Date: *7-29-03* Time: *1430*

Received By
Sign:
Print:
Firm:
Date: Time:

Job No. 740497-03400
Project: Seneca SEAD-48
Contact: Katie Kadlubak (617) 457-7869

IGLOO E0806-hotspots

Bldg. 5417
Redstone Arsenal, AL 35898-5400
MR. Steve Howard/David Walsh

Sample ID		Dry smear date	Dry Smear
806 - D 3	HS1	6/23/2003	X
806 - D 3	HS2	6/23/2003	X
806 - D 4	HS1	6/23/2003	X
806 - D 4	HS2	6/23/2003	X
806 - D 5	HS1	6/23/2003	X
806 - D 5	HS2	6/23/2003	X
806 - D 6	HS1	6/23/2003	X
806 - D 7	HS1	6/23/2003	X
806 - D 8	HS1	6/24/2003	X
806 - D 9	HS1	6/24/2003	X
806 - D 10	HS1	6/24/2003	X
806 - D 11	HS1	6/24/2003	X
806 - D 12	HS1	6/24/2003	X
806 - D 12	HS2	6/24/2003	X
806 - D 13	HS1	6/24/2003	X
806 - J 3	HS1	6/23/2003	X
806 - J 4	HS1	6/23/2003	X
806 - J 5	HS1	6/23/2003	X
806 - J 6	HS1	6/23/2003	X
806 - J 7	HS1	6/23/2003	X
806 - J 8	HS1	6/23/2003	X
806 - J 9	HS1	6/23/2003	X
806 - J 10	HS1	6/23/2003	X
total smears			65

Sampled and relinquished by
Sign: *K. Kadlubak*
Print: *K. Kadlubak*
Firm: *PARSONS*
Date: *7/29/03* Time: *1430*

Received By
Sign:
Print:
Firm:
Date: Time:

Job No. 740497-03400

IGLOO E0807

Bldg. 5417

Project: Seneca SEAD-48

Redstone Arsenal, AL 35898-5400

Contact: Katie Kadlubak (617) 457-7869

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
807 - A 1	5/23/2003	X
807 - A 2	5/23/2003	X
807 - A 3	5/23/2003	X
807 - A 4	5/23/2003	X
807 - A 5	5/23/2003	X
807 - A 6	5/23/2003	X
807 - A 7	5/23/2003	X
807 - A 8	5/23/2003	X
807 - A 9	5/23/2003	X
807 - A 10	5/23/2003	X
807 - A 11	5/23/2003	X
807 - A 12	5/23/2003	X
807 - A 13	5/23/2003	X
807 - A 6HS1	6/4/2003	X
807 - A 12HS1	6/4/2003	X
807 - A 13HS1	6/18/2003	X
807 - B 1	6/4/2003	X
807 - B 2	6/4/2003	X
807 - B 3	5/23/2003	X
807 - B 4	5/23/2003	X
807 - B 5	5/23/2003	X
807 - B 6	5/23/2003	X
807 - B 7	6/2/2003	X
807 - B 8	6/2/2003	X
807 - B 9	6/2/2003	X
807 - B 10	6/2/2003	X
807 - B 11	6/2/2003	X
807 - B 12	6/2/2003	X
807 - B 13	6/2/2003	X
807 B 11HS1	6/4/2003	X
807 B 13HS1	6/4/2003	X
807 - C 1	6/3/2003	X
807 - C 2	6/3/2003	X
807 - C 3	6/3/2003	X
807 - C 4	6/3/2003	X
807 - C 5	6/3/2003	X
807 - C 6	6/3/2003	X
807 - C 7	6/3/2003	X
807 - C 8	6/3/2003	X
807 - C 9	6/3/2003	X
807 - C 10	6/3/2003	X
807 - C 11	6/3/2003	X

Sampled and relinquished by

Sign: *Ed Ashten*

Print: *Ed Ashten*

Firm: *Parsons*

Date: *6/18/03* Time: *1400*

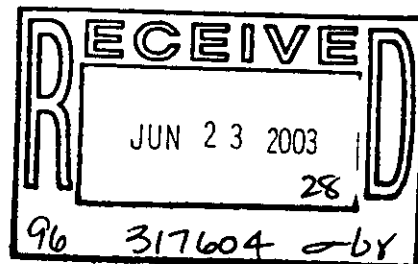
Received By

Sign:

Print:

Firm:

Date: Time:



Copy: (A) B C

Job No. 740497-03400
Project: Seneca SEAD-48
Contact: Katie Kadlubak (617) 457-7869

IGLOO E0807

Bldg. 5417
Redstone Arsenal, AL 35898-5400
MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
807 - C 12	6/3/2003	X
807 - C 13	6/2/2003	X
807 - D 1	6/2/2003	X
807 - D 2	6/2/2003	X
807 - D 3	6/2/2003	X
807 - D 4	6/2/2003	X
807 - D 5	6/2/2003	X
807 - D 6	6/2/2003	X
807 - D 7	6/2/2003	X
807 - D 8	6/2/2003	X
807 - D 9	6/2/2003	X
807 - D 10	6/2/2003	X
807 - D 11	6/2/2003	X
807 - D 12	6/2/2003	X
807 - D 13	6/2/2003	X
807 - E 1	6/2/2003	X
807 - E 2	6/2/2003	X
807 - E 3	6/2/2003	X
807 - E 4	6/2/2003	X
807 - E 5	6/2/2003	X
807 - E 6	6/2/2003	X
807 - E 7	6/2/2003	X
807 - E 8	6/2/2003	X
807 - E 9	6/2/2003	X
807 - E 10	6/2/2003	X
807 - E 11	6/2/2003	X
807 - E 12	6/2/2003	X
807 - E 13	6/2/2003	X
807 - F 2	6/4/2003	X
807 - F 4	6/4/2003	X
807 - F 6	6/4/2003	X
807 - F 8	6/4/2003	X
807 - F 10	6/4/2003	X
807 - F 12	6/4/2003	X
807 - G 1	5/23/2003	X
807 - G 3	5/22/2003	X
807 - G 5	5/22/2003	X
807 - G 7	5/22/2003	X
807 - G 9	5/23/2003	X
807 - G 11	5/23/2003	X
807 - G 13	6/2/2003	X
807 - H 2	6/3/2003	X

Sampled and relinquished by
Sign: *Ed Ashton*
Print: Ed Ashton
Firm: *Perma*
Date: 6/18/03 Time: 1400

Received By
Sign:
Print:
Firm:
Date: Time:

Copy: (A) B C

Job No. 740497-03400
Project: Seneca SEAD-48
Contact: Katie Kadlubak (617) 457-7869

IGLOO E0807

Bldg. 5417
Redstone Arsenal, AL 35898-5400
MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
807 - H 4	6/3/2003	X
807 - H 6	5/23/2003	X
807 - H 8	5/23/2003	X
807 - H 10	6/2/2003	X
807 - H 12	6/2/2003	X
807 - I 1	6/3/2003	X
807 - I 3	6/3/2003	X
807 - I 5	6/3/2003	X
807 - I 7	6/3/2003	X
807 - I 9	6/3/2003	X
807 - I 11	6/3/2003	X
96 807 - I 13	6/4/2003	X
807 - J 1	6/2/2003	X
807 - J 2	6/2/2003	X
807 - J 3	6/2/2003	X
807 - J 4	6/2/2003	X
807 - J 5	6/2/2003	X
807 - J 6	6/2/2003	X
807 - J 7	6/2/2003	X
807 - J 8	6/2/2003	X
807 - J 9	6/2/2003	X
807 - J 10	6/2/2003	X
807 - J 11	6/2/2003	X
807 - J 12	6/2/2003	X
807 - J 13	6/2/2003	X
807 - K 1	6/2/2003	X
807 - K 2	6/2/2003	X
807 - K 3	6/2/2003	X
807 - K 4	6/3/2003	X
807 - K 5	6/3/2003	X
807 - K 7	6/3/2003	X
807 - K 9	6/4/2003	X
807 - L 1	6/4/2003	X
807 - L 2	6/4/2003	X
807 - L 3	6/4/2003	X
807 - L 4	6/4/2003	X
807 - L 6	6/3/2003	X
807 - L 8	6/3/2003	X
27 807 - L 9	6/2/2003	X
total smears		123

Sampled and relinquished by
Sign: *CD Asher*
Print: *CD Asher*
Firm: *Parsco*
Date: *6/11/03* Time: *1400*

Received By
Sign:
Print:
Firm:
Date: Time:

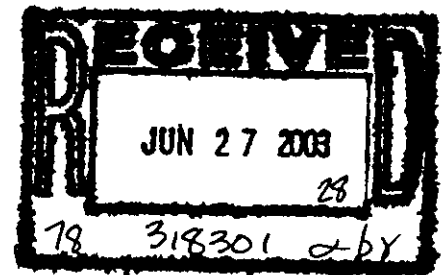
Copy: (A) B C

Job No. 740497-03400
Project: Seneca SEAD-48
Contact: Katie Kadlubak (617) 457-7869

IGLOO E0808- sent 6-25-03

Bldg. 5417
Redstone Arsenal, AL 35898-5400
MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
808 - A 1	6/24/2003	X
808 - A 2	6/24/2003	X
808 - A 3	6/24/2003	X
808 - A 4	6/24/2003	X
808 - A 5	6/24/2003	X
808 - A 6	6/24/2003	X
808 - A 7	6/24/2003	X
808 - A 8	6/24/2003	X
808 - A 9	6/24/2003	X
808 - A 10	6/24/2003	X
808 - A 11	6/24/2003	X
808 - A 12	6/24/2003	X
808 - A 13	6/24/2003	X
808 - B 1	6/24/2003	X
808 - B 2	6/24/2003	X
808 - B 3	6/24/2003	X
808 - B 4	6/24/2003	X
808 - B 5	6/24/2003	X
808 - B 6	6/24/2003	X
808 - B 7	6/24/2003	X
808 - B 8	6/24/2003	X
808 - B 9	6/24/2003	X
808 - B 10	6/24/2003	X
808 - B 11	6/24/2003	X
808 - B 12	6/24/2003	X
808 - B 13	6/24/2003	X
808 - C 1	6/24/2003	X
808 - C 2	6/24/2003	X
808 - C 3	6/24/2003	X
808 - C 4	6/24/2003	X
808 - C 5	6/24/2003	X
808 - C 6	6/24/2003	X
808 - C 7	6/24/2003	X
808 - C 8	6/24/2003	X
808 - C 9	6/24/2003	X
808 - C 10	6/24/2003	X
808 - C 11	6/24/2003	X
808 - C 12	6/24/2003	X
808 - C 13	6/24/2003	X
808 - D 1	6/24/2003	X
808 - D 2	6/24/2003	X
808 - D 3	6/24/2003	X



Sampled and relinquished by
Sign: *Kathleen J. Kadlubak*
Print: *Kathleen Kadlubak*
Firm: *Parsons*
Date: *6/25/03* Time: *1050*

Received By
Sign:
Print:
Firm:
Date: Time:

Job No. 740497-03400

IGLOO E0808- sent 6-25-03

Bldg. 5417

Project: Seneca SEAD-48

Redstone Arsenal, AL 35898-5400

Contact: Katie Kadlubak (617) 457-7869

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
808 - D 4	6/24/2003	X
808 - D 5	6/24/2003	X
808 - D 6	6/24/2003	X
808 - D 7	6/24/2003	X
808 - D 8	6/24/2003	X
808 - D 9	6/24/2003	X
808 - D 10	6/24/2003	X
808 - D 11	6/24/2003	X
808 - D 12	6/24/2003	X
808 - D 13	6/24/2003	X
808 - E 1	6/24/2003	X
808 - E 2	6/24/2003	X
808 - E 3	6/24/2003	X
808 - E 4	6/24/2003	X
808 - E 5	6/24/2003	X
808 - E 6	6/24/2003	X
808 - E 7	6/24/2003	X
808 - E 8	6/24/2003	X
808 - E 9	6/24/2003	X
808 - E 10	6/24/2003	X
808 - E 11	6/24/2003	X
808 - E 12	6/24/2003	X
808 - E 13	6/24/2003	X
808 - J 1	6/24/2003	X
808 - J 2	6/24/2003	X
808 - J 3	6/24/2003	X
808 - J 4	6/24/2003	X
808 - J 5	6/24/2003	X
808 - J 6	6/24/2003	X
808 - J 7	6/24/2003	X
808 - J 8	6/24/2003	X
808 - J 9	6/24/2003	X
808 - J 10	6/24/2003	X
808 - J 11	6/24/2003	X
808 - J 12	6/24/2003	X
808 - J 13	6/24/2003	X
total smears		78

Sampled and relinquished by

Sign: *Kathleen Kadlubak*

Print: Kathleen Kadlubak

Firm: Parsons

Date: 6/25/03 Time: 1050

Received By

Sign:

Print:

Firm:

Date: Time:

page 2/2

Job No. 740497-03400
 Project: Seneca SEAD-48
 Contact: Katie Kadlubak (617) 457-7869

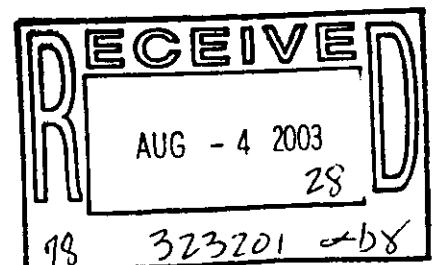
IGLOO E0808 Hotspots

Bldg. 5417
 Redstone Arsenal, AL 35898-5400
 MR. Steve Howard/David Walsh

Sample ID		Dry smear date	Dry Smear
808 - A 7	HS1	6/25/2003	X
808 - B 7	HS1	7/8/2003	X
808 - B 6	HS1	7/8/2003	X
808 - B 5	HS1	7/8/2003	X
808 - C 3	HS1	7/8/2003	X
808 - C 5	HS1	7/8/2003	X
808 - C 11	HS1	7/8/2003	X
808 - J 7	HS1	7/8/2003	X
total smears			8

Sampled and relinquished by
 Sign: *K. Kadlubak*
 Print: *K. Kadlubak*
 Firm: *PARSONS*
 Date: *7-29-03* Time: *1330*

Received By
 Sign:
 Print:
 Firm:
 Date: Time:



Job No. 740497-03400
Project: Seneca SEAD-48
Contact: Katie Kadlubak (617) 457-7869

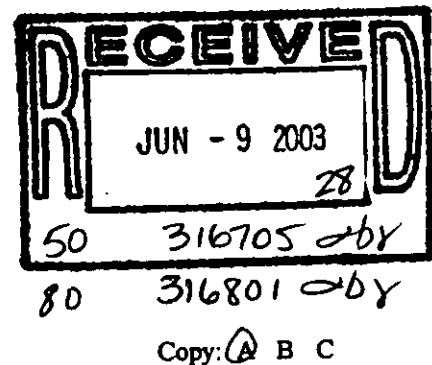
IGLQO E0809

Bldg. 5417
Redstone Arsenal, AL 35898-5400
Mr. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
809 - A 1	5/10/2003	X
809 - A 2	5/10/2003	X
809 - A 3	5/10/2003	X
809 - A 4	5/10/2003	X
809 - A 5	5/10/2003	X
809 - A 6	5/10/2003	X
809 - A 7	5/10/2003	X
809 - A 8	5/10/2003	X
809 - A 9	5/10/2003	X
809 - A 10	5/10/2003	X
809 - A 11	5/10/2003	X
809 - A 12	5/10/2003	X
809 - A 13	5/10/2003	X
809 - A 1HS1	5/11/2003	X
809 - A 3HS1	5/11/2003	X
809 - A 4HS1	5/11/2003	X
809 - A 6HS1	5/11/2003	X
809 - A 9HS1	5/11/2003	X
809 - A 10HS1	5/11/2003	X
809 - A 11HS1	5/11/2003	X
809 - A 13HS1	5/11/2003	X
809 - B 1	5/10/2003	X
809 - B 2	5/10/2003	X
809 - B 3	5/10/2003	X
809 - B 4	5/10/2003	X
809 - B 5	5/10/2003	X
809 - B 6	5/10/2003	X
809 - B 7	5/10/2003	X
809 - B 8	5/10/2003	X
809 - B 9	5/10/2003	X
809 - B 10	5/10/2003	X
809 - B 11	5/10/2003	X
809 - B 12	5/10/2003	X
809 - B 13	5/10/2003	X
809 - B 13HS1	5/11/2003	X
809 - B 8HS1	5/11/2003	X
809 - C 1	5/10/2003	X
809 - C 2	5/10/2003	X
809 - C 3	5/10/2003	X
809 - C 4	5/10/2003	X
809 - C 5	5/10/2003	X
809 - C 6	5/10/2003	X

Sampled and relinquished by
Sign: *Scott B. Dillman*
Print: *Scott B. Dillman*
Firm: *Parsons*
Date: *6/6/03* Time: *1812*

Received By
Sign:
Print:
Firm:
Date: Time:



Job No. 740497-03400

Project: Seneca SEAD-48

Contact: Katie Kadlubak (617) 457-7869

IGLOO E0809

Bldg. 5417

Redstone Arsenal, AL 35898-5400

Mr. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
809 - C 7	5/10/2003	X
809 - C 8	5/10/2003	X
809 - C 9	5/10/2003	X
809 - C 10	5/10/2003	X
809 - C 11	5/10/2003	X
809 - C 12	5/10/2003	X
809 - C 13	5/10/2003	X
809 - C 1HS1	5/11/2003	X
809 - D 1	5/10/2003	X
809 - D 2	5/10/2003	X
809 - D 3	5/10/2003	X
809 - D 4	5/10/2003	X
809 - D 5	5/10/2003	X
809 - D 6	5/10/2003	X
809 - D 7	5/10/2003	X
809 - D 8	5/10/2003	X
809 - D 9	5/10/2003	X
809 - D 10	5/10/2003	X
809 - D 11	5/10/2003	X
809 - D 12	5/10/2003	X
809 - D 13	5/10/2003	X
809 - E 1	5/10/2003	X
809 - E 2	5/11/2003	X
809 - E 3	5/11/2003	X
809 - E 4	5/11/2003	X
809 - E 5	5/11/2003	X
809 - E 6	5/11/2003	X
809 - E 7	5/11/2003	X
809 - E 8	5/11/2003	X
809 - E 9	5/11/2003	X
809 - E 10	5/11/2003	X
809 - E 11	5/11/2003	X
809 - E 12	5/11/2003	X
809 - E 13	5/11/2003	X
809 - F 1	5/11/2003	X
809 - F 3	5/11/2003	X
809 - F 5	5/11/2003	X
809 - F 7	5/11/2003	X
809 - F 9	5/11/2003	X
809 - F 11	5/11/2003	X
809 - F 13	5/11/2003	X
809 - G 2	5/10/2003	X

Sampled and relinquished by

Sign: *Scott B. Dillman*

Print: Scott B. Dillman

Firm: Parsons

Date: 6/6/03 Time: 1812

Received By

Sign:

Print:

Firm:

Date: Time:

Copy: (A) B C

Job No. 740497-03400

Project: Seneca SEAD-48

Contact: Katie Kadlubak (617) 457-7869

IGLOO E0809

Bldg. 5417

Redstone Arsenal, AL 35898-5400

Mr. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
809 - G 4	5/10/2003	X
809 - G 6	5/11/2003	X
809 - G 8	5/11/2003	X
809 - G 10	5/11/2003	X
809 - G 12	5/11/2003	X
809 - H 1	5/10/2003	X
809 - H 3	5/10/2003	X
809 - H 5	5/12/2003	X
809 - H 7	5/11/2003	X
809 - H 9	5/11/2003	X
809 - H 11	5/11/2003	X
809 - H 13	5/11/2003	X
809 - I 2	5/11/2003	X
809 - I 4	5/11/2003	X
809 - I 6	5/11/2003	X
809 - I 8	5/11/2003	X
809 - I 10	5/11/2003	X
809 - I 12	5/11/2003	X
809 - J 1	5/11/2003	X
809 - J 2	5/11/2003	X
809 - J 3	5/11/2003	X
809 - J 4	5/11/2003	X
809 - J 5	5/11/2003	X
809 - J 6	5/11/2003	X
809 - J 7	5/11/2003	X
809 - J 8	5/11/2003	X
809 - J 9	5/11/2003	X
809 - J 10	5/11/2003	X
809 - J 11	5/11/2003	X
809 - J 12	5/11/2003	X
809 - J 13	5/11/2003	X
809 - K 1	5/11/2003	X
809 - K 2	5/11/2003	X
809 - K 3	5/11/2003	X
809 - K 4	5/11/2003	X
809 - K 6	5/12/2003	X
809 - K 8	5/12/2003	X
809 - K 9	5/11/2003	X
809 - L 1	5/11/2003	X
809 - L 2	5/11/2003	X
809 - L 3	5/11/2003	X
809 - L 4	5/11/2003	X

Sampled and relinquished by

Sign: *Scott B. Dillman*

Print: Scott B. Dillman

Firm: Parsons

Date: 6/6/03 Time: 1812

Received By

Sign:

Print:

Firm:

Date: Time:

Copy: A B C

Job No. 740497-03400

Project: Seneca SEAD-48

Contact: Katie Kadlubak (617) 457-7869

IGLOO E0809

Bldg. 5417

Redstone Arsenal, AL 35898-5400

Mr. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
809 - L 5	5/12/2003	X
809 - L 7	5/12/2003	X
809 - L 9	6/6/2003	X
809 - L 7HS1	5/12/2003	X
total smears		130

Sampled and relinquished by

Sign: *Scott B. Dillman*

Print: *Scott B. Dillman*

Firm: *Persans*

Date: *6/6/03* Time: *1812*

Received By

Sign:

Print:

Firm:

Date: Time:

Copy *(2)* B C

Job No. 740497-03400
Project: Seneca SEAD-48
Contact: Katie Kadlubak (617) 457-7869

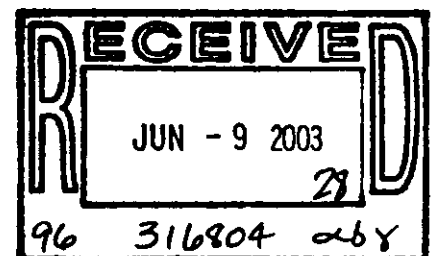
IGLOO E0810

Bldg. 5417
Redstone Arsenal, AL 35898-5400
MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
810 - A 1	5/12/2003	X
810 - A 2	5/12/2003	X
810 - A 3	5/12/2003	X
810 - A 4	5/12/2003	X
810 - A 5	5/12/2003	X
810 - A 6	5/12/2003	X
810 - A 7	5/12/2003	X
810 - A 8	5/12/2003	X
810 - A 9	5/12/2003	X
810 - A 10	5/12/2003	X
810 - A 11	5/12/2003	X
810 - A 12	5/12/2003	X
810 - A 13	5/12/2003	X
810 - A 3HS1	5/13/2003	X
810 - A 4HS1	5/13/2003	X
810 - A 6HS1	5/13/2003	X
810 - A 8HS1	5/13/2003	X
810 - A 8HS2	5/13/2003	X
810 - A 9HS1	5/13/2003	X
810 - A 10HS1	5/13/2003	X
810 - A 11HS1	5/13/2003	X
810 - A 12HS1	5/13/2003	X
810 - A 12HS2	5/13/2003	X
810 - A 12HS3	5/13/2003	X
810 - B 1	5/12/2003	X
810 - B 2	5/12/2003	X
810 - B 3	5/12/2003	X
810 - B 4	5/12/2003	X
810 - B 5	5/12/2003	X
810 - B 6	5/12/2003	X
810 - B 7	5/12/2003	X
810 - B 8	5/12/2003	X
810 - B 9	5/12/2003	X
810 - B 10	5/12/2003	X
810 - B 11	5/12/2003	X
810 - B 12	5/12/2003	X
810 - B 13	5/12/2003	X
810 - B 4HS1	5/14/2003	X
810 - B 4HS2	5/14/2003	X
810 - B 5HS1	5/13/2003	X
810 - B 6HS1	5/13/2003	X
810 - B 6HS3	5/13/2003	X
810 - B 8HS1	5/13/2003	X
810 - B 10HS1	5/13/2003	X
810 - B 11HS1	5/13/2003	X
810 - B 12HS1	5/13/2003	X
810 - C 1	5/12/2003	X
810 - C 2	5/12/2003	X

Sampled and relinquished by
Sign: *Scott B. Dillman*
Print: Scott B. Dillman
Firm: Parsons
Date: 6/6/03 Time: 1420

Received By
Sign:
Print:
Firm:
Date: Time:



COPY ① 2 3

Job No. 740497-03400
 Project: Seneca SEAD-48
 Contact: Katie Kadlubak (617) 457-7869

IGLOO E0810

Bldg. 5417
 Redstone Arsenal, AL 35898-5400
 MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
810 - C 3	5/12/2003	X
810 - C 4	5/12/2003	X
810 - C 5	5/12/2003	X
810 - C 6	5/12/2003	X
810 - C 7	5/12/2003	X
810 - C 8	5/12/2003	X
810 - C 9	5/12/2003	X
810 - C 10	5/12/2003	X
810 - C 11	5/12/2003	X
810 - C 12	5/12/2003	X
810 - C 13	5/12/2003	X
810 - C 2HS1	5/14/2003	X
810 - C 2HS2	5/14/2003	X
810 - C 3HS1	5/14/2003	X
810 - C 3HS2	5/14/2003	X
810 - C 4HS1	5/14/2003	X
810 - C 4HS2	5/14/2003	X
810 - C 5HS1	5/13/2003	X
810 - C 5HS2	5/13/2003	X
810 - C 6HS1	5/13/2003	X
810 - C 6HS2	5/13/2003	X
810 - C 7HS1	5/13/2003	X
810 - C 7HS2	5/13/2003	X
810 - C 8HS1	5/13/2003	X
810 - C 8HS2	5/13/2003	X
810 - C 9HS1	5/13/2003	X
810 - C 10HS1	5/13/2003	X
810 - C 11HS1	5/13/2003	X
810 - D 1	5/12/2003	X
810 - D 2	5/12/2003	X
810 - D 3	5/12/2003	X
810 - D 4	5/12/2003	X
810 - D 5	5/12/2003	X
810 - D 6	5/12/2003	X
810 - D 7	5/12/2003	X
810 - D 8	5/12/2003	X
810 - D 9	5/12/2003	X
810 - D 10	5/12/2003	X
810 - D 11	5/12/2003	X
810 - D 12	5/12/2003	X
810 - D 13	5/12/2003	X
810 - D 2HS1	5/14/2003	X
810 - D 3HS1	5/13/2003	X
810 - D 3HS2	5/13/2003	X
810 - D 4HS1	5/13/2003	X
810 - D 5HS1	5/13/2003	X
810 - D 7HS1	5/13/2003	X
810 - D 11HS1	5/13/2003	X

Sampled and relinquished by
 Sign: *Scott B. Dillman*
 Print: Scott B. Dillman
 Firm: Parsons
 Date: 6/6/03 Time: 1420

Received By
 Sign:
 Print:
 Firm:
 Date: Time:

COPY 2 3

Job No. 740497-03400
 Project: Seneca SEAD-48
 Contact: Katie Kadlubak (617) 457-7869

IGLOO E0810

Bldg. 5417
 Redstone Arsenal, AL 35898-5400
 MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
810 - D 12HS1	5/13/2003	X
810 - E 1	5/12/2003	X
810 - E 2	5/12/2003	X
810 - E 3	5/12/2003	X
810 - E 4	5/12/2003	X
810 - E 5	5/12/2003	X
810 - E 6	5/12/2003	X
810 - E 7	5/12/2003	X
810 - E 8	5/12/2003	X
810 - E 9	5/12/2003	X
810 - E 10	5/12/2003	X
810 - E 11	5/12/2003	X
810 - E 12	5/12/2003	X
810 - E 13	5/12/2003	X
810 - F 2	5/12/2003	X
810 - F 4	5/12/2003	X
810 - F 6	5/12/2003	X
810 - F 8	5/12/2003	X
810 - F 10	5/12/2003	X
810 - F 12	5/13/2003	X
810 - G 1	5/13/2003	X
810 - G 3	5/12/2003	X
810 - G 5	5/12/2003	X
810 - G 7	5/12/2003	X
810 - G 9	5/12/2003	X
810 - G 11	5/12/2003	X
810 - G 13	5/12/2003	X
810 - H 2	5/13/2003	X
810 - H 4	5/13/2003	X
810 - H 6	5/13/2003	X
810 - H 8	5/13/2003	X
810 - H 10	5/13/2003	X
810 - H 12	5/13/2003	X
810 - I 1	5/14/2003	X
810 - I 3	5/14/2003	X
810 - I 5	5/14/2003	X
810 - I 7	5/14/2003	X
810 - I 9	5/14/2003	X
810 - I 11	5/14/2003	X
810 - I 13	5/14/2003	X
810 - J 1	5/13/2003	X
810 - J 2	5/13/2003	X
810 - J 3	5/13/2003	X
810 - J 4	5/13/2003	X
810 - J 5	5/13/2003	X
810 - J 6	5/13/2003	X
810 - J 7	5/13/2003	X
810 - J 8	5/13/2003	X

Sampled and relinquished by
 Sign: *Scott G. Ollman*
 Print: Scott G. Ollman
 Firm: Parsons
 Date: 6/6/03 Time: 1420

Received By
 Sign:
 Print:
 Firm:
 Date: Time:

COPY 1 2 3

Job No. 740497-03400
Project: Seneca SEAD-48
Contact: Katie Kadiubak (617) 457-7869

IGLOO E0810

Bldg. 5417
Redstone Arsenal, AL 35898-5400
MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
810 - J 9	5/13/2003	X
810 - J 10	5/13/2003	X
810 - J 11	5/13/2003	X
810 - J 12	5/13/2003	X
810 - J 13	5/13/2003	X
810 - K 1	5/13/2003	X
810 - K 2	5/13/2003	X
810 - K 3	5/13/2003	X
810 - K 4	5/13/2003	X
810 - K 5	5/12/2003	X
810 - K 7	5/12/2003	X
810 - K 9	6/6/2003	X
810 - L 1	5/13/2003	X
810 - L 2	5/13/2003	X
810 - L 3	5/13/2003	X
810 - L 4	5/13/2003	X
810 - L 5	5/13/2003	X
810 - I 7	5/13/2003	X
810 - L 9	6/6/2003	X
total smears		163

Sampled and relinquished by
Sign: *Scott B. Dillman*
Print: *SCOTT B. DILLMAN*
Firm: *PERSONS*
Date: *6/6/03* Time: *1420*

Received By
Sign:
Print:
Firm:
Date: Time:

COPY(1) 2 3

Job No. 740497-03400

Project: Seneca SEAD-48

Contact: Katie Kadlubak (617) 457-7869

IGLOO E0811

Bldg. 5417

Redstone Arsenal, AL 35898-5400

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
811 - A 1	5/19/2003	X
811 - A 2	5/19/2003	X
811 - A 3	5/19/2003	X
811 - A 4	5/19/2003	X
811 - A 5	5/19/2003	X
811 - A 6	5/19/2003	X
811 - A 7	5/19/2003	X
811 - A 8	5/19/2003	X
811 - A 9	5/19/2003	X
811 - A 10	5/19/2003	X
811 - A 11	5/19/2003	X
811 - A 12	5/19/2003	X
811 - A 13	5/19/2003	X
811 - A 4HS1	5/22/2003	X
811 - A 8HS1	5/22/2003	X
811 - A 11HS1	5/22/2003	X
811 - A 11HS2	5/22/2003	X
811 - A 12HS1	5/22/2003	X
811 - B 1	5/20/2003	X
811 - B 2	5/20/2003	X
811 - B 3	5/20/2003	X
811 - B 4	5/20/2003	X
811 - B 5	5/20/2003	X
811 - B 6	5/20/2003	X
811 - B 7	5/20/2003	X
811 - B 8	5/20/2003	X
811 - B 9	5/20/2003	X
811 - B 10	5/20/2003	X
811 - B 11	5/20/2003	X
811 - B 12	5/20/2003	X
811 - B 13	5/20/2003	X
811 - B 11HS1	5/22/2003	X
811 - C 1	5/20/2003	X
811 - C 2	5/20/2003	X
811 - C 3	5/20/2003	X
811 - C 4	5/20/2003	X
811 - C 5	5/20/2003	X
811 - C 6	5/20/2003	X
811 - C 7	5/20/2003	X
811 - C 8	5/20/2003	X
811 - C 9	5/20/2003	X
811 - C 10	5/20/2003	X

Sampled and relinquished by

Sign: *Scott D. Billman*

Print: *Scott D. Billman*

Firm: *Parsons*

Date: *6/6/03* Time: *1812*

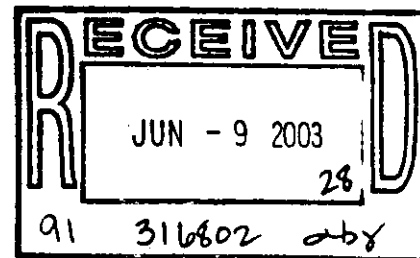
Received By

Sign:

Print:

Firm:

Date: Time:



91 316802 *abx*

34 316803 *abx*

1 ~~317~~ 317001 *abx*

COPY (1) 2 3

Job No. 740497-03400
Project: Seneca SEAD-48
Contact: Katie Kadlubak (617) 457-7869

IGLOO E0811

Bldg. 5417
Redstone Arsenal, AL 35898-5400
MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
811 - C 11	5/20/2003	X
811 - C 12	5/20/2003	X
811 - C 13	5/20/2003	X
811 - D 1	5/20/2003	X
811 - D 2	5/20/2003	X
811 - D 3	5/20/2003	X
811 - D 4	5/20/2003	X
811 - D 5	5/20/2003	X
811 - D 6	5/20/2003	X
811 - D 7	5/20/2003	X
811 - D 8	5/20/2003	X
811 - D 9	5/20/2003	X
811 - D 10	5/20/2003	X
811 - D 11	5/20/2003	X
811 - D 12	5/20/2003	X
811 - D 13	5/20/2003	X
811 - D 3HS1	5/22/2003	X
811 - E 1	5/20/2003	X
811 - E 2	5/20/2003	X
811 - E 3	5/20/2003	X
811 - E 4	5/20/2003	X
811 - E 5	5/20/2003	X
811 - E 6	5/20/2003	X
811 - E 7	5/20/2003	X
811 - E 8	5/20/2003	X
811 - E 9	5/20/2003	X
811 - E 10	5/20/2003	X
811 - E 11	5/20/2003	X
811 - E 12	5/20/2003	X
811 - E 13	5/20/2003	X
811 - F 2	5/21/2003	X
811 - F 4	5/21/2003	X
811 - F 6	5/21/2003	X
811 - F 8	5/21/2003	X
811 - F 10	5/21/2003	X
811 - F 12	5/21/2003	X
811 - G 1	5/19/2003	X
811 - G 3	5/19/2003	X
811 - G 5	5/19/2003	X
811 - G 7	5/19/2003	X
811 - G 9	5/19/2003	X
811 - G 11	5/19/2003	X

Sampled and relinquished by
Sign: *Scott B. Ollman*
Print: Scott B. Ollman
Firm: Parsons
Date: 6/6/02 Time: 7:12

Received By
Sign:
Print:
Firm:
Date: Time:

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Job No. 740497-03400

IGLOO E0811

Bldg. 5417

Project: Seneca SEAD-48

Redstone Arsenal, AL 35898-5400

Contact: Katie Kadlubak (617) 457-7869

MR. Steve Howard/David Walsh

Sample ID	Dry smear date	Dry Smear
811 - G 13	5/19/2003	X
811 - H 2	5/19/2003	X
811 - H 4	5/19/2003	X
811 - H 6	5/20/2003	X
811 - H 8	5/20/2003	X
811 - H 10	5/20/2003	X
811 - H 12	5/20/2003	X
811 - I 1	5/21/2003	X
811 - I 3	5/21/2003	X
811 - I 5	5/21/2003	X
811 - I 7	5/21/2003	X
811 - I 9	5/21/2003	X
811 - I 11	5/21/2003	X
811 - I 13	5/21/2003	X
811 - J 1	5/21/2003	X
811 - J 2	5/21/2003	X
811 - J 3	5/21/2003	X
811 - J 4	5/21/2003	X
811 - J 5	5/21/2003	X
811 - J 6	5/21/2003	X
811 - J 7	5/21/2003	X
811 - J 8	5/21/2003	X
811 - J 9	5/21/2003	X
811 - J 10	6/6/2003	X
811 - J 11	5/21/2003	X
811 - J 12	5/21/2003	X
811 - J 13	5/21/2003	X
811 - K 1	5/21/2003	X
811 - K 2	5/21/2003	X
811 - K 3	5/21/2003	X
811 - K 4	5/21/2003	X
811 - K 5	5/21/2003	X
811 - K 7	5/21/2003	X
811 - K 9	5/22/2003	X
811 - L 1	5/21/2003	X
811 - L 2	5/21/2003	X
811 - L 3	5/21/2003	X
811 - L 4	5/21/2003	X
811 - L 6	5/20/2003	X
811 - L 8	5/20/2003	X
811 - L 9	5/22/2003	X
total smears		125

Sampled and relinquished by

Sign: *Scott B. Ollman*

Print: Scott B. Ollman

Firm: Parsons

Date: 6/6/03 Time: 1842

Received By

Sign:

Print:

Firm:

Date: Time:

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LIST OF TABLES

<u>Table</u>	<u>Title</u>
G-1	Detected Concentrations from Laboratory Analysis, Soil Boring Samples

ANALYSIS OF SOIL BORING SAMPLES

Table G-1
Detected Concentrations from Laboratory Analysis
Soil Boring Samples
SEAD-48 Final Status Surveys
Seneca Army Depot Activity

Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
C0912 ⁽⁵⁾	SB42	IGLOO 912-SB42; 0-0.5 ft	Actinium-228	NA ⁽⁶⁾	0.96	0.208	pCi/g ⁽⁷⁾	0.143	--
			Bismuth-212	NA	0.757	0.372	pCi/g	0.318	--
			Bismuth-214	NA	0.613	0.106	pCi/g	0.0753	--
			Cesium-137	NA	0.106	0.0461	pCi/g	0.0446	--
			Lead-212	NA	0.84	0.0953	pCi/g	0.0666	--
			Lead-214	NA	0.807	0.119	pCi/g	0.0748	--
			Potassium-40	NA	18.6	1.58	pCi/g	0.382	--
			Radium-226	1.7	0.613	0.106	pCi/g	0.0753	Less than DCGLw
			Radium-228	2.2	0.96	0.208	pCi/g	0.143	Less than DCGLw
			Thallium-208	NA	0.3	0.0573	pCi/g	0.0413	--
			Thorium-230	54	0.613	0.106	pCi/g	0.0753	Less than DCGLw
			Thorium-232	1.5	0.812	0.0921	pCi/g	0.0643	Less than DCGLw
			Thorium-234	NA	1.5	1.37	pCi/g	1.32	--
			Uranium-234	180	0.862	0.164	pCi/g	0.142	Less than DCGLw
			Uranium-238	98	1.5	1.37	pCi/g	1.32	Less than DCGLw
C0912	SB43	IGLOO 912-SB43; 0-0.5 ft	Actinium-228	NA	0.856	0.21	pCi/g	0.177	--
			Bismuth-212	NA	0.449	0.462	pCi/g	0.368	--
			Bismuth-214	NA	0.663	0.141	pCi/g	0.085	--
			Cesium-137	NA	0.226	0.0566	pCi/g	0.0462	--
			Lead-212	NA	1	0.14	pCi/g	0.0591	--
			Lead-214	NA	0.764	0.144	pCi/g	0.076	--
			Potassium-40	NA	21.5	2.28	pCi/g	0.439	--
			Radium-226	1.7	0.663	0.141	pCi/g	0.085	Less than DCGLw
			Radium-228	2.2	0.856	0.21	pCi/g	0.177	Less than DCGLw
			Thallium-208	NA	0.245	0.0674	pCi/g	0.0452	--
			Thorium-230	54	0.663	0.141	pCi/g	0.0849	Less than DCGLw
			Thorium-232	1.5	0.97	0.135	pCi/g	0.0571	Less than DCGLw
			Thorium-234	NA	1.35	0.638	pCi/g	0.554	--
			Uranium-234	180	0.835	0.184	pCi/g	0.133	Less than DCGLw
			Uranium-238	98	1.35	0.638	pCi/g	0.554	Less than DCGLw
C0912	SB44	IGLOO 912-SB44; 0-3 in	Actinium-228	NA	0.166	0.0958	pCi/g	0.0729	--
			Bismuth-214	NA	0.528	0.0834	pCi/g	0.0398	--
			Cesium-137	NA	0.22	0.0363	pCi/g	0.0223	--
			Lead-212	NA	0.208	0.0467	pCi/g	0.0367	--
			Lead-214	NA	0.62	0.0979	pCi/g	0.044	--
			Potassium-40	NA	4.51	0.632	pCi/g	0.213	--
			Radium-226	1.7	0.528	0.0834	pCi/g	0.0398	Less than DCGLw
			Radium-228	2.2	0.166	0.0958	pCi/g	0.0729	Less than DCGLw
			Thallium-208	NA	0.0569	0.0245	pCi/g	0.0227	--
			Thorium-230	54	0.528	0.0834	pCi/g	0.0398	Less than DCGLw
			Thorium-232	1.5	0.201	0.0452	pCi/g	0.0355	Less than DCGLw
			Uranium-234	180	0.683	0.121	pCi/g	0.0824	Less than DCGLw
E0801	SB01	IGLOO 801-SB01; 0-0.5 ft	Actinium-228	NA	1.36	0.385	pCi/g	0.239	--
			Bismuth-212	NA	0.646	0.402	pCi/g	0.456	--
			Bismuth-214	NA	0.664	0.17	pCi/g	0.118	--
			Cesium-137	NA	0.345	0.0789	pCi/g	0.0621	--
			Lead-212	NA	1.06	0.166	pCi/g	0.119	--
			Lead-214	NA	0.854	0.156	pCi/g	0.105	--
			Potassium-40	NA	25	3.2	pCi/g	0.566	--
			Radium-226	1.7	0.664	0.17	pCi/g	0.118	Less than DCGLw
			Radium-228	2.2	1.36	0.385	pCi/g	0.239	Less than DCGLw
			Thallium-208	NA	0.355	0.0832	pCi/g	0.0696	--
			Thorium-230	54	0.664	0.17	pCi/g	0.118	Less than DCGLw
			Thorium-232	1.5	1	0.157	pCi/g	0.113	Less than DCGLw
			Uranium-234	180	0.911	0.225	pCi/g	0.204	Less than DCGLw
E0801	SB02	IGLOO 801-SB02; 0-0.5'-3	Actinium-228	NA	1.04	0.27	pCi/g	0.186	--
			Bismuth-212	NA	0.565	0.416	pCi/g	0.505	--
			Bismuth-214	NA	0.838	0.17	pCi/g	0.109	--
			Lead-212	NA	1.12	0.157	pCi/g	0.0886	--
			Lead-214	NA	0.77	0.14	pCi/g	0.101	--

Table G-1
Detected Concentrations from Laboratory Analysis
Soil Boring Samples
SEAD-48 Final Status Surveys
Seneca Army Depot Activity

Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
			Potassium-40	NA	21.5	2.57	pCi/g	0.618	--
			Radium-226	1.7	0.838	0.17	pCi/g	0.109	Less than DCGLw
			Radium-228	2.2	1.04	0.27	pCi/g	0.186	Less than DCGLw
			Thallium-208	NA	0.361	0.0787	pCi/g	0.0687	--
			Thorium-230	54	0.838	0.17	pCi/g	0.109	Less than DCGLw
			Thorium-232	1.5	1.06	0.148	pCi/g	0.0838	Less than DCGLw
E0802	SB03	IGLOO 802-SB03; 0-0.5 ft	Uranium-234	180	0.934	0.262	pCi/g	0.191	Less than DCGLw
			Actinium-228	NA	1.01	0.313	pCi/g	0.22	--
			Bismuth-214	NA	0.601	0.161	pCi/g	0.103	--
			Cesium-137	NA	0.0766	0.0448	pCi/g	0.0567	--
			Lead-212	NA	1.07	0.148	pCi/g	0.0805	--
			Lead-214	NA	0.85	0.154	pCi/g	0.0922	--
			Potassium-40	NA	26.4	3.05	pCi/g	0.444	--
			Radium-226	1.7	0.601	0.161	pCi/g	0.103	Less than DCGLw
			Radium-228	2.2	1.01	0.313	pCi/g	0.22	Less than DCGLw
			Thallium-208	NA	0.289	0.0737	pCi/g	0.058	--
			Thorium-230	54	0.601	0.161	pCi/g	0.103	Less than DCGLw
			Thorium-232	1.5	1.01	0.141	pCi/g	0.0763	Less than DCGLw
			Uranium-234	180	0.814	0.179	pCi/g	0.169	Less than DCGLw
			Actinium-228	NA	1.08	0.301	pCi/g	0.215	--
E0802	SB04	IGLOO 802-SB04; 0-0.5 ft	Bismuth-212	NA	0.667	0.362	pCi/g	0.448	--
			Bismuth-214	NA	0.829	0.15	pCi/g	0.0926	--
			Cesium-137	NA	0.12	0.0526	pCi/g	0.0532	--
			Lead-212	NA	1.16	0.161	pCi/g	0.0841	--
			Lead-214	NA	0.87	0.166	pCi/g	0.103	--
			Potassium-40	NA	25.6	2.92	pCi/g	0.373	--
			Radium-226	1.7	0.829	0.15	pCi/g	0.0926	Less than DCGLw
			Radium-228	2.2	1.08	0.301	pCi/g	0.215	Less than DCGLw
			Thallium-208	NA	0.392	0.0957	pCi/g	0.0528	--
			Thorium-230	54	0.829	0.15	pCi/g	0.0926	Less than DCGLw
			Thorium-232	1.5	1.1	0.153	pCi/g	0.0797	Less than DCGLw
			Thorium-234	NA	2.6	1.76	pCi/g	1.81	--
			Uranium-234	180	0.808	0.231	pCi/g	0.199	Less than DCGLw
			Uranium-238	98	2.6	1.76	pCi/g	1.81	Less than DCGLw
E0803	SB05	IGLOO 803-SB05; 0-0.5 ft	Actinium-228	NA	0.696	0.136	pCi/g	0.0865	--
			Bismuth-212	NA	0.544	0.211	pCi/g	0.193	--
			Bismuth-214	NA	0.599	0.079	pCi/g	0.0453	--
			Cesium-137	NA	0.11	0.023	pCi/g	0.0266	--
			Lead-212	NA	1.01	0.096	pCi/g	0.0432	--
			Lead-214	NA	0.755	0.0904	pCi/g	0.0485	--
			Potassium-40	NA	19.4	1.34	pCi/g	0.227	--
			Radium-226	1.7	0.599	0.079	pCi/g	0.0453	Less than DCGLw
			Radium-228	2.2	0.696	0.136	pCi/g	0.0865	Less than DCGLw
			Thallium-208	NA	0.284	0.0441	pCi/g	0.0242	--
			Thorium-230	54	0.599	0.079	pCi/g	0.0453	Less than DCGLw
			Thorium-232	1.5	0.954	0.0909	pCi/g	0.0409	Less than DCGLw
			Uranium-234	180	0.901	0.133	pCi/g	0.0931	Less than DCGLw
E0803	SB06	IGLOO 803-SB06; 0-0.5 ft	Actinium-228	NA	0.993	0.177	pCi/g	0.0731	--
			Bismuth-212	NA	0.801	0.193	pCi/g	0.162	--
			Bismuth-214	NA	0.704	0.101	pCi/g	0.0399	--
			Cesium-137	NA	0.133	0.0288	pCi/g	0.0239	--
			Lead-212	NA	1.01	0.114	pCi/g	0.0318	--
			Lead-214	NA	0.866	0.114	pCi/g	0.0361	--
			Potassium-40	NA	22.9	2.31	pCi/g	0.184	--
			Radium-226	1.7	0.704	0.101	pCi/g	0.0399	Less than DCGLw
			Radium-228	2.2	0.993	0.177	pCi/g	0.0731	Less than DCGLw
			Thallium-208	NA	0.296	0.0444	pCi/g	0.0214	--
			Thorium-230	54	0.704	0.101	pCi/g	0.0399	Less than DCGLw
			Thorium-232	1.5	0.957	0.108	pCi/g	0.0301	Less than DCGLw
			Thorium-234	NA	1.28	0.922	pCi/g	0.936	--
			Uranium-234	180	0.75	0.119	pCi/g	0.0762	Less than DCGLw

Table G-1
Detected Concentrations from Laboratory Analysis
Soil Boring Samples
SEAD-48 Final Status Surveys
Seneca Army Depot Activity

Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
E0804	Interior	IGLOO 804-East Drain	Uranium-238	98	1.28	0.922	pCi/g	0.936	Less than DCGLw
			Actinium-228	NA	0.401	0.176	pCi/g	0.163	--
			Bismuth-214	NA	28.7	3.27	pCi/g	0.0779	--
			Lead-210	5.6	19.9	4.47	pCi/g	4.05	Greater than DCGLw
			Lead-212	NA	0.402	0.0898	pCi/g	0.083	--
			Lead-214	NA	35.4	3.72	pCi/g	0.0955	--
			Potassium-40	NA	8.59	0.878	pCi/g	0.472	--
			Radium-226	1.7	28.7	3.27	pCi/g	0.0779	Greater than DCGLw
			Radium-228	2.2	0.401	0.176	pCi/g	0.163	Less than DCGLw
			Thallium-208	NA	0.0928	0.0383	pCi/g	0.0427	--
			Thorium-230	54	28.7	3.27	pCi/g	0.0779	Less than DCGLw
			Thorium-232	1.5	0.388	0.0866	pCi/g	0.08	Less than DCGLw
			Thorium-234	NA	22.8	4.45	pCi/g	1.75	--
			Uranium-234	180	35.4	4.26	pCi/g	0.196	Less than DCGLw
			Uranium-235	33	2.26	0.502	pCi/g	0.384	Less than DCGLw
			Uranium-238	98	22.8	4.45	pCi/g	1.75	Less than DCGLw
E0804	SB07	IGLOO 804-SB07; 0-0.5 ft	Actinium-228	NA	0.899	0.179	pCi/g	0.101	--
			Bismuth-212	NA	0.401	0.209	pCi/g	0.209	--
			Bismuth-214	NA	3.73	0.427	pCi/g	0.0497	--
			Cesium-137	NA	0.249	0.0354	pCi/g	0.0273	--
			Lead-212	NA	1.01	0.119	pCi/g	0.0474	--
			Lead-214	NA	4.51	0.52	pCi/g	0.0562	--
			Potassium-40	NA	22	2.25	pCi/g	0.268	--
			Radium-226	1.7	3.73	0.427	pCi/g	0.0497	Greater than DCGLw
			Radium-228	2.2	0.899	0.179	pCi/g	0.101	Less than DCGLw
			Thallium-208	NA	0.261	0.044	pCi/g	0.0302	--
			Thorium-230	54	3.73	0.427	pCi/g	0.0497	Less than DCGLw
			Thorium-232	1.5	0.955	0.113	pCi/g	0.045	Less than DCGLw
			Thorium-234	NA	2.47	1.13	pCi/g	1.06	--
			Uranium-234	180	4.44	0.54	pCi/g	0.112	Less than DCGLw
			Uranium-235	33	0.292	0.166	pCi/g	0.192	Less than DCGLw
			Uranium-238	98	2.47	1.13	pCi/g	1.06	Less than DCGLw
E0804	SB08	IGLOO 804-SB08; 0-0.5 ft	Actinium-228	NA	0.645	0.137	pCi/g	0.0639	--
			Bismuth-212	NA	0.501	0.175	pCi/g	0.139	--
			Bismuth-214	NA	1.11	0.138	pCi/g	0.0346	--
			Cesium-137	NA	0.0932	0.0205	pCi/g	0.0178	--
			Lead-212	NA	0.777	0.0907	pCi/g	0.0305	--
			Lead-214	NA	1.35	0.16	pCi/g	0.0355	--
			Potassium-40	NA	16.3	1.66	pCi/g	0.168	--
			Radium-226	1.7	1.11	0.138	pCi/g	0.0346	Less than DCGLw
			Radium-228	2.2	0.645	0.137	pCi/g	0.0639	Less than DCGLw
			Thallium-208	NA	0.223	0.0318	pCi/g	0.018	--
			Thorium-230	54	1.11	0.138	pCi/g	0.0346	Less than DCGLw
			Thorium-232	1.5	0.735	0.0859	pCi/g	0.0289	Less than DCGLw
			Uranium-234	180	1.4	0.185	pCi/g	0.0735	Less than DCGLw
			Uranium-235	33	0.143	0.156	pCi/g	0.129	Less than DCGLw
E0804	SB09	IGLOO 804-SB09; 0-0.5 ft	Actinium-228	NA	1.04	0.195	pCi/g	0.102	--
			Bismuth-212	NA	0.605	0.195	pCi/g	0.208	--
			Bismuth-214	NA	4.14	0.481	pCi/g	0.0486	--
			Cesium-137	NA	0.122	0.0275	pCi/g	0.027	--
			Lead-210	5.6	3.75	2.09	pCi/g	2.03	Less than DCGLw
			Lead-212	NA	0.968	0.107	pCi/g	0.0534	--
			Lead-214	NA	4.97	0.531	pCi/g	0.0513	--
			Potassium-40	NA	24.5	1.87	pCi/g	0.261	--
			Radium-226	1.7	4.14	0.481	pCi/g	0.0486	Greater than DCGLw
			Radium-228	2.2	1.04	0.195	pCi/g	0.102	Less than DCGLw
			Thallium-208	NA	0.316	0.0426	pCi/g	0.026	--
			Thorium-230	54	4.14	0.481	pCi/g	0.0486	Less than DCGLw
			Thorium-232	1.5	0.922	0.102	pCi/g	0.0509	Less than DCGLw
			Thorium-234	NA	0.997	0.844	pCi/g	0.878	--
			Uranium-234	180	4.78	0.593	pCi/g	0.105	Less than DCGLw

Table G-1
Detected Concentrations from Laboratory Analysis
Soil Boring Samples
SEAD-48 Final Status Surveys
Seneca Army Depot Activity

Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
E0804	SB09	IGLOO 804-SB09; 0.5-2 ft	Uranium-235	33	0.281	0.158	pCi/g	0.17	Less than DCGLw
			Uranium-238	98	0.997	0.844	pCi/g	0.878	Less than DCGLw
			Actinium-228	NA	1.07	0.229	pCi/g	0.177	--
			Bismuth-212	NA	0.681	0.389	pCi/g	0.403	--
			Bismuth-214	NA	0.732	0.142	pCi/g	0.0834	--
			Lead-212	NA	1.12	0.144	pCi/g	0.0624	--
			Lead-214	NA	0.768	0.13	pCi/g	0.0799	--
			Potassium-40	NA	25.3	2.57	pCi/g	0.473	--
			Radium-226	1.7	0.732	0.142	pCi/g	0.0834	Less than DCGLw
			Radium-228	2.2	1.07	0.229	pCi/g	0.177	Less than DCGLw
			Thallium-208	NA	0.375	0.0767	pCi/g	0.0451	--
			Thorium-230	54	0.732	0.142	pCi/g	0.0834	Less than DCGLw
			Thorium-232	1.5	1.07	0.137	pCi/g	0.0595	Less than DCGLw
			Thorium-234	NA	1.35	0.929	pCi/g	0.794	--
			Uranium-234	180	0.841	0.177	pCi/g	0.15	Less than DCGLw
			Uranium-238	98	1.35	0.929	pCi/g	0.794	Less than DCGLw
E0804	SB10	IGLOO 804-SB10; 0-0.5	Actinium-228	NA	0.774	0.258	pCi/g	0.172	--
			Bismuth-212	NA	0.543	0.407	pCi/g	0.369	--
			Bismuth-214	NA	0.63	0.133	pCi/g	0.0851	--
			Cesium-137	NA	0.0856	0.0347	pCi/g	0.0407	--
			Lead-212	NA	0.812	0.114	pCi/g	0.0759	--
			Lead-214	NA	0.761	0.135	pCi/g	0.0804	--
			Potassium-40	NA	19.2	2.44	pCi/g	0.515	--
			Radium-226	1.7	0.63	0.133	pCi/g	0.0851	Less than DCGLw
			Radium-228	2.2	0.774	0.258	pCi/g	0.172	Less than DCGLw
			Thallium-208	NA	0.274	0.0568	pCi/g	0.0436	--
			Thorium-230	54	0.63	0.133	pCi/g	0.0851	Less than DCGLw
			Thorium-232	1.5	0.774	0.109	pCi/g	0.0723	Less than DCGLw
			Uranium-234	180	0.764	0.187	pCi/g	0.157	Less than DCGLw
E0804	SB11	IGLOO 804-SB11; 0-0.5	Actinium-228	NA	0.823	0.232	pCi/g	0.186	--
			Bismuth-212	NA	0.687	0.476	pCi/g	0.438	--
			Bismuth-214	NA	3.27	0.416	pCi/g	0.0919	--
			Cesium-137	NA	0.337	0.066	pCi/g	0.0503	--
			Lead-212	NA	0.664	0.121	pCi/g	0.124	--
			Lead-214	NA	4	0.489	pCi/g	0.111	--
			Potassium-40	NA	17.3	2.18	pCi/g	0.509	--
			Radium-226	1.7	3.27	0.416	pCi/g	0.0919	Greater than DCGLw
			Radium-228	2.2	0.823	0.232	pCi/g	0.186	Less than DCGLw
			Thallium-208	NA	0.277	0.068	pCi/g	0.0527	--
			Thorium-230	54	3.27	0.416	pCi/g	0.0919	Less than DCGLw
			Thorium-232	1.5	0.633	0.116	pCi/g	0.118	Less than DCGLw
			Thorium-234	NA	7.63	2.94	pCi/g	2.9	--
			Uranium-234	180	3.82	0.529	pCi/g	0.227	Less than DCGLw
			Uranium-235	33	0.732	0.532	pCi/g	0.447	Less than DCGLw
			Uranium-238	98	7.63	2.94	pCi/g	2.9	Less than DCGLw
E0804	SB11	IGLOO 804-SB11; 0.5-2	Actinium-228	NA	0.891	0.231	pCi/g	0.196	--
			Bismuth-212	NA	1.1	0.435	pCi/g	0.357	--
			Bismuth-214	NA	1.17	0.206	pCi/g	0.0873	--
			Lead-212	NA	0.948	0.131	pCi/g	0.0821	--
			Lead-214	NA	1.27	0.19	pCi/g	0.0834	--
			Potassium-40	NA	20.5	2.3	pCi/g	0.544	--
			Radium-226	1.7	1.17	0.206	pCi/g	0.0873	Less than DCGLw
			Radium-228	2.2	0.891	0.231	pCi/g	0.196	Less than DCGLw
			Thallium-208	NA	0.31	0.0723	pCi/g	0.0536	--
			Thorium-230	54	1.17	0.206	pCi/g	0.0873	Less than DCGLw
			Thorium-232	1.5	0.904	0.125	pCi/g	0.0782	Less than DCGLw
			Thorium-234	NA	2.41	1.57	pCi/g	1.83	--
			Uranium-234	180	1.37	0.258	pCi/g	0.158	Less than DCGLw
			Uranium-238	98	2.41	1.57	pCi/g	1.83	Less than DCGLw
E0804	SB11	IGLOO 804-SB11; 2-4	Actinium-228	NA	1.04	0.252	pCi/g	0.161	--
			Bismuth-212	NA	0.472	0.338	pCi/g	0.325	--

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Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
			Bismuth-214	NA	0.666	0.132	pCi/g	0.0799	--
			Lead-212	NA	0.914	0.119	pCi/g	0.0595	--
			Lead-214	NA	0.876	0.131	pCi/g	0.0751	--
			Potassium-40	NA	22.4	2.52	pCi/g	0.423	--
			Radium-226	1.7	0.666	0.132	pCi/g	0.0799	Less than DCGLw
			Radium-228	2.2	1.04	0.252	pCi/g	0.161	Less than DCGLw
			Thallium-208	NA	0.308	0.0676	pCi/g	0.0441	--
			Thorium-230	54	0.666	0.132	pCi/g	0.0799	Less than DCGLw
			Thorium-232	1.5	0.871	0.113	pCi/g	0.0567	Less than DCGLw
			Uranium-234	180	0.891	0.211	pCi/g	0.144	Less than DCGLw
E0805	SB12	IGLOO 805-SB12; 0-0.5	Actinium-228	NA	1.17	0.265	pCi/g	0.175	--
			Bismuth-212	NA	0.728	0.406	pCi/g	0.363	--
			Bismuth-214	NA	2.83	0.31	pCi/g	0.0836	--
			Cesium-137	NA	0.158	0.0453	pCi/g	0.0458	--
			Lead-212	NA	1.04	0.134	pCi/g	0.0856	--
			Lead-214	NA	3.42	0.388	pCi/g	0.0816	--
			Potassium-40	NA	20.9	1.77	pCi/g	0.537	--
			Radium-226	1.7	2.83	0.31	pCi/g	0.0836	Greater than DCGLw
			Radium-228	2.2	1.17	0.265	pCi/g	0.175	Less than DCGLw
			Thallium-208	NA	0.309	0.0765	pCi/g	0.0459	--
			Thorium-230	54	2.83	0.31	pCi/g	0.0836	Less than DCGLw
			Thorium-232	1.5	0.988	0.127	pCi/g	0.0811	Less than DCGLw
			Thorium-234	NA	3.19	1.86	pCi/g	1.63	--
			Uranium-234	180	3.63	0.479	pCi/g	0.18	Less than DCGLw
			Uranium-235	33	0.291	0.255	pCi/g	0.282	Less than DCGLw
			Uranium-238	98	3.19	1.86	pCi/g	1.63	Less than DCGLw
E0805	SB12	IGLOO 805-SB12; 0.5-2	Actinium-228	NA	0.278	0.146	pCi/g	0.0857	--
			Bismuth-214	NA	0.522	0.0944	pCi/g	0.0479	--
			Lead-210	5.6	3.11	4.3	pCi/g	2.71	Less than DCGLw
			Lead-212	NA	0.307	0.059	pCi/g	0.0405	--
			Lead-214	NA	0.558	0.0961	pCi/g	0.0489	--
			Potassium-40	NA	5.57	0.742	pCi/g	0.18	--
			Radium-226	1.7	0.522	0.0944	pCi/g	0.0479	Less than DCGLw
			Radium-228	2.2	0.278	0.146	pCi/g	0.0857	Less than DCGLw
			Thallium-208	NA	0.101	0.0342	pCi/g	0.0249	--
			Thorium-230	54	0.522	0.0944	pCi/g	0.0479	Less than DCGLw
			Thorium-232	1.5	0.29	0.0559	pCi/g	0.0384	Less than DCGLw
			Thorium-234	NA	1.54	1.2	pCi/g	0.858	--
			Uranium-234	180	0.592	0.14	pCi/g	0.0995	Less than DCGLw
			Uranium-238	98	1.54	1.2	pCi/g	0.858	Less than DCGLw
E0805	SB13	IGLOO 805-SB13; 0-0.5	Actinium-228	NA	1.01	0.29	pCi/g	0.18	--
			Bismuth-212	NA	0.929	0.44	pCi/g	0.441	--
			Bismuth-214	NA	0.947	0.183	pCi/g	0.0975	--
			Cesium-137	NA	0.0902	0.0569	pCi/g	0.0541	--
			Lead-210	5.6	0.898	0.572	pCi/g	0.582	Less than DCGLw
			Lead-212	NA	0.926	0.165	pCi/g	0.0672	--
			Lead-214	NA	0.952	0.18	pCi/g	0.0903	--
			Potassium-40	NA	19.6	2.3	pCi/g	0.558	--
			Radium-226	1.7	0.947	0.183	pCi/g	0.0975	Less than DCGLw
			Radium-228	2.2	1.01	0.29	pCi/g	0.18	Less than DCGLw
			Thallium-208	NA	0.253	0.0692	pCi/g	0.0518	--
			Thorium-230	54	0.947	0.183	pCi/g	0.0975	Less than DCGLw
			Thorium-232	1.5	0.877	0.156	pCi/g	0.0637	Less than DCGLw
			Thorium-234	NA	1.19	0.651	pCi/g	0.649	--
			Uranium-234	180	1.16	0.262	pCi/g	0.153	Less than DCGLw
			Uranium-238	98	1.19	0.651	pCi/g	0.649	Less than DCGLw
E0805	SB14	IGLOO 805-SB14; 0-4 in	Bismuth-214	NA	9.54	0.917	pCi/g	0.121	--
			Lead-210	5.6	18	16.2	pCi/g	15.4	Greater than DCGLw
			Lead-212	NA	0.309	0.119	pCi/g	0.114	--
			Lead-214	NA	11.6	1.12	pCi/g	0.135	--
			Potassium-40	NA	5.93	1.05	pCi/g	0.734	--

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Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
			Radium-226	1.7	9.54	0.917	pCi/g	0.121	Greater than DCGLw
			Thallium-208	NA	0.115	0.0634	pCi/g	0.0593	--
			Thorium-230	54	9.54	0.917	pCi/g	0.121	Less than DCGLw
			Thorium-232	1.5	0.297	0.114	pCi/g	0.109	Less than DCGLw
			Thorium-234	NA	11.4	3.91	pCi/g	3.19	--
			Uranium-234	180	11.4	1.2	pCi/g	0.274	Less than DCGLw
			Uranium-235	33	0.601	0.534	pCi/g	0.494	Less than DCGLw
E0805	SB14	IGLOO 805-SB14; 4-6in	Uranium-238	98	11.4	3.91	pCi/g	3.19	Less than DCGLw
			Actinium-228	NA	0.865	0.312	pCi/g	0.29	--
			Bismuth-214	NA	0.83	0.192	pCi/g	0.133	--
			Lead-210	5.6	1.29	1.01	pCi/g	0.719	Less than DCGLw
			Lead-212	NA	0.84	0.143	pCi/g	0.0881	--
			Lead-214	NA	0.661	0.172	pCi/g	0.135	--
			Potassium-40	NA	16.3	2.2	pCi/g	0.511	--
			Radium-226	1.7	0.83	0.192	pCi/g	0.133	Less than DCGLw
			Radium-228	2.2	0.865	0.312	pCi/g	0.29	Less than DCGLw
			Thallium-208	NA	0.266	0.0926	pCi/g	0.0726	--
			Thorium-230	54	0.829	0.192	pCi/g	0.133	Less than DCGLw
			Thorium-232	1.5	0.8	0.136	pCi/g	0.0838	Less than DCGLw
			Thorium-234	NA	1.4	1.01	pCi/g	0.901	--
			Uranium-234	180	0.799	0.252	pCi/g	0.198	Less than DCGLw
E0805	SB14	IGLOO 805-SB14A; 0-4 in	Uranium-238	98	1.4	1.01	pCi/g	0.901	Less than DCGLw
			Barium-140	NA	4.79	3.49	pCi/g	4.73	--
			Bismuth-214	NA	218	24.8	pCi/g	0.193	--
			Cesium-137	NA	0.193	0.0648	pCi/g	0.0975	--
			Lead-210	5.6	97.1	27.4	pCi/g	24.2	Greater than DCGLw
			Lead-212	NA	0.56	0.226	pCi/g	0.247	--
			Lead-214	NA	271	29.8	pCi/g	0.251	--
			Potassium-40	NA	4.71	1.13	pCi/g	1.11	--
			Radium-226	1.7	218	24.8	pCi/g	0.193	Greater than DCGLw
			Sodium-22	NA	0.302	0.095	pCi/g	0.113	--
			Thallium-208	NA	0.383	0.0836	pCi/g	0.115	--
			Thorium-230	54	218	24.8	pCi/g	0.193	Greater than DCGLw
			Thorium-232	1.5	0.503	0.215	pCi/g	0.235	Less than DCGLw
			Thorium-234	NA	146	28.9	pCi/g	6.48	--
			Uranium-234	180	267	30.5	pCi/g	0.518	Greater than DCGLw
			Uranium-235	33	14.9	2.82	pCi/g	1.07	Less than DCGLw
E0805	SB15	IGLOO 805-SB15; 0-0.5	Uranium-238	98	146	28.9	pCi/g	6.48	Greater than DCGLw
			Actinium-228	NA	1.46	0.406	pCi/g	0.314	--
			Bismuth-212	NA	1	0.742	pCi/g	0.598	--
			Bismuth-214	NA	1.53	0.28	pCi/g	0.158	--
			Lead-210	5.6	2.25	1.99	pCi/g	1.91	Less than DCGLw
			Lead-212	NA	1.12	0.186	pCi/g	0.12	--
			Lead-214	NA	1.77	0.286	pCi/g	0.144	--
			Potassium-40	NA	19.4	2.42	pCi/g	0.976	--
			Radium-226	1.7	1.53	0.28	pCi/g	0.158	Less than DCGLw
			Radium-228	2.2	1.46	0.406	pCi/g	0.314	Less than DCGLw
			Thallium-208	NA	0.305	0.0943	pCi/g	0.0777	--
			Thorium-230	54	1.53	0.28	pCi/g	0.158	Less than DCGLw
			Thorium-232	1.5	1.06	0.177	pCi/g	0.114	Less than DCGLw
			Thorium-234	NA	3.61	1.96	pCi/g	1.6	--
			Uranium-234	180	1.86	0.408	pCi/g	0.278	Less than DCGLw
E0805	SB15	IGLOO 805-SB15-1; 0.5-2	Uranium-238	98	3.61	1.96	pCi/g	1.6	Less than DCGLw
			Actinium-228	NA	0.783	0.181	pCi/g	0.138	--
			Bismuth-212	NA	0.566	0.248	pCi/g	0.259	--
			Bismuth-214	NA	0.768	0.125	pCi/g	0.0594	--
			Lead-212	NA	0.778	0.104	pCi/g	0.0553	--
			Lead-214	NA	1	0.15	pCi/g	0.0573	--
			Potassium-40	NA	16.6	1.86	pCi/g	0.335	--
			Radium-226	1.7	0.768	0.125	pCi/g	0.0594	Less than DCGLw
			Radium-228	2.2	0.783	0.181	pCi/g	0.138	Less than DCGLw

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Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
			Thallium-208	NA	0.205	0.0494	pCi/g	0.0335	--
			Thorium-230	54	0.767	0.125	pCi/g	0.0594	Less than DCGLw
			Thorium-232	1.5	0.742	0.0988	pCi/g	0.0527	Less than DCGLw
			Thorium-234	NA	1.64	1.32	pCi/g	1.12	--
			Uranium-234	180	0.999	0.198	pCi/g	0.113	Less than DCGLw
			Uranium-238	98	1.64	1.32	pCi/g	1.12	Less than DCGLw
E0805	SB15	IGLOO 805-SB15-2; 0.5-2	Actinium-228	NA	0.781	0.183	pCi/g	0.138	--
			Bismuth-212	NA	0.4	0.37	pCi/g	0.31	--
			Bismuth-214	NA	1	0.137	pCi/g	0.0716	--
			Lead-212	NA	1.1	0.121	pCi/g	0.0701	--
			Lead-214	NA	1.32	0.169	pCi/g	0.0764	--
			Potassium-40	NA	18.8	1.49	pCi/g	0.354	--
			Radium-226	1.7	1	0.137	pCi/g	0.0716	Less than DCGLw
			Radium-228	2.2	0.781	0.183	pCi/g	0.138	Less than DCGLw
			Thallium-208	NA	0.303	0.0494	pCi/g	0.0421	--
			Thorium-230	54	1	0.137	pCi/g	0.0716	Less than DCGLw
			Thorium-232	1.5	1.04	0.116	pCi/g	0.0668	Less than DCGLw
			Thorium-234	NA	3.48	2.93	pCi/g	2.25	--
			Uranium-234	180	1.28	0.23	pCi/g	0.157	Less than DCGLw
			Uranium-238	98	3.48	2.93	pCi/g	2.25	Less than DCGLw
E0806	SB16	IGLOO 806-SB16; 0-0.5	Actinium-228	NA	0.601	0.135	pCi/g	0.0925	--
			Bismuth-212	NA	0.362	0.214	pCi/g	0.23	--
			Bismuth-214	NA	0.744	0.106	pCi/g	0.0515	--
			Cesium-137	NA	0.039	0.0199	pCi/g	0.0298	--
			Lead-212	NA	0.756	0.0809	pCi/g	0.0429	--
			Lead-214	NA	0.885	0.115	pCi/g	0.052	--
			Potassium-40	NA	12.9	1.12	pCi/g	0.211	--
			Radium-226	1.7	0.744	0.106	pCi/g	0.0515	Less than DCGLw
			Radium-228	2.2	0.601	0.135	pCi/g	0.0925	Less than DCGLw
			Thallium-208	NA	0.211	0.044	pCi/g	0.028	--
			Thorium-230	54	0.744	0.106	pCi/g	0.0515	Less than DCGLw
			Thorium-232	1.5	0.718	0.0768	pCi/g	0.0407	Less than DCGLw
			Thorium-234	NA	1.99	1.41	pCi/g	0.966	--
			Uranium-234	180	0.936	0.172	pCi/g	0.11	Less than DCGLw
			Uranium-238	98	1.99	1.41	pCi/g	0.966	Less than DCGLw
E0806	SB17	IGLOO 806-SB17; 0-0.5	Actinium-228	NA	0.78	0.177	pCi/g	0.128	--
			Bismuth-212	NA	0.696	0.249	pCi/g	0.288	--
			Bismuth-214	NA	0.845	0.129	pCi/g	0.0572	--
			Cesium-134	NA	0.0596	0.0356	pCi/g	0.0467	--
			Cesium-137	NA	0.1	0.0316	pCi/g	0.0347	--
			Lead-210	5.6	7.51	9.75	pCi/g	6.32	Greater than DCGLw
			Lead-212	NA	0.913	0.103	pCi/g	0.0511	--
			Lead-214	NA	0.995	0.13	pCi/g	0.058	--
			Potassium-40	NA	17.7	1.51	pCi/g	0.358	--
			Radium-226	1.7	0.845	0.129	pCi/g	0.0572	Less than DCGLw
			Radium-228	2.2	0.78	0.177	pCi/g	0.128	Less than DCGLw
			Thallium-208	NA	0.273	0.0469	pCi/g	0.0343	--
			Thorium-230	54	0.845	0.129	pCi/g	0.0572	Less than DCGLw
			Thorium-232	1.5	0.867	0.0982	pCi/g	0.0485	Less than DCGLw
			Thorium-234	NA	1.51	1.35	pCi/g	1.3	--
			Uranium-234	180	1.05	0.186	pCi/g	0.113	Less than DCGLw
			Uranium-238	98	1.51	1.35	pCi/g	1.3	Less than DCGLw
E0806	SB18	IGLOO 806-SB18; 0-0.5	Actinium-228	NA	1.06	0.297	pCi/g	0.302	--
			Bismuth-212	NA	0.672	0.489	pCi/g	0.595	--
			Bismuth-214	NA	14.6	1.72	pCi/g	0.132	--
			Cesium-137	NA	0.326	0.0734	pCi/g	0.0712	--
			Lead-212	NA	1.14	0.164	pCi/g	0.123	--
			Lead-214	NA	16.8	1.94	pCi/g	0.158	--
			Potassium-40	NA	24.5	3.03	pCi/g	0.853	--
			Radium-226	1.7	14.6	1.72	pCi/g	0.132	Greater than DCGLw
			Radium-228	2.2	1.06	0.297	pCi/g	0.302	Less than DCGLw

Table G-1
Detected Concentrations from Laboratory Analysis
Soil Boring Samples
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Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
			Thallium-208	NA	0.398	0.0826	pCi/g	0.073	--
			Thorium-230	54	14.6	1.72	pCi/g	0.132	Less than DCGLw
			Thorium-232	1.5	1.09	0.156	pCi/g	0.117	Less than DCGLw
			Uranium-234	180	17.2	2.07	pCi/g	0.283	Less than DCGLw
			Uranium-235	33	0.581	0.431	pCi/g	0.461	Less than DCGLw
E0806	SB18	IGLOO 806-SB18; 0.5-2	Actinium-228	NA	1.22	0.245	pCi/g	0.145	--
			Bismuth-212	NA	1.05	0.33	pCi/g	0.309	--
			Bismuth-214	NA	1.91	0.261	pCi/g	0.0716	--
			Lead-212	NA	1.34	0.162	pCi/g	0.0592	--
			Lead-214	NA	2.14	0.27	pCi/g	0.0743	--
			Potassium-40	NA	21.4	2.25	pCi/g	0.352	--
			Radium-226	1.7	1.91	0.261	pCi/g	0.0716	Greater than DCGLw
			Radium-228	2.2	1.22	0.245	pCi/g	0.145	Less than DCGLw
			Thallium-208	NA	0.349	0.0699	pCi/g	0.0383	--
			Thorium-230	54	1.91	0.261	pCi/g	0.0716	Less than DCGLw
			Thorium-232	1.5	1.28	0.155	pCi/g	0.0565	Less than DCGLw
			Thorium-234	NA	2.15	1.66	pCi/g	1.59	--
			Uranium-234	180	2.18	0.336	pCi/g	0.16	Less than DCGLw
			Uranium-238	98	2.15	1.66	pCi/g	1.59	Less than DCGLw
E0806	SB19	IGLOO 806-SB19; 0-0.5	Actinium-228	NA	1.04	0.22	pCi/g	0.128	--
			Bismuth-212	NA	0.769	0.285	pCi/g	0.245	--
			Bismuth-214	NA	0.793	0.115	pCi/g	0.0625	--
			Cesium-137	NA	0.387	0.0574	pCi/g	0.0346	--
			Lead-212	NA	1.12	0.134	pCi/g	0.0522	--
			Lead-214	NA	0.999	0.136	pCi/g	0.0608	--
			Potassium-40	NA	22.3	1.69	pCi/g	0.341	--
			Radium-226	1.7	0.793	0.115	pCi/g	0.0625	Less than DCGLw
			Radium-228	2.2	1.04	0.22	pCi/g	0.128	Less than DCGLw
			Thallium-208	NA	0.364	0.0594	pCi/g	0.0345	--
			Thorium-230	54	0.793	0.115	pCi/g	0.0625	Less than DCGLw
			Thorium-232	1.5	1.07	0.127	pCi/g	0.0497	Less than DCGLw
			Uranium-234	180	0.988	0.194	pCi/g	0.126	Less than DCGLw
E0806	SB20	IGLOO 806-SB20; 0-0.5	Actinium-228	NA	1.01	0.322	pCi/g	0.244	--
			Bismuth-214	NA	15.9	1.79	pCi/g	0.116	--
			Cesium-137	NA	0.356	0.0654	pCi/g	0.0632	--
			Lead-210	5.6	16.8	9.17	pCi/g	8.72	Greater than DCGLw
			Lead-212	NA	1.21	0.175	pCi/g	0.122	--
			Lead-214	NA	19.4	2.21	pCi/g	0.139	--
			Potassium-40	NA	20.3	2.33	pCi/g	0.678	--
			Radium-226	1.7	15.9	1.79	pCi/g	0.116	Greater than DCGLw
			Radium-228	2.2	1.01	0.322	pCi/g	0.244	Less than DCGLw
			Thallium-208	NA	0.245	0.0579	pCi/g	0.0668	--
			Thorium-230	54	15.9	1.79	pCi/g	0.116	Less than DCGLw
			Thorium-232	1.5	1.15	0.167	pCi/g	0.116	Less than DCGLw
			Thorium-234	NA	3.41	2.93	pCi/g	2.89	--
			Uranium-234	180	19	2.25	pCi/g	0.29	Less than DCGLw
			Uranium-235	33	0.836	0.405	pCi/g	0.467	Less than DCGLw
			Uranium-238	98	3.41	2.93	pCi/g	2.89	Less than DCGLw
E0806	SB20	IGLOO 806-SB20; 0.5-2	Actinium-228	NA	1.01	0.213	pCi/g	0.146	--
			Bismuth-212	NA	0.948	0.355	pCi/g	0.328	--
			Bismuth-214	NA	5.28	0.696	pCi/g	0.0738	--
			Lead-210	5.6	5.06	0.885	pCi/g	0.499	Less than DCGLw
			Lead-212	NA	1.19	0.196	pCi/g	0.0627	--
			Lead-214	NA	6.32	0.83	pCi/g	0.0791	--
			Potassium-40	NA	22.2	2.26	pCi/g	0.468	--
			Radium-226	1.7	5.28	0.696	pCi/g	0.0738	Greater than DCGLw
			Radium-228	2.2	1.01	0.213	pCi/g	0.146	Less than DCGLw
			Thallium-208	NA	0.39	0.0735	pCi/g	0.0412	--
			Thorium-230	54	5.28	0.696	pCi/g	0.0738	Less than DCGLw
			Thorium-232	1.5	1.14	0.187	pCi/g	0.0597	Less than DCGLw
			Thorium-234	NA	3.29	1.03	pCi/g	0.655	--

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Detected Concentrations from Laboratory Analysis
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Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
E0806	SB20	IGLOO 806-SB20; 2-4	Uranium-234	180	6.58	1.02	pCi/g	0.139	Less than DCGLw
			Uranium-235	33	0.465	0.287	pCi/g	0.261	Less than DCGLw
			Uranium-238	98	3.29	1.03	pCi/g	0.655	Less than DCGLw
			Actinium-228	NA	1.04	0.281	pCi/g	0.19	--
			Bismuth-212	NA	0.813	0.474	pCi/g	0.36	--
			Bismuth-214	NA	0.797	0.159	pCi/g	0.0871	--
			Lead-210	5.6	1.2	0.801	pCi/g	0.542	Less than DCGLw
			Lead-212	NA	0.946	0.134	pCi/g	0.06	--
			Lead-214	NA	0.92	0.155	pCi/g	0.0748	--
			Potassium-40	NA	20.3	2.23	pCi/g	0.443	--
			Radium-226	1.7	0.797	0.159	pCi/g	0.0871	Less than DCGLw
			Radium-228	2.2	1.04	0.281	pCi/g	0.19	Less than DCGLw
			Thallium-208	NA	0.304	0.0746	pCi/g	0.0497	--
			Thorium-230	54	0.797	0.159	pCi/g	0.0871	Less than DCGLw
			Thorium-232	1.5	0.901	0.128	pCi/g	0.0572	Less than DCGLw
			Thorium-234	NA	1.61	0.758	pCi/g	0.559	--
			Uranium-234	180	0.954	0.204	pCi/g	0.141	Less than DCGLw
			Uranium-238	98	1.61	0.758	pCi/g	0.559	Less than DCGLw
E0807	SB21	IGLOO 807-SB21-1; 0-0.5	Actinium-228	NA	0.96	0.208	pCi/g	0.104	--
			Bismuth-212	NA	0.678	0.274	pCi/g	0.237	--
			Bismuth-214	NA	1.23	0.169	pCi/g	0.0615	--
			Cesium-137	NA	0.392	0.0577	pCi/g	0.0336	--
			Lead-212	NA	1.07	0.132	pCi/g	0.0541	--
			Lead-214	NA	1.53	0.197	pCi/g	0.0625	--
			Potassium-40	NA	21.5	2.25	pCi/g	0.253	--
			Radium-226	1.7	1.23	0.169	pCi/g	0.0615	Less than DCGLw
			Radium-228	2.2	0.96	0.208	pCi/g	0.104	Less than DCGLw
			Thallium-208	NA	0.314	0.0534	pCi/g	0.0311	--
			Thorium-230	54	1.23	0.169	pCi/g	0.0615	Less than DCGLw
			Thorium-232	1.5	1.01	0.126	pCi/g	0.0514	Less than DCGLw
			Uranium-234	180	1.44	0.231	pCi/g	0.133	Less than DCGLw
			Actinium-228	NA	0.824	0.185	pCi/g	0.121	--
			Bismuth-212	NA	0.503	0.263	pCi/g	0.25	--
E0807	SB21	IGLOO 807-SB21-2; 0-0.5	Bismuth-214	NA	1.01	0.142	pCi/g	0.0601	--
			Cesium-137	NA	0.125	0.0333	pCi/g	0.0342	--
			Lead-212	NA	0.965	0.116	pCi/g	0.0502	--
			Lead-214	NA	1.13	0.144	pCi/g	0.0588	--
			Potassium-40	NA	19.8	1.66	pCi/g	0.298	--
			Radium-226	1.7	1.01	0.142	pCi/g	0.0601	Less than DCGLw
			Radium-228	2.2	0.824	0.185	pCi/g	0.121	Less than DCGLw
			Thallium-208	NA	0.286	0.0501	pCi/g	0.0336	--
			Thorium-230	54	1.01	0.142	pCi/g	0.0601	Less than DCGLw
			Thorium-232	1.5	0.917	0.111	pCi/g	0.0477	Less than DCGLw
			Thorium-234	NA	1.32	1.06	pCi/g	0.989	--
			Uranium-234	180	1.12	0.205	pCi/g	0.12	Less than DCGLw
			Uranium-238	98	1.32	1.06	pCi/g	0.989	Less than DCGLw
			Actinium-228	NA	1.14	0.291	pCi/g	0.201	--
			Bismuth-214	NA	0.778	0.176	pCi/g	0.105	--
E0807	SB22	IGLOO 807-SB22; 0-0.5	Cesium-137	NA	0.285	0.0851	pCi/g	0.0615	--
			Lead-212	NA	1.13	0.159	pCi/g	0.082	--
			Lead-214	NA	0.785	0.162	pCi/g	0.102	--
			Potassium-40	NA	20.2	2.3	pCi/g	0.599	--
			Radium-226	1.7	0.778	0.176	pCi/g	0.105	Less than DCGLw
			Radium-228	2.2	1.14	0.291	pCi/g	0.201	Less than DCGLw
			Thallium-208	NA	0.323	0.0877	pCi/g	0.0567	--
			Thorium-230	54	0.778	0.176	pCi/g	0.105	Less than DCGLw
			Thorium-232	1.5	1.07	0.151	pCi/g	0.0778	Less than DCGLw
			Thorium-234	NA	1.67	1.22	pCi/g	1.08	--
			Uranium-234	180	0.864	0.196	pCi/g	0.176	Less than DCGLw
			Uranium-235	33	0.326	0.322	pCi/g	0.304	Less than DCGLw
			Uranium-238	98	1.67	1.22	pCi/g	1.08	Less than DCGLw

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Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
E0807	SB23	IGLOO 807-SB23; 0-0.5	Actinium-228	NA	1.02	0.202	pCi/g	0.12	--
			Bismuth-212	NA	0.899	0.293	pCi/g	0.231	--
			Bismuth-214	NA	0.899	0.136	pCi/g	0.0552	--
			Cesium-137	NA	0.0825	0.0345	pCi/g	0.0332	--
			Lead-212	NA	1.2	0.143	pCi/g	0.0495	--
			Lead-214	NA	1.08	0.152	pCi/g	0.0558	--
			Potassium-40	NA	28.7	2.97	pCi/g	0.305	--
			Radium-226	1.7	0.899	0.136	pCi/g	0.0552	Less than DCGLw
			Radium-228	2.2	1.02	0.202	pCi/g	0.12	Less than DCGLw
			Thallium-208	NA	0.379	0.0627	pCi/g	0.0316	--
			Thorium-230	54	0.899	0.136	pCi/g	0.0552	Less than DCGLw
			Thorium-232	1.5	1.15	0.137	pCi/g	0.0472	Less than DCGLw
			Uranium-234	180	1.03	0.195	pCi/g	0.109	Less than DCGLw
E0807	SB23	IGLOO 807-SB23; 0.5-2	Actinium-228	NA	1.29	0.231	pCi/g	0.103	--
			Bismuth-212	NA	0.659	0.212	pCi/g	0.197	--
			Bismuth-214	NA	0.873	0.128	pCi/g	0.0554	--
			Lead-212	NA	1.29	0.145	pCi/g	0.0449	--
			Lead-214	NA	1.05	0.138	pCi/g	0.0502	--
			Potassium-40	NA	20.9	1.7	pCi/g	0.246	--
			Radium-226	1.7	0.873	0.128	pCi/g	0.0554	Less than DCGLw
			Radium-228	2.2	1.29	0.231	pCi/g	0.103	Less than DCGLw
			Thallium-208	NA	0.381	0.059	pCi/g	0.0273	--
			Thorium-230	54	0.873	0.128	pCi/g	0.0554	Less than DCGLw
			Thorium-232	1.5	1.23	0.138	pCi/g	0.0428	Less than DCGLw
			Thorium-234	NA	1.85	1.16	pCi/g	0.899	--
			Uranium-234	180	0.984	0.176	pCi/g	0.109	Less than DCGLw
			Uranium-235	33	0.19	0.188	pCi/g	0.186	Less than DCGLw
			Uranium-238	98	1.85	1.16	pCi/g	0.899	Less than DCGLw
E0807	SB23	IGLOO 807-SB23; 2-4	Actinium-228	NA	1.01	0.209	pCi/g	0.0963	--
			Bismuth-212	NA	0.667	0.231	pCi/g	0.22	--
			Bismuth-214	NA	0.639	0.103	pCi/g	0.0545	--
			Lead-212	NA	1.03	0.119	pCi/g	0.0437	--
			Lead-214	NA	0.792	0.106	pCi/g	0.053	--
			Potassium-40	NA	21.4	1.74	pCi/g	0.26	--
			Radium-226	1.7	0.639	0.103	pCi/g	0.0545	Less than DCGLw
			Radium-228	2.2	1.01	0.209	pCi/g	0.0963	Less than DCGLw
			Thallium-208	NA	0.32	0.0487	pCi/g	0.0284	--
			Thorium-230	54	0.639	0.103	pCi/g	0.0545	Less than DCGLw
			Thorium-232	1.5	0.987	0.114	pCi/g	0.0419	Less than DCGLw
			Uranium-234	180	0.779	0.134	pCi/g	0.105	Less than DCGLw
E0807	SB24	IGLOO 807-SB24; 0-0.5	Actinium-228	NA	1.14	0.247	pCi/g	0.177	--
			Bismuth-212	NA	1.14	0.425	pCi/g	0.346	--
			Bismuth-214	NA	0.837	0.13	pCi/g	0.0818	--
			Cesium-137	NA	0.232	0.045	pCi/g	0.0369	--
			Lead-212	NA	1.44	0.15	pCi/g	0.0776	--
			Lead-214	NA	1.05	0.144	pCi/g	0.0945	--
			Potassium-40	NA	22.8	1.84	pCi/g	0.407	--
			Radium-226	1.7	0.837	0.13	pCi/g	0.0818	Less than DCGLw
			Radium-228	2.2	1.14	0.247	pCi/g	0.177	Less than DCGLw
			Thallium-208	NA	0.362	0.059	pCi/g	0.0448	--
			Thorium-230	54	0.837	0.13	pCi/g	0.0818	Less than DCGLw
			Thorium-232	1.5	1.38	0.144	pCi/g	0.0743	Less than DCGLw
			Uranium-234	180	0.962	0.224	pCi/g	0.181	Less than DCGLw
E0808	SB25	IGLOO 808-SB25; 0-0.5	Actinium-228	NA	0.331	0.108	pCi/g	0.0833	--
			Bismuth-214	NA	0.711	0.0899	pCi/g	0.0431	--
			Cesium-137	NA	0.11	0.0372	pCi/g	0.0216	--
			Lead-212	NA	0.341	0.0541	pCi/g	0.0426	--
			Lead-214	NA	0.845	0.106	pCi/g	0.0448	--
			Potassium-40	NA	7.1	0.702	pCi/g	0.215	--
			Radium-226	1.7	0.711	0.0899	pCi/g	0.0431	Less than DCGLw
			Radium-228	2.2	0.331	0.108	pCi/g	0.0833	Less than DCGLw

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Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
			Thallium-208	NA	0.106	0.0353	pCi/g	0.0234	--
			Thorium-230	54	0.711	0.0899	pCi/g	0.0431	Less than DCGLw
			Thorium-232	1.5	0.326	0.0516	pCi/g	0.0406	Less than DCGLw
			Uranium-234	180	0.884	0.128	pCi/g	0.0835	Less than DCGLw
E0808	SB26	IGLOO 808-SB26; 0-0.5 ft	Actinium-228	NA	0.839	0.207	pCi/g	0.178	--
			Bismuth-212	NA	0.511	0.328	pCi/g	0.373	--
			Bismuth-214	NA	0.842	0.14	pCi/g	0.0811	--
			Cesium-137	NA	0.254	0.0645	pCi/g	0.0501	--
			Lead-212	NA	0.908	0.114	pCi/g	0.078	--
			Lead-214	NA	1.04	0.154	pCi/g	0.0902	--
			Potassium-40	NA	18	1.59	pCi/g	0.433	--
			Radium-226	1.7	0.842	0.14	pCi/g	0.0811	Less than DCGLw
			Radium-228	2.2	0.839	0.207	pCi/g	0.178	Less than DCGLw
			Thallium-208	NA	0.277	0.0641	pCi/g	0.0456	--
			Thorium-230	54	0.842	0.14	pCi/g	0.0811	Less than DCGLw
			Thorium-232	1.5	0.866	0.109	pCi/g	0.0744	Less than DCGLw
			Uranium-234	180	0.936	0.243	pCi/g	0.19	Less than DCGLw
			Uranium-238	98	1.46	1.34	pCi/g	1.04	--
E0808	SB27	IGLOO 808-SB27; 0-0.5 ft	Actinium-228	NA	0.917	0.247	pCi/g	0.163	--
			Bismuth-212	NA	0.537	0.312	pCi/g	0.467	--
			Bismuth-214	NA	0.825	0.148	pCi/g	0.0901	--
			Cesium-137	NA	0.269	0.0655	pCi/g	0.0552	--
			Lead-212	NA	0.867	0.125	pCi/g	0.069	--
			Lead-214	NA	0.928	0.162	pCi/g	0.0848	--
			Potassium-40	NA	20.4	2.53	pCi/g	0.405	--
			Radium-226	1.7	0.825	0.148	pCi/g	0.0901	Less than DCGLw
			Radium-228	2.2	0.917	0.247	pCi/g	0.163	Less than DCGLw
			Thallium-208	NA	0.238	0.073	pCi/g	0.0441	--
			Thorium-230	54	0.825	0.148	pCi/g	0.0901	Less than DCGLw
			Thorium-232	1.5	0.83	0.12	pCi/g	0.066	Less than DCGLw
			Uranium-234	180	1.02	0.226	pCi/g	0.161	Less than DCGLw
			Uranium-238	98	1.46	1.34	pCi/g	1.04	--
E0808	SB28	IGLOO 808-SB28; 0-0.5 ft	Actinium-228	NA	0.942	0.196	pCi/g	0.161	--
			Bismuth-212	NA	0.474	0.343	pCi/g	0.348	--
			Bismuth-214	NA	0.817	0.138	pCi/g	0.0844	--
			Cesium-137	NA	0.171	0.048	pCi/g	0.0448	--
			Lead-212	NA	0.99	0.108	pCi/g	0.0668	--
			Lead-214	NA	0.927	0.133	pCi/g	0.0792	--
			Potassium-40	NA	20.9	1.77	pCi/g	0.502	--
			Radium-226	1.7	0.817	0.138	pCi/g	0.0844	Less than DCGLw
			Radium-228	2.2	0.942	0.196	pCi/g	0.161	Less than DCGLw
			Thallium-208	NA	0.351	0.0633	pCi/g	0.0462	--
			Thorium-230	54	0.817	0.138	pCi/g	0.0844	Less than DCGLw
			Thorium-232	1.5	0.946	0.103	pCi/g	0.0638	Less than DCGLw
			Uranium-234	180	0.829	0.197	pCi/g	0.149	Less than DCGLw
			Uranium-238	98	1.46	1.34	pCi/g	1.04	--
E0808	SB29	IGLOO 808-SB29; 0-0.5 ft	Actinium-228	NA	0.314	0.102	pCi/g	0.0766	--
			Bismuth-214	NA	0.75	0.101	pCi/g	0.045	--
			Lead-212	NA	0.392	0.059	pCi/g	0.0374	--
			Lead-214	NA	0.881	0.121	pCi/g	0.0475	--
			Potassium-40	NA	9.07	0.86	pCi/g	0.235	--
			Radium-226	1.7	0.75	0.101	pCi/g	0.045	Less than DCGLw
			Radium-228	2.2	0.314	0.102	pCi/g	0.0766	Less than DCGLw
			Thallium-208	NA	0.0935	0.0287	pCi/g	0.0268	--
			Thorium-230	54	0.75	0.101	pCi/g	0.045	Less than DCGLw
			Thorium-232	1.5	0.374	0.0564	pCi/g	0.0357	Less than DCGLw
E0809	SB30	IGLOO 809-SB30; 0-0.5 ft	Actinium-228	NA	0.159	0.107	pCi/g	0.115	--
			Bismuth-214	NA	0.29	0.0736	pCi/g	0.0587	--
			Cesium-137	NA	0.0721	0.0329	pCi/g	0.0329	--
			Lead-212	NA	0.797	0.104	pCi/g	0.0513	--
			Lead-214	NA	1.94	0.244	pCi/g	0.0603	--

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Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
			Potassium-40	NA	3.12	0.595	pCi/g	0.973	--
			Radium-226	1.7	0.29	0.0736	pCi/g	0.0587	Less than DCGLw
			Radium-228	2.2	0.159	0.107	pCi/g	0.115	Less than DCGLw
			Thallium-208	NA	0.044	0.0421	pCi/g	0.0335	--
			Thorium-230	54	0.29	0.0736	pCi/g	0.0587	Less than DCGLw
			Thorium-234	NA	1.9	1.99	pCi/g	1.55	--
			Uranium-238	98	1.9	1.99	pCi/g	1.55	Less than DCGLw
E0809	SB31	IGLOO 809-SB31; 0-0.5 ft	Zinc-65	NA	0.517	0.12	pCi/g	0.101	--
			Actinium-228	NA	0.798	0.227	pCi/g	0.193	--
			Bismuth-212	NA	0.767	0.4	pCi/g	0.37	--
			Bismuth-214	NA	0.812	0.159	pCi/g	0.094	--
			Cesium-137	NA	0.173	0.0608	pCi/g	0.0488	--
			Lead-212	NA	0.976	0.132	pCi/g	0.0698	--
			Lead-214	NA	0.944	0.158	pCi/g	0.0938	--
			Potassium-40	NA	18.7	1.91	pCi/g	0.5	--
			Radium-226	1.7	0.812	0.159	pCi/g	0.094	Less than DCGLw
			Radium-228	2.2	0.798	0.227	pCi/g	0.193	Less than DCGLw
			Thallium-208	NA	0.263	0.0665	pCi/g	0.0494	--
			Thorium-230	54	0.812	0.159	pCi/g	0.094	Less than DCGLw
			Thorium-232	1.5	0.931	0.126	pCi/g	0.0665	Less than DCGLw
			Uranium-234	180	0.978	0.221	pCi/g	0.172	Less than DCGLw
E0809	SB32	IGLOO 809-SB32; 0-0.5 ft	Actinium-228	NA	0.846	0.209	pCi/g	0.149	--
			Bismuth-212	NA	0.768	0.31	pCi/g	0.322	--
			Bismuth-214	NA	0.908	0.132	pCi/g	0.0715	--
			Cesium-134	NA	0.0633	0.0521	pCi/g	0.0556	--
			Cesium-137	NA	0.191	0.041	pCi/g	0.0424	--
			Lead-212	NA	0.996	0.122	pCi/g	0.0552	--
			Lead-214	NA	0.985	0.144	pCi/g	0.0689	--
			Potassium-40	NA	20.7	1.71	pCi/g	0.415	--
			Radium-226	1.7	0.908	0.132	pCi/g	0.0715	Less than DCGLw
			Radium-228	2.2	0.846	0.209	pCi/g	0.149	Less than DCGLw
			Thallium-208	NA	0.317	0.0628	pCi/g	0.0408	--
			Thorium-230	54	0.908	0.132	pCi/g	0.0715	Less than DCGLw
			Thorium-232	1.5	0.95	0.117	pCi/g	0.0526	Less than DCGLw
			Uranium-234	180	1.01	0.188	pCi/g	0.137	Less than DCGLw
E0809	SB33	IGLOO 809-SB33; 0-0.5 ft	Actinium-228	NA	0.351	0.111	pCi/g	0.0843	--
			Bismuth-214	NA	1.22	0.16	pCi/g	0.0452	--
			Cesium-137	NA	0.134	0.0271	pCi/g	0.0245	--
			Lead-212	NA	0.456	0.0735	pCi/g	0.0419	--
			Lead-214	NA	1.5	0.196	pCi/g	0.0495	--
			Potassium-40	NA	8.33	1.01	pCi/g	0.221	--
			Radium-226	1.7	1.22	0.16	pCi/g	0.0452	Less than DCGLw
			Radium-228	2.2	0.351	0.111	pCi/g	0.0843	Less than DCGLw
			Thallium-208	NA	0.114	0.0325	pCi/g	0.0229	--
			Thorium-230	54	1.22	0.16	pCi/g	0.0452	Less than DCGLw
			Thorium-232	1.5	0.435	0.0701	pCi/g	0.04	Less than DCGLw
			Thorium-234	NA	2.1	1.25	pCi/g	0.943	--
			Uranium-234	180	1.52	0.237	pCi/g	0.101	Less than DCGLw
			Uranium-238	98	2.1	1.25	pCi/g	0.943	Less than DCGLw
E0810	SB34	IGLOO 810-SB34; 0-0.5 ft	Actinium-228	NA	0.491	0.147	pCi/g	0.108	--
			Bismuth-212	NA	0.331	0.2	pCi/g	0.232	--
			Bismuth-214	NA	1.31	0.194	pCi/g	0.0509	--
			Cesium-137	NA	0.153	0.0365	pCi/g	0.0267	--
			Lead-210	5.6	1.97	0.515	pCi/g	0.307	Less than DCGLw
			Lead-212	NA	0.559	0.0989	pCi/g	0.0476	--
			Lead-214	NA	1.48	0.212	pCi/g	0.0522	--
			Potassium-40	NA	11.8	1.28	pCi/g	0.264	--
			Radium-226	1.7	1.31	0.194	pCi/g	0.0509	Less than DCGLw
			Radium-228	2.2	0.491	0.147	pCi/g	0.108	Less than DCGLw
			Thallium-208	NA	0.141	0.0452	pCi/g	0.0295	--
			Thorium-230	54	1.31	0.194	pCi/g	0.0509	Less than DCGLw

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Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
			Thorium-232	1.5	0.533	0.0943	pCi/g	0.0454	Less than DCGLw
			Thorium-234	NA	1.45	0.528	pCi/g	0.376	--
			Uranium-234	180	1.48	0.255	pCi/g	0.104	Less than DCGLw
			Uranium-235	33	0.17	0.154	pCi/g	0.154	Less than DCGLw
			Uranium-238	98	1.45	0.528	pCi/g	0.376	Less than DCGLw
E0810	SB35	IGLOO 810-SB35-1; 0-0.5 ft	Actinium-228	NA	0.181	0.121	pCi/g	0.112	--
			Bismuth-214	NA	0.429	0.101	pCi/g	0.0555	--
			Cesium-137	NA	0.0596	0.0341	pCi/g	0.0354	--
			Lead-210	5.6	1	0.481	pCi/g	0.324	Less than DCGLw
			Lead-212	NA	0.33	0.0596	pCi/g	0.0384	--
			Lead-214	NA	0.474	0.095	pCi/g	0.051	--
			Potassium-40	NA	7.16	0.95	pCi/g	0.269	--
			Radium-226	1.7	0.429	0.101	pCi/g	0.0555	Less than DCGLw
			Radium-228	2.2	0.181	0.121	pCi/g	0.112	Less than DCGLw
			Thallium-208	NA	0.0876	0.0302	pCi/g	0.0335	--
			Thorium-230	54	0.429	0.101	pCi/g	0.0555	Less than DCGLw
			Thorium-232	1.5	0.314	0.0567	pCi/g	0.0366	Less than DCGLw
			Thorium-234	NA	1.54	0.685	pCi/g	0.36	--
			Uranium-234	180	0.582	0.138	pCi/g	0.0862	Less than DCGLw
			Uranium-238	98	1.54	0.685	pCi/g	0.36	Less than DCGLw
E0810	SB35	IGLOO 810-SB35-2; 0-0.5 ft	Actinium-228	NA	0.554	0.134	pCi/g	0.0819	--
			Bismuth-212	NA	0.379	0.18	pCi/g	0.174	--
			Bismuth-214	NA	0.584	0.104	pCi/g	0.0478	--
			Cesium-137	NA	0.0361	0.0237	pCi/g	0.0244	--
			Lead-212	NA	0.566	0.078	pCi/g	0.042	--
			Lead-214	NA	0.608	0.0958	pCi/g	0.0512	--
			Potassium-40	NA	13.3	1.46	pCi/g	0.227	--
			Radium-226	1.7	0.584	0.104	pCi/g	0.0478	Less than DCGLw
			Radium-228	2.2	0.554	0.134	pCi/g	0.0819	Less than DCGLw
			Thallium-208	NA	0.152	0.0355	pCi/g	0.0244	--
			Thorium-230	54	0.584	0.104	pCi/g	0.0478	Less than DCGLw
			Thorium-232	1.5	0.539	0.0743	pCi/g	0.04	Less than DCGLw
			Uranium-234	180	0.741	0.134	pCi/g	0.0894	Less than DCGLw
			Uranium-235	33	0.166	0.123	pCi/g	0.165	Less than DCGLw
E0810	SB36	IGLOO 810-SB36; 0-0.5 ft	Actinium-228	NA	0.914	0.207	pCi/g	0.111	--
			Bismuth-212	NA	0.593	0.244	pCi/g	0.245	--
			Bismuth-214	NA	0.711	0.112	pCi/g	0.0593	--
			Cesium-137	NA	0.139	0.0318	pCi/g	0.0305	--
			Lead-212	NA	0.915	0.111	pCi/g	0.0502	--
			Lead-214	NA	0.864	0.12	pCi/g	0.0583	--
			Potassium-40	NA	22.1	1.79	pCi/g	0.27	--
			Radium-226	1.7	0.711	0.112	pCi/g	0.0593	Less than DCGLw
			Radium-228	2.2	0.914	0.207	pCi/g	0.111	Less than DCGLw
			Thallium-208	NA	0.235	0.0498	pCi/g	0.0291	--
			Thorium-230	54	0.711	0.112	pCi/g	0.0593	Less than DCGLw
			Thorium-232	1.5	0.874	0.106	pCi/g	0.048	Less than DCGLw
			Thorium-234	NA	1.37	1	pCi/g	0.918	--
			Uranium-234	180	0.882	0.165	pCi/g	0.118	Less than DCGLw
			Uranium-238	98	1.37	1	pCi/g	0.918	Less than DCGLw
E0810	SB36	IGLOO 810-SB36; 2-4 ft	Actinium-228	NA	0.781	0.284	pCi/g	0.213	--
			Bismuth-212	NA	0.83	0.448	pCi/g	0.449	--
			Bismuth-214	NA	0.766	0.176	pCi/g	0.104	--
			Cesium-137	NA	0.0664	0.0578	pCi/g	0.0578	--
			Lead-212	NA	0.735	0.124	pCi/g	0.0812	--
			Lead-214	NA	0.837	0.156	pCi/g	0.1	--
			Potassium-40	NA	17.4	2.06	pCi/g	0.505	--
			Radium-226	1.7	0.766	0.176	pCi/g	0.104	Less than DCGLw
			Radium-228	2.2	0.781	0.284	pCi/g	0.213	Less than DCGLw
			Thallium-208	NA	0.249	0.0765	pCi/g	0.062	--
			Thorium-230	54	0.766	0.176	pCi/g	0.104	Less than DCGLw
			Thorium-232	1.5	0.702	0.118	pCi/g	0.0776	Less than DCGLw

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Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
E0810	SB37	IGLOO 810-SB37; 0-0.5 ft	Thorium-234	NA	1.5	1.38	pCi/g	1.06	--
			Uranium-234	180	0.681	0.22	pCi/g	0.195	Less than DCGLw
			Uranium-238	98	1.5	1.38	pCi/g	1.06	Less than DCGLw
			Actinium-228	NA	0.973	0.207	pCi/g	0.139	--
			Bismuth-212	NA	0.633	0.267	pCi/g	0.278	--
			Bismuth-214	NA	0.836	0.13	pCi/g	0.0696	--
			Cesium-137	NA	0.0435	0.0285	pCi/g	0.0325	--
			Lead-212	NA	1.11	0.138	pCi/g	0.0564	--
			Lead-214	NA	0.975	0.15	pCi/g	0.0621	--
			Potassium-40	NA	23.9	2.56	pCi/g	0.348	--
			Radium-226	1.7	0.836	0.13	pCi/g	0.0696	Less than DCGLw
			Radium-228	2.2	0.973	0.207	pCi/g	0.139	Less than DCGLw
			Thallium-208	NA	0.322	0.0577	pCi/g	0.0388	--
			Thorium-230	54	0.836	0.13	pCi/g	0.0696	Less than DCGLw
			Thorium-232	1.5	1.06	0.131	pCi/g	0.0537	Less than DCGLw
E0811	SB38	IGLOO 811-SB38; 0-0.5 ft	Uranium-234	180	0.979	0.206	pCi/g	0.111	Less than DCGLw
			Actinium-228	NA	1.03	0.2	pCi/g	0.151	--
			Bismuth-212	NA	0.762	0.265	pCi/g	0.317	--
			Bismuth-214	NA	0.932	0.139	pCi/g	0.0701	--
			Lead-212	NA	0.994	0.118	pCi/g	0.0739	--
			Lead-214	NA	1.2	0.163	pCi/g	0.0813	--
			Potassium-40	NA	19	1.56	pCi/g	0.378	--
			Radium-226	1.7	0.932	0.139	pCi/g	0.0701	Less than DCGLw
			Radium-228	2.2	1.03	0.2	pCi/g	0.151	Less than DCGLw
			Thallium-208	NA	0.254	0.0553	pCi/g	0.0433	--
			Thorium-230	54	0.932	0.139	pCi/g	0.0701	Less than DCGLw
			Thorium-232	1.5	0.947	0.112	pCi/g	0.0704	Less than DCGLw
			Uranium-234	180	1.26	0.205	pCi/g	0.151	Less than DCGLw
			Actinium-228	NA	0.608	0.16	pCi/g	0.117	--
			Bismuth-212	NA	0.686	0.299	pCi/g	0.245	--
E0811	SB39	IGLOO 811-SB39; 0-0.5 ft	Bismuth-214	NA	0.835	0.127	pCi/g	0.055	--
			Cesium-137	NA	0.134	0.0383	pCi/g	0.0337	--
			Lead-210	5.6	3.35	3.56	pCi/g	3.19	Less than DCGLw
			Lead-212	NA	0.919	0.116	pCi/g	0.0467	--
			Lead-214	NA	1.01	0.14	pCi/g	0.054	--
			Potassium-40	NA	16.2	1.91	pCi/g	0.31	--
			Radium-226	1.7	0.835	0.127	pCi/g	0.055	Less than DCGLw
			Radium-228	2.2	0.608	0.16	pCi/g	0.117	Less than DCGLw
			Thallium-208	NA	0.286	0.0544	pCi/g	0.03	--
			Thorium-230	54	0.835	0.127	pCi/g	0.055	Less than DCGLw
			Thorium-232	1.5	0.875	0.111	pCi/g	0.0445	Less than DCGLw
			Thorium-234	NA	2.22	1.46	pCi/g	1.05	--
			Uranium-234	180	1.04	0.185	pCi/g	0.11	Less than DCGLw
			Uranium-238	98	2.22	1.46	pCi/g	1.05	Less than DCGLw
			Actinium-228	NA	1.14	0.266	pCi/g	0.167	--
E0811	SB40	IGLOO 811-SB40-1; 0-0.5 ft	Bismuth-212	NA	0.816	0.323	pCi/g	0.357	--
			Bismuth-214	NA	6.07	0.766	pCi/g	0.0815	--
			Cesium-137	NA	0.218	0.0514	pCi/g	0.0441	--
			Lead-212	NA	1.06	0.141	pCi/g	0.0767	--
			Lead-214	NA	7.56	0.865	pCi/g	0.0961	--
			Potassium-40	NA	19.6	2.09	pCi/g	0.452	--
			Radium-226	1.7	6.07	0.766	pCi/g	0.0815	Greater than DCGLw
			Radium-228	2.2	1.14	0.266	pCi/g	0.167	Less than DCGLw
			Thallium-208	NA	0.407	0.0846	pCi/g	0.0419	--
			Thorium-230	54	6.07	0.766	pCi/g	0.0815	Less than DCGLw
			Thorium-232	1.5	1.01	0.134	pCi/g	0.0731	Less than DCGLw
			Thorium-234	NA	5.24	2.58	pCi/g	2.06	--
			Uranium-234	180	7.47	0.916	pCi/g	0.179	Less than DCGLw
			Uranium-235	33	0.555	0.303	pCi/g	0.334	Less than DCGLw
			Uranium-238	98	5.24	2.58	pCi/g	2.06	Less than DCGLw
E0811	SB40	IGLOO 811-SB40-2; 0-0.5 ft	Actinium-228	NA	1.04	0.286	pCi/g	0.203	--

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Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
			Bismuth-212	NA	0.62	0.372	pCi/g	0.431	--
			Bismuth-214	NA	6.35	0.594	pCi/g	0.0948	--
			Cesium-137	NA	0.239	0.0417	pCi/g	0.0498	--
			Lead-212	NA	1.14	0.127	pCi/g	0.0876	--
			Lead-214	NA	7.48	0.652	pCi/g	0.0985	--
			Potassium-40	NA	20	1.7	pCi/g	0.546	--
			Radium-226	1.7	6.35	0.594	pCi/g	0.0948	Greater than DCGLw
			Radium-228	2.2	1.04	0.286	pCi/g	0.203	Less than DCGLw
			Thallium-208	NA	0.36	0.0775	pCi/g	0.0535	--
			Thorium-230	54	6.34	0.594	pCi/g	0.0948	Less than DCGLw
			Thorium-232	1.5	1.08	0.121	pCi/g	0.0834	Less than DCGLw
			Thorium-234	NA	6.96	2.51	pCi/g	2.08	--
			Uranium-234	180	7.54	0.711	pCi/g	0.203	Less than DCGLw
			Uranium-235	33	0.423	0.303	pCi/g	0.361	Less than DCGLw
			Uranium-238	98	6.96	2.51	pCi/g	2.08	Less than DCGLw
E0811	SB40	IGLOO 811-SB40; 0.5-2 ft	Actinium-228	NA	0.798	0.167	pCi/g	0.096	--
			Bismuth-212	NA	0.303	0.176	pCi/g	0.227	--
			Bismuth-214	NA	0.658	0.102	pCi/g	0.0568	--
			Lead-212	NA	0.787	0.0904	pCi/g	0.0497	--
			Lead-214	NA	0.652	0.103	pCi/g	0.0526	--
			Potassium-40	NA	16.6	1.41	pCi/g	0.319	--
			Radium-226	1.7	0.658	0.102	pCi/g	0.0568	Less than DCGLw
			Radium-228	2.2	0.798	0.167	pCi/g	0.096	Less than DCGLw
			Thallium-208	NA	0.252	0.0464	pCi/g	0.029	--
			Thorium-230	54	0.658	0.102	pCi/g	0.0568	Less than DCGLw
			Thorium-232	1.5	0.75	0.0861	pCi/g	0.0473	Less than DCGLw
			Thorium-234	NA	1.34	1.46	pCi/g	1.22	--
			Uranium-234	180	0.845	0.145	pCi/g	0.105	Less than DCGLw
			Uranium-238	98	1.34	1.46	pCi/g	1.22	Less than DCGLw
E0811	SB41	IGLOO 811-SB41; 0-0.5 ft	Actinium-228	NA	0.935	0.525	pCi/g	0.572	--
			Bismuth-214	NA	74.4	6.59	pCi/g	0.27	--
			Cesium-137	NA	0.322	0.118	pCi/g	0.139	--
			Lead-210	5.6	55.4	18.4	pCi/g	19.3	Greater than DCGLw
			Lead-212	NA	1.16	0.296	pCi/g	0.26	--
			Lead-214	NA	87.6	7.18	pCi/g	0.321	--
			Potassium-40	NA	18.9	2.22	pCi/g	1.69	--
			Radium-226	1.7	74.4	6.59	pCi/g	0.27	Greater than DCGLw
			Radium-228	2.2	0.935	0.525	pCi/g	0.572	Less than DCGLw
			Thallium-208	NA	0.265	0.126	pCi/g	0.142	--
			Thorium-230	54	74.4	6.59	pCi/g	0.27	Greater than DCGLw
			Thorium-232	1.5	1.1	0.282	pCi/g	0.247	Less than DCGLw
			Thorium-234	NA	78.1	15.3	pCi/g	6.58	--
			Uranium-234	180	87.2	7.4	pCi/g	0.631	Less than DCGLw
			Uranium-235	33	5.68	1.35	pCi/g	1.17	Less than DCGLw
			Uranium-238	98	78.1	15.3	pCi/g	6.58	Less than DCGLw
E0811	SB41	IGLOO 811-SB41; 0.5-2 ft	Actinium-228	NA	1.08	0.216	pCi/g	0.104	--
			Bismuth-212	NA	0.575	0.274	pCi/g	0.229	--
			Bismuth-214	NA	0.808	0.115	pCi/g	0.051	--
			Lead-212	NA	1.1	0.127	pCi/g	0.046	--
			Lead-214	NA	0.972	0.127	pCi/g	0.0531	--
			Potassium-40	NA	24.3	1.95	pCi/g	0.282	--
			Radium-226	1.7	0.808	0.115	pCi/g	0.051	Less than DCGLw
			Radium-228	2.2	1.08	0.216	pCi/g	0.104	Less than DCGLw
			Thallium-208	NA	0.287	0.0491	pCi/g	0.0292	--
			Thorium-230	54	0.808	0.115	pCi/g	0.051	Less than DCGLw
			Thorium-232	1.5	1.06	0.122	pCi/g	0.044	Less than DCGLw
			Thorium-234	NA	2.21	1.31	pCi/g	0.887	--
			Uranium-234	180	0.997	0.165	pCi/g	0.107	Less than DCGLw
			Uranium-238	98	2.21	1.31	pCi/g	0.887	Less than DCGLw
E0811	SB41	IGLOO 811-SB41; 2-4 ft	Actinium-228	NA	0.738	0.205	pCi/g	0.131	--
			Bismuth-212	NA	0.681	0.283	pCi/g	0.292	--

Table G-1
Detected Concentrations from Laboratory Analysis
Soil Boring Samples
SEAD-48 Final Status Surveys
Seneca Army Depot Activity

Igloo	Location	Sample ID	Parameter ⁽¹⁾	DCGL _w ⁽²⁾	Lab Result	Uncertainty	Units	MDL ⁽³⁾	DCGL _w Comparison ⁽⁴⁾
			Bismuth-214	NA	0.698	0.126	pCi/g	0.0582	--
			Lead-212	NA	0.823	0.109	pCi/g	0.0507	--
			Lead-214	NA	0.783	0.126	pCi/g	0.0603	--
			Potassium-40	NA	18.6	2.05	pCi/g	0.3	--
			Radium-226	1.7	0.698	0.126	pCi/g	0.0582	Less than DCGLw
			Radium-228	2.2	0.738	0.205	pCi/g	0.131	Less than DCGLw
			Thallium-208	NA	0.261	0.0562	pCi/g	0.031	--
			Thorium-230	54	0.698	0.126	pCi/g	0.0582	Less than DCGLw
			Thorium-232	1.5	0.787	0.104	pCi/g	0.0485	Less than DCGLw
			Uranium-234	180	0.696	0.143	pCi/g	0.121	Less than DCGLw

Notes:

- (1) Only detected radionuclides are listed for each sample.
- (2) DCGL_w = Derived concentration guideline level, wide-area. Soil/volumetric DCGLw's from ANL, 2003.
- (3) MDL = method detection limit.
- (4) Result bold and shaded if result exceeded DCGLw. "--" listed if no DCGL available.
- (5) Igloo C0912 was selected as the background igloo.
- (6) NA= Not available. DCGLs were not determined for all detected radionuclides.
- (7) pCi/g = picocuries per gram.